JOURNAL 1987

JAMES W. BEE

870101-1

JOURNAL

1987

Bee Estate, Humphrey Head, Lopez Island, San Juan Co., Washington

Jan 1, 1987

7:40 A.M. First bald eagle (ad.) flew S at heighth of Bee House roof along shoreline.

7:45 A.M. - 8:00 A.M 4 bald eagles (2 ad, 2 imm.) flew past Bee House at same elevation and track as above. One of the adult bald eagles circled 3 times directly above the house. 40'

8:10 A.M 23 American crows closely grouped, flew by an adult eagle perched in a tree above Lichen Point and neither of the species were concerned.

8:12 A.M a group of 18 dark-eyed juncos (Oregon subspecies) flew by Bee House at the rate of approx. 1 per second.

House finch will be at feeder for a day or two and then absent for 4 or 5 days.

No pine siskin this winter or at least to this date.

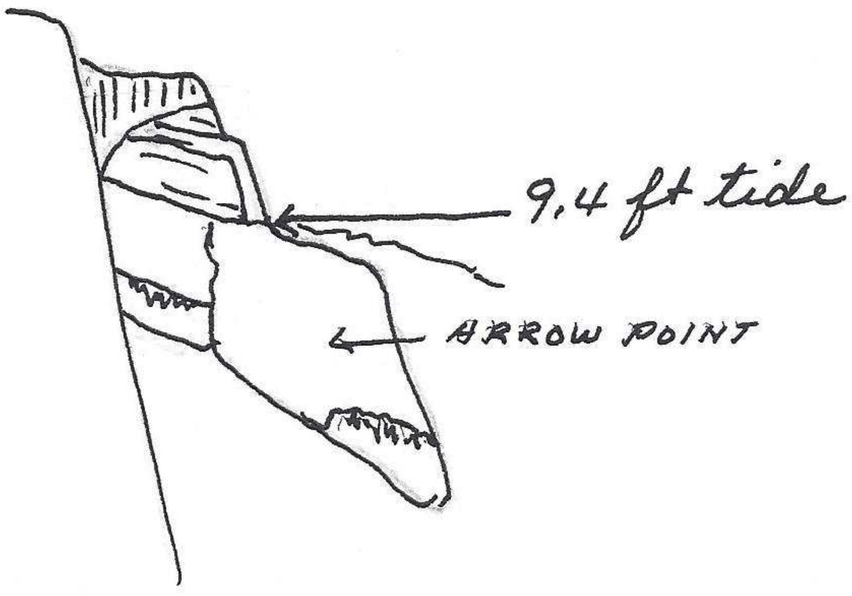
2:10 A.M. 2 harbor seal together approx. 100' SE of Bee House.

8 Common murres in one flock half way between Bee House and Leo Reef.

Single Pacific loon 150' SE Bee House.

No Townsend chipmunk activie since last recorded in journal, even on favorable days.

High tide at 7:04 A.M. Bee House.

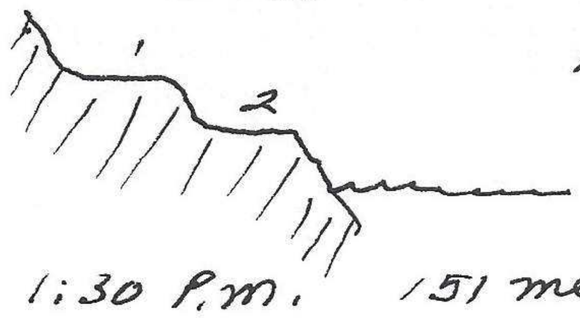


High tide at 9.4 feet on rocks below checked shoreline between Bee House and Simmons. All steep slopes. Below John Saul II is an area extensively used by river otter. They selected areas under Douglas fir trees and others that were grassy prone and producing protected areas of 1' to 1½' high. The ground was bare and completely trampled. One trail led 50' to S to water. In this area were 6 mule deer beds and 2 sets of horizontal deer trails. In entire length covered were 76 mule deer beds and from 1 to 6 horizontal trails on

Index 1987

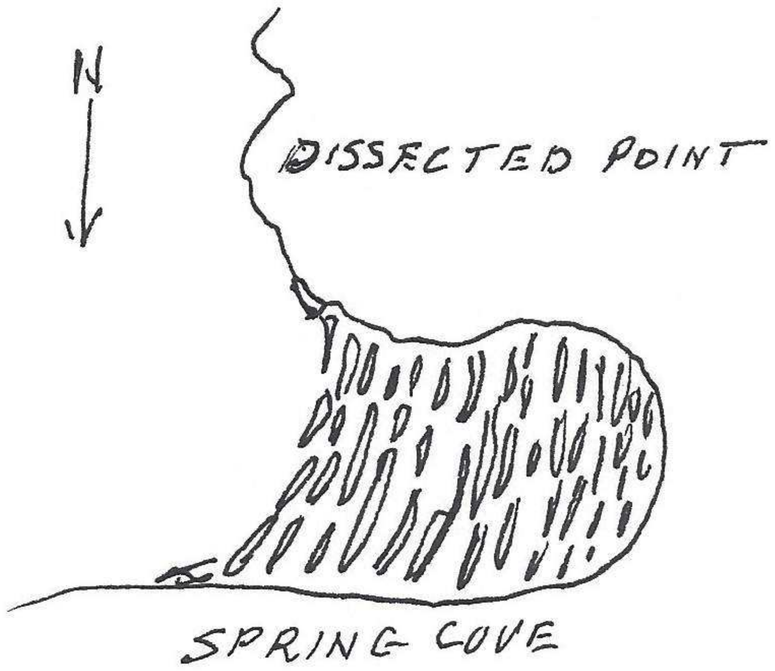
Bald eagle perching trees S Spring Cove	may 5
" " " " Boundary Point	" "
Flat Point intertide and tide marker	may 15
Intertide and tidal marker below Bee House	" "
mule deer local family, sizes.	June 8
deer killed by dog	June 11
Intertide and tidal marker (close-up)	" "
drill holes	July 14
Field identification	Aug 7

the lower elevated shoreline at the base of Humphrey Head.
Did not observed any birds or mammals.



1:30 P.M. 151 mew gulls fed in local area between Bee House and Leo Reef. They momentarely alighted on water, picked up food item then elevated themselves in air about 1 foot high, moved forward 4-6 feet and then alighted again, all gulls participated in this same behaviorism and they were the only kinds of aquatic birds in sound.

This evening Spring Cove was full of medium sized logs.
High tide.



870101-1 Peromyscus m. halliteri 155-73-22-18-18 gms ♀
From Bee House.

Jan 2, 1987

more logs in Spring Cove (high tide) than yesterday.

From 8:00 A.M to at least 12:00 P.M. approx. 320 mew gulls fed in area of N Lopez Sound from ENE of Bee House to Leo Reef and 400' from shore, and moving from N to S. All adults except 6 first year young (brownish and half tail brown. There were no banded tail birds. The wind was from SE at 26 waves per minute and water in white-caps. The wings were outstretched and birds were walking on water at about 3 steps per second. neck stretched foreward (45° angle) and head tilted downward, looking somewhat like a dove. The action could also be done by flapping slightly the wings, fanning out of tail in adjusting to wind. Picked food from water appr. once in 3-5 feet. Another type of action was to rise from water, fly 3-5 feet beyond, alight on water, withdraw wings to body and then feed for 3-5 seconds and then repeat the action. The raft kept from moving foreward by gulls at the front flying to

rear of raft. Birds bathed by splashing water over body, some water rising 1 foot above the birds, then rising 1 or 2 feet above water, shaking water off bird and then returning to water again. The general picture one receives of these birds is gulls 1 foot above water and repeatedly dipping to surface to pick up particulate matter. This action of feeding continued uninterruptedly during a rain storm that passed by in sound.

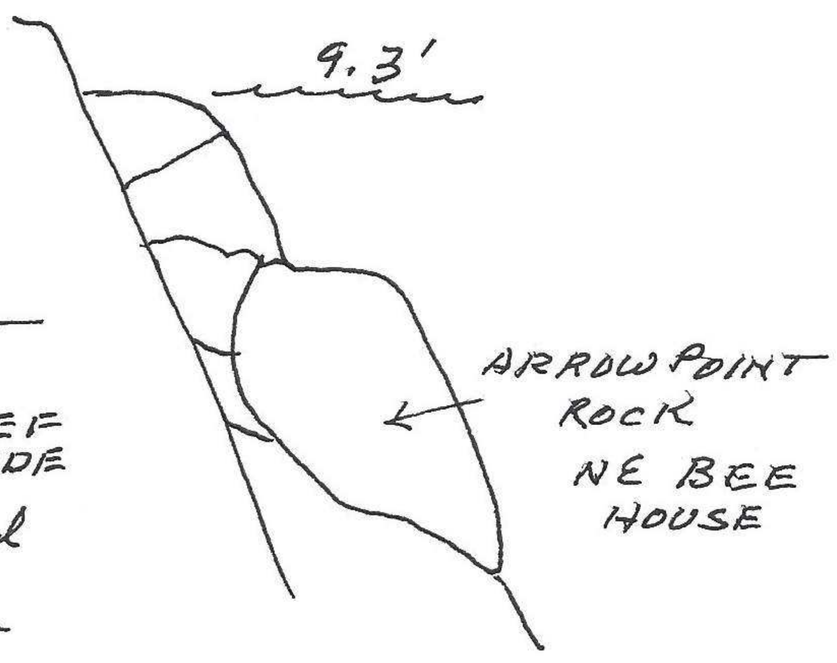
870102-1 Perimyscus m. Kallisteri 181-74-23-20-24 gms, ♂ testis 8 mm long. From Bee House.

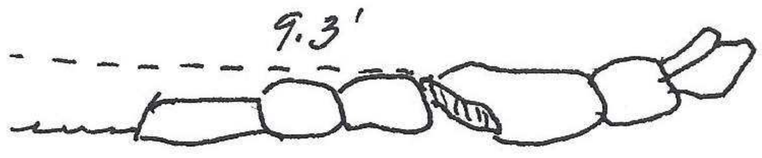
870102-2 Perimyscus m. kallisteri 173-8 4-23-18-24 gms ♂ testis 6 mm long From Bee House.

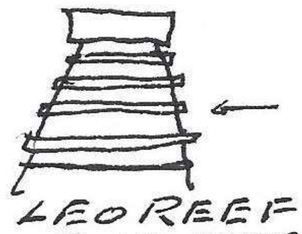
Jan 3, 1987

8:10 A.m. 1 mm. bald eagle passed 5 Bee House to Lichen Point and beyond. Alt approx 150' and 80' high. 1

Tide Keyhest (9.3) in last 14 years.







10:30 AM. 2 common goldeneyes and 1 hooded merganser travelling together in water in front Bee House.

870103-1 Peromyscus m. kallisteri 171-73-22-19-25 gms ♂ testis 6 mm. From Bee House.

Jan 4, 1987

Mary & Don Jensen and Joyce Fralic for dinner at Bee House.

8:10 AM Sun-up.

Jan 5, 1987

Since last 5 or 6 days of high tide (highest in last 14 years) log accumulated in Spring Cove by daily increments. This A.M. 314 logs moved out of cove with tide. They moved S to Flat Point, thence E to N current flow and thence either N beyond Boundary Point or re-circulate into Spring Cove area to repeat primary movement. There were no logs from Swift Bay

There were other logs randomly distributed in N Lopez Sound.

Jan 6, 1987

From 7:30 A.M to 8:30 A.M. recorded bald eagle activity between Boundary Point and 100' S of Lichen Point. Observation from Bee Hause. Sun-up on first round point S of Thatchlus Pass. At one moment 6 bald eagles (3 ad., 3 imm.) in view. 2 of the adults and one immature bald eagles followed the activity 25 mew gulls and 28 glaucous-winged gulls along currents between two above points.



At one time 2 glaucous-winged gulls had a dead and partly eaten bird in the water, sometimes above and sometimes below water. The 3 bald eagles circled the carrion and then one of the adults passed low and directly over the dead bird. It contacted the water but did not retrevie the bird which was then 80% under water. Three minutes later it returned and picked up the bird, circled with the 2 other eagles in close pursuit. It dropped the bird in air and another eagle caught it before the bird reached the water. The retriever bird carried the prey to the 2nd Douglas fir tree at Lichen Point. 3 bald eagles circled just above area where bird was taken from water. 3 Double-crested cormarants remained in the water while 8 glaucous-winged gulls and 2 mew gulls harassed the circling eagles coming within 5'-6' of the eagles. One of the bald eagles was observed to fly to and alight on Frost Island while a second one flew to top of Bald Bluff on Blakely Island.

Left Bee Hause at 12:00 P.M and hiked to Babcock Place 1 1/2 mi. S Spencer Spit keeping on beach the entire route Kept complete record enroute.

Humphrey Lagoon: 1 ♂ 2♀ buffleheads, 1/8" ice in road, great blue heron,

Bunkes: 8 dark-eyed juncos.

Swift High Bank Beach: 124 surf scoters, 18 glaucous-winged gulls, 14 buffleheads, 1 common merganser, 4 american crow, 1 raven (common).

Swift Low Bank Beach: 125 Crab traps in Swift Bay.

· N end Surft Low Bank Beach: 4 glaucous-winged gulls, 6 American crows.

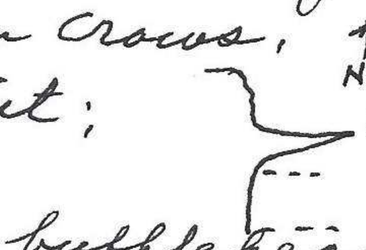
S end Surft Low Bank Beach: 4 glaucous-winged gulls, 1 great blue heron, 1 kingfisher.

Spencer Spit Point (Point between Surft Bay & Spencer Spit): 4 river otter, 1 American crow, 5 song sparrows, 1 kingfisher, 1 winter wren, 1 hooded merganser.

N end Spencer Spit: 4 Common mergansers, 8 bufflehead, 1 common loon, 7 glaucous-winged gulls, 2 horned grebes, 4 sets river otter tracks, 1 winter wren, 4 hooded mergansers, 8 glaucous-winged gulls, 4 double-crested cormorant, 6 ducks (sp.?).

Spencer Spit Lagoon: 1 great blue heron, 81 mallards in 5 groups (they left area), 2 glaucous-winged gulls, 13 northern pintail, 1 kingfisher, 4 song sparrows, 65 American widgeon, 2 mew gulls.

N Spencer Spit Beach: 24 glaucous-winged gulls, 28 mew gulls, 5 American crows.

S of Spencer Spit: 

3 bufflehead, 1 glaucous-winged gull, 5 bufflehead, 1 great blue heron, 1 winter wren, 4 bufflehead, 1 great blue heron, 3 bufflehead, 1 hooded merganser.

Point of 100' (long) x 5' (diameter tree) prone on beach: (with roots). 1 common goldeneye.

First stairway on one log: (80' long): great blue heron, 3 bufflehead, 5 common raven, one of which was chasing a bald eagle; 2 oystercatchers

Kennedys (second stairway to beach): 4 bufflehead resting on log moving in water (log 10' long), log on beach 85' long, 2 glaucous-winged gulls.

Deep drainage to W. (right): tree on beach 80" diameter. This tree had roots, dead bird on beach, partly eaten. Took measurements and drawing of foot (see next page), wing spread 4.' 4", white underparts, black back and tail and wings. Photo 870106-1 of the foot of this bird. Will get identification of this specimen. An adult bald eagle, 2 raven and 4 glaucous winged gulls fed on this bird. Other tracks of these prey species in sand associated with the dead bird. (See next page for drawing of foot of this bird.

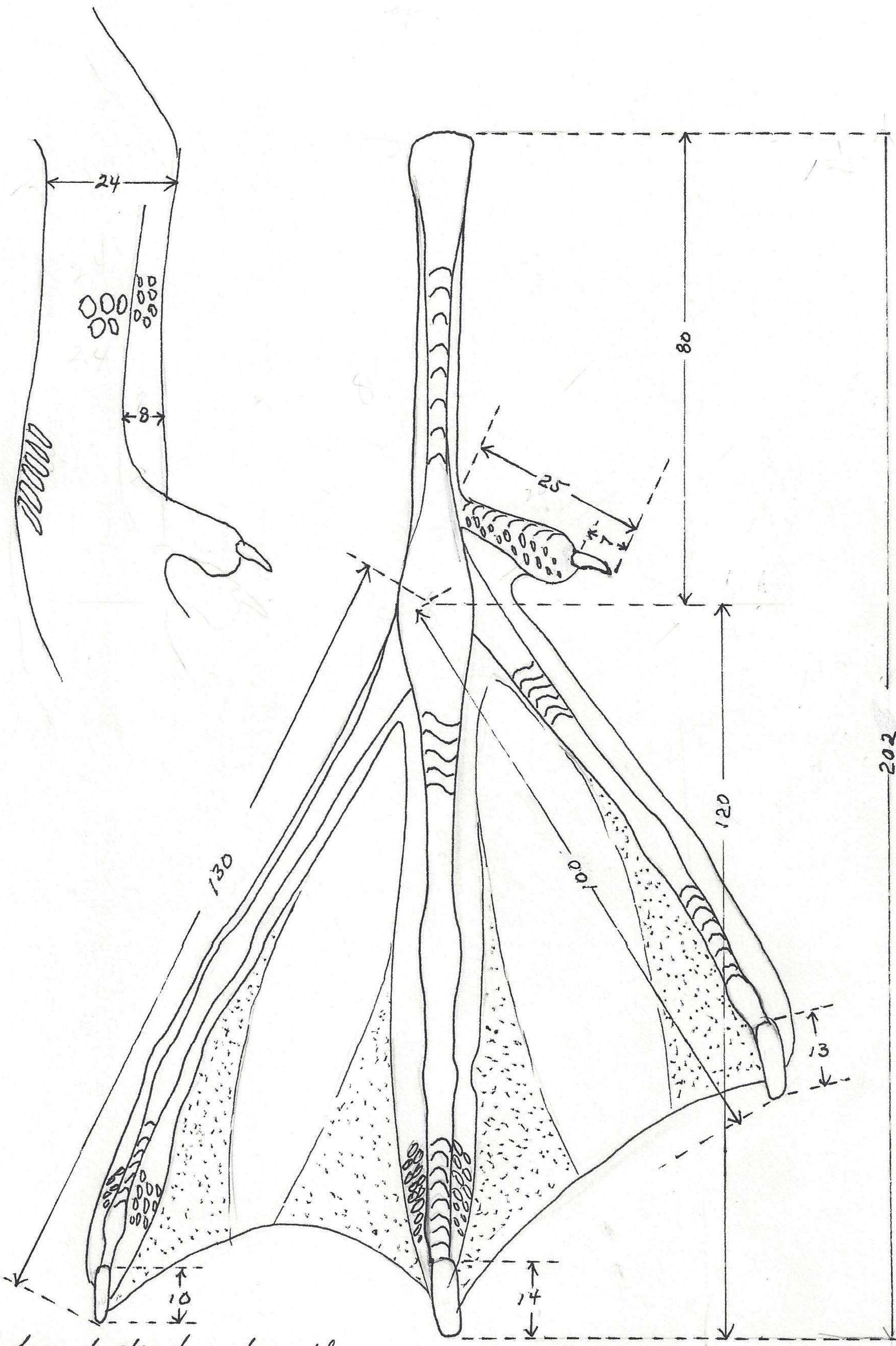
870106-6

1/10 mi. S of S Boundary Spencer Spit, Lopez Island, San Juan Co., Washington.

Jan 6, 1987

SIDE

TOP



From a bird found dead and partly eaten by bald eagles & glaucous-winged gulls.

(see photo 870106-1 and 870106-2 of this feat.)

Specimen 30' from current high tide level.
Cement stairs and boat put out on rollers.
next house with road to beach: winter wren.
Stairs with path to water
next path with log ramp.
Road to beach: pileated woodpecker 100' of this locality.
Stairs on double logs, barrier at front.
Regular stairs with abrupt 10' dropoff:
" " " " 12' " "
next stairs of logs on 2 pole runners. ≠: 2 bufflehead,
Cement stair & wall.
Reg. stairs & rock wall.
First spring from shoreline, dripping only.
Three springs N Babcock Estate including 100' area.
Babcock Stairs. now 80' from water. Water to first step in high water level, 2 bufflehead, 1 harbor seal. Arrived 2:15 P.M or 2 hr, 15 min trip.

Jan. 7, 1987

Photo 870107-1 face of bird discussed in above (Jan 6, 1987)
" " 2 " " " " " " " " "

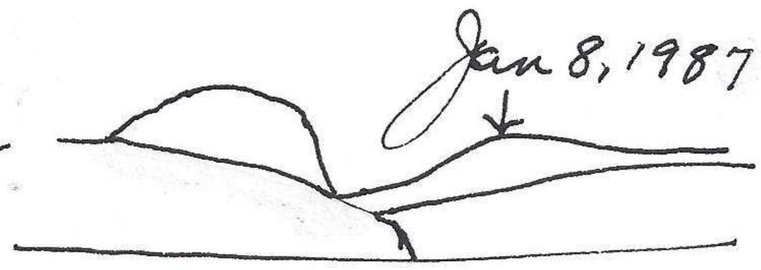
made trip N along E side Humphrey Head to NE corner and return. Left 11:03 AM, NE corner at 1:00 P.M & returned Bee House by 1:30 P.M. Birds & mammals observed:

2 hooded mergansers
1 red-necked grebe
6 glaucous-winged gulls
1 horned grebe
1 bald eagle
1 mule deer

At a point below John Saul II on benchland at shoreline collected a skull and partial skeleton of a *Lutra canadensis*. no. 870107-3.

At 2:00 P.M 8 harbor seal on Leo Reef.

Jan 8, 1987



First bald eagle 7:55 A.M.

870108-8

Birds at Spencer Spit this A.M. (Lagoon):
mallards 43
northern pintail 25
glaucous-winged gull 36
mew gull 30
great blue heron 1
bufflehead 8
European widgeon 3
American widgeon 8
american crow 4
At Swift Bay (contact High and Low) :
dunlin 48
mallards 12
black-oystercatcher 1
greater yellowlegs 8
mew gulls 13
glaucous-winged gulls 24
1 great blue heron
13 american widgeon
6 northern pintail.

Jan 9, 1987

3 photos nos 870109-1, 870109-2, 870109-3, from Bee House toward Blakely Island of pre-sunrise sky and clouds.

7:30 A.M first adult bald eagle flew 5 past Bee House at 60' high.

7:50 A.M 2 adult and 1 imm. bald eagle fished with 10 glaucous-winged gulls off Lichen Point. A fragmented dead bird was in water, half time floating and half time submerged. One eagle tried 3 times to pick up the bird but each time was unsuccessful. Between attempts the eagle circled 40' above the bird before initiating another attempt. After each attempt by the eagle the gulls immediately returned to bird and picked at it. As eagle approached the dead bird the gulls moved out 10'. At times the eagle and gulls seemed to working on the dead bird at the same time. The adult eagle picked up a strap of the bird and pulled the bird 1 foot but then released it. All three bald eagles picked up 2" pieces and flew to a Douglas fir on Lichen Point where they consumed them.

mule deer at feeder at Bee House after dark.

Jan 10, 1987

8:00 A.M Imm. bald eagle flew N past Bee House at 10' above water and directly above edge of shoreline - water contact.

9:00 P.M Between Babcock residence and Bee House noted 2 buck and 5 doe mule deer in field NW of junction Baker View and Port Stanley roads. Also on same route noted 3 domestic rabbits

At Bee House a family of mule deer (shy doe) feeding at feeder after dark.

Jan 11, 1987

Spent day at Mary's & Don's place (Babcock residence) cutting wood.

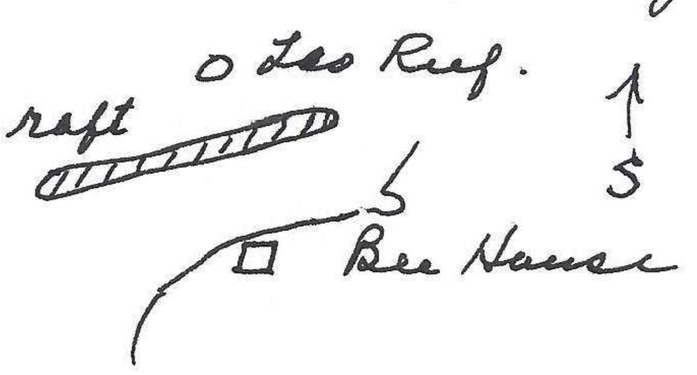
Jan 12, 1987

At least 10 sightings of bald eagles this A.M. One adult bald eagle flew 5 out 200' from shore and instead of usual straight horizontal line flight, it glided in undulations:



10:05 A.M. 2 harbor seals played vigorously out 15' from shore below Bee House. They maintained this behaviorism in the same spot for 8 minutes. I have never observed this persistent type of activity

10:20 A.M. 204 mew gulls fed in a linear raft of Approx. 30' wide and 3/10 mi. long, at 1/2 way between Leo Reef and Bee House. They faceloaded a current sheer line.



The gulls were constantly in flight and approx 1' above water. They moved to a point at S end of raft, thence turned around and picked up rear advance on to somewhere along the length of the raft, thus moving the raft only slightly to the south. There were no other kind of birds in the raft.

The gulls fed in several different ways. 1. by flying forward 3 or 4 wing beats approx 1' above water and then gliding to water with head and neck held down and gliding on belly at contact with water. If food particle was small it would glide 1 second and then fly up again to cruising height. Wings held 45° angle at all times even when body contacted water. As gulls reached S end raft, they would wheel around and fly N 100-150'.

If food particle requered more or nearer inspection, the gull would slide on belly, bring wings to side of body a remain on water for 2-6 seconds and then regain normal gliding position forward. Some gulls would approach water, extend wings horizontally in gliding position and with wind as elevator would walk on water for 2-5 feet. Flight to rear of raft is a maneuver to rest wings from being held at a constant 45° angle, while feeding. Raft moved 1/4 mi. in 1/2 hr. Average contacts of single birds with water to peck up food item 33 per min.

Crows arrive at Bee House from Swift Bay, most times as a single flock but sometimes trailing 1/2 mi. The numbers observed on beach at Swift Bay frequently number the birds in flocks arriving at Bee House for local source of food. (cracked corn and wheat)

General observations: Eutamias townsendii definitely underground. none has been observed since last recorded in filed journal (more than a month ago).

Band-tailed pigeons have not observed since last recorded in journal.

American crows more common at Bee House in winter,

Fewer harbor seal on local rocks than in summer.

Mule deer at feeder in summer and autumn, and resting at Bee House but in winter come to feeder once a day as a group and go elsewhere in area than near Bee House.

Family units are maintained

Dark-eyed juncos (Oregon subspecies) common all winter.

House finch and purple finch occasional, once a week and few, 2-6 in number.

no pine siskin this year.

definite increase in bald eagles in winter

Mew gulls and Pacific loon reach greatest number in early winter and come in large numbers only periodically.

Rufous-sided towhee last bird at feeder in evening.

Winter wren decrease with advance of winter.

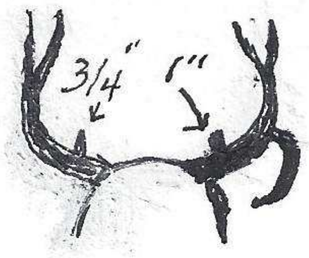
4 mule deer will eat a loaf of bread in 4 minutes.

No brown rats this winter

Capture rate of Peromyscus m holliteri decreased with cold weather. 99

99% juncos are dark-eyed (Oregon subspecies). The other 1% are pink sided and slate-colored subspecies,

6:30 P.M adult buck (mule deer) at feeder at Bee House. Antlers with one tine recurved. Heighth of mule deer at shoulders 37".



Jan. 13, 1987

6:30 A.M daybreak
7:39 A.M first bald eagle flew S past Bee House, 80' high
7:42 A.M second bald eagle flew S past Bee House 80' high.
Spent day at Mary & Doris (Babcock residence). Pileated woodpecker edge of forest clearing at base of dead Douglas fir.
Clouds form over Islands.

Jan 14, 1987

Day clear except cloud above Blakely Island. Clouds formed above Blakely and Decatur:

7:22 first bald eagle flew S past Bee House.
7:30 bald eagle alighted in Douglas fir tree directly above Lichen Point, 1/2 way up tree. Also one bald eagle left area of Bald Bluff and flew to Lichen Point and alighted in first tree above point
7:31 bald eagle flew N past Bee House at 50' level, and out over water 60' from shore.
7:37 6 bald eagles circling 150' above Frost Island, mainly W side.
7:45 A.M first American Crow of day, at feeder, then 3 more and then 12 more in next 2 min.
7:46 A.M bald eagle flew S past Bee House at 80' level to Lichen Point, then returned 1 min. later and passed Bee House N at 55' level.
8:06 A.M bald eagle circled over Leo Reef, thence S to Spencer Spit. Another circled above Lichen Point.
8:08 A.M Sun up on S side Mt Erie
Later this A.M to Marij & Doris (Babcock Place) and returned to Bee House 1:30 P.M. Bald eagle flew N past Babcock Place 1/2 way between Bee House and Leo Reef. and moving N. One half hour later another group of 180 moved N in same direction as first group.
Snow last night 1/3 way down Mt. Constitution and on tops

of Bald Bluff Peak on Blakely.

Today 9♂, 5♀ purple finch on feeder at Bee House. There may be some connection between these finch and the show on some of the higher peaks on the islands as if being driven down by the weather.

Jan. 15, 1987

Day clear, shimmering water.

7:00 A.M first bald eagle flew S past Bee House,

7:30 A.M first glaucous-winged gull past Bee House.

8:00 A.M no glaucous-winged or mew gulls in sight numbers of gulls & bald eagles is associated with windy days

Ice on Swift Lagoon yesterday and today.

At 2:30 at Babcock Place a bald eagle flew N along shore. One perched in tree 5 of Babcock Place at edge of clearing from 1:30 P.M to 3:PM.

Jan. 16, 1987

Swift Lagoon in ice and no birds in area.

18 sanderlings on Swift Bay Low Beach.

[specimen tag may be 86] Jan 18, 1987

870218-1 Peromyscus m. halleteri. [143]-[51]-23-18-26 gms ♀

2 x 2 embryos.

Jan. 19, 1987

Photo 870119-1 of sunrise over Blakely Island from Bee House

E end Swift Lagoon (1/10) in ice. 8 mallards, 4 shovellers in lagoon.

In last 7 days there has been an average of 8 sightings of bald eagles per day, mainly in A.M. From Bee House. at least 3 bald eagles together every morning.

32 American crows at feeder. Average is 13.

Since the snow of night of Jan 13, there have been an average of 18 (5-20) purple finch at feeder at one time

2:10 P.M from Bee House can see 1 red-necked grebe, 1 red-throated loon 2 marbled murrelets, 2 single common murres (in summer plumage)

Jan 20, 1987

Ad. bald eagle alighted Leo Reef-beaem and displaced 46 double-crested cormorants. They remained as a group 25's of beaem.

870121-13

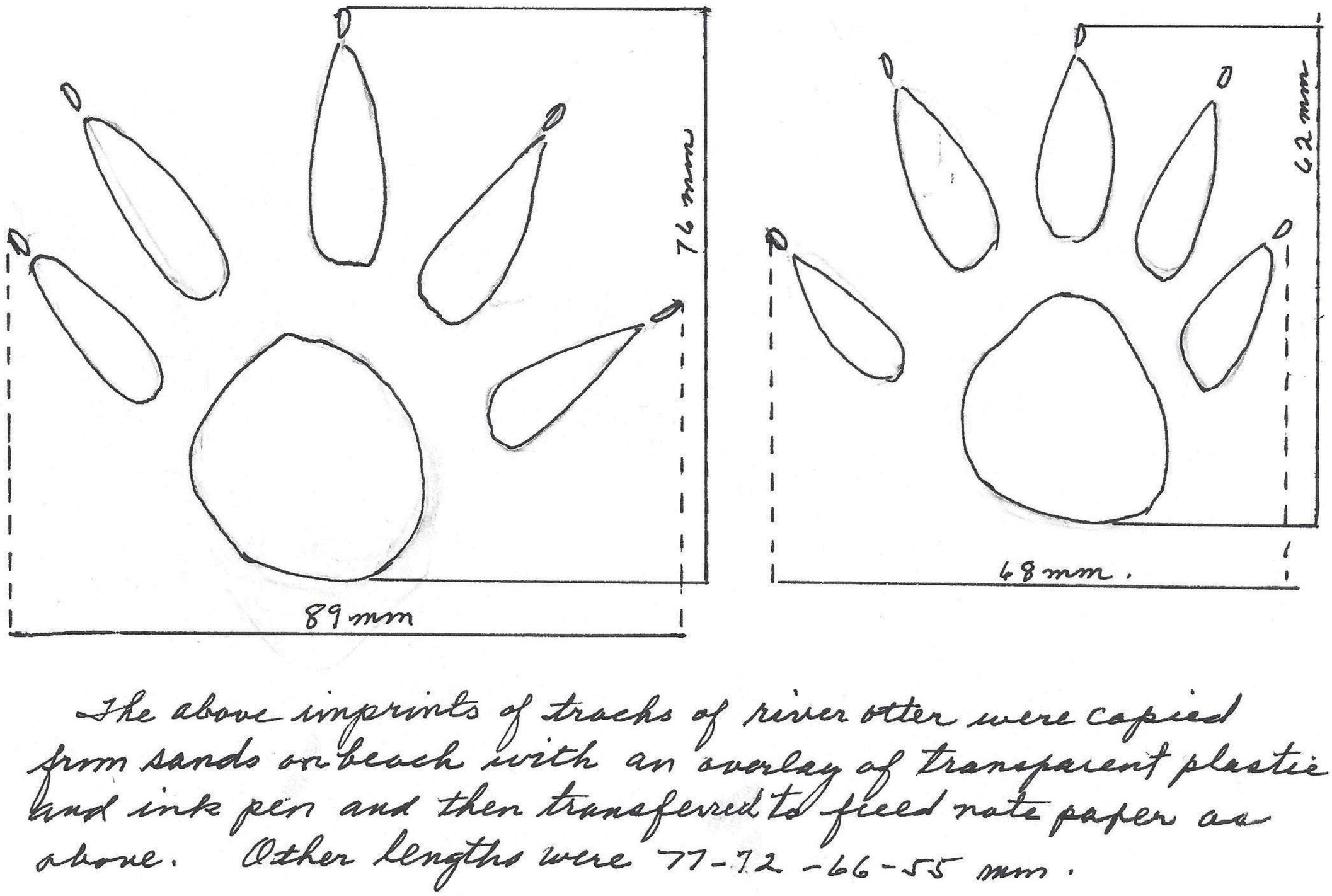
Jan 21, 1987

Photo 870121-1 of sunrise over Blakely Island from Bee House showing sloping clouds above the mountain,

7:26 A.M 6 bald eagle sightings (2 pairs, 2 singles), 5 at 70' and 1 at 10' above water.

Photo 870121-2 of pre-sunup clouds, 5 minutes later than above showing more yellows & less reds.

7:45 A.M Another bald eagle 80' above water. Also 2 red-necked grebes, 2 marbled murrelets together 150' SE from Bee House



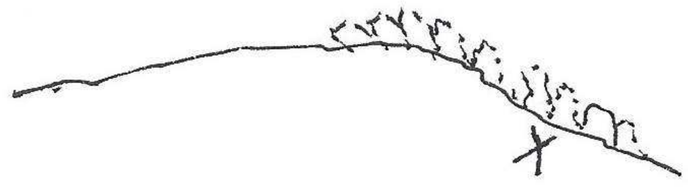
The above imprints of tracks of river otter were copied from sands on beach with an overlay of transparent plastic and ink pen and then transferred to lined note paper as above. Other lengths were 77-72-66-55 mm.

870121-4 Peromyscus m. halliseri 136-60-21-16-17gms ♂ testis 4 mm. From Bee House capture last night.

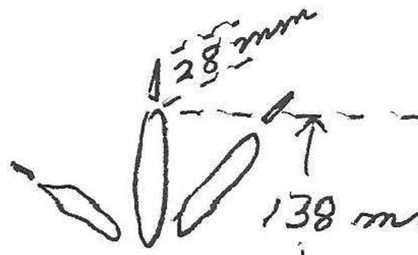
Mary P. Bee started N on beach W side S Lopez Sound (at Babcock Place) and I started E at S end Swift's Bay where Port Stanley Road turns W. We were to meet somewhere at Spencer Spit. Tide low and extensive beach exposed at late A.M. at a point just south of NE point observed a young river otter on a rock 6" above water eating some kind of animal. Two other river otter swam N 20' from rock and

continued 120' before stopping to inspect my presence. The one on the rock finished eating and slipped into water and swam 10' out from shoreline and then toward me 50' to the N. At a point opposite me it swam toward me to within 10' (5' out from shore) then dove and resurfaced 4' beyond waterword. It then reversed direction and swam to within 4' of shore, at times standing on submerged rocks with head and half of body above water. This was repeated 9 times as it continued to the west along shoreline.

As a proceded along shoreline the otter returned and followed me 50' (out 4' from shoreline). The last 20' was shared by the other 2 otter that oreginally swam 150' waterward. continued S toward Spencer Spit where I was joined by Mary. She reported 2 young river otter 1/4 mi. S of ranger station at Spencer Spit.



At 1/4 mi. N of Spencer Spit Lagoon outlet found a dead harbor seal on beach (out 8' from high tide mark) and at base of sandy slope. The carcass was stripped of fur but all limbs and bones present. Muscle and internal organs consumed. Skull intact (no lower mandible) and collected same no. 870121-3. Skeleton measured 56" total length. Tracks in sand included: river otter (4 sets), American Crow, Common raven, glaucous-winged gulls and bald eagle. The latter measured:



Mary and I continued W to road (Port Stanley) where we were picked up by Annette.

Jan 22, 1987

This A.M. 11:00 Mary P. Bee and I made trip to Humphrey Head marina and then returned via E side Humphrey Head from Buck Plummers residence. Noted 7 great blue herons on NW side Humphrey Lagoon, also 8 common goldeneye, 4 glaucous-winged gulls. Mr George Simmons showed us his new boat.

On return along E side Humphrey Head at dissected Point

observed a western grebe that was being eaten by a bald eagle.

At Bee House (2:30Pm) an immature glaucous-winged gull alighted on window sill of dining room window. It remained 5 seconds, then moved to N side window (3' from dining table and watched us for 20 seconds. A slice of bread was thrown on floor of porch and the gull immediately swallowed the entire slice with head and body movement that forced the gull back on its hind feet. A forceful thrust of head and neck pushed the bread farther into its mouth & throat. A second slice was fed to gull on rail of porch (2 feet away from our hand). A 3rd, 4th & 5th slice was also consumed. The gull remained 30 min. then left. This is the first gull to show confidence in man (up to 2 feet). While gull was feeding on bird feeder, it kept away the house and purple finch, and a young Eastern gray squirrel.

Jan 23, 1989

870123-1 Peromyscus m. sollistei 134-58-22-17-12 gms ♂ testis 4 mm. From Bee House.

7:45 A.M 3 river otter 20' from shore swam S past Bee House.

1:35 P.M ad. bald eagle on Leo Reef beacon. no birds or seal on reef. white-caps on sound.

2:45 P.M glaucous-winged gull that fed at feeder yesterday is back. It took a slice of bread, hand fed but did not eat it. It remained on window sill 10 min. and then left.

Jan 24, 1987

mary & Don Jensen, Herbert & maureen McLean from Orcas and Joyce Fralic and Annette and ♁ at dinner at mary's (Babcock Place). On return from mary at junction mt. Baker View and Port Stanley road (feed to NW) were 14 mule deer, 3 of which were males and antlered.

Jan 25, 1987

10:20 A.M. Chris and Mat to top of N Quarry, 2 pairs and 2 single bald eagles circled above middle of Humphrey Head. One other (bald eagle) imm. flew N at level of top of quarry.

Jan 26, 1987

8:10 A.M. 4 bald eagles at Lichen Point at one time. One adult picked up 3" object from water. Day cloudy and sporatic

rain. Pleasure boat caught a silver colored salmon at 10:35 AM 150' S Leo Reef Locho nos 9, 10, 11. Another at 10:55 approx. 200' N of Leo Reef (beacon). They were steel fishing at 2:00 P.M but did not catch more than the two fish,

Today first time glaucous-winged gulls on territories? on Flower Island. Several in same places as last year. An ad. bald eagle arrived N end Flower Island. and all gulls on N end left but not those on S end. After eagle left the gulls returned,

Birds at Bee feeder (deck):

23 dark-eyed juneos (6 of them pink-sided,
18 purple finch
2 house finch
18 American crows

Glaucous-winged gulls more numerous at feeder than a week ago,

In water SE of Bee House:

1 common murre
1 common loon
3 hooded mergansers (1♀, 2♂)
18 mew gulls
4 glaucous-winged gulls
2 common raven chased an ad, bald eagle

4:45 P.M. Approx 80 glaucous-winged gulls fed on 2"-4" fish in localized area, 10-15 diving into water and completely spraying area. Others circling directly above. This activity was interrupted every 2-3 minutes by 2 adult bald eagles that came to identical spot to take small fish. An imm. bald eagle alighted on water for 4 seconds, got a fish, and then left water without difficulty. As the eagles past over the fishing spot, the gull separated, approx. 20 gulls would chase eagle, some of the others would fish with eagle with compatability. At no time did eagle harass a gull. 24 double-crested cormorants rested on water about 150' from eagle activity and if the eagles past over them they would dive under water. The cormorants did not fish while eagles were overhead. Some gulls would also splash in water if on water & eagle approached overhead. The eagles fed for 11 minutes in area then left. whereupon all gulls returned to the feeding spot. Rain all time with wind & waves.

5:30 P.M. mule deer family at feeder at Bee House while raining

870127-17

Jan 27, 1987

9:40 A.M 2 ad. bold eagles and 1 imm. bold eagle shared fishing spot with 16 glaucous-winged gulls.

A single Bonaparte gull repeated moved over a 50' dia. area and picked up 43 items per minute from surface of water. Flew 2-3' above water and dropped into water with wings held high at all times except when the gull would pick up more than one particle

In front Bee Home 1 common murre and 1 pigeon guillemot past by out some 200'.

2:00 P.M. No gulls on Flower Island.

3:30 P.M. 2 ad. bold eagles contacted water out from Swift Bay, High Bank Beach. At least 300 gulls, including 60% mew and 40% glaucous-winged gulls, became concerned & flew toward eagles.

In Swift Bay 39 buffleheads left water as one group.

In Swift Lagoon 27 American baldpates and 2 mallard ducks.

In Humphrey Lagoon 4 great blue herons.

no gulls on Flower Island today

6:30 P.M family of mule deer at Bee feeder.

7:30 P.M ♂ mule deer at Bee feeder. It measured 33½" high at shoulders. Antlers shed. ○ ◎

no growth of skin or hair (velvet) R core L core.

on exposed base. The males are more alert and quicker in movement than females.

Jan 28, 1987

High wind last night. Waves at 7:30 A.M 20 per minute.

adult bald eagle defecated in flight, legs extended downward.

9:20 A.M a single common goldeneye fed for ½ hr in an area 40' x 40'. Recorded length of time of dive and on surface in consecutive intervals: (in seconds)

Dive (under water (1)	on surface	Dive (under water (2)	on surface
37	13	38	13
24	10	31	8
16	16	30	13
28	9	31	20
29	14	38	12
30	19	38	10

870128-18

Dive (under water) (3)	On surface	Dive (under water) (4)	On surface
38	12	34	9
36	13	32	11
36	18	36	10
37	15	38	10
38	10	37	16
		AVE. 33.4	AVE. 12.5

11:10 A.M 28 mew gulls fed 1/10 mi 300' SE of Bee House. 80% of the time was walking on water with wings at 45°. (from horizontal) wind velocity of correct velocity for this action

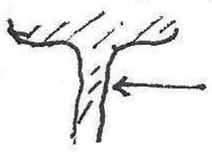
11:30 A.M 2 logs approx 50' long & 2 feet in diameter, passed Bee House toward N. Logs rock worn and old.

This afternoon noted a turkey vulture flying at junction of mac Kaye Harbor and Alec Roads.

One ad. bald eagle at end of Watmough Bay. Checked Scottish Highland cattle.

measurement of mammal specimens captured last night in Bee House (open basement)

870128-1 Peromyscus m. halliseri 183-85-21-18-21gms ♀ ut. normal.
Tail diameter 2.5 mm at 3 mm from base



870128-2 Peromyscus m. halliseri 180-83-22-19-22gms ♀ ut. enlarged

6:30 P.M Hornless ♂ mule deer at feeder.

7:30 P.M a male mule deer, 33 1/4" high at shoulders, and with recently shed antlers at feeder. It appeared smaller and less dominant than when possessing antlers.

Bee Estate, Humphrey Head, Lopez Island, San Juan Co., Washington.

Jan 29, 1987

7:30 A.M to 8:00 A.M. 8 glaucous-winged gulls and 27 American crows fed on cracked corn-wheat at feeder.

9:30 A.M, Approx, 250 mew gulls treaded water 1/2 way between Bee House and Leo Reef. Waves high and splashing 1/2 way up Leo Reef beacon. Waves 23 per minute

wings of treading mew gulls at this angle. —o— One Bonaparte gull in area.

870129-1 Peromyscus m. halliseri 165-76-22-18-20gms ♀ ut normal

To mary & Dons (Babcock Place) to cut wood,

∴ Returned to Bee House.

1:30 P.M 23 American crows at feeder. wind all day,
a tame glaucous-winged gull (feeds from hand and pecks at window) at feeder several (4) times a day and its presence attracts other glaucous-winged gulls.

A purple finch fed on feeder 6" from an eastern gray squirrel.

Joyce Fralic, our neighbor says the Townsend chipmunk come out of hibernation around April 1. She has 2 raccoon at her feeder but they have not appeared at our feeder. Joyce Land has raccoon at all times.

Joyce Fralic has not seen mule deer in several week whereas we have them regularly at feeder but generally after dark

Jan 30, 1987

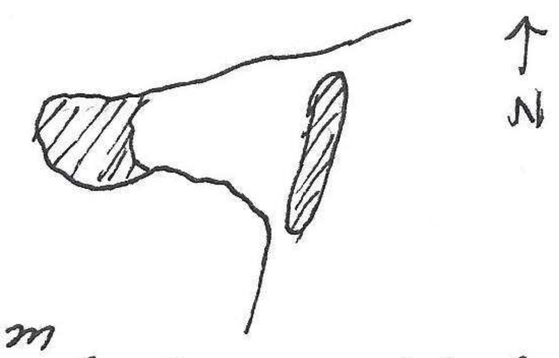
morning calm.

870130-1 Peromyscus m. hollisteri 190-90-22-19-24gms ♂ testis 6 mm From Bee House.

This morning at 9:00 A.M logs began to leave Spring Cove. The outermost log moved out to edge of cove where, after moving 50' S, remained for 1/2 hr.

Five eastern gray squirrels at feeder at one time.

By 9:30 A.M sky colored and water calm.



At time logs were leaving 9:00 A.M took the following photos:
870130-2 to 870130-5 logs in Spring Cove.
870130-6 From Tide Point to S (below Bee House)
870130-7 " " " to E "
870130-8 " " " W "

Trimmed some branches of a small madrona in front of house and mule deer immediately cleaned leaves of branches

Jan 31, 1987

This A.M 2 photos of logs in Spring Cove. If wind from SE, logs remain in cove, if not they move out with flow tide. The maximum number include 10' extension of front of photo. These logs cover completely the beach at low tide. The photos are:
870131-1 logs in Spring Cove.
870131-2 logs in Spring Cove.

Six glaucous-winged gulls (adults) at feeder (crocked corn plateform on porch railing) and one on floor of the porch. The railing around the porch is 3' high and lined with ½" wire screen for protection of children.

One of the gulls that fed on the floor of the porch attempted to leave by flying into the screen barrier rather than by flying up 3 feet over the railing. I went to the gull after 5 minutes of observation, picked it up and released it over the porch railing. One of the tame gulls dominated the other 5. If food is not available on the feeder it will follow top of railing to window where it will peck the window and wait for as long as 20 minutes until food is made available. Food consists of any material that is edible such as bread, all garbage, chicken bones etc.

When 4 or 5 eastern gray squirrels feed on feeder and 20-30 american crows arrive; the squirrels will leave one by one as the greater numbers of crows interact with the squirrels. 3 inches is minimum distance although occasionally a crow will pull the tail of a squirrel. On a one to one basis, the squirrel will dominate.

8:00 pm. 9 mule deer in feed nw junction Center and Fishermans roads. also 9 mule deer in field W of Mt Baker View and Port Stanley roads.

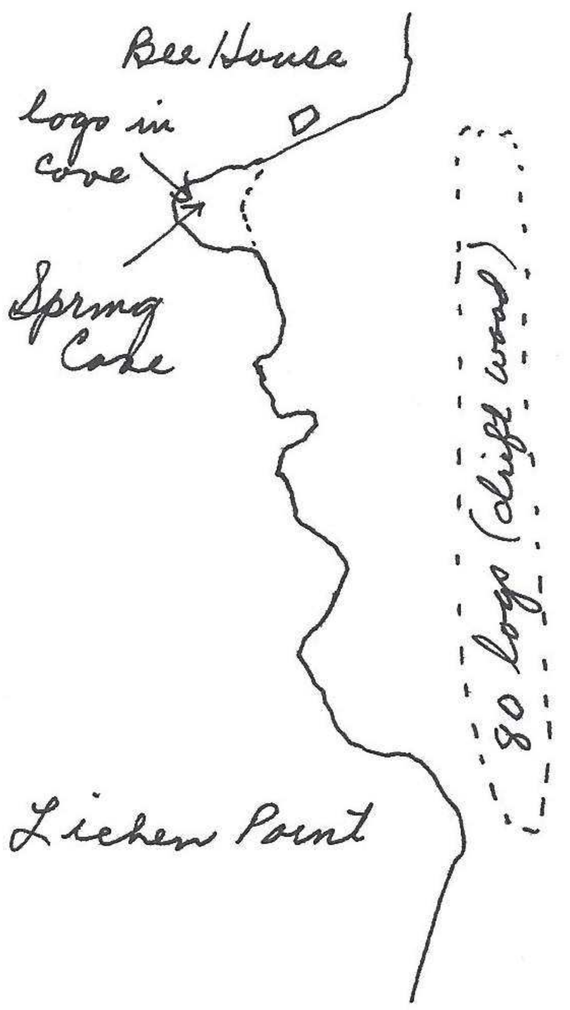
Bee Estate, Humphrey Head, Lopez Island, San Juan Co., Wa.

Feb. 1, 1987

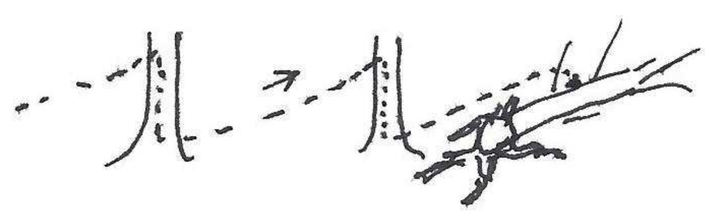
mammal specimen from Bee House.

870201-1 Peromyscus maniculatus hollisteri 175-74-21-19-28 gms, testis 9 mm, diameter of tail. (skinned) 5 mm from base is 2.4 mm.

5 bald eagle sightings this A.M.



This afternoon Annette and I visited Don and Mary at the Babcock Place. (approx. 1 2/10 mi. S on Baker View Road from Spencer Spit Road. A pileated woodpecker fed on three Douglas Fir trees, 2 standing and on horizontal tree of wind-blown tree.



a hairy woodpecker and the pileated woodpecker fed within 4' of each other on the downed wind blown tree.

An adult bald eagle flew S along shoreline.

Feb. 2, 1987

all log driftwood, except 3 deep on shore, have left Spring Cove.
5:15 P.M. Mule deer at Bee House:
young ♀, 29½" high at shoulders.
fawn ? 26" high at shoulders
young ♀
Spooky, 29½" high at shoulders
adult ♀, mother and dominant ♀ has not been observed in last 3 days.

Feb. 3, 1989

First ants in house 3 weeks ago. Since then only occasional individual observed.

Tame glaucous-winged gull fought 4 other gulls at feeder when food placed there and in so doing the other gulls consumed the food before tame gull recognized what had happened.

9:20 A.M 33 dark-eyed juncos at feeder plus 5 Eastern gray squirrels.

Feb. 4, 1987

7:31 A.M. first bald eagle in area in last 4 days.
8:00 A.M. 43 American crows at feeder.
12:05 P.M Adult ♀ mule deer at feeder and more wary than Spooky or dominant ♀, of local family group.
Boat W of 4427 KF catches more salmon than 2 a day in front of Bee House.
All local herd of deer at feeder after dark.

Feb. 6, 1987

10:45 AM 5 river otter swam S at approx 200' from shore at Bee House.
3:00 P.M. 2 adult eagles on Leo Reef standing 1 foot apart.
at N Rock Quarry from top observed 3 river otter swimming and diving as they moved north along shoreline.
A cooper hawk flew across Shoal Bay to N Rock Quarry and then turned north around high point.

Feb. 7, 1987

From Bee House:
870207-1 Peromyscus maniculatus rubidus 179-85-22-18-21 gms, ♂
testis 6 mm.

9.20 A.M. 3 river otter swam 5 approx 200' from shoreline of Bee Island.

Took Gary to Seatac International airport. Enroute from Lopez Island to Anacortes: adult bald eagle on Leo Reef and cmsuming some object, 1 harbor seal and no birds on reef. At Pointer Island glaucous-winged gulls every 3-4' separation, 1 harbor seal on N end island. On Black Island a boat displaced approx. 350 glaucous-winged gulls. They alighted on water between Pointer and Black islands. Only 3 cormorants enroute and no other marine birds which are generally common. In fields NE Everett along river were 210 Canada geese, 1 red-tailed hawk 4 mi. E Anacortes, 1 between Swinomish Channel and Conway and 1 10 mi. S Conway. Arrived Chris & Steve's home at Last Lake. at 1:00 P.M Cooper hawk passed over their home. This evening set 50 museum special traps on slope E beyond Chris & Steves property. Trees Douglas fir, hemlock, red cedar and clearings of damp to wet soils among shrubs and grasses.

2 mi. E Last Lake, Snohomish Co., Wa.

Feb. 8, 1987

From above locality and trapline set last night collected the following:

870208-1	Sorex vagrans		114-55-16-8-6 gms.
870208-2	microtus townsendii		222-75-25-16-90 gms, ♂, testis, 17 mm
870208-3	"	"	130-32-17-10-23 gms, ♂, testis 8 mm
870208-4	Peromyscus maniculatus	hollisteri	184-93-21-17-19 gms, ♀, 3x2 plac. scars
870208-5	"	"	" 173-85-21-17-15 gms, ♂, testis 3 mm
870208-6	"	"	" 183-96-22-17-14 gms, ♂ testis, 5 mm
870208-7	"	"	" 182-90-21-17-16 gms, ♂, testis 6 mm
870208-8	"	"	" 168-86-21-17-13 gms, ♀, ut. normal
870208-9	"	"	" 185-88-22-18-16 gms, ♀, ut. normal
870208-10	"	"	" 177-86-22-17-15 gms ♂ testes 5 mm

Feb. 13, 1987 (see Feb 14, 1987 for inclusion)

21231 E Last Lake, Snohomish Co., Washington

Feb. 14, 1987

From second growth cedar, hemlock, Douglas fir forest on ridge slope. In places wet to running water, collected: (rain last night)

870214-1	Sorex vagrans		117-54-13-8-7 gms ♀ ut. normal
870214-2	Sorex vagrans		123-54-13.5-8-6 gms ♂ testes 6 mm
870214-3	Peromyscus maniculatus	hollisteri	184-91-22-17-16 gms, ♀, testes 6 mm
870214-4	"	"	" 168-87-22-17-12 gms ♂, testes 4 mm

870214-5 Peromyscus maniculatus hollisteri 163-81-22-18-14gms ♂, testis 5 mm.

870214-6 Peromyscus maniculatus hollisteri 181-96-22-18-15 gms ♂ testis 5 mm

870214-7 " " " 181-94-22-18-16 gms ♂, testis 5 mm (right rear leg missing)

870214-8 " " " 180-90-22-18-13 gms. testis 7 mm.

870214-9 " " " 181-92-22-18-16 gms. ♀ ut. normal.

870214-10 " " " 175-91-22-18-15 gms ♀ ut. normal.

870214-11 Passerella iliaca (dusky-brown form) 1 171 total length, 25 gms measurement only

The above 11 specimens were collected Feb. 13, 1987 and prepared Feb. 14, and were given the 14th date field number.

Cooper hawk flew 3' over bird feeding tray at Chris.

Left Last Lake for Lopez Island.

First flocks in winter season of new gulls in fields 5 of monroe

at approx 1 mi. nw on E Ileait Rd from 522 overpass, 83 mallards in pond right of road. 1 red-tailed hawk in area.

at least 300 gulls sp? at Everett sewage plant ponds.

at 4 mi n on Interstate 5, approx. 600 Canada geese in field. 1/3 of them resting on ground.

4 mi. SE La Conner 1300 Canada geese.

3 mi. E Laconner, 1 adult bald eagle.

2 mi. SE Anacortes 1 ad. bald eagle.

at Anacortes ferry terminal, no gulls and only 3 bufflehead. Many crab traps in bay to SW (350 approx). Left on ferry 4:30 P.m. Censues on n side route only 1 pelagic cormorant.

Feb. 14, 1987

At Bee House mule deer active all night.

First gull (glaucous-winged gull) at 6:58 A.m.

7:16 A.m. adult bald eagle flew from Blakely to top of conifer tree on Lichen Point on Lopez Island,

From 7:00 AM to at least 7:30 A.m., to - 15 new gulls flying in air about 1 foot above water in a 10x50 binocular. They were all along n and w side of N Lopez Sound and randomly distributed.

7:28 A.m. an immature bald eagle alighted top of Douglas fir tree and

bent perpendicular tap to 75° | to ⌐. Arrived from N.

First crow at Bee House 7:29 A.M.

7:30 A.M. 3 adult and 2 immature bald eagles from various directions arrived Lichen Point and alighted in tops of douglas fir trees. Some dropped down to water and picked up scapes of food. no gulls associated with this activity.

American Crows arrived fom Swift Bay as singles and small flocks 3-8.

7:44 A.M. Ad. bald eagle from E, now 7 in trees at Point.

7:45 A.M. 2 ad. and 1 imm. bald eagle left Lichen Point and flew SE 1/10 mi out into N Lopez Sound, the two adults followed each other, one 8 feet above the other. 28 glaucous-winged gulls on Flower Island and generally distributed.

7:50 A.M. American Crows still arriving as singles and total number 41 in area of Bee House.

7:55 A.M. all bald eagles have now left Lichen Point.

Feb. 15, 1987

Wind from SE, An adult bald eagle in area from 8:05 to 8:38 A.M. It sailed in a circle about 300' above Lichen Point. It then abruptly turned and then with partially closed wings and in a straight course, descended to near water level beyond Leo Reef. It angled up turned and flew back to the circling zone above Lichen Point, but at a lower altitude. It continued to circle above point for 20 mins. 3 other bald eagles in the N Lopez Sound.

Flock of 21 American crows at feeder at Bee House.

9:00 A.M 41 glaucous-winged gulls on Flower Island and are generally distributed.

1:30 P.M a hooded merganser, ♂, captured a 4" long fish and when swimming with the fish kept it tail fanshaped.

A slate-colored junco stood off and displaced a dark-eyed junco (Oregon junco race).

A true cedar on Bee Estate (10' S of 2 old douglas fir trees at edge of lower parking lot, is a Deodar Cedar (Cedrus deodara) from Himalayas.

Bald eagles have been observed throughout the day on updrafts above S slope of Humphrey Head.

3:00 P.M 41 glaucous-winged gulls on Flower Island.

In S Fishermans Bay Lagoon are: 46 buffleheads, 4 northern pintails, 1 greater scaup and 8 glaucous-winged gulls.

at Swifts Logoon; 4 gadwalls, 2 mallards. In Swifts Bay along shoreline are: 18 surf scoters, 13 buffleheads, 2 common goldeneyes and 6 glaucous-winged gulls.

Feb. 16, 1987

7:00 A.M. First bald eagle and glaucous-winged gull flew by Bee House. 15 more sightings (not different birds), between 7:00 A.M. - 1200 P.M most flying about 300' high.

Gulls (glaucous-winged) on Flower Island were displaced at least 6 times by bald eagles alighting on island. The gulls are not as aggressive as later during breeding & incubation and rearing of young stage.

From Bee House captured a white-footed mouse;

870216-1 Peromyscus maniculatus hollisteri. 147-66-22-18-13gms ♂, testis 4 mm.

Feb. 17, 1987

Today is the date the mary Pauline Bee had metacarpal surgery at Valley Hospital, S of Seattle. Returned to Chris at East Lake and in evening set 50 museum special traps on brink of valley slope among deciduous trees (alder + maple) with a few conifers including douglas fir, hemlock, red cedar  Rain most of afternoon.

3/10 mi. E East Lake (E East Lake Road), Snohomish Co., Washington.

Feb. 18, 1987

From trapline set last night collected and prepared the following mammals:

870218-1 Peromyscus maniculatus hollisteri. 165-83-22-17-15 gms, ♂, testis 5 mm.
870218-2 " " " 162-81-22-17-14 gms ♂, testis 4 mm
870218-3 " " " 179-91-22-18-16 gms ♀, ut. normal.
870218-4 " " " 164-82-21-17-14 gms, ♀ ut. normal.
870218-5 " " " 164-82-21-17-12 gms ♀, ut. normal
870218-6 " " " 176-88-22-18 19 gms ♂, testis 6 mm a tick on eyelid, gray, 3 mm length.
870218-7 " " " 183-92-21-17-15 gms, ♀ ut. normal,
870218-8 " " " 162-82-21-18-12 gms. ♀, ut normal
870218-9 " " " 173-88-21-17-14 gms ♂, testis 6 mm.
870218-10 " " " 178-90-21.5-18-18gms ♂, testis 7 mm diameter tail 5 mm from base is 2.2 mm, skinned 
870218-11 " " " 166-89-21.5-18-12 gms ♂, testis 4 mm,

870218-26

870218-12 Peromyscus maniculatus hollisteri 164-84-21-17-13 gms ♀, ut normal

Feb. 19, 1987

La Conner
At Thousand Trails Preserve observed 4 ruddy duck, 3 common goldeneye and 3 pelagic Cormorant.

Continued to Anacortes ferry terminal (State) Census from here to Lopez Island is: 17 pelagic cormorant, 1 glaucous-winged gull, 1 red-necked grebe. 180 glaucous-winged gulls on Pointer Island, 1 bufflehead, 3 glaucous-winged gulls. alder adjacent bay nw armitage Island is reddish. Glaucous-winged gull. 2 Pacific loon, 2 common murre. now starting Thatcher Pass. Glaucous-winged gull. Willow Island, Glaucous-winged gull. Leo Reef supported 1 adult bald eagle and 12 harbor seal, no birds. Adult bald eagle at nest on n end Humphrey Head. Arrived Lopez Island.

At below Bee House observed a glaucous-winged gull pick up a Dawson sun star (Solaster dawsoni) from edge of water and 2 complete arms. Another glaucous-winged gull ate parts of 6 arms which it pulled from the body. Finally a third gull consumed all of the star except the disc. (body) Photo 870219-1 shows one of the glaucous-winged gull at the site of the feast.

The following mammal from Bee House, Humphrey Head, Lopez Island, San Juan Co., Washington:

870219-2 Peromyscus maniculatus hollisteri 170-78-22.5-18-18 gms ♀, ut. normal,

Feb, 20, 1987

Overcast, calm, some patches fog on Blakely

6:50 A.M. First bald eagle (ad), flew S past Bee House at 70' high and 50' from Bee House. Light at 6:50 barely enough to see printed words. 6:55 A.M first glaucous-winged gull. 7:02 Adult bald eagle left Lichen Point and flew E at about 150' high to Blakely Island. Other aquatic birds active at 7:00 A.M. Between 7:00 A.M & 7:15 A.M. The following birds arrived for first time at sound at Bee House: 30 mew gulls, 8 glaucous-winged gulls, 15 cormorant, 23 surf scoters. 48 glaucous-winged gulls on Flower Island at daybreak 7:20 A.M first American crow.

At Hummel Lake noted an American coot.

At Swift Lagoon: 8 godwalls, 2 american widgeon, 4 northern pintail At low bank of Swift Bay, head bay: 8 black turnstones, 2 black

oystercatchers, 41 mew gulls, 14 glaucous-winged gulls, 13 surf scoters, 8 buffleheads, 17 sanderlings, 12 American Crows, 1 great blue heron, 4 american widgeons,

4:10 P.M, In the sound between Leo Reef and Bee House. 18 mew gulls concentrated feeding in an area 10' x 6'. 4 or 5 gulls would rise 4' above the group and then dive straight down into water, sometimes completely submerged for 2-3 seconds. If one was successful in capturing a fish, the other gulls would try to take the fish in flight. 3 double-crested cormorants swam and fished among the gulls without interfering with their feeding behavior. 4 arctic loons fed at the periphery of the gull group. 3 red-necked grebe acted curious but did not participate in the feeding activity. These gulls perform this type of activity independent of association with other kinds of birds. They will, however, join groups of cormorants or other fish eating birds that operate in a group formation. 3 common murres fed approx. 150' away.

Observed an immature bald eagle in a tree at the S end of the causeway to Sperry Peninsula.

From above causeway to Humphrey Head counted 81 american robins. No groups of American Crows.

At Bee House, no mule deer yesterday of previous night but this evening a young ♂ + ♀ came to feeder after dark.

Prepared a specimen this evening from Bee House. at Humphrey Head, Lopez Island, San Juan Co., Washington:

870220-1 Cinclus mexicanus hollisteri 178-80-23-19-28 gms. ♂, testes 8mm diameter skinned tail 10 mm from base is 2.3 mm.

Feb 21, 1987

Two bald eagle sighting between 7:00-8:00 A.M. Sky overcast and water calm.

1:00 P.M 18 harbor seal on Leo Reef.

Daughter Mary and I followed beach from Odlin Park to Flat Point. she continued S to Lopez Village along the beach, I returned to Odlin Park and then drove to Village to wait for Mary. For the 1½ mi. distance to Flat Point (between 2:00 PM to 4:30 P.M.) made the following observations: (numbers are totals for the one way trip to Flat Point) 28 glaucous-winged gulls, 53 buffleheads, 13 greater scaup, 1 immature bald eagles, 6 pelagic cormorants. The geoduck (Penopea generosa) are common, on the last ½ 10 miles of trip as we

approached Flat Point, sheels of geoduck average 1 per 3 feet to 1 per 12 feet. and mainly found at low tide level. Oysters rare. Small and large acorn barnacles dominant. Weedlike gastropods localized and then completely covering rock. Limpets 3rd most common. Red featherlike moss extending out irregularly in all directions from central point and found just above low tide level, retractable. Another form non-retractable. Water spouts from marine forms 1 per every four feet near low tide. Rockweed present, also sea lettuce. Eel grass lower tide zone but above water. Few bull kelp. A brown sea anemone size 1/2 dollar and retractable. Only one Pacific henricea (Henricea leviscula). Black Katy chiton (Katharina tunicata) being eaten by sea star (11 inches wide). mussels rare. Many species of unionids or bivalves. Picked Mary up at Village and returned to Bee House. after dark raccoon came to porch feeder and first one in about a month.

Feb. 22, 1987

Bald eagle flew 3 ↑ by Bee at 6:35 A.M.

mammal from Bee House:

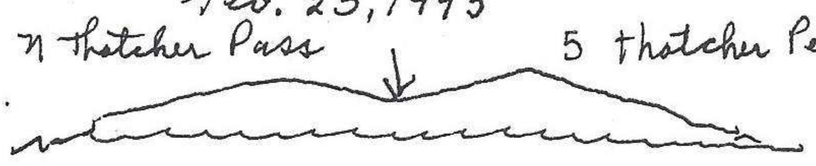
870222-1 Peromyscus maniculatus hollesteri 172-84-22-18-22 gms ♂, testes 7 mm

Spent day on Orcas with Mary and Annette P. At Killebrew Lake: 12 American mergansers, sex ratio 50-50, 8 bufflehead ♂s & ♀s; 2 greater scaup ducks, 2 common goldeneyes. In sound N of East Sound; 1 common loon; 2 Common goldeneyes, 8 bufflehead; 13 glaucous-winged gulls. Continued to top Mt. Constitution where wind from N was cold and snow blowing. Snow only on N side of trees. View intermittent of all surrounding sound. Mary and I hiked from Mt. Lake Campground, down Cascade Creek to Cascade Lake. Continued W side Cascade Lake to N end and then back to campsite on E side of lake. Only bird on trail along Cascade Cr. was an American robin, also a small frog 1 1/4" long on trail. On Cascade Lake 13 common merganser, 181 greater scaup, 12 bufflehead, 1 great blue heron, no gulls, ↑ mule deer tracks uncommon along trail down Cascade Cr and deer trails crossing canyon every 1/2 mile. Returned Lopez Island.

at Bee House mule deer fed after dark.

Feb. 23, 1993

Sunrise 6:28 P.M.



6 bald eagle sightings above Blakely Island between 6:30 A.M. and 7:00 AM. also 2 sightings above Lichen Point.

6:00 A.M to 7:00 AM 40 mew gulls in sound E Bee House, 1 to 15 in air. They fed just above water into wind out of the north.

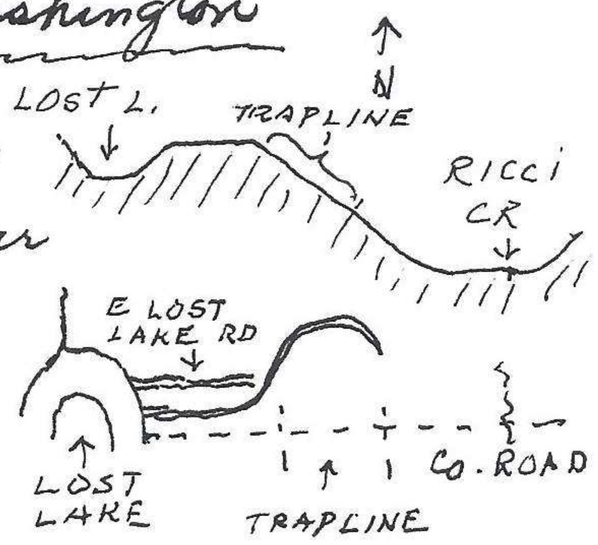
Feb. 24, 1987

14 great blue heron at Humphrey Lagoon.

4/10 mi E, n end Lost Lake, Snohomish Co., Washington

Feb. 25, 1987

From along side of old abandoned county rd at 1/2 way down slope of W side Ricci Valley to near crest of W side valley collected the following mammals from 50 museum special traps set last night (Temp. last night 27°F)



870225-1	*Sorex vagrans*.			123-55-14-8-6.5 gms, ♂ testis 5 mm.
870225-2	*Peromyscus maniculatus*		*hollisteri*	164-83-22-18-16 gms. ♂ testis 16 mm,
870225-3	"	"	"	168-85-21.5-18-16 gms. ♂, testis 8 mm.
870225-4	"	"	"	164-84-21-17-13 gms ♀, ut. normal.
870225-5	"	"	"	181-91-21.5-17-22 gms ♀, suckling
870225-6	"	"	"	158-79-21-17-12 gms, ♀, ut normal.
870225-7	"	"	"	177-87-22-18-18 gms ♂, testis 7 mm
870225-8	"	"	"	181-92-22-18-18 gms, ♂ testis 7 mm
870225-9	"	"	"	180-92-22-18-16 gms ♂ testis 6 mm
870225-10	"	"	"	188-96-21-18-15 gms ♀, ut. normal.

An alder tree in area above had a 6' x 1½' excavation on the NW side of the tree some half way into the center of the tree. Fresh chips covered the ground at the base of the tree out to 2' in all directions.

Left Chris place of E Last Lake Road and drove to La Conner Thousand Trails Preserve. Enroute observed 145 canada geese in field E side Interstate highway at Everett sewage plant NE of town. Continued to T.T. Preserve.

Thousand Trails Preserve (La Conner), Fidalgo Island, Skagit Co., Wa.

Feb. 26, 1987

Birds on preserve: great blue heron, common goldeneye, Barrow goldeneye, american robin, American crow, starling, bufflehead, hooded merganser, double crested cormorant, varied thrush, winter wren,

Bewick wren, chestnut-backed chickadee, golden-crowned kinglet, ruby-crowned kinglet, rufous-sided towhee, Thayer gull, glaucous-winged gull, mew gull, song sparrow, red-breasted merganser, horned grebe, brown creeper, western grebe, surf scoter 5♀7♂, Wilson snipe, sandpiper sp., dark-eyed junco

Left T.T. and drove to State Park on E side Padilla Bay and recorded the following birds: approx 1000 brant in 4 main groups, 33 glaucous-winged gulls, 6 northern pintails, 24 bufflehead, 2 cormorant, 4 common loon, 4 great blue heron, 4 American crows, 42 American robins in one flock, 1 Am. rough-legged hawk, 18 Brewer blackbirds, 41 brown-headed cowbirds and 1 adult bald eagle.

On E side marsh Peninsula (entire) observed: 14 northern pintail, 35 American widgeon, 1 hooded merganser, 1 W. meadowlark 15 brant, 48 glaucous-winged gulls, 1 common raven, approx 800 brant, 4 harbor seal and 24 glaucous-winged gulls associated, 15 Brewer blackbirds, 43 brown-headed cowbirds, 1 arctic loon. white on rear of brant good field mark at distance.

The white wing patch on red-necked grebe is conspicuous at it leaves water.

On W side marsh Peninsula: 483 double-crested cormorants, approx 5000 greater scaup, 247 glaucous-winged gulls, 71 mew gulls, approx 1500 northern pintails, 82 buffleheads, 407 american widgeon, 3 European widgeon, 117 green-winged teal, 14 American robins, 1 song sparrow.

At Anacortes (State) ferry terminal in bay to SW: 1 glaucous-winged gull, 43 mew gulls, 3 Thayer gulls, 3 double-crested cormorant, 1 red-necked grebe, 15 buffleheads, 6 common golden-eyes, 11 American crows, 3 pelagic cormorants, 2 american widgeon, 4 red-breasted mergansers (2♀, 2♂), 2 great blue herons. mew gulls have dusky heads, never pure white and dark around eyes.

Left on ferry 4:00 PM for Lopez. (Censuses incled 1/10 mi each side ferry) adult bald eagle circled above water to E, dropped to water, raised or glided upward to 8' above water, hovered 10 second then left circled again and returned to same spot then left to E. 2 glaucous-winged gulls harassed entire time. 4 mew gulls, 1 common loon, 1 glaucous-winged gull, 1 common loon, 1 red-breasted merganser, 1 glaucous-winged gull, 1 marbled murlet, 2 pelagic cormorant, 4 surf scoters, 1 horned grebe, W Thatcher Pass, 1 glaucous-winged gull, 1 marble murrelet, 1 double crested cormorant. 3 pelagic cormorant, 1 glaucous-winged gull, 13 pelagic cormorants (on floating log), 2 double-crested cormorants. Lopez,

870228-31

Lopez Island, San Juan Co., Wa.

Feb. 28, 1987

4:55 P.m 21 pairs glaucous-winged gulls on territories on Flower Island. Generally distributed.

Feb. 29, 1987

mule deer fed at night at Bee House feeder (9:10 P.m). Snowed first time this winter, covering flat areas and up to 1/4" in depressions.

Bee Estate, Humphrey Head, Lopez Island, San Juan Co., Wa.

Feb 29, 1987 (con't.)

mammal from Bee House captured last night.

870229-1 Peromyscus maniculatus sollisteri 154-73-22-18-18gms. ♂ ct. normal

12:15 P.m. adult bald eagle alighted on top Flower Island. all glaucous-winged gulls left and circling about 1/10 mi over water to E. Another ad. bald eagle on Leo Reef. no birds on reef but 13 harbor seal not concerned about presence of eagle.

1:00 P.m. 1 river otter 20' out from shore swam S past Bee House.

3:00 P.m. Snowed to Bald Bluff on Blakely Island.

Bee Estate, Humphrey Head, Lopez Island, San Juan Co., Wa.

March 1, 1987

mammal from Bee House:

870301-1 Peromyscus maniculatus sollisteri 176-82-23-30-28 gms ♂ testes 12 mm

12:25 P.m observed first Townsend chipmunk this year.

Last 3 days dynamic clouds, snow, but moderately cool. 40°-41°F Today wildly overcast and clearing to blue skies this A.m.

6:30 P.m. Family mule deer at feeder Bee House including: young ♂ 27" high at shoulders, ad ♀ 29 1/2" at shoulders, young ♀, fawn of last year.

Snow 1/2 way mt Constitution of yesterdays snow.

March 2, 1987

Overcast and brisk wind. 8 glaucous-winged gulls hovering in front Bee House using wind.

8 sightings of bald eagles up to 9:00 A.m.

Birds on Swift Bay Low Bank: 18 American Crows, 8 greater scaup, 9 glaucous-winged gulls, 2 bufflehead ducks.

At Swift Lagoon: 18 gadwalls, 3 bufflehead, 14 green-winged teal, 1 killdeer, 8 northern pintails

At Hummel Lake: 4 american coot, 3 bufflehead, 6 glaucous-winged

gull.

Townsend Chipmunk active today

American crows along shorelines but not in fields.

March 3, 1987

Wind all day, occasional rain. On Lee Reef 31 harbor seal and 6 black oystercatcher.

March 4, 1987

52 glaucous-winged gulls on Flower Island and generally distributed. Only to pairs, rest singles.

43 american crows on Bee House feeder (12 sq. feet) 

Townsend Chipmunk at feeder every day since first observed march 1.

From Bee House collected:

870304-1 Peromyscus maniculatus hollisteri 166-77-23-17-23 gms ♂ testis 8 mm in length.

March 5, 1987

From Bee House collected:

870305-1 Peromyscus maniculatus hollisteri 167-76-22-18-22 gms, ♂ testis 7 mm.

2:00 P.M 12 harbor seal and 13 pelagic cormorants on Lee Reef (at low tide)

March 6, 1987

From Bee House collected:

870306-1 Peromyscus maniculatus hollisteri 177-81-22.5-19-22 gms. ♂ testis 9 mm.

3:30 P.M 31 harbor seal and 17 double-crested Cormorants on Lee Reef.

3:45 P.M 1 river otter swam N past Bee House out 20' from shore.

4:20 P.M. 6 common mergansers swam N past Bee House with head to eye level beneath water for 3' to 4'

6:15 P.M first Myotis, wing span approx 5". Temp. 50° F.

6:15 P.M family of deer at feeder.

6:31 P.M Myotis still flying past 3rd story windows of Bee House and water side.

Birds and mammals observed today at Bee House including average range of daily numbers: song sparrow 1 (1-2), purple finch 9 (2-18), rufous-sided towhee 1 (0-2) chestnut-backed chickadee 1 (0-1), dark-eyed junco 13 (8-20), glaucous-winged gull 6 (2-35), bald eagle 2 (1-5), great blue heron 1 (1-2)

hooded merganser 4 (0-4), double-crested cormorant 2 (1-18), pelagic cormorant 2 (1-8), Townsend chipmunk 1. (1-1), eastern gray squirrel 3 (1-6), mule deer 4 (3-5), American crow 12 (6-31), common loon 1 (0-1).

Pileated woodpecker excavated new hole at base of Hollow Cedar (with burned out base).

March 7, 1987

The slate-colored junco race has been observed approx once a week during winter.

Townsend chipmunks are seen daily but only one. Before hibernation 6 were in the area of Bee House.

Day clear and wind from N.

March 8, 1987

6:13 A.M first bald eagle flew S past Bee House
6:17 A.M first american crow arrived from Swift Bay.
6:22 A.M second bald eagle flew S past Bee House
6:25 A.M first glaucous-winged gull
6:32 A.M. 3rd bald eagle flew past Bee House.
6:44 A.M 4th " " " " " "
6:52 A.M sunrise.

Approx 7:00 A.M 2 immature bald eagles circled between Lee Reef and Bee House. They were harassed by 2 glaucous-winged gulls diving to within 4' of eagle. Eagles did not react.

Mule deer in area last night.

Last 2 days Jonathan (a glaucous-winged gull) has knocked on window with bill for food; will feed from hand.

9:10 A.M. First day 2 Townsend chipmunk at feeder.

Note from Doug Stern from POB 340056, Prudhoe Bay, Alaska, 99734. From letter dated Feb. 22, 1987: "now that the sun has returned there's opportunity to spot wildlife. The critters are elusive though. Even the caribou and musk-oxen haven't been showing themselves .... temperatures warmed up to -40°F all the way to -20°F. Could it be that spring is on its way!" "Audi Air has an upcoming contract to radio-collar polar bears ... but have tapped another pilot for that job."

March 9, 1987
via Shaw & Orcas Islands

To Friday Harbor via ferry. Left Lopez island 9:30 A.M. Censes: 8 double-crested cormorants, 21 pelagic cormorants, 18 glaucous-winged gulls,

8 new gulls, 2 red-necked grebes, 2 common loons, 4 marbled murrelets, 2 common goldeneyes, 4 hooded mergansers, 3 common mergansers,

Left Friday Harbor and returned to Lopez Island.

At Hummel Lake noted 4 American coot, 7 buffleheads, 2 common mergansers.

At Surfs Lagoon: 1 killdeer, 6 gadwalls, 3 common goldeneyes

At Surfs Bay Low Bank observed: 17 greater scaup, 3 surf scoters, 18 American crows, 12 glaucous-winged gulls.

March 10, 1987

Mammal collected from Bee House.

870310-1 Peromyscus maniculatus hollisteri 171-75-22-19-24 gms ♂ testis 6 mm.

Last night at dusk a family of mule deer came to feeder. The adult ♀ pelage was reddish in contrast to other 3. All deer constantly alert and stare either toward top of hill to N or toward O'Leary's property. They are not concerned at our presence behind kitchen window although we are only 4' away. This behavior of coming at dark may be related to dogs. Last year the deer remained in the yard the greater part of the day. Their favorate resting place was just beyond Boundary Point but now they spend most of their time N of Joyce Fralics property or beyond.

6:47 P.M. Mule deer family at feeder. High wind causes alertness.

March 11, 1987

1:30 P.M. pigeon guillemot fishing and riding waves approx. 150' SSE Bee House. Wave increasing last 1 1/2 hrs to 20 waves per minute. Glaucous-winged gulls generally leave Flower Island during high winds. Bald eagles displace gulls on Flower Island but the gull return in 10-20 minutes.

2 mule deer, slightly larger than second year deer came to top of cliffs above feeder, started down half way 3 times then return to top. These are the first non-resident deer of this size noticed in a year of observation. They moved N into bench forest at Boundary Point. This group was a different group than the local group and were sharing the territory of the local group.

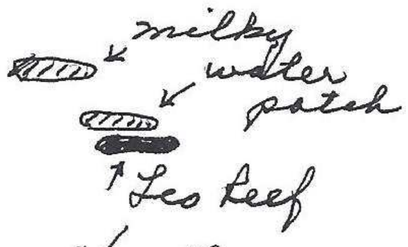
March 12, 1987

7:35 A.M. 1 river otter swam 5 out 30' from Bee House.

10:49 A.M. young ♂ of local family group, 28" high at shoulders,

at shoulders has less brown above eye lids. A fawn measured 26" high at shoulders.

12:10 P.M. Light colored water NW of Leo Reef moved away from new reef and maintained its milky idenity.



March 13, 1987

Collected 3 winged ants from Boundary Point, N Bee House.

870313-1 winged ant.
870313-2 " "
870318-3 " "

March 14, 1987

Denny and Judy Dailey of Lawrence, Kansas arrived.

On trip of Lopez Island note: pigeon guellemat at Richardson's Store; bald eagle in tree at Hummel Lake; 13 gadwalls, 2 bufflehead, 2 northern pintail; at Surft Bay Low Bank, 1 surf scoter, 23 greater scaup, 18 glaucous-winged teal, 1 great blue heron, 12 American crows; at Humphrey Lagoon, 9 bufflehead, 2 great blue heron, 2 canada geese (two sizes), 8 American crow, 2 common goldeneye; 1 river otter swimming S past Bee House.

March 15, 1987

To Friday Harbor, enroute: 5 red-necked grebes, 22 pelagic cormorants, 4 double-crested cormorant, 17 glaucous-winged gulls, 2 common murres, 12 marbled murrelets, 7 pigeon guellemot, 6 surf scoters, 1 bald eagle N end Upright Head, 1 river otter swimming S 20' out from Bee House and 1 varied thrush and 1 harbor seal, 4:30 P.M.

march 16, 1987

On trail, W side Humphrey Head, 2 ruby-Crown kinglets, 1 winter wren, 2 robins.

at Bee House a pileated woodpecker flew S across out Spring Cove, down shore to Round Point.

This A.M. 9 harbor seal on Leo Reef and in afternoon 16 of them.

6 black turnstones on Flat Point.

2:00 P.M. bald eagle circled about 300' above Lichen Point.

3 greater yellowlegs Humphrey Lagoon.

First day deer fed in A.M at Bee House (11:00 P.M)

1 raccoon of Bee House for last 3 days and after dark.

4:14 P.M Immature bald eagle on Rock no 3 on Leo Reef. 4 harbor seal on Rock Nos 4

870317-36

March 17, 1987

10:05 A.M. 2 ♂ mule deer at feeder, largest 33" high at shoulder, smallest 31½" high at shoulder. Both wary and left to top of cliffs (20' away) and returned. Both deer compatible and touched noses. Left N below Joyce Trailes house.

Collected specimens at Bee House:

870317-1 Peromyscus maniculatus hallisteri 182-90-22-18-30gms ♂ testes 10 mm.

870317-2 green wood boring beetle.

6:30 P.M. 160 glaucous-winged gulls on Flower Island, 19 of them in pairs and on territories. Greatest number on N end (high point) of island.

March 18, 1987

7:40 A.M 86 glaucous-winged gulls on Flower Island, 17 of them in pairs on territories. Gull preen feathers after showers.

6 black turnstones on Big Flower Rock N of Flower Island.

Harbor seal past Bee House at 20' from shore.

10:30 A.M. 3 pairs of glaucous-winged gulls nuptial behavior in front of ♀, by bobbing heads and bills upward. males warned off other males that might enter territory.

5 American crows left Leo Reef and flew to Flower Island. They moved among gulls with compatibility.

To La Conner for Chris birthday. Enroute to ferry, 11 buffle-heads at Humphrey Lagoon plus 3 glaucous-winged gulls. On ferry to Anacortes, met informant who had observed 11 bald eagles from Friday Harbor to Lopez ferry terminal. I observed 3 from Lopez Island to Anacortes, on left next on N end Humphrey Head. no harbor seal on Leo Reef. 30 red alders green on slopes S Blakely airports, rest reddish.

After leaving Chris and family at La Conner, Annette and drove Barth to La Conner, Thousand Trails Preserve where we stayed for 2 night.

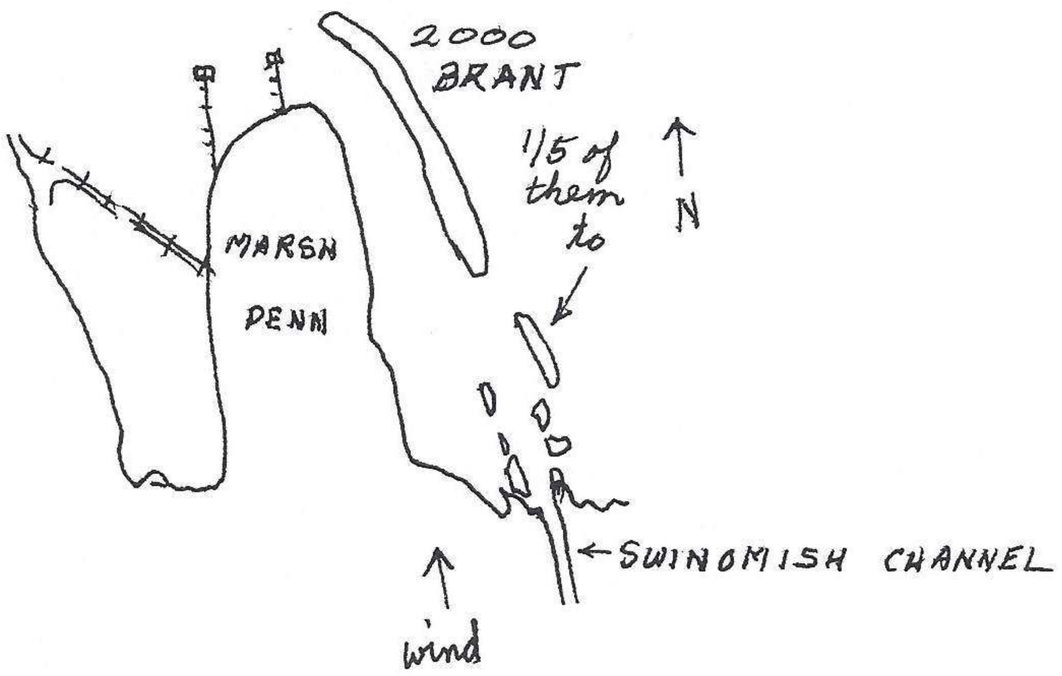
March 20, 1987

Birds observed at Preserve: (La Conner Thousand Trails Preserve, Fidalgo Island, Skagit Co., Wa.). At Lone Tree Peninsula:
56 greater scaup, 5 Barrow goldeneyes, 9 common goldeneyes, 1 common loon, 18 surf scoters, 2 white-winged scoters, 6 glaucous-winged gulls, 8 American Crows, 23 American widgeons, 2 European

widgeons, 3 horned grebes, 2 song sparrows, 21 bufflehead, 1 marbled murrelet, 8 dark-eyed juncos, 1 Bewick Wren, 1 robin.

From trapline from understory of Douglas fir and red cedar along sound, dominated by salal:

870320-1 Peromyscus maniculatus gallisteri 181-90-21-17-20gms ♀, ut. enlarged.
870320-2 " " " 169-78-21-17-21 gms ♂, testis 9 mm.
870320-3 " " " 158-72-20.5-18-17 gms ♂, testes 9 mm
870320-4 " " "
870320-5 " " "



Check marsh Peninsula: Between two pipelines over water observed
2 mallards
120 greater scaup
98 Common goldeneyes
6 glaucous-winged gulls
6 surf scoters
6 pairs (in addition to above) glaucous-wings, performed nuptial behaviorism, bending over, opening mouths and bobbing head.

One west side of marsh peninsula (low tide) N of R.R. causeway were: 1 great blue heron, 45 american widgeon, 32 bufflehead, 31 greater scaups, 2 common loon, 4 mallards, 3 double crested cormorant, 1 robin, On S side R.R. causeway, 120 mew gulls, 18 glaucous-winged gulls, 2 great blue herons, 24 greater scaup, 17 northern pintail, 85 american widgeon, 120 dunlins.

Some thoughts on cycling on Lopez.

A. Cycling is a physical for of exercise and recreation. One cannot properly see the island, write notes or use binoculars. It would be better to see the varies segments of the country by walking on trails thru these segments.

B. Cycling on highway is dangerous espeecally for children.

C. side of road collects, rocks, dust, debris and create hazards

D. Walking trails and cycling combined have been proven dangerous.

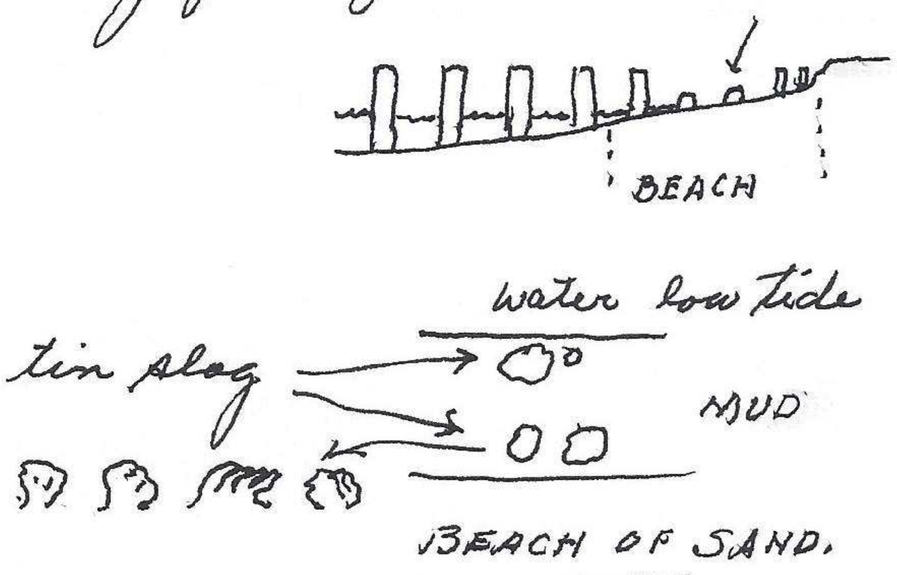
E. Cycling trails paralleling roads creat a stop sign for every entrance to a highway.

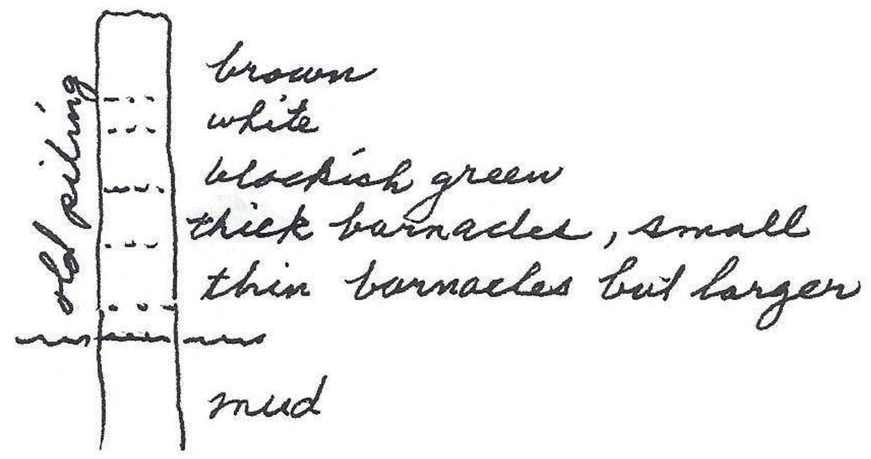
F Off road cycling causes extensive damage to soil and plants.

G. From cycle trails to separate motorcyle, skateboard, rollerskates, jogging, small vehicle, bicycle, propeller driven carts, etc, trails. walking is definitely the best way to go.

870320-38

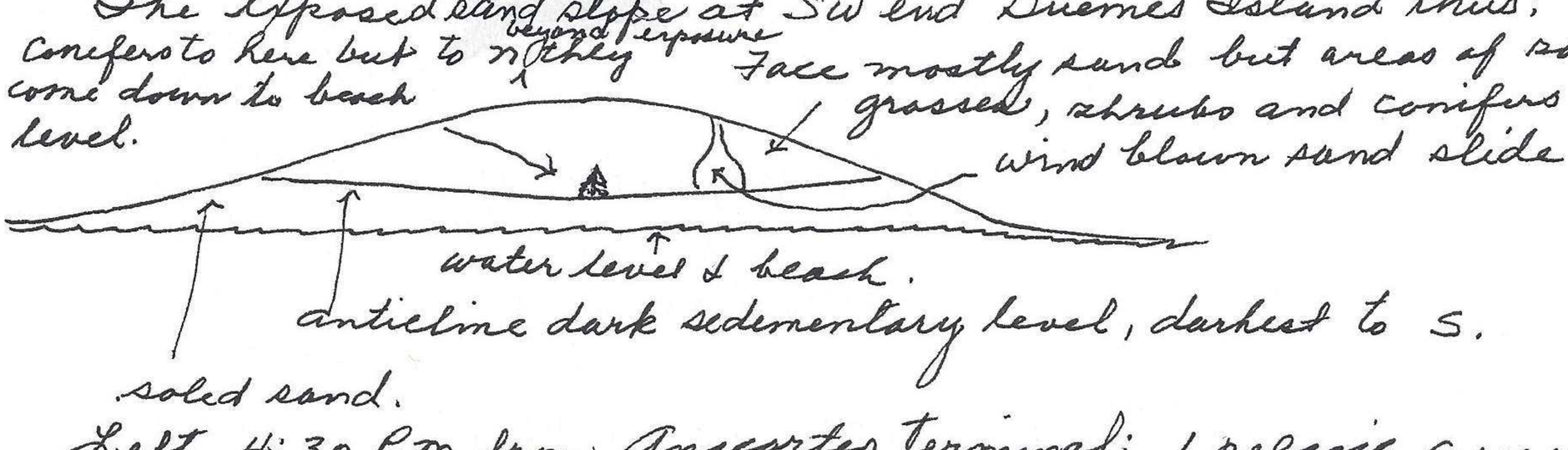
at Anacortes ferry terminal at head of bay to SW mapped piling of old canning factory. covered with rock weed.





In area three song sparrows, 1 killdeer, 16 American crows, among piling, 106 mew gulls on mud at edge of water and in one close group, 12 glaucous-winged gulls generally distributed. In bay beyond, 3♀ and 1♂ greater scaup, 5 common goldeneye, 3 great blue heron, 2 bufflehead. One glaucous-winged gull dropped a clam from 30' four different times. Each time the clam was dropped the gull alighted and picked up kelp surrounding the clam. On the fourth try a mew gull approached the glaucous-wng gull for the clam but the glaucous-winged gull displaced the approaching mew and continued with clam into the air,

The exposed sand slope at SW end Guemes Island thus:



Left 4:30 P.M from Anacortes terminal: 1 pelagic cormorant, 11 mew gulls. Moving propeller water effective 200' beyond moored boat. The profile of sand deposit above. 2 pods 18-24 of mew and glaucous-winged gulls congregated for fishing in localized area. Birds across Rosario Straits: 1 pelagic cormorant, 4 mew gulls, 1 pelagic cormorant, 2 glaucous-winged gulls, 1 pigeon guillemot, 2 glaucous-winged gulls, 3 group glaucous-winged gulls (1, 1, 13) Pointer Island covered with gulls, 1 per every 3-4 feet, no gulls in channel, 3 pigeon guillemots, 1 double-Crested Cormorant. W end Thatcher Pass 4:47, glaucous wng gulls 1, 1, 1, 1, 1, 1, Willow Island, pigeon guillemot, no harbor seal on Leo Reef, 1 marbled murrelet, bald eagle circling above eagle nest N end Humphrey Head, 2 glaucous-winged gulls, 1 pelagic cormorant, 1 pelagic cormorant. Arrive Lopez Island terminal 5:04 P.M.

870321-39

March 21, 1987

From Bee House:

870321-1 Peromyscus maniculatus keeleri. 175-76-22-20-35gms ♀ suckling.

12:30 P.M 2 bald eagles circling to N of Bee House.

1 river otter past Bee House at approx 12 feet from shore.

2:00 P.M Low tide

At Swift Bay High Bank to Humphrey Head along beach: 2 great blue herons, 18 glaucous-winged gulls, 3 bufflehead, 11 american Crows, 2 common goldeneye, 150 mew gulls

At Humphrey Head Lagoon: 6 ♂ & 6 ♀ (paired), 2 great blue heron, 1 common goldeneye, 8 American Crows.

At 100' N Grace Episopal Church on Lopez Island a horizontal log on ground had 3 holes (fresh) of pileated woodpecker, also 10' of bark striped of bark.

At Bee House 2 river otter past Bee House. They were approx. 12 feet from shore (low tide).

March 22, 1987

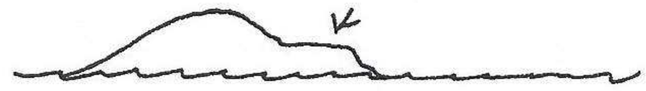
At Swift Lagoon: 28 gadwalls, 6 mallards, 2 green-winged teal, 1 greater yellowlegs.

no mule deer at feeder last night. Raccoon on porch feeding on corn.

March 23, 1987

To Friday Harbor on San Juan Island by ferry. Enroute observed: 12 pelagic cormorant, 2 immature bald eagles at Upright Head, 4 glaucous-winged gulls, 3 mew gulls, 1 pigeon guillemot, 1 common loon, 1 pelagic cormorant. Shaw Island, 2 pelagic cormorant, 1 double-crested cormorant, 3 red-breasted mergansers, 9 glaucous-winged gulls, adult eagle N side Shaw Island. Oreas Island, ad bald eagle S side Oreas Island, bufflehead, 3 pigeon guillemot, 4 pelagic cormorant, 8 glaucous-winged gulls. Arrived Friday Harbor 11:00 A.M. no gulls at terminal. Left Friday Harbor, 6 harbor seals Turn Island, no bird to SW Flat Point then between here and Flat Point: 250 surf scoters, 18 dauble-crested cormorants and 9 pelagic cormorant. From Flat Point to Odlin Park 121 surf scaters, 12 Cormorants sp.? generally distributed. then no birds to Upright Head. From Upright Head to Shaw Island ferry terminal, 2 groups (123-88) surf scoters.

Island W Shaw (Blind Island). same old benchland profile as Flower Island.



870324-40

March 24, 1987

9:10 A.M 1 river otter swam S 8' from shore below Bee House

3:20 P.M 2 adult bald eagles in top 30' bushy tree, 40' ESE Hummel - Port Stanley roads.

6:15 P.M 1 river otter fished among candlefish in 50'x50' area Great blue heron captured fish from Round Point.

Beautiful calm day.

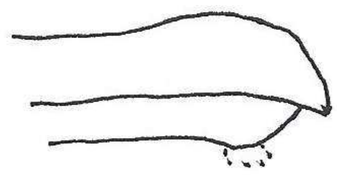
3 mule deer fed in open space top Bold Bluff on Blakely 45" before sunset.

March 25, 1987

Overcast. at 5:45 A.M first bald eagle 60' above water and 40' out from Lichen Point. 5:55 A.M. second bald eagle as above.

Between 5:45 A.M and 5:55 A.M. 5 glaucous-winged gulls past Bee House, 2 from S, 3 from N. (100' out from shore and 60' high. Gulls continued to pass at 1 per 10 min, until at least 8:30 A.M.

Collected beetle from under bark of Douglas fir tree at Bee House, 870325-1 green metalic beetle.

Bill of glaucous-winged gull  may be adapted to localize saliva that continuously develops from bill on lower point of lower mandible that would otherwise run down neck onto feathers.

March 26, 1987

mammal trapped from Bee House:

870326-1 Peromyscus maniculatus rolbsteri 150-68-22-19-13gms

9:30 A.M. first rufous hummingbird this year.

9:37 A.M. northern violet green swallow and first this year. at Hummel Lake. 3 pairs buffleheads at Humphrey Lagoon.

To La Conner Thousand Trails Preserve, Skagit Co. for night in motorhome. From camp at S end park observed:

Brandt cormorant
double-crested cormorant
red-necked grebe
horned grebe
mew gull
glaucous-winged gull
belted kingfisher
American robin
song sparrow
rufous-sided towhee
American crow
great blue heron
American wirdgeon
common goldeneye
Barrow goldeneye
surf scoter
white-winged scoter
bufflehead
common loon
imm. bald eagle.

winter wren
Bewick wren
dark-eyed junco (Oregon race)
Chestnut-backed chickadee
horned grebe
starling
red-breasted nuthatch
pileated woodpecker
downy woodpecker
red-breasted merganser
thayer gull

March 27, 1989

Thousand Trails Preserve. a belted kingfisher left Lone Tree Peninsula on preserve and flew across channel 1 foot above water and then as it approach Hope Island flew 45° upwards to conifer tree near top of island where it was immediately displaced by another belted kingfisher that came from atree on top of the island. The first kingfisher dropped to a boulder on beach below.



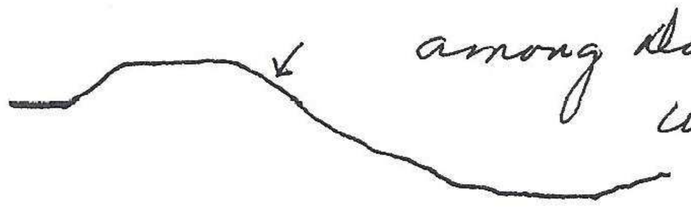
3 Barrow goldeneyes fed in 1 foot deep water. Part of the bodies of the ducks were out of water and surface of water in continuous motion.

Continued to Chris i t Last Lake, in Snohomish Co.. Set 50 mus. special traps & down slope from her property.

1500 ft E and 700 feet N of N end Last Lake, Snohomish Co., Wa.

March 28, 1987

From traps set last night among Douglas fir and cedar trees and hemlock with understory of brush and supersaturated soils and grassy open-



ings caught the following mammals:

check for 18 ♀ on skins

870328-1	Peromyscus maniculatus	sollistei		182-90-21-18-23 gms ♂
870328-2	"	"	"	164-83-22-17-17 gms ♀
870328-3	"	"	"	173-90-21-17-22 gms ♂
870328-4	"	"	"	188-103-21-17-20 gms ♀
870328-5	"	"	"	170-88-21-17-19 gms ♀
870328-6	"	"	"	188-101-23-20-20 gms ♂
870328-7	"	"	"	183-93-21-19-18 gms ♂
870328-8	"	"	"	158-78-20-17-17 gms ♀
870328-9	"	"	"	182-88-21-17-17 gms ♀ ut. vasculariged
870328-10	"	"	"	187-101-21-18-17 gms ♂ testis 7 mm
870328-11	"	"	"	188-101-21.5-19-14 gms ♀ ut normal, left rear foot deformed.
870328-12	"	"	"	164-79-21-18-13 gms. ♀ ut. normal.

150 ft E and 700 ft N end Lost Lake, Snohomish Co., Wa.

march 29, 1987

mammals from same area of march 28, 1987 but in more grasses and sedge in slope marshland but still opens among Conifer forest. Fresh microtine droppings.

870329-1	Sorex vagrans vagrans	124-57-15-9-6.8 gms ♀ ut. normal.
870329-2	" " "	108-41-13-8-7 gms ♂ testis 7 mm.
870329-3		101-32-13-8-4.8 gms ♀ lactating.
870329-4	" " "	[88]-[17]-12.5-8-7.2 gms ♂, testis 5.5 mm
870329-5	Peromyscus maniculatus hollisteri	201-100-22.5-19-18 gms ♀
870329-6	" " "	171-91-22.5-18-15 gms ♂
870329-7	" " "	173-88-22-19-19 gms ♂
870329-8	" " "	168-82-21-18-14 gms ♀
870329-9	" " "	157-72-21-18-12 gms ♀

march 30, 1987

Left Chris for La Conner Thousand Trails Preserve. at pond at NE Fales and Elliott roads in Snohomish Co., observed 6 green-winged teal, 42 american widgeon and 23 mallards.

From dike SW of Fir and maurpin road in bay to W. observed: 2 trumpeters swan, Apprx 3000 mallards, 6 snow geese and apprx 300 American widgeon and 3 Eurosian widgeon. also apprx 300 glaucous-winged gulls.

at Thousand Trails Preserve at La Conner, Skagit Co., observed the following birds in the afternoon:

American robin
starling
song sparrow
Bewick wren
winter wren
rufous hummingbird
dark-eyed junco
chestnut-backed chickadee
northern flicker
ruby-crowned kinglet
pileated woodpecker
red-breasted nuthatch
bald eagle
purple finch
great blue heron
belted kingfisher
American crow.
rufous-sided towhee
bushtit
surf bird
double-crested cormorant
Brandt cormorant ?
pelagic cormorant
common loon
common goldeneye
American wordgeon
horned grebe
red-necked grebe
western grebe
marbled murrelet
brant
glaucous-winged gull.

white-winged scoter
surf scater
greater scaup
bufflehead
red-breasted merganser
red-tailed hawk
Bonaparte gull
black turnstone
belted-kingfisher
English sparrow.

There were 23 western grebes along riptide NW and W of Lone tree peninsula.

March 31, 1987

On rocky beach at water edge S of Lone Tree Peninsula noted 47 black turnstone and 2 surfbirds with complete compatibity surfbirds are noticeably lighter colored (sandy). also they are larger and yellow legs contrast against black legs of black turnstone. Bill of surfbird slightly larger. Both turnstones over. In flight tail of surfbird has triangle black pattern. Call of black turnstone high pitched continuous slurred call. 2 belted kingfishers left Lone Tree Peninsula and flew across Channel to low trees on Hope Island.

Currents (tide) recede faster than on Lopez Island.

Two glaucous-winged gulls alighted top piling in Lagoon (Lone Tree), one left and the other turned around several times with head pointed down and then squatted down, much as a dog will turn several times before lying down.

Starling carrying fine vegetation to nesting tree.

Left for Anacortes ferry terminal. Left on ferry 11:10 AM and as usual will keep complete census as observation is made:

1 pelagic cormorant
2 glaucous-winged gulls
1 pelagic cormorant
1 Common loon
2 glaucous-winged gulls
8 surf scoters
1 big dark gull ?
1 mew gull
1 pelagic cormorant
2 Bonaparte gulls
1 pelagic cormorant
2 glaucous-winged gulls
2 marbled murrelets
4 red-breasted mergansers
approx 300 glaucous-winged
usual number gulls on Pointer Island
1

Riptides on both side of Rasario Straites.

870331-44

Pointer Island has white exposure on S side. West end Thatcher Pass at 11:31 A.M. 2 pelagic cormorants, marbled murrelet, western grebe, marbled murrelet, 2 surf scoters, 4 harbor seal on S side of Leo Reef, 4 on top, line of debris 1/10 mi. E Leo Reef; no bald eagles on nest N end Humphrey Head, 2 red-necked grebe, 1 pelagic cormorant, 2 red-necked grebe, 2 glaucous-winged gulls, 6 pelagic cormorant, 3 glaucous winged gulls at Lopez Island ferry terminal. Arrive Lopez Island 11:48 A.M.

At Bee House a glaucous-winged gull called continuously from Flat Point and in air for 3 minutes at 1 call per second

Bee Estate, Humphrey Head, Lopez Island, San Juan Co., Wa.

April 1, 1987

4:00 P.M. 2 adult bald eagles in Douglas fir tree above Lichen Point. During day only an average of 15 glaucous-winged gulls on Flower Island. In the evening, 5:35 this date, 102 on island. 5:40 P.M 2 glaucous-winged gulls called continuously for 3 minutes on feeding tray at Bee House.

40 red alders on Blakely now yellow and are 60% of trees on slope above SE, S end runway.

6:18 P.M Adult bald eagle eating fish on Leo Reef beacon.

April 2, 1987

Photo 870402-1, 870402-2, 870402-3 and 870402-4 of colored clouds before sunrise over Blakely Island from Bee House. Water almost mirrorlike preceding.

6:02 P.M. Immature bald eagle on Leo Reef beacon with one American crow 4" away on plateform below. Crow left beacon and flew to rocks below and search for food. 20 minutes later 3 more crows arrived, 2 to reef below and 1 to plateform of beacon 4" from eagle. This crow finally dropped to reef and fed with other 3 crows. The eagle remained on beacon until at least 6:44 P.M, the crows having left 10 minutes before. No other birds on Leo Reef except the Crows while the eagle was there.

Continuing this A.M at 6:10 A.M, a ♀ rufous hummingbird passed by Bee House. Also an orange-crowned warbler flew into wind. The warbler measured 119 mm total length.

6:20 A.M. 17 harbor seal Leo Reef, 5 on Little Flower Rock.

6:21 A.M. 115 glaucous-winged gulls on Flower Island. These numbers are for area of Flower Island that is exposed to Bee House and is more than 1/2 area of the island.

6:40. adult bald eagle flew past Bee House. The eagle was 60' above the water and 40' from house.

7:01 A.M 4 American crows flew from Bee House to Leo Reef and then after 21 min later flew to Flower Island. nearly all crows return to Surft Bay beach from Bee House.

10:05 A.M 3 ♀ rufous hummingbirds at feeder at Bee House.

10:15 A.M adult ♀ and fawn mule deer at Bee House feeder, left and returned 20 mins later. After feeding again the walk north to old beach level which they had ignored most of winter.

11:30 AM - 12:00 P.M observed group birds in a cooperative fishing maneuver in n Lopez Sound between Bee House and Leo Reef. The activity was in approx 40' diameter area. The interaction was as follows: 18 rhinoceros aucklets, 13 red-necked grebe, 8 mallards (paired), 4 pelagic cormorants, 2 common murres (kept together), 2 pigeon guillemots (kept together), approx 85 glaucous-winged gulls, 2 harbor seals. The glaucous-winged gulls in concentrated area of 30' x 12' feet. Their action was continuous, some gulls rising 3-7' then diving straight down and in most cases completely submerging themselves. Other species oriented themselves in regular pattern. The cormorants swam thru mass of gulls and dove. The rhinoceros aucklets swam from center of gull activity to outer edge of gulls. Red-necked grebes swam mainly beyond gulls, but occasionally into gull area. Pigeon guillemot and common murre out 20'-30' and seldom closer. Marbled murrelet seldom closer than 50'. and rarely diving. In 10 minutes the gulls formed a loose aggregate without diving or feeding and finally dispersed, most or 95% flew to Flower Island from which they came. The diving birds moved in loose formation toward Leo Reef Rocks 10 and 11. and after 20 minutes dispersed in several directions. The rhinoceros aucklets retain group formation and swam n. The entire action took approx. 25 minutes and moved with tide currents. After the approximately 85 gulls that came from Flower Island left the island, 17 remained gulls on Flower Island.

12:00 P.M 24 harbor seal on Leo Reef and 5 on Little Flower Rock. The winter plumage of pigeon guillemot make them appear lighter than the other alcids.

12:05 first male rufous hummingbird this season, at Bee feeder, previous sec were ♀.

12:45 ♂ rufous hummingbird returned to feeder

12:46 first butterfly of season, a small whitish moth 3 weeks earlier. It was 1 1/2" wing spread and light brown

4:00 P.m. First band-tailed pigeon this year at Bee feeder.

6:00 P.m. 2 new mule deer at feeder, a last year ♂ with antler base sear, and an adult female. Both wary.

6:30 P.m rufous hummingbird at Bee feeder at 20' intervals all day.

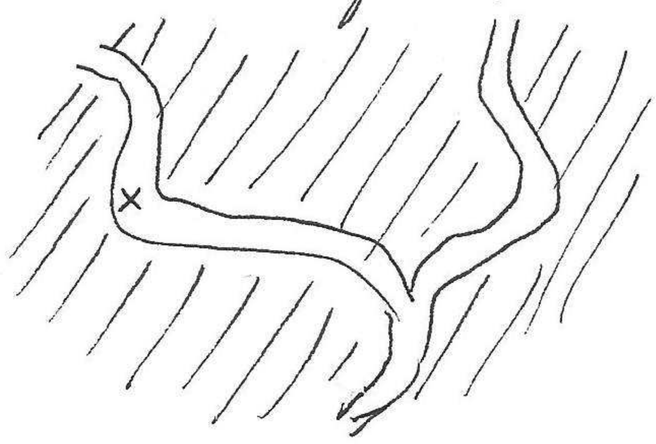
6:35 P.m. There are fewer aquatic birds in n Lopez Sound this time of day than this A.m.

April 3, 1987

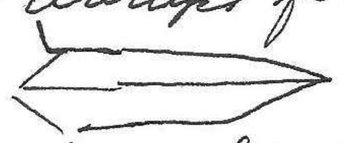
Fish in n Lopez Sound, most commonly in boat lane segment from 6:00 AM to 6:30 A.m. Generdl surfacing every 50' NE Bee House.

6:30 A.m. 2 groups of fish churning water approx 50'×20' with occasional flipping of tails in same area as above. a large harbor seal with more body elpased than other harbor seal continuously fished by diving and resurfacing in the raft of fish. There were 13 glaucous-winged gulls associated but no other birds, so seal can maneuver fish balls to surface.

When a gentle wind blows over mercurlike surface, smooth channels remain x



Between 6:00 and 6:15 A.m approx 38 surf scoters moved S to Swift Bay. This is a usual movement of these birds in early A.m. In evening an equivalent number moves N, flying a foot or so above the water,

The sharp angle of lower bill and abrupt forehead of common loon is a good field identification , also the loon keep head half exposed  for viewing under water. This loon dove 42 times then left the area in front of Bee House,

3:30 P.m. Adult bald eagle on S shore of pond at SE of junction Port Stanley-Cross roads. It left to S and was carrying an object that was heavy enough to cause defficuelty gaining altitude.

At Swift Lagoon: 13 green-winged teal, 4 greater yellow-legs, 24 godwalls, 23 northern shovellers, 2 mallards, 1 killdeer.

April 4, 1987

Cloudy, fog over Blakely Island, water uneformily ruffled but no waves.

5:58 AM, first bald eagle flew S past Bee House. As usual it flys approx 60' above water and 40' out over water from Bee House.

6:01 AM 2 adult bald eagles and 2 immature bald eagles flew S past Bee House, destination SW Swift Bay shoreline.

7:04 A.M. Glaucous-winged gull fed on dead gull of same species in N. Lopez Sound between Bee House and Leo Reef. An adult bald eagle swooped down and took the dead gull which was fragmented out of the water. An immature bald eagle challenged the adult in a 1/10 mi. pursuit.

7:05 A.M. 3 bald eagles fly N past Bee House, one on Leo Reef beacon.

April 5, 1987

Beginning daylight saving time (advanced clock 1 hr.).

7:00 A.M. A fishing group of 18 glaucous-winged gulls, 21 rhinoceros auklets, 5 pelagic cormorant, 2 marbled murrelets and 2 common loon participated as a unit. Gull formed compact group with other aquatic birds moving thru the gulls or near them. A harbor seal entered the group and all gulls left and circled 20' above. The alcids & cormorants dispersed but remained adjacent the 100'x100' fishing zone. Three minutes later the gulls left and the diving birds moved S, some 200' where they remained for 20 min. as a closed group of 23 rhinoceros and 3 pelagic cormorants. The loon and marbled murrelets left the area.

No mule deer at feeder since last recorded.

1:30 P.M. 18 harbor seal on Leo Reef 8 dark, 10 light.

O'Leary on S side Spring Cove on Humphrey Head, made seven trips in and out of Spring Cove during the day. Moors boat at head of cove.

April 6, 1987

6:45 A.M family of mule deer at feeder at Bee House. young ♂ of last year 29" high at shoulder, fawn, 26" at shoulder. Left to N along beach-land.

6:48 A.M. 11 harbor seal on Leo Reef.

6:49 A.M Usual number glaucous-winged gulls on Flower Island. Same general group of gulls, cormorants and alcids SE Bee House. out 300'.

From Bee House Collected:

870406-1 Peromyscus maniculatus kalisteri 190-81-22-20-32gms ♂ Testis 10 mm diameter tail at 5 mm below attachment to body and skinned 4.2 mm.

870407-48

April 7, 1987

Collected following mammal from Bee House.

870407-1 *Peromyscus maniculatus kalloteri* 154-68-22-A 13gms ♀ ut. normal.

April 8, 1987

To La Conner Thousand Trails Preserve: Left Lopez Island 10:06 A.M. Ad. bald eagle on nest N end Humphrey Head. 52 glaucous-winged gulls on E side Flower Island. 1 harbor seal Les Reef. Wind from S. Water greenish, whitecaps. No other birds observed except 20 gulls (glaucous-wing) enroute.

April 9, 1987

From camp site 164 at S side T.T. Preserve observed in 1/2 hr. this A.M:

1 black oystercatcher, 1 marbled murrelet, 8 glaucous-winged gulls, 3 common loons, 5 Barrow goldeneye, 2 common goldeneye, 6 American raven, 18 surf scoters, 4 horned grebe, 1 western grebe, 3 bufflehead, 5 pelagic cormorants, 2 double-crested cormorant, 1 American robin, 2 American widgeon.

Left T.T. and to Anacortes. Left there at 5:20 P.M and census birds enroute to Lopez Island: 1 pelagic cormorant, 2 pigeon guillemot, 1 common loon, 5 buffleheads flew by, 6 pigeon guillemots, 1 red-necked grebe, 1 common loon, 1 common loon, 6 pigeon guillemots, 1 common loon, 1 pigeon guillemot, 1 rhinoceras auklet, 3 pelagic cormorant, 2 rhinoceras auklets 1 glaucous-winged gull, 2 rhinoceras auklet, 14 rhinoceros auklet, 8 Bonaparte gulls, 1 glaucous-winged gull, middle Rosario Straits. Pelagic cormorant, 1 glaucous-winged gull, W end Thatcher Pass, 1 rhinoceras auklet, 1 western grebe, 12 rhinoceros auklet, 2 pigeon guillemot, 2 glaucous-winged gull, 1 double-crested cormorant, 1 common loon, 1 pelagic loon, 1 pigeon guillemot, 4 pelagic cormorant, 4 pelagic cormorant, 2 double-crested cormorant. Arrive Lopez Island.

While on mainland observed 1 red-tailed hawk at junction 20 and road to La Conner and 1 SE Anacortes where high cliffs are covered with netting to hold rocks from falling onto road.

At Humphrey Head marina, 1 great blue heron, 1♀ 1♂ bufflehead, 1 red-breasted merganser. Home at 6:09 P.M.

870410-49

April 10, 1987

The number of glaucous-winged gulls sailing in front Bee House is proportional to velocity of wind blowing from S.

9:00 A.M, second appearance of band-tailed pigeon to Bee feeder, this season.

Trip to Lopez Village: at Swift Lagoon: 14 green-winged teal, 1 greater yellowlegs, 3 American wedgeon, 25 godwalls, 1 belted Kingfisher, northern violet green swallows every 30' above water surface

12:00 P.M 25 glaucous-winged gulls, 2 Canada geese and 2 american crows on Flower Island.

12:10 The the above crows left Flower Island and flew directly to feeder at Bee House, in fact it alighted on feeder. 2 great blue herons left shore below Bee House and flew S.

12:15 P.M. 35 glaucous-winged gulls on Flower Island, 3 of them were paired. Second visit of band-tailed pigeon to Bee feeder this season. No harbor seal on Leo Reef.

1:30 P.M. An immature bald eagle circled upward approx. 300' E Bee House and then flew and sailed straight to Blakely Island (above fault line).

Two immature bald eagles circled over nw end of peninsula in Barlow Bay W of junction Aleeks Bay Road and Mackaye Road. 42 bufflehead in Barlow Bay.

2 immature bald eagles circled 300' high 3/10 mi N of Lopez Village.

At Swift Lagoon: 8 greater yellowlegs, 18 godwalls, 14 green-winged teal, 2 common mergansers, 1 great blue heron.

6:05 P.M 1 river otter swam N from Lichen Point, put-out Flat Point, walked to Dissected Point and put-in, and swam N where it met 3 other otter swimming S. The otter going N caught a Pacific staghorn sculpin. Leptocottus armatus. Two of the otter going S turned and followed 2 feet away from the otter and its captive fish, but neither challenged for the fish.

6:10 P.M Immature bald eagle circled above Lichen Point then flew to dead tree on Joyce Fralic property.

April 11, 1987

8:40 A.M. river otter swam S in front of Bee House.

April 12, 1987

4:35 P.M mule deer at feeder. young ♂ measured 29 1/4" high at shoulders.

Observed 3 harbor seals swimming together this evening, usually 2 and more commonly 1, seldom 4 or more in one group.

River otter swam N around Lichen Point to Flat Point then returned, swimming continuously.

At dusk a marbled murrelet swam 20' out from shore in front of Bee House.

At dusk family of mule deer at feeder. Fawn of last year with new hair on forhead and a sharp contrasting dark line 1/2 way along midline of back. Ad female with 4/5 of ears from tip in new hair ~~new~~ new hair, especially on back

April 13, 1987

9:05 A.M 9 harbor seal Leo Reef. No seal Flower rocks.

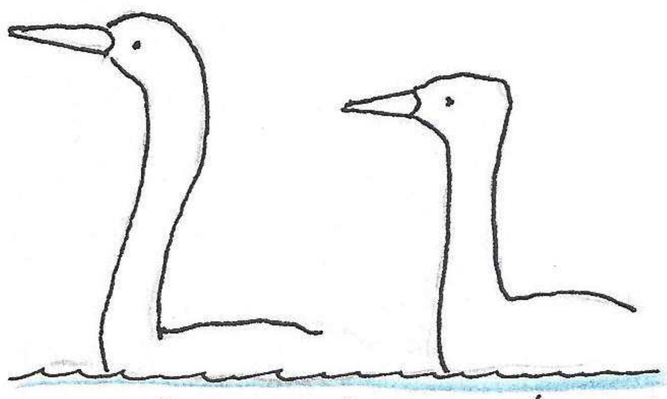
10:10 A.M river otter swam continuously N from around Lichen Point to and beyond Bee House. Average distance from shore 6' feet.

On trip to Lopez Island Village observed. (12:00 P.M). single black oyster catch, at Iss C. 1, turkey vulture circled overhead. Horned grebe (summer pelage) Swift Bay. Pond SE junction Cross and Port Stanley roods 8, 1 (1 race summer pelage) cinnamon teal, 2 buffle-heads. Swift Lagoon, 26 green-winged teal, 7 northern shovellers, 7 gadwalls. Swift Bay Low Bank, 48 mew gulls. Humphrey Head Lagoon, 2 bufflehead, 1 red throated merganser. In front Bee House, marbled murrelet and 1 pigeon guillemot, both in summer pelage.

2:25 P.M. River otter swam N around Lichen Point to Flat Point, then reversed direction and swam back to Lichen Point as did an otter yesterday but today instead of swimming SW into Swift Bay it turned and swam 1/3 way to Flower Island, thence turned abruptly SW into Swift Bay. From Lichen Point, it swam for 12 min. continuously without hunting toward Flower Island

2:45 P.M. River otter swam past Bee House and continued along shoreline to Lichen Point and beyond. It took 5 minutes to reach Lichen Point.

Norm and Joyce Lund of Humphrey Head said they have witnessed bold eagles catching fish. 2 brown rats at their home and first observed 2 weeks ago. He shot both of them. An adult bold eagle circled and dived at a pelagic cormorant 20 times until cormorant became exhausted at which time the eagle captured the cormorant. The eagle dropped the cormorant as the eagle alighted in



western grebe red-necked grebe

in a tree at the shoreline. 2 adult and 2 immatures regular visitors at his home on NW corner Swift Bay. One adult eagle captured a harassing gull in air, dropped with gull to water, then swam with gull 300' to Flower Island, where the eagle pulled the gull onto shore, dried its feathers (the eagle) and then left without eating the gull. One bald eagle dropped to water with a captured gull then used the gull as buoyancy for taking off into air. 2 young domestic Exotic rabbits at his place. Lund bought his property 25 years ago for 5,000, now worth 90,000.

8:25 P.M. to late dusk a 3" long bat fed in air in front Bee House.

April 14, 1987

Day cloudy, some blue sky.

Collected following mammal at Bee House;

870414-1 Peromyscus M. Gallisteri 170-76-22-19-26 gms, ♂ testis 10 mm

To Friday Harbor via ferry: Left 9:55 A.M. Can see bald eagle on nest N end Humphrey Head. 10:05 Shaw Island, 5 glaucous-winged gull evenly spaced N side Shaw, 2 pigeon guillemots, 5 pelagic cormorants on Shaw Island piling. 7 western grebes in Shaw Bay. Gulls not nesting on piling at Shaw Island this date. Crossed channel to Orcas. Left Orcas 10:00 A.M. 8 glaucous-winged gulls following boat (do not include incensing gulls that follow boat), 1 pigeon guillemot, 2 glaucous-winged gulls on shore. As N side of Shaw as we pass E up Harney Channel, 20% madrona in full blossom, yellowish white, along N side 3 separate pigeon guillemots, 4 red-necked grebes together, 1 single red-necked grebe and 1 immature bald eagle in tree near shore 1/2 way N shore Shaw Island. Birds in Upright Channel (and as always 200' out from ferry on one side), pelagic cormorant, 2 glaucous-winged gulls. Flat Point 10:42 A.M, 2 pelagic cormorant, no birds in San Juan Channel. Friday Harbor. a Thamnophis (blue stripes) in side street N town. Left Friday Harbor, 1 common murre, 6 pigeon guillemot. Shaw Island ferry terminal, 1 common loon, 2 pigeon guillemot remained side of ferry 150' as we entered Shaw Island terminal. Left Shaw Island, 1 common loon, 1 surf scoter, 1 common loon, 6 separate glaucous-winged gulls. To Orcas, thence Lopez Island.

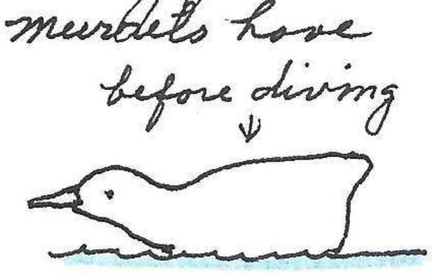
at Swift Lagoon: 1 great blue heron, 2 mallards, 2 gadwalls, 2 green-winged teal, 1 cinnamon teal, 1 bufflehead, 4 northern pintails, 1 killdeer, 1 greater yellowlegs. At Swift Bay Low Bench: 42 mew gulls, 11 surf scoters, 8 glaucous-winged gulls, 13 American crows, and other birds.

870414-52

6:30 P.M 1 river otter swam past Bee House to S.

7:00 P.M while I fished from Boundary Point a river otter swam N. 2' from shore and 5' feet from me. 10 feet beyond it recognized me and twice stood up in water as high as it could, then lowered itself in water and with a loud splash disappeared under water. Usually they have a sharp whistle call when surprised.

marble murrelets just before diving place head low in water then dive, murrelet in winter pelage, murbets have rear high
2 white patches on side of body





6:00 P.M. 83 glaucous-winged gulls on Flower Island.

8:14 P.M. a long-eared bat active 15 minutes before dusk to at least after dusk.

April 15, 1987

7:30 A.M. River otter swam S past Bee House. Rain this A.M.

10:34 A.M Pileated woodpecker on Douglas fir at porch level Bee House for 10 sec. then S over water to tall Douglas fir on dissected Point.

10:35 A.M. an immature bald eagle flew 60' above water in front (out 40') from Bee House and alighted in Douglas fir tree above Flat Point some 30' where the above pileated woodpecker at alighted 1 min earlier. a red-necked grebe and double crested cormorant fed below the eagle. The red-necked grebe gracefully dives.

10:45 A.M a second immature bold eagle flew S past Bee House 60' and out 40'. It alighted in Douglas fir tree above Lichen Point. an adult bald eagle perched on upper railing of Leo Reef beacon.

no harbor seal (10:50 A.M) on Leo Reef but 13 on Little Flower Rock and 8 on North Flower Rock.

3:50 P.M immature bald eagle with almost white lower belly. It alighted in Douglas fir tree above Dissected Point for 3 min. then flew to mid tree (Douglas fir) at Lichen Point.

6:45 P.M a river otter left Leo Reef and swam to Lichen Point, thence N past Bee House. From Lichen Point to Bee House it dove 9 times and caught a candlefish each time. If dives are shallow it leaves a series of upwells, if a deep dive just a single upwell from the initial dive.

Rufous hummingbirds present all day and active at Bee House

Dark-eyed juncos made 5-6 trips a day to Bee feeder, generally 1 or 2 birds participate.

No purple finch, no chipmunks last 2 days.

Eastern gray squirrel present at Bee feeder 40% of day.
No mule deer today up to 6:50 P.M.
7:00 P.M 1 river otter swam south past Bee House and then beyond Lichen Point.
7:01 P.M Immature bald eagle flew past Bee House In flight body action a teetertotterlike jerk.
7:10 P.M. Family mule deer at Bee House feeder plus related group of ad. female and young. The feeder measures 13" x 11" x 5" deep and at times 6 heads within feeder. The new arrival ♀ and young are not compatible with local family. The newcomer struck the fawn and young ♀ twice. The fawn did strike back. There was no nose contact as frequently happens between unrelated deer. Actually this new comer is related to local group as well as a ♂ that come occasionally. The local group when it becomes too large divides and some of the larger or older individual establish territory near by but at the same time shares the original territory from which it came. Ads. have more colorful brown pelage than young. Young of last year are similar but less bright color. Fawns of last year have dark stripes down neck and back.

April 16, 1987

10:00 A.M 15 harbor seals North Flower Rock, 1 Little Flower Rock. no seals Leo Reef but one adult bald eagle on beacon. no other birds on Leo Reef. 56 glaucous-winged gulls Flower Island.
First Townsend chipmunk in last 2 days.
mammal collected from Bee House.
870416-1 Peromyscus m. sollisteri 162-71-22-19-22 gms. ♀ 2x2 emb. 5 mm
2:00 P.M. Turkey vulture circled over Bee House then dropped down to 10' of water then up again to circle above Lichen Point.
To Lopez Island Village. Red-tailed hawk on top house E side Humphrey Head Lagoon. One turkey vulture cereled above Plummer home on Humphrey Head and one over Spencer Spit.
6:00 P.M. A river otter swam past out 20' from Bee House. Sometimes had head at eye level while swimming
6:20 P.M. A young bald eagle left Douglas Fir tree on Boundary Point, flew E and circled above Bald Bluffs. This bird perched on tree above Lichen Point that is not the usual site for eagles.
Common loon in summer pelage. Abrupt forehead good field mark.
at -1.8 tide at 1.17 P.M at Bee House, the second of 2 rocks between Round & Flat points just exposed.

870417-54

April 17 1987

7:30 P.m. family mule deer at feeder. Usually they come in evening. Ad. ♀ 29½" high at shoulder

Today tide - 2.1'.

Four sightings of river otter and 2 of harbor seals today.

123 glaucous-winged gulls on Flower Island this A.M., at 8:00 P.M 109 on island.

5 sightings of bald eagles today, not necessarily different birds. 3 immatures and 2 adults.

4 to 7 rufous hummingbirds at feeder all afternoon up to at least 8:10 P.M. They are constantly chasing each other. Female the aggressor in ♂ ♀ relationship. If ant at edge of hole in feeder, the hummingbird will share or displace.

8:15 P.M family of mule deer standing on Boundary Point.

870417-1 wood boring beetle from Bee Estate. From Douglas fir.

April 18, 1987

Chris, Steve and Matthew here for week end.

2 river otter seghting this A.M from Bee House.

1:30-4:30 P.M, no glaucous-winged gulls on Flower Island. no harbor seal on lowtide rocks or Leo Reef. Bull seldom observed on en Spencer Spit. -2.0'

2:54 P.M Low tide, below Bee House, mass 8'x4' Fucus distichus, rockweed. Also 30 or so blades of surfgrass Phyllospadix scouleri and a species of Laminaria.

Glaucous-winged gull with one arm of Sea star, Pisaster ochraceus in mouth

9 rufous hummingbirds active at feeder at 3:40 P.M.

To Lopez Island Village: at Swift Lagoon: 27 green-winged teal, 2 mallards, 4 northern pintails, 8 gadwalls, 5 northern shovellers. Pond SE Cross and Port Stanley roods, 4 Canada geese, 4 American widgeon, 2 bufflehead. At Swift Bay Low Bank, 18 mew gulls. An immature mew gull chased an American crow for approx. 2 minutes most of time from behind but occasionally would drop low, gain momentum and swing up for close pursuit of crow. activity at edge beach-water contact. At times the crow seemed confused. At Humphrey Lagoon 1 glaucous-winged gull only.

At 3:30 P.M wind from S, at 5:30 P.M wind changed to from north, Same gusty type wind. Gusts of winds have no influence over smooth tide patterns.

12:20 P.M. 28 harbor seal Leo Leafat low tide.

5:30 P.M 2 river otter swam S past Bee House. at Licken Point, one made shortcut back to Boundary Point, the other continued S.

6:30 P.M. river otter swam past Bee House to Licken Point.

6:50 P.M. river otter from Boundary Point directly to Lecken Point and then beyond, swam at regular swim - dive maneuver.

9 rufous hummingbirds in one group at feeder this afternoon

7:25 P.M. river otter to N.

Harbor seal to within 30' of Bee House at 8:00 P.M.

April 19, 1987

1:00-2:30 P.M Localized white spat 20'x 15' of foam approx 200' W Leo Reef. (Rocks 9-10-11). moved 200' NE in that time. Presumed fish maintained.

April 20, 1987

8:30 - 9:00 A.M adult bald eagle 15' down from top Douglas fir at base of gulch between Licken and Round Point. Best Douglas and cedar in area.

One imm. bald eagle flew N past Bee House at 8:45 A.M.

Two river otters so far this A.M in front Bee House.

12:30 P.M Hairy woodpecker in Douglas fir tree at side of porch of Bee House.

12:35. river otter at Licken Point. Back of otter while in water rises with inspiration.

12:47 A.M. river otter took 12 minutes to go in water from Licken Point to Bee House fishing along way.

12:49 A.M second river otter N past Bee House and took 17 minutes swimming from Licken Point, 1½ feet from shore except by-pass Spring Cove.

12:57 A.M 3rd river otter N past Licken Point to Bee House, at 4 minutes, not fishing but diving and surface travel

12:59 A.M. river otter S past Bee House to Licken Point then put-out (low tide) 2 feet from water and worked on a 6" carapace crab. Another otter from S approached and put-out at point where other otter was eating crab. Feeding otter immediately defended it crab and the other otter left and swam N past Bee House, taking 10 minutes from Licken Point. (it by-pasts Spring Cove). Otter at Licken Point finished crab and continued S.

Orange-crowned warbler singing this A.M.

870420-56

1:45 P.M. river otter to S by-pass Spring Cove.

To Richardson, S end Lopez Island at 1:30 P.M. Turkey vulture circled above Hummel Lake. 8 american kabm at Richardson but none between there and Humphrey Head. At least 18 Brewers blackbirds enroute and in open valleys of island. (Center Road), or specfically 1 mi S School and Center roads. no buffleheads Humphrey Lagoon or in last week.

6:30 P.M. river otter swam continuously without diving from Boundary Point to Lichen Point (by-passed Spring Cove.

8:10 P.M 10 rufous hummingbirds at Bee feeder, most chasing each other. This is the time they increase in numbers.

8:15 P.M adult bald eagle flew N over Bee House 150' high.

Fawn of mule deer with notch on inner border of right ear

April 21, 1987

7:00 N Lopez Sound show mirror image of bordering islands. Begin of complete eagle and otter observations.

7:01 North Lopez Sound mirrorlike. Begin complete censeus bald eagle, river otter observations;

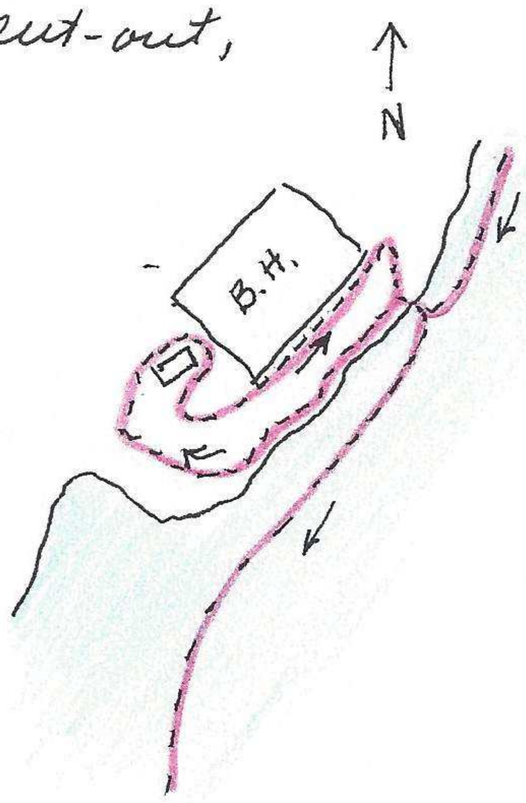
7:02 A.M. 5 bald eagles in douglas fir trees on shoreline between Spring Cove and Lichen Point.

7:10 AM 1 adult eagle left left and flew SE contacting Blakely Island at N end willow Island, thence flew N. 7:26 other adult eagle and 3rd year old eagle left and flew S leaving 2 2nd year eagle still perching in trees on shoreline S of Spring Cove, 7:28 A.M. imm. eagle (none of above, flew N past Bee House. 7:40 AM adult eagle flew E to Blakely Island at Willow Island then N along W side Blakely. at 1/2 way up Island was challenged by an adult bald eagle which deverted the course of invading eagle. It flew S. 7:45 A.M. 2 adult eagles, not those of 7:40 above in N Lopez Sound, one flew to Leo Reef and the other S. 7:50 A.M 2 imm. eagles in original place 1 one Lichen Point, one above Round Point. 7:51 10 different eagles so far (6 ad, 4 imm). 7:52 A.M river otter arrived from E to Lichen Point which engaged with one of the three otter at the Point. Bodies



3/4 out of water at times and vigorous splashing of water. It lasted about 3/4 min. The invader left to N first swimming E for 50'. It travelled in zig-zag course ∿∿∿ with abrupt turns and greater speed than normal to as far N as Bee House then returned S to and beyond Lichen Point. 8:00 A.M. An imm. bald eagle to Lichen Point. 8:02 A.M Ad. eagle flew N past Bee House. 8:05 A.M. An adult eagle alighted in Douglas fir high on ridge above Lichen Point. 8:06 A.M river otter swam S. past Bee House, put-out on Flat Point, shook hair then dove into water and continued S beyond Lichen Point. End complete eagle, otter observation.

8:30 A.M. At Bee House a river otter put-out below house, followed mule deer trail at edge of cliff, up rock slide to S of house, around a wood shed, edge of house and finally back to point of put-out,



8:45 A.M. subadult bald eagle steel in tree at Lichen Point

10:05 A.M 5 more sighting of otter since last record (not necessarily different otters)

12:15 P.M 3 more sightings of otter since last recorded (10:05)

5 western grebes have been in area (front Bee House) for last 3 days.

1:00 P.M 3 more river otter since last recorded (12:15).

Adult glaucous-winged gull pirated a star from juvenile gull and when adult was flying to shore the juvenile forced the adult to drop the star. The juvenile carried the star approx. 150' and was forced to drop it into the water.

1:30 P.M. 6 more sighting of river otter since last recorded.

1:30 P.M. 4 adult and 4 subadult bald eagle sightings since last recorded.

1:35 P.M. river otter attached common loon approx 150' E of Lichen Point for 9 seconds. Loon escaped and left E by flapping and pedaling on water. It was unsuccessful in lift-off. It move E and then S 400 feet. Otter followed to where loon turned south but was deverted by 5 glaucous-winged gulls some 150' away. The otter swam toward gulls, sometimes diving and surfaced 50' from gulls, but gulls left. The otter remained in area of gulls diving and swimming and then left S,

2:00 P.M Since this morning have sighted 24 otter, 12 ad + 11 subadult

bald eagles. (again this does not mean different individeals).

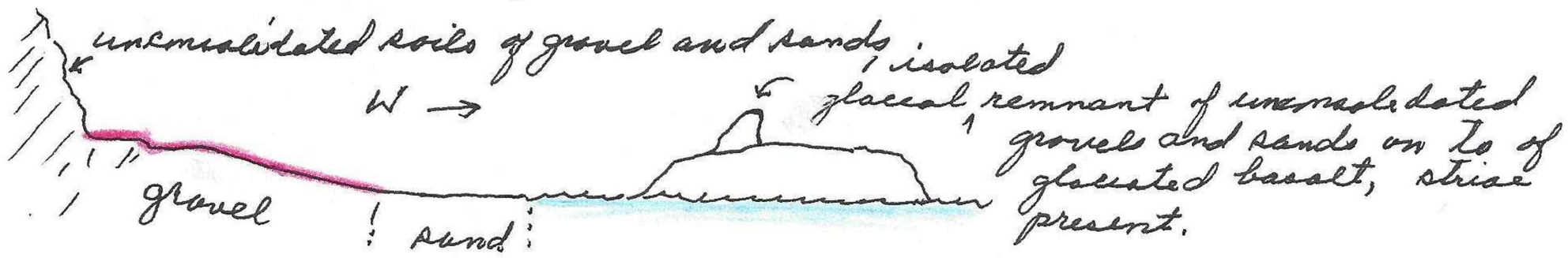
2:10 P.M. 5 harbor seal Leo Reef, 15 glaucous-winged gulls Flower Island.

3:00 P.M To Agate Beach, enroute: Osprey carrying fish taken in Swift Bay flew to top of douglas fir 4/10 mi. W of entrance of Swift Lagoon into Swift Bay. Bald eagle 2/10 mi W Grange Hall and 1 turkey vulture 3/10 mi E mackaye Harbor Road. and mud Road Junction.

At Swift Lagoon 13 green-winged teal, belted kingfisher, 5 northern shovellers, 11 gadwalls, 2 mallards. On Swift Bay Low Bank on beach: glaucous-winged gull chasing crow that had food in bill.

April 22, 1987

860422-1 <u>Collection</u> of beach rocks on Agate Beach State Park. on Lopez Island. (Outer Bay).



Gravel from 4"5" to size above coarse sand. Flat benchs have mainland flattest rocks. There is no segregation of kinds of rocks on beach except shape. Best striae preserved below low tide.

11:40 P.M. Adult bald eagle alighted in madrona in front window of Bee House, 30' away. It remain for 30 minutes.

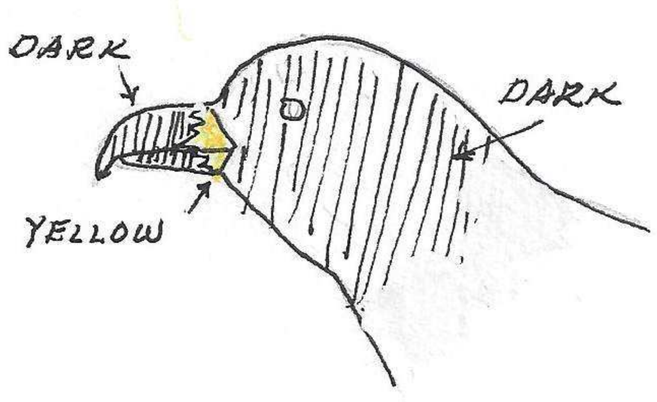
2:10 P.M. river otter swam S past Bee House. It would dive and swim under water for 18' or so and then surf for air for 4'-5' then dive again.

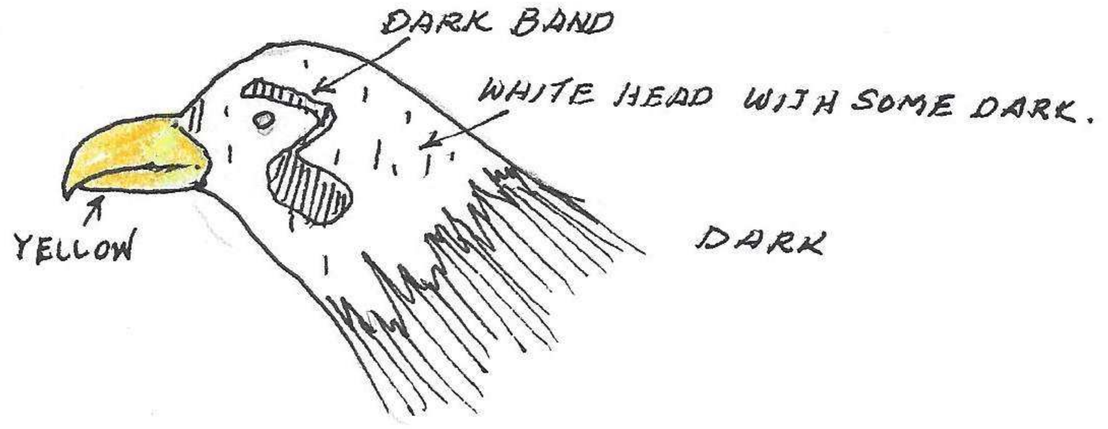
2:18 P.M marbled murrelet 20' out from shore below Bee House.

7:50 P.M young ♂ mule deer 49" high at shoulders.

April 23, 1987

Before 7:00 A.M 2 bald eagles (an imm. and adult) in tree (douglas fir) above Licken Point. Waters smooth.

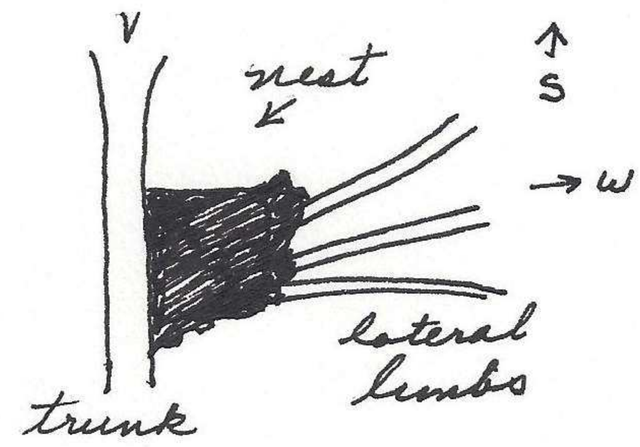




870423-59

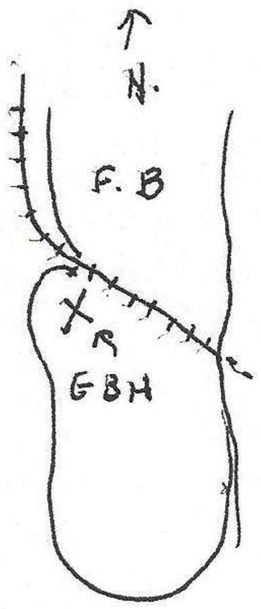
Bee Estate, Humphrey, Lopez Island, San Juan Co., Washington.
April 23, 1987 (cont.)

Trip to La Conner, Everett. Left 9:50 A.M. nest of bald eagle on N end Humphrey Head did not have birds on the nest or in the area. Limbs support nest. nest tree 1/6th down from ridge.



Enroute to Anacortes noted fewer birds than previous trips.

At Fidalgo Bay on S side RR Causeway counted 12 great blue herons (low tide)

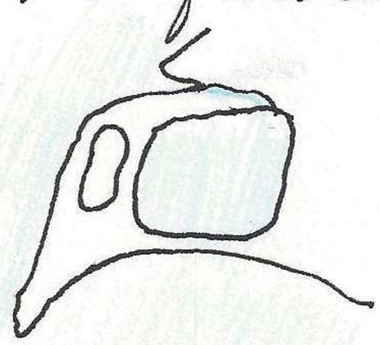


La Conner, Skagit Co., Washington
April 24, 1987

An hillside E of La Conner noted 2 Thamnophis sunning in open areas by brush at 3:00 P.M. Day cool. The yellow stripes were bright.

La Conner
Thousand Trails Preserve, Skagit Co., Washington
April 25, 1987

7 surf scoters SSE of Lone Tree Peninsula. They have been observed at low tides on the evenings and morning of 23, 24, 25.



x surf scoters

One Thayerlike gull and slightly smaller than glaucous-winged gull.

Left for Anacortes Ferry Terminal. There 4 western grebes resting on water with heads on back.



Also in bay to S were:
4 bufflehead
5 surf scoters
2 pelagic cormorant
3 glaucous-winged gulls.
1 kingfisher.

while crossing Rosario Strait 82 Bonaparte gulls crossed front of ferry and alighted 1/10 mi to S. As we entered E Thatcher Pass noted first barn swallow of season. It flew N across open water.

At Lopez Ferry Terminal, 22 glaucous-winged gulls on piling and one pelagic cormorant.

At Bee House a shrew ran out from a 2'x4' board and under house.

Bee Estate, Humphrey Head, Lopez Island, San Juan Co., Wa.
April 26, 1987

At 6:30 A.M 2 ad and 4 immature bald eagles arrived at Flower Island, all glaucous-winged gulls left island but returned and settled down by 6:40 A.M. Their arrival was a few minutes before sunrise over Blakely. The 6 eagles rested on exposed rock surfaces on the N end of island. all but two of the eagles exposed their backs to the heat of the sun. Gulls were less discriminating as to exposure to the sun. Of the 82 glaucous-winged gulls, 24 of them were paired and the gulls are generally distributed instead of aggregated.

7:30 A.M. ad bald eagle moved 8' to S, half flying, half hopping, and all gull in front of its flight left area (up to 50' away from eagles. The gulls circled and immediately returned. Gull when not doing not come closer than 20' from eagles except as they fly over or by the eagles and then seldom closer than 6 feet. Gull displace only when eagle fly in their direction. All other gulls on island are not affected by the local readjustment of eagles (2-5 ft.).

7:33 5 of the eagles left island directly without circling and only gulls within 50-100' were displaced. The gulls returned to areas that had been occupied by eagles in 1 1/2". The remaining eagle, 3rd year? with white beginning on head was molested by crows in combination of 1-3. A single crow walked around to the rear of the eagle and cautiously approached the eagle from 1 1/2 feet and at a critical moment lunged forward and either grabbed the tail or struck the eagle in the lower back. On each of these molestations the eagle flinched, extended its wings and awkwardly regained its balance. On 50% of the cases when 2 crows molested the eagle they cooperated; one in front to distract the eagle and the second crow making its attack from the rear. Three crows cooperated, generally

2 in front and 1 in rear of eagle. Only one gulls was observed to molest a flying eagle and this was an attack from the rear and near contact of the back of the eagle. This occurred when eagles were arriving at the island this A.M. during nesting time the gulls and crows vigorously dive and attack the eagles when they approach or land on the island.

8:04 A.M. Immature bald eagle alighted on dead Douglas fir tree (Frolic Perching Tree) on beach land just N of Boundary Point.

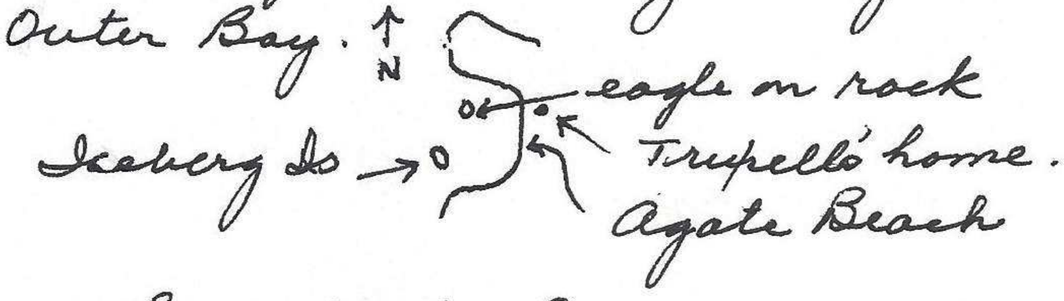
8:23 A.M. The 6th eagle (last remaining) left Flower Island. and flew E.

11:10 For the last 1½ hrs. only 25 glaucous-winged gulls on Flower Island. This is low tide and a time when many gulls are feeding on rocky shorelines & beaches elsewhere.

11:12 13 western grebes in one group between Bee House and Leo Reef. They came as close as 200' of House but generally are nearer Leo Reef. Last 2 days have seen group of 6 in same area. The western grebes as a group passed thru two red-necked grebes that were feeding. The red-necked grebes did not follow the western grebes.

12:00 A.M. 12 glaucous-winged gulls on Flower Island.

This P.M (3:00 P.M) to Agate Beach. met Mr. Truxton B (Bunk) Tropell, most northern house on E side road at Agate Beach, Lopez Island, whos mother was a Bee from Norway originally. as was his father Mr. Tropell From 3:00 to 5:00 P.M a bald eagle (white beginning in head) rested on a large rock in Outer Bay.



Left Agate Beach. At least 10 robins in area of MacKaye Harbor - Agate Beach.

Swift Lagoon. 8 mallards, 16 green-winged teal and 5 sanderling?

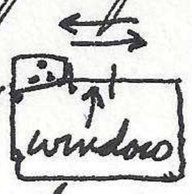
6:30 P.M 10 rufous hummingbirds at Bee House feeders. They spend more time chasing each other than feeding.

6:31 61 glaucous-winged gulls on Flower Island. Wind all day from N.

6:32 rufous hummingbirds active.

870426-62

6:33 Recorded direction of rufous hummingbirds pass window facing SE of Bee House.



my estimate would be 10 birds involved.

Minute intervals

6:33 P.M	21 to SW,	18 to NE
6:34 P.M	20 to SW,	17 to NE
6:35 P.M	17 to SW,	15 to NE
6:36 P.M	17 to SW,	19 to NE,
6:37 P.M	Annette to porch for 3 minutes.	no hummingbirds
6:40 P.M	2 to SW	3 to NE
6:45 P.M	10 to SW	9 to NE
6:46 P.M	17 to SW	15 to NE

8:00 P.M 9 rufous hummingbirds at feeders, still chasing each other.

8:01 P.M 76 glaucous-winged gulls on Flower Island.

April 27, 1987

10:10 A.M 12 glaucous-winged gulls on Flower Island.

10:30 A.M 10 harbor seal on Little Flower Rock

10:31 A.M Collected small bee no 870427-1 from Bee Estate.

12:30 P.M 1 river otter rounded Lichen Point, bypassed Spring Cove, past below Bee House and continued N beyond Boundary Point. Covering the distance in 8 minutes, moved continuously with dives with underwater coverage of approx. 80 ft. Nose + head just above water, pushing a wake ahead. Used only back feet for paddling and tail not used for locomotion. Appx 10' from shoreline.

12:50 3 river otter covered route averaging 4' from shore and bypassing Spring Cove, made the trip in 27 minutes. They fished in short spans of 15-20' and occasionally (2) fed on edge of shore. At Lichen Point they left water, climbed on rocks to flat meadow just beyond top of cliffs, ran across meadow and entered water on S side. They kept together, never being separated by more than 5 feet, all the way along the route. Capture as result of dives 40 per cent successful. Water smooth.

2:05 river otter direct from Lichen Point to Boundary Pt. Continuous swimming on top water.

3:00 P.M Collected bee sp no. 870427-2 on cliff meadow, Bee Estate. Group 8 band-tailed pigeon on feeder. 2 mule deer at base Spring Cove (ad ♀ and second year ♀). The adult carried its tail like a white-tailed deer for at least 50'.

4:00 43 gulls Flower Island.

6:10 107 glaucous-winged gulls on Flower Island and are generally distributed. Twenty pairs. 5 minutes earlier all gulls left island and returned after one circle. Could not see eagles in area.

8:00 P.M 110 glaucous-winged gulls on Flower Island. 16 pair and 5 of these pairs are preforming nuptial acts. no breeding as of this date. 15 other gulls are singles and isolated in former nesting areas of last year.

2 rhinoceus auklets 300' SE Bee House. I have not seen these birds since last recorded in journal.

8:20 P.M 12 rufous hummingbirds at 2 feeders. 8 at one feeder (4 holes) at one time.

I have observed up to 28 Bonaparte gulls today.

8:46 P.M. Last rufous hummingbird to leave feeder. Tapering off from 12 occurred gradually and a single one remained for last 3 minutes. Poor Light intensity interfered with clear visibility of hummingbird.

8:47 first long-eared bat and feeding in area of feeders.

April 28, 1987

8:00 A.M while hummingbird feeders were being replenished, the birds still searched for food in the area formerly occupied by the feeders. when feeders replaced bird commensed feeding in 25 seconds. It appears as if birds use feeding area for socealizing rather than sincere feeding.

8:20 A.M Common loon fed for 6 consecutive dives at 55' from Bee House. One item of food was a flat worm approx. 4 inches long. It curled on itself in the struggle.

8:30 A.M Collected 2 carpenter ants from Bee House. Nos:
870428-1 Carpenter ant.
870428-2 " "

yesterday did not observe river otter in area. The appearance and destribution of river otters is erractic, when several days there is from 3-15 observations a day to a stretch of 1-4 days when otter will not be seen.

2:10 P.M first cowbird observe at feeder.

2:15 P.M 11 harbor seal on Little Flower Rock. In last month as more boats pass Leo Reef, the seal have shifted to Little Flower Rock or elsewhere.

6:30 P.M Stood with face 1 foot from hummingbird feeder and

male rufous hummingbird fed there on two occasions. Wing noise is considerable louder than when it feds without intrusion and may be a warning signal. There is also an almost inaudible noise from the meal bods.

An immature bald eagle flew N past house at viewing level and 2 immature and one adult left top of house and flew S at full speed.

8:10 P.M 125 glaucous-winged gull on Flower Island. Last rays of light just left island.

8:11 ad ♀, 2nd year ♂ ♀, fawn at feeder. All had inflammation of the upper posterior edge of ear. Yound ♀ the greatest, then fawn, then ♂, then ad. female. The ears of the young ♀ were reddened in an area of 3 X 1½ inches on posterior upper ears with ¼ inch nicks out of edges of both ears.



The hair is thinned. When the nicks were first observed (see notes) there was blood on ears. The fawn is less reddened but more extensive on ear covering most of the pina. It was more a transparent pink but edge of ears nicked. The ♂ was less effected and the female the least but redness recognized thru the thicker hair covering. Last week I noticed the deer were vigorously shaking their heads (rapid half rotation). I originally speculated that the deer had been attempting to feed or pass thru fence wire of some kind. Electric fences could also produce such damage on the most vulnerable part of the deers head.

8:30 P.M 11 rufous hummingbirds at feeders. It is difficult to count these birds (3 feeders) as they are so active. One bird controlled one feeder and while it did not eat from feeder it chased all birds away, and then blighted on a perch 2 feet away. Most times one bird will displace another bird by approaching from the side but this bird annoyed the other birds by buzzing 1-2" in back of them. They remind one of bees at a hive the way they move around the feeder and the area. 8:34 del hummingbird left area but 2 of them.

8:37 now 2 birds (hummingbirds) at feeder.

8:42 one rufous hummingbird at feeder and activily feeding.

8:44 P.M last hummingbird at feeder and beginning of

alternately feeding (average 10 seconds) and perching on limb 2 feet away (20 sec to 1 minute), at it jerked its head up and down with bill at 50°-60°. The motion was vigorous and performed continuously at approx, 10 times in 8 seconds. As lights were fading to degree where bird was barely visible, it left while still moving head up & down and flew S.

9:03 P.M. first bat in area in general area of feeders

April 29, 1987

5:28 A.M. first rufous hummingbird at feeder.
5:30 A.M second " " " "
5:30 A.M first glaucous-winged gull flew N.
5:35 A.M third rufous hummingbird at feeder
5:36 A.M In a period of 1 minute 3 more rufous hummingbirds arrived at feeder.
5:39 Immature bald eagle flew S at 50' high.
5:41 A.M Jonathan (tame glaucous-winged gull arrived at house.
5:51 A.M Imm. bald eagle flew SW from across Lopez Sound from Blakely Island to Fuchen Point, circled and then flew S toward Swift Bay shoreline. Height approx. 100'.
5:57 Imm bald eagle flew E past house at 60' high. Jonathan (tame gull) left top of house and flew down under eagle at water level. The eagle held bill down and moves head from side to side in surveying the water or land below.
8:00 A.M Both rufous hummingbirds and band-tailed pigeons fed on or from the inflorescence of madrona trees.
8:45 A.M young ♂ & ♀ fed at feeder. ♂ 29 1/4" high. Both seemed nervous at feeder, not at me as I fed the ♂ apples Their concern came from hillside above the bluff. The ♀ ran up trail, followed by ♂ where they showed alertness in the direction of W. They gained ridge S of Fralic House and then ♂ ran down slope to E with tail held like a white-tailed deer. The ♀ followed ♂ tail held down. My only guess is they were reacting to dogs to the W that I could neither see or hear.
1:30 P.M stray ♀, 29" high
1:31 P.M 3 northern violet-green swallows inspecting front of house under roof eaves.
6:00 P.M Immature bald eagle rested on perching tree E of John Saul Jr residence on Humphrey Head. It remain there to at least 8:10 P.M.

870429-1 Diptera Collected from Bee House.
numbers and activity of hummingbirds as of yesterday evening.

8:25 P.M 'Jonathan' the tame glaucous winged gull left the porch at this time. Counted 13 hummingbirds at feeder and very active. Considerable streaking of the hummingbirds back and forth across the porch out to 20' on each side where they return or perch for 5-10 seconds. The final count this evenng is 15. at one time there were 11 at one feeder. durng the day the average number is 9 all but 2 left between 8:35 and 8:38. Two remained until 8:41 and the last left at 8:42 P.M without the head extending behaviorism observed last night. First bat (long-eared) 5 minutes later.

This morning fog clouds between Mt. Erie and in Canyons of Blakely. By 9:00 A.M fog clouds out of Thatcher Pass but no further N. than Frost Island.

Bee Estate, Humphrey Head, Lopez Island, SanJuan Co., Wa.
April 30, 1987

Shortly after daybreak, fog clouds down 1/2 way on Blakely and Decatur but not on Frost Island. Slight breeze from SE. 7:18 A.M ad. bald eagle to S. Rain last night + A.M 1/4"

9:25 A.M Immature bald eagle to S. around Lecken Point Passed House at 50' above water.

10:30 A.M harbor seal swam by to N 5' from shore. It swam at straight-forward direction and fast speed.

Rain most of day but has not decreased hummingbird activity at feeders. when a hummingbird changes position on a perch it (if 180° is implemented) raises body with wings, turns around and the realights on perch. One of the best way to differentiate ♂ & ♀ rufous hummingbirds beside rufous color is unmarked tail of male.

6:30 P.M Double-crested cormorant captured a 5"-6" worm and after manipulation it for 1 minute, swallowed it. The worm has one segmented side flat, and coils on that side. I would estimate the width of venter is 3/4". Color and form suggests Eighteen-sealed worm a Polychaeta.

6:35 approx 16 rufous hummingbirds at feeder; ♂(7), ♀(9).

7:00 P.M 9 hummingbirds at one feede and the glaucous-winged is now 1'1/2' away from feeder. when 2 hummingbirds back away from feed to within 6"-8" of gull the gull with strike at the hummingbirds but has not as get captured one.

7:55 P.M Jonathan (tame glaucous-winged gull) left and flew to Swift Bay.

870430-67

2:30 P.M (place in proper time sequence of todays observations) At low tide at Swift Low Bank Beach observed 16 black-bellied plover and 22 short-billed dowitchers. They constitute one group although the plover were on the shoreline and the dowitchers were wading in the water.

Swift Lagoon: 6 shovellers, 5 mallards, 11 green-winged teal.

8:00 P.M 7 rufous hummingbirds at window feeder (3 hole)
8:05 P.M 10 " " " " "
8:10 P.M 8 " " " " "
8:15 P.M 9 " " " " "
8:20 P.M 6 " " " " "
8:22 P.M all left abruptly except 1 ♂ and 1 ♀
8:23 P.M ♂ left.
8:25 2 ♂ returned then left.
8:26 3 ♂ 2 ♀ returned
8:27 4 ♂ and 3 ♀
8:30 3 ♂ 1 ♀
8:31 no birds
8:32 2 ♂ returned
8:33 1 ♂
8:34 2 ♂
8:35 1 ♂
8:36 no birds and end of feeding. Light intensety low becoming and wintery on this page 1 indistinct at 1 foot away.

Rain and cloudy (overcast) all day and during period of above observations of hummingbirds. Slight breeze. Did not see bats to at least late dusk.

May 1, 1987

870501-1 Sorex 111-39-12-8-8 gms. ♀ 2x2 emb 3 mm mammary glands 1.2 gms wt.

1:00 P.M recorded sex and numbers of rufous hummingbirds at window feeder (1 of 3 feeders) at every 10 seconds: Started 1:00 P.M windy cloudy

♀	♂	♀	♂	♀	♂	♀	♂	♀	♂
1	0	1	1	0	0	2	2	1	0
1	0	1	1	0	1	2	2	2	0
1	1	1	1	0	1	0	2	3	1
2	0	2	0	0	1	1	1	3	1
3	0	2	2	1	0	0	1	1	1
1	1	3	0	1	1	1	1	1	2
1	1	1	0	2	1	1	0	3	1

870501-68

(Cont.)

♀	♂	♀	♂
4	1	1	1
4	1	1	0
4	0	1	1
4	0	1	1
3	0		
1	0	0	0
0	0	0	0
3	0	0	0
1	0	0	0
0	0	0	0
1	0	0	0
2	0	0	0
0	0	0	0
1	0	0	0
3	0	0	0
1	1	0	1
4	1	0	0
1	0	0	0
0	0	0	0
0	1	0	0
2	0	1	1
3	0	0	1
3	1	1	1
1	1	1	1
4	1	2	1
3	0	1	0
3	2	2	1
4	1	1	1
4	1		
3	1		
3	2		
0	1		
1	1		
1	1		
1	1		
2	1		
0	0		
1	1		
3	2		
0	1		

From 1:00 P.M to arrival of Jonathan.

females	males
115	55

or

female	males
68%	33%

Jonathan arrived and 1 1/2' away from feeder. Hummingbirds diverted to 2 other feeders. One of the other 2 feeders had 11 hummingbirds. The gull definitely had influence over hummingbirds.

Took appx 2 minutes for hummingbirds to adjust to the gull. but never the confidence as before arrival. Last evening as many as 10 fed within 1 1/2' of the gull.

noted 2 males to climb 23' into the air aerial confrontation.

1:10 P.M River otter rested on top of no. 4 rock of Leo Reef. 1+ harbor seal rested 5' below.

1:30 Ad. bald eagle flew from Frost Island along Spencer Spit to mainland Lopez. One gull harassed the eagle the entire route.

3:30 P.M Flocks of 11 each fed at feeder (deer feeder) in rear of house & on front porch feeders

Both feeders with scratch feed.

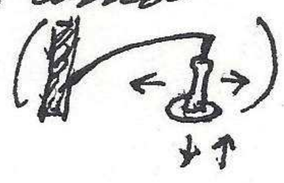
3:35 P.m Red-tailed hawk flew N along shore and at Bee House was diverted by a glaucous-winged gull that drove it SE out into the sound. 2 ♂ attacked the hawk 3 times.

4:00 P.m collect an insect:

870501-2 bumble bee Feeding with rufous hummingbirds on sugar and water feeder.

Bee Estate, Humphrey Head, Lopez Island, San Juan Co., Wa
May 2, 1987

Wind from SE creating waves 27 per min. Hummingbird feeders blowing off to 15° from perpendicular. Fewer hummingbirds at feeders (average 9) than windless days. In high winds birds keep lee of feeder and into wind. When feeding from side, body 90° to wind and when wind at back, tail frequently fans upward instead of usual downward. I have observed 1 in 100 birds with tail expanded upward when feeding in windless days. I have observed ♂ chasing ♂, ♂ chasing ♀, ♀ chasing ♀, ♀ chasing male. Birds can feed with wind blowing feeder laterally 3" and up & down 3 inches



10:50 30 glaucous-winged gull flown by. no harbor seal on any pullouts.

10:55 Captured a Selasphorus in Bee House.

870502-1 Selasphorus m. halleteri. ♂ 78-81-22-19-26 gms ♂, testis 6 gm

6:05 15 rufous hummingbirds at one window feeder 3 minutes after all disappeared except 3 which remained for 8 minutes before main group of 12-15 returned. The three birds were 2♂ of which one was very aggressive and 1 aggressive ♂. The two aggressive ones fought almost continuously for the 8 minutes. The female challenged the male whenever the male initially challenged the female. The 2 would flying upwards for 10-20' with bills almost touching or even touching as well as other bodily contacts. One time the male darted at and over the female, circle out 3-4' then repeat darting action continuously for 5 times, the female reacting in each case by dropping down 3-4 inches. At one time for about 40 seconds the male challenged the other 2 females and did not allow them to feed. The male, in turn, spent the 40 sec. away from feeding. At 8:15 P.m the main group arrived (9-14) and although one male was unusually aggressive, it could not dominate the group. One male sat on

railing 2 feet from 10 feeding birds. It thrust head upward and body reacted to what I believe was vocalization but I could not hear from inside house. At one time observed one ♀ hold on to neck feathers of another ♀ for approx 3 sec. Also one ♀ stood on shoulders of a feeding female and pulled or caused the female to awkwardly back away from the feeder. Bunting one body against another is common practice. From general observations the male is only slightly dominant over female at the feeder. To date I have not witnessed or maybe not recognized the aerial nuptial flight of the male. I have seen birds leave, the feeding area in evening by horizontal departure up or down the shoreline, through trees along shoreline, straight up over house but never out over the water independently of shoreline.

7:55 P.M ♀ ate alone on feeder for 8 sec. then flew S along shoreline to Seehen Point & beyond.

7:58 to 8:01 no birds at feeder, but soon returned from beyond feeder area and commenced feeding again. One ♀ sat 10' away from feeder for 20 minutes, ordinarily the remain away from feeder from 3-10 seconds. More and more evidence of using feet to scratch another feeding bird from feeder. They employ this method on head to lower back, Pecking with bill is common. This behavior is more prevalent when 10-12 are at 3 hole feeder. A full meal is on average 8 thrusts into feeder for 2-3 seconds each or when unchallenged 8-10 second continuous, then to branch of tree from 6-20' away for 4 to 8 seconds. Sometimes 2 birds will put bill into one hole and can be 2 males, 2 females or a male and female. One ♂ would feed 2-3 seconds then fly to railing 3' away and with bill 70° manipulate tongue at end of bill. Tail reacting to operation of tongue. It appeared as if it had trouble swallowing.

8:25 P.M. No birds in area for 2 minutes then 2 arrived, 5 minutes previously 6 in area.

8:30 6 in area at feeder. 4 ♂♂ 2 ♀♀

8:31 6 at feeder

8:32 6 at feeder

8:33 3 at feeder

8:34 2 ♂, one 18 seconds of feeding at average 2' intervals

8:35 P.M no hummingbirds at feeder. (all above reference to feeder is one at window only)
8:36 P.M 2 buds ♂♀
8:37 P.M 1 ♂ 18 sips of 1 sec each.
8:38 P.M 2 ♂♂ at feeder
8:39 P.M 3 ♂♂ at feeder
8:40 P.M 2 ♂♂ at feeder, one of them 19 sips of 1 second each sip.
8:41 P.M 2 ♂♂ at feeder
8:42 P.M 2 ♂♂ at feeder
8:43 P.M no hummingbirds at feeder. Can still write in journal but letters dim.
8:44 P.M no birds at feeder. Skies cloudy all day & this evening. Occasional rain today.
There is a period in evening when hummingbirds leave rather abruptly, 80% of birds that are at feeder during the day. Aggressiveness is associated with numbers but also according to periods of the day, especially before the main groups of birds leave in the evening
8:50 P.M Too dim to record in journal.
8:52 P.M First bat.

May 3, 1987

9:45 A.M 9 harbor seal Leo Reef (Rocks no 4-5), 1 on Little Flower Island, 7 on Big Flower Rock. Day cloudy and rain in the air.
2:15. 3 river otter swimming & feeding to 5 to Lichen Point and beyond. Bypassed Spring Cove which is done 98% of the time.
7:00 P.M. An adult male rufous hummingbird with brilliant colors and large size came to feeder, placed bill full extent into hole in feeder and after wing movement for 15 seconds, stop wings and hung limp and supported only by its bill. For a minute I thought the bird had died at the feeder. In approx. 20 seconds it was displaced by a female and the bird awkwardly left down and over to a Douglas fir tree where it perched for 25 minutes. During this time it held bill at about a 55° angle and breathed heavily at 2 times per second. At least the white below the gorget expanded and contracted

with each body movement. At least 15 times it brought one or the other foot and tried to force it's bill outward as it scraped along the edge. 5 or 6 times it lost balance and in regained balance usually caught wings in branches. Once it hung upside down. The tongue was always extended approx. an eighth of an inch beyond the bill. 9 times a female or females came to this bird and perched 4-5 inches away. No male visited the bird. After 25 minutes it gained three positions in a madrone tree 20 feet from feeder and finally came to feeder but was immediately displaced. It alighted on the porch rail where it remained on belly and continued its body movement and throat expansion. Two females approached the male to within 4 inches, mainly from curiosity rather than aggressive intent. One adult male struck the sick bird at rapid speed and knocked it into flight. This bird then flew and out of sight of the view window. Yesterday evening I recognized this bird and at that time was conducting itself as it did tonight. This evening it showed further degeneration in its movements and balance. I have noticed that when normal birds alight on a perch they continually move head to keep an eye on the other aggressive members of the feeding group. The sick one had lost all alertness of what was happening in its community. When 2 or 3 times the number of bird at the feeder than the 3 holes will accomodate, there is less aggression and birds replace themselves in a fairly orderly process. At these times, undividual birds remain at a hole approx. 2 seconds. It is at this time that the sick male finds less competition and can feed from the hole.

May 4, 1987

8:00 A.M The sick male, rufus hummingbird observed the last 2 days is improoving. It still has dificulty breathing. The rate is 130 inspiration-expirations per minute. The breast separates from the gorget and this movement is translated back to wings and tail that moves up & down with each breath. Feathers are more fluffed on back than yesterday. It remained 2'-3' from feeder and when another hummingbird approached the feeder it would intercept it and chase it

It was successful in displacing 80% of the incoming birds of which at this time was 1-3. On two occasions, one a male and the other a female, the sick bird was driven from the feeder. and in all cases to lower branches of trees 15-20' away. In one of the case the female continued its harassment and drove the sick (sick one) birds 150' into Spring Cove. It returned 10 minutes later. The flight is slow and direct to wherever it goes, not the erratic and energetic flight of the normal birds. Eyes are frequently closed for a second or so. I would say the bird has slightly impaired in activity this morning compared to yesterday evening.

9:10 A.m 2 mm. bald eagle flew NW 10' above water and landes on high tide rocks on Lecken Point. It happed to high ground and remained for 4 minutes, then left to S. Basal bill light only.

10:30 A.M sick hummingbird respiration 126 per minute.

10:35 A.m Debris (mainly greenish ell grass) along shore to 50' from Boundary Point to Lecken Point, at least, and moving S with currents.

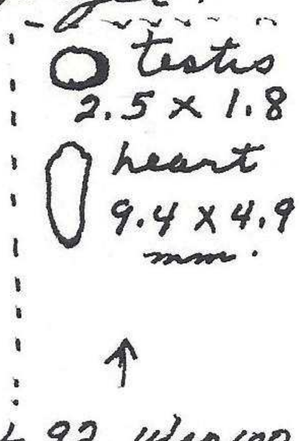
10:40 Ad bald eagle and 2 immature bald eagles in trees above Flats Point and Dessected Point. One of the immatures had a scrap of food & adult attempted to get the food from the imm. after 3 attempts (among limbs of douglas fir) it flew to Lecken Point and thence E to Blakely at point above N end Willow Island. At midway it dropped from 300' to 75' in 45° angle but changed course and again gained 300' to Blakely. It then flew N along W side Blakely at 1/3 heighth of mt. I last it at Thatcher. But in about the same time it took the bird to fly to Blakely it returned (could have been another adult) and again attempted to take away a new scrape of food (4"x6") that one of the young had just picked from the water. It chased the immature into Spring Cove, thence to 10' NE of Tide Point where it attempted, unsuccessfully, to get the food from the immature, Both birds then flew to tree (Douglas fir) above Dessected Point where the immature dropped down to the hillside thru a tangle of boughs. The adult did not pursue the immature which completely consumed the food on the ground. Both birds then left & to S leaving the 3rd immature who had remained on a dead limb 30' from activity for 25 minutes.

870504-74

12:40 P.m. The sick rufous hummingbird alighted on window sill and was breathing at the usual rate of appros 128 per minute. It adjusted itself and fell back over edge of sill where it hung by one foot. at that point it stopped breathing and in 2 seconds dropped to ground ft below. no other hummingbird reacted to the death & fall of this bird. as soon as it alighted on ground, venter up it was lefeless.

Several phato of this bird was recarded to show gorget:

870504-1 ♀ rufous hummingbird at feeder (rat of above)
870504-2 ♂ " "
870504-3 ♂ " "
870504-4 ♂ " "
870504-5 ♂ " "



870504-6 is the prepared specimen. Rufous hummingbird. T.L 92, Wisp 100

Weight of this bird is 3.3 gms. It was observed that as the sun came out later in the morning, the ruffled out of feathers resumed the normal contour of the hummingbird. Its death was associated with this increase of temperature and may be the final cause of its death.

3:00 P.m Several photos of environs associated with Bee House and Estate. Day almost windless, nearly clear shy and 58°F.

870504-7 madrona in front Bee House, to E to Thatcher.
870504-8 madrona in front Bee House to S along shoreline
870504-9 madrona, and douglas fir in front Bee House to SE
870504-10 Front Bee House to S, Lucken Point in middle distance.
870504-11 Boundary Point NE Bee House showing wooded slope and beyond.
870504-12 Boundary Point to N showing yellow Ridge and crescent beyond.
870504-13 Groben Ridge to S along rocky shoreline, Bee House.
870504-14 Bee House & Spring Cove to N from S side Spring Cove
870504-15 " " to N from suggested Point S of Spring Cove.

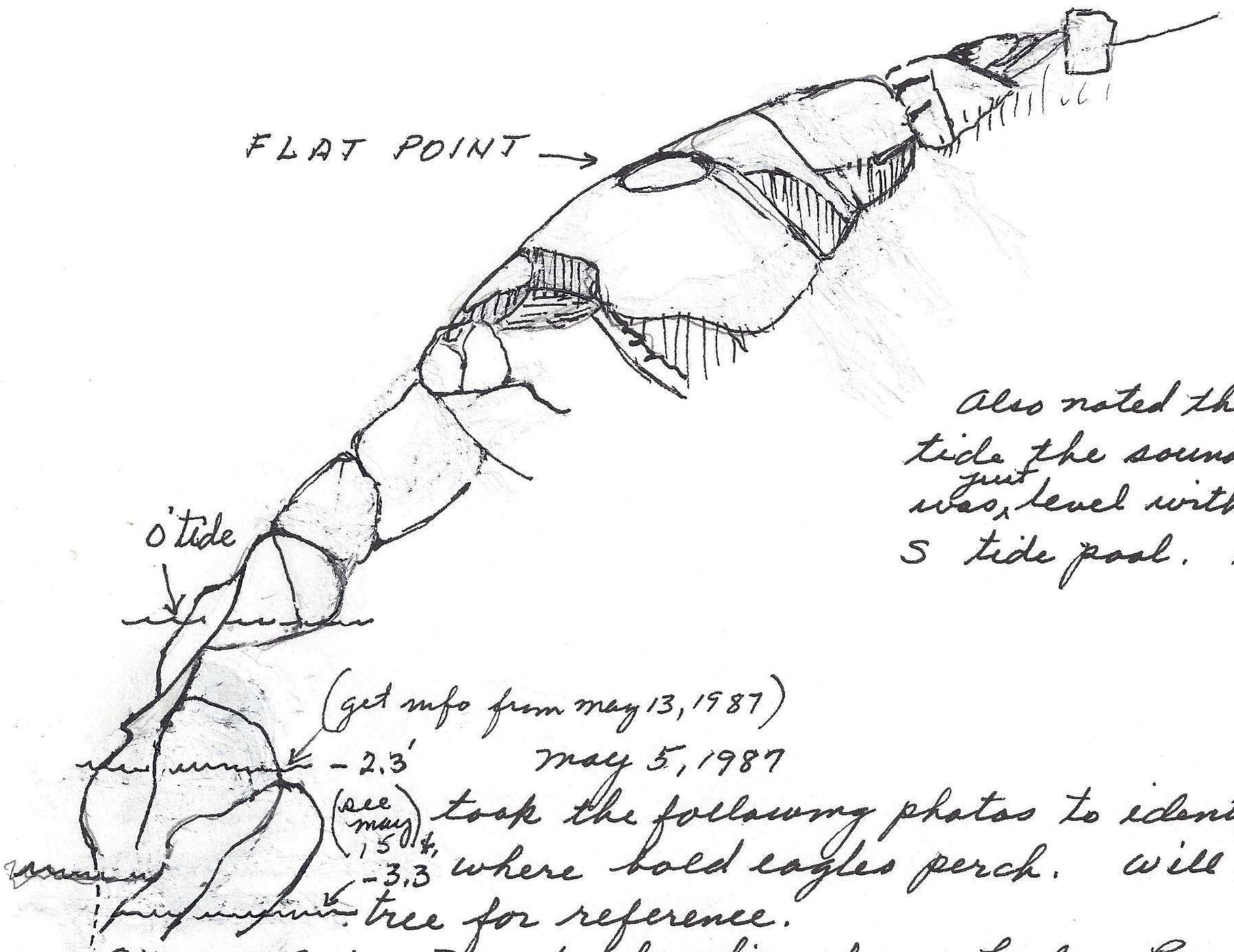
4:00 no harbor seal Leo Reef (rocks 1-7), 1 on rock 9, 2 on rock 10. On Flower Rocks = 3 on Little Flower Rock, 2 on Big Flower Rock.

7:30 P.m 78 glaucous-winged gulls on Flower Island.

7:35 P.m young ♂ to feeder, also ate 1 sliced apple. Does taste and smell slices to begin with and if the odors are not acceptable they refuse the apple.

870504-75

This afternoon at low tide = -.1 recorded the Flat Point profile and placed 0 tide level



Also noted that at 0 tide the sound water was just level with small S tide pool. Below House.

May 5, 1987

took the following photos to identify trees along each major where bald eagles perch. will identify a tree for reference.

870505-1 S end shoreline from Lichen Point to just N of Dissected Point.

870505-2 From Dissected Point to Spring Cove Point

870505-3 Spring Cove Point to N side Spring Cove

870505-4 N Side Spring Cove. (all above panoramic)

870505-5 Shoreline from Lichen Point to near Spring Cove Point.

870505-6 Trees at Boundary Point to show perching trees for bald eagles.

870505-7 From top Bee House straight down to shoreline, also edge porch.

9:20 A.M 8 western grebes and 1 common loon only bird in Sound SE Bee House to Leo Reef quadrangle. The grebes have been observed the last 5 days and group varies from 6 to 13.

Spent 1/2 hr at Cliff meadow and collected the following insects.

870505-10 bumble bee

870505-11 diptera



870505-1 870505-2 870505-3 870505-4

PERCHING POSITION OF BALD EAGLES ON SHORELINE AND HILLSIDE S SPRING COVE, HUMPHREY HEAD, LOPEZ ISLAND, SAN JUAN COUNTY, WASHINGTON.


810505-69

UNDERLAY OF PERCHING POSITIONS OF BALD EAGLES (PREVIOUS PAGE)
DATES REFER TO JOURNAL

To be filled in
8/7/87 ——→
10/25/87 ——→

870505-77

870505-78



870505-G

PERCHING TREES AT BOUNDARY POINT,
HUMPHREY HEAD, LOPEZ ISLAND. WASH.

870505-12 diptera
870505-13 hymenoptera
870505-14 ant
870505-15 ant
870505-16 ant

3:45 P.M no harbor seal on any of the pull-out places.
3:46 P.M 45 glaucous-winged gulls on Flower Island.
6:00 P.M 62 glaucous-winged gulls of which there were 16 pairs on Flower Island.
7:30 P.M. 6 Rufous hummingbirds at feeders.
8:00 P.M 11 " " " " They are chasing each other on etended flights. at approx 1 time in every minute, one bird will cross feeding area at a high speed from out 20-25' to same dustance beyond flight. There is no deviation but straight dart cross feeding area and always within 4'-5' of feeder. Day has been cloudless, cool and only breeze. On the average there are not as many birds tonight (8:10 P.M) as last evening.

4 bald eagle sightings today.

may 6, 1987

7:30 A.M. Immature bold eagle pursued glaucous-winged gull for 3 minutes over and around Lee Reef. (cape) St, left and flew to Lichen Point, thence past Bee House to Boundary douglas fir Tree where it alighted 3' from top and remained, first facing N, then S until 8:01 A.M.

10:10 A.M family deer came running down trial from midtrail to N (above Otter Cove). They feed & had apple slices and then all went NW up trail to top steps & the to N.

4:00 P.M. 6 rufous hummingbirds at feed and not as many as last 3 days. Day brilliant, no clouds, slight breeze Temp 67°F

4:30 Collected following insects from Cliff meadow:

870506-1 bumblebee
870506-2 "
870506-3 "
870506-4 "
870506-5 hymenoptera
870506-6 Crane fly.

870506-80

Bee Estate, Humphrey Head, Lopez Island, San Juan Co., Washington

may 6, 1987 Shy Doe

7:00 A.M - 7:20 A.M an adult ♀, (height at shoulders 29 3/4) arrive from SW on old deer trail and came down slope to feeder. This doe is slightly smaller than ad ♀ of local family group. Its confiding nature was between spooky deer in area and complete confidence in man. It had floppy ears as does the ad ♀ of local family group. After 20 minutes feeding it left the same trail it used in entering the feeding area, gaining Grotto Ridge and thence beyond. It left and arose in a leisure way and acted as if it had knowledge of the area. The local deer seldom enter or leave the feeding area as did the new arrival. When feeding there is slight movement from breathing between the posterior rib-cage and the hind quarters. When head is upright and alert the breathing from olfaction sensing produces a noticeable depressing and expansion of the area. Rolling bulges from area of poster ribcage was from fetal movement. no sharp point elevations of the skin that occurs later. At one time a song sparrow flew 3 feet behind the deer in adjusting its local feeding position at the feeder. The deer in turn jumped and ran 6 feet then returned to feeder. 5 times it displayed quick reflective body movement but did not adjust feet on ground.

8:20 A.M. young ♂ family drop shows new growth of antler that are now 3/4" high surrounded 1/2 by hair. Round knob is brownish epidermis and smooth.

mr. Berg (Gary Berg's father) who lives SW of Convergence of Vista and Mud Bay Roads informed me:

Calf quail has been on his property for 20 years. Hunters used to heavily hunt this land but they (the quail) always survived. Pheasants were as common as in Kansas but hunters, raccoons and especially wild cats eliminated them.

meadowlarks were common on his property 20 years ago but are not there today. Raccoons & wild Cats are blamed for their failure to survive on the island.

6:30 P.M 2 glaucous-winged gulls copulated on Flat Point. Two attempts were made after preliminary bobbing of heads etc but in both cases the female was receptive with tail held upright but male did not advance beyond standing on the back of the female.

Today water shimmering on all surfaces exposed to sun reflection. There was a uniformity of surface reflection.

At 7:40 P.M recorded numbers of rufous hummingbirds at feeders (3) on porch.

7:40 P.M - 3
7:50 - 3
8:00 - 6
8:10 - 5
8:20 - 7
8:25 - 7
8:28 - 7 (2 river otter swam by to S)
8:35 - 5 (sea 50-50)
8:40 - 5 to Swift Bay.
8:45 - 5 (tame glaucous-winged gull left to S). It direction, gave 2 quick notes just before takeoff.
8:47 - 10 arrive suddenly and all fed compatability at feeder each taking turn. Prior to this group, individual hummingbirds commanded each feeder and would spend most of it time warden off other hummingbirds.
Of the 10, 9 were ♂, 1 ♀.
8:50 all left except 1 46 surf scoters to N in single
8:55 2 males line 1-2 feet above water.
8:58 2 males
9:00 1 male This male fed for 2 sec intervals then rested on branch 1½ feet away for 5 second.
9:02 above male left area abruptly after feeding at feeder. To travelled S along shoreline.

9:05 P.M young ♀ came to deer feeder and left as did the ♀ of 7:00 P.M - 7:20 P.M. It would be compared to a second year young.

May 7, 1987

11:30 A.M 3 rufous hummingbirds at feeder. There has been a decrease in numbers of birds (hummingbird) at feeder.

11:35 A.M 10 band-tailed pigeons at deer feed NW of house. Most of them remain in trees above cliff while 2-3 feed at a time at feeder.

12:00 Wave action like yesterday producing a general shimmering from reflection of the sun. There is a uniformity and extensiveness of this effect,

Jan & Lulu Johnson, owners of Islandale Service Station, Lopez Island, stated that at Mac Kay Harbor they see 2 or 3 bald eagles at least 3 times a week. Eagle increase in area when Indian Fishermen start fishing season.

6:00 P.M 8 brown-headed cowbirds at feeder, Bee House
8:00 P.M 2 rufous hummingbirds at feeder
8:05 P.M 4 " " "
8:10 P.M 3 " " "
8:15 P.M 3 " " " ← (3 brown-headed
8:20 P.M. 4 " " " blackbirds at feeder
8:25 P.M. 4 " " " (grain)
8:30 P.M 4 " " "
8:35 P.M 5 (4♂, 1♀) " " " brown-headed cowbird
8:40 P.M 4 " " "
8:45 P.M 5 " " "
8:45 P.M 7 " " "
8:50 P.M 6 " " "
8:55 P.M 5 (4 left) " " " "
9:00 P.M 2 " " "

9:02 P.M The last bird left at 9:02 and as last night was feeding & resting. Tonight it bird left directly from the perch instead of from the feeder,

9:07 P.M first bat (long-eared ?)

rufous May 8, 1987

8:00 AM only 2 or 3 hummingbirds at feeder and irregularly. Between 8:15 AM and 8:45 AM no hummingbirds at feeders.

8:44 One hummingbird at feeder. There has been a rather dramatic decrease in activity including yesterday, from continuous activity of 6-12 hummingbirds to condition of yesterday and even more today. Weather has been the same for last 4 day of cloudless skies, warm weather and gentle breezes.

10:30 young ♂ at feeder

10:45 fawn & young ♀. Fawn 26" high at shoulders. Adult female 29 1/4" high.

12:00 Only 9 of all the deciduous trees (alders) on Blakely Island S to Thatcher are near the deep green of conifers (Douglas fir dominant) The nine are large conspicuous trees

that are in the late color change from greenish-yellow to deep green.

3:00 P.M Collected the following insects from Cliff meadow: (all from short grass and shrubs + other open growing plants)

870508-1 bumble bee
870508-2 " "
870508-3 yellow-jacket (first observed this season)
~~870508-4 hymenoptera~~
870508-5 diptera
870508-6 "

weather as of last 3 days. Clear, breeze, warm but cooler than yesterday

6:00 P.M 5 rufous hummingbirds at feeder.

6:25 P.M river otter swam S past Bee Haven 1-3 feet from bank.

6:30 P.M. 5 rufous hummingbirds.
7:00 P.M 4 " "
7:30 P.M 5 " "
8:00 P.M 3 " "
8:30 P.M 4 (3♂ 1♀)
8:35 P.M 5 (4♂ 1♀)
8:40 P.M. 3
8:45 P.M 5 (all ♂)
8:50 P.M 4 (" ")
8:55 P.M 2 (both ♂)
9:00 P.M 2
9:01 P.M one of the 2 ♂ left.
9:04 P.M last ♂ left.
9:13 P.M final bat (long-eared size)

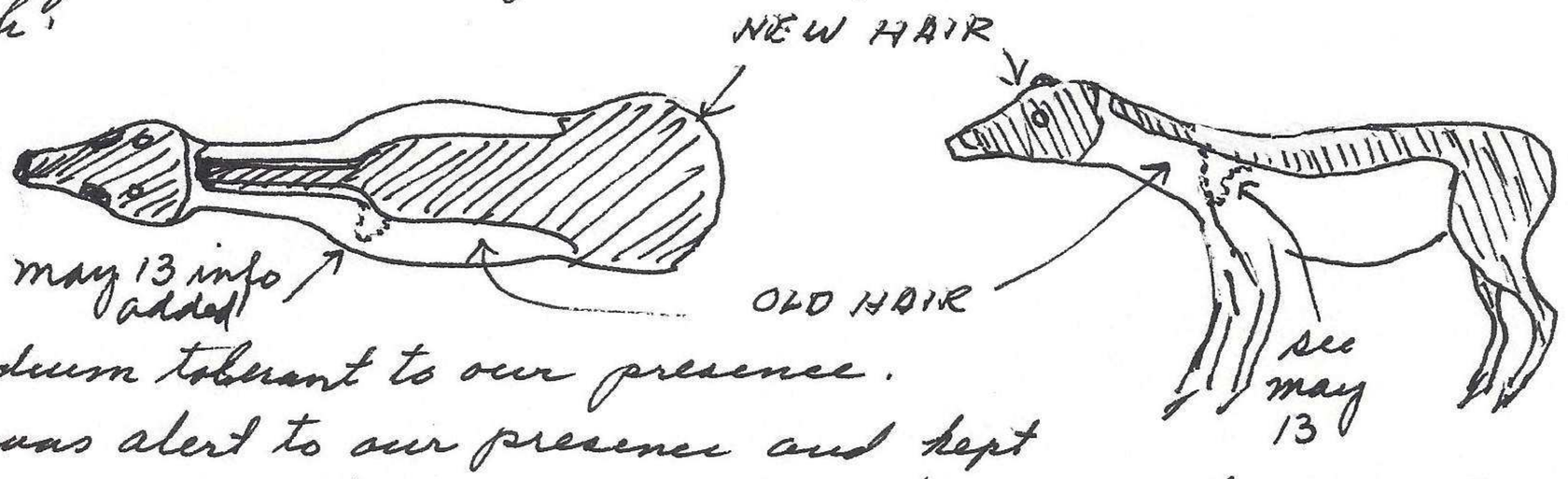
May 9, 1987

9:30 A.M family of deer at feeder (local territory (22½" high) 10:50 A.M ad ♀ (31¼" high and fawn of last year at feeder. young more wary & alert than local fawn and ears more red + darker, reddish pelage than local fawn (last year) ad female more black on upper interior border of ear than local family adult ♀. young ran up trail to top cliffs + across slope, ad stopped at upper trail.

11:05 A.M collected road kill muskrat, Ondatra zibethicus osoyoosensis from N end Hummel Lake, Lopez Island, San Juan Co., Washington It was crossing from lake to outlet marsh on N side of road. Its measurements are:

568-255, 78, 14, 930gms. Sex ♀, wt. normal. Ear measured from pnia one side to opposite side of ear canal  Skull completely crush and have measurements only of this mammal no. 870509-1 JWB.

5:20 P.M Two non territorial mule deer came to feeder. young buck (third year.) 30" high at shoulders, antlers 1½" high.



medium tolerant to our presence. It was alert to our presence and kept eyes on us as it fed. when startled ran up trail to top of cliff, stopped and then walk N on middle trail.

Observed a turkey vulture 150' above conifers on ridge W of junction Spencer Spit Rd and Port Stanley Road.

at Swift Lagoon 6 (3♂, 3♀) blue-winged teal.

at N Beach of Spencer Spit collected rock samples.

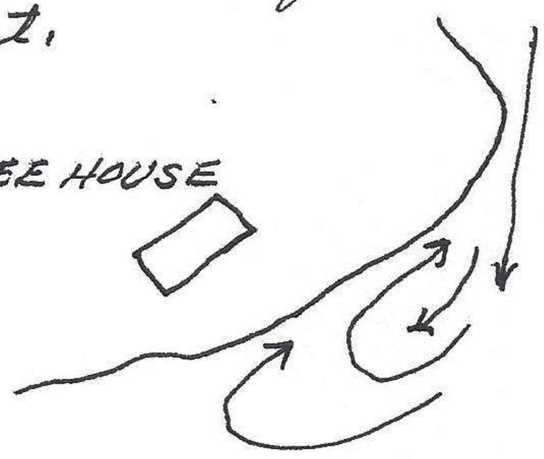
This evening wind changed from the N (last 3 days of clear weather) to from S.

8:00 P.M 1♀, 1♂ rufous hummer at perch feeder.

May 10, 1987

7:00 A.M First time in a year (at least) that a dynamic tide current has occurred at Boundary Point and in front of Bee House. There were upwells, whirlpools and fast moving water. Continued to 7:25 A.M at which time it was normal surface. One log 1½' x 8' swung in arc in 3 seconds. The circulation was lee of point.

7:35 A.M Dommature bald eagle (white feathers in head and white across front) alighted on rocky shore to investigate carcass of muskrat placed there for such purpose. It left as I moved from the window.



9:50 A.M to Rosario Resort for mother's day Brunch and then to Cascade Lake where we hiked 2.5 miles along its perimeter, no aquatic birds on lake. At bay on W side met Mr. Bob Hamblin who directs and own Arcon Spectrum Video. He

documents bird calls and behaviorism and identification. Lives NE of Mt. Vernon and is employed by Padilla Bay Interpretive Center (Cascade Lake) of Bayview State Park. (audubon representative) At bay he saw Townsend warbler, Swainson thrush and blue grosbeak. He also reported 2 golden eagles on San Juan Island (5 ent), & skylark this spring. He also said State Fish and Game introduced mule deer from E of Cascades. (on Orcas Island) and size increased in local mule deer (black-tailed) 20%. Hybrids have larger antlers, larger ears and more white on tail. There is a high population of deer on Orcas. The rufous hummingbird is most aggressive of hummingbirds. dive fence around feeders and water bath keep sharp-shinned hawks and Coopers hawks from attacking small birds. Steller's jays consume great quantities of food. The lodgepole pine forest on top Mt. Constitution is like stepping into forests of northern British Columbia. Birds have different calls in various seasons of the year and according to age. Best hummingbird food is 1 part sugar 4 parts hot water. The boiling water activates the first change of sugar crystals to a form more readily digested by the birds.

Annette and I continued around the Cascade Lake and observed enroute 8 blue skipper butterflies, 9 robins. (from N camping area to S camping area on W side lake)

From Cascade Lake to Ferry landing on Orcas observed 13 robins.

At 3 mi post (appox 2 mi. N of Killebrew Lake) noted a fox squirrel. (Sciurus niger)

2 turkey vultures at junction road just E Killebrew Lake in top dead Douglas fir tree.

Continued to Lopez. at SE corner Swendemann property on Humphrey Head noted an ad. bald eagle on top Douglas Fir tree 20' from beach.

8:00 P.M. at Bee House, local family of deer at feeder. found ♂ young ♀, fawn, ad. female (♂ 30" high and antlers fuel 1 inch high.) swimming to

8:05 harbor seal to N out 200'.

8:04 4 rufous hummingbirds at feeder. muskrat still on shoreline below.

8:50 5 rufous hummingbirds at feeder

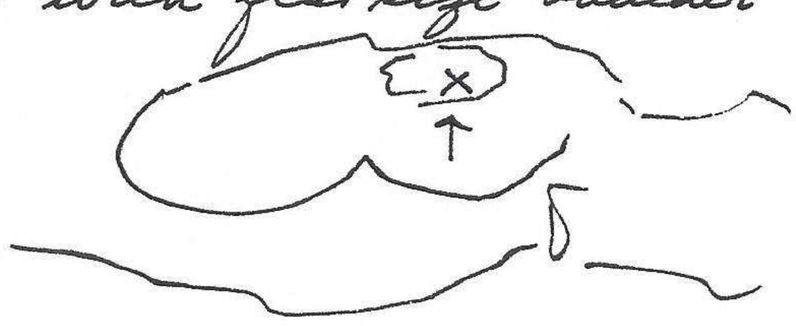
8:55 6 " " " "

9:00 3 " " " "

9:05 P.M 2 rufous hummingbirds at feeder
9:07 P.M Last rufous hummingbird left feeder and for 2 minutes was only bird at feeder. It left abruptly from feeder and flew S.

May 11, 1987

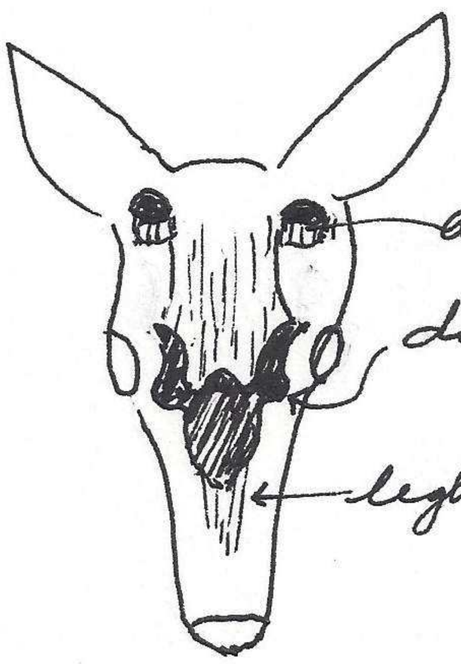
marked tide at 10:26 A.M at 0.0 with fist size boulder and 0.0 at top sharp point of rock.



10:30 A.M a shrew ran out from under a 2'x 6' plywood board lying flat on walk S of House. This is the 3 time a shrew has left when water was used to water grass by the side of the board. It ran under house.

11:00 A.M 2 ♂ & 1 ♀ rufous hummingbird at feeder, dark-eyed juncos (Oregon race) consistently feeds all day on porch and after each period of feeding flys to Spring Cove Point area.

10:30 A.M young ♂ (of local family group) shows considerable more dark hair on face than other ♀'s.



11:35 A.M rubber boat, female yellow rain jacket, male red shirt, bottom boat white, upper blue & spray shield red displaced 25 harbor seal on North Flower Rock. then followed them as the seal swam away & resurfaced. The seal did not return for at least 1 hr.

Have not observed aquatic birds in sound this A.M (out to Leo Reef quadrangle)

12:00 P.M 2 ♂, 1 ♀ rufous hummingbirds at feeder.
12:30 P.M 2 ♂, 2 ♀ " " " " " Male birds displace ♀ birds at feeder & perches.
2:15 P.M. ♀ rufous hummingbird inspected cliffs & rocks on shoreline below Bee House at just at or above high tide level

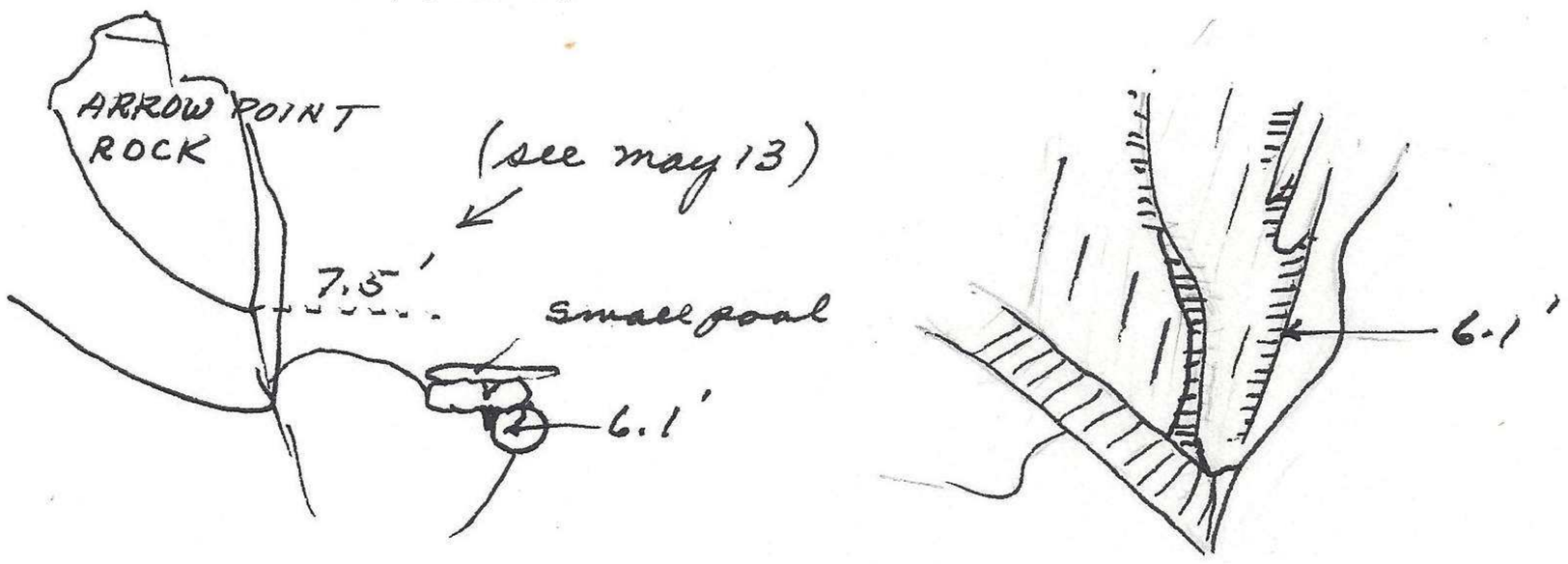
for approx 3 minutes. They were observed to do this on 2 other occasions today

4:35 P.M. 25 glaucous-winged gulls on Flower Island. all activity in light rain today. Hummingbirds frequently shook wings, body & tail and preened wings frequently.

5:30 P.M 3♂, 2♀ rufous hummingbirds.

5:45 P.M tame glaucous-winged gull arrived on porch for first time today and then left.

5:18 high tide at 6.1' at first bench on sloping rock below Bee House



7:00 P.M 8 band-tailed pigeon at feeder. As the season advances they become more wary

7:05 P.M 2♂, 2♀ rufous hummingbirds.

7:30 P.M rufous-sided towhee at feeder and has been at feeder 3 times since 4:00 P.M but not earlier in the day.

7:31 P.M 65 glaucous-winged gull on Flower Island, 2 pelagic Cormorant.

May 12, 1987

9:00 A.M sky with tones of gray covering all areas.

9:05 A.M 23 harbor seal North Flower Rock.

2 " " Big " "

59 glaucous gulls Flower Island.

9:10 A.M ♂ and today ♀ dark-eyed junco at feeder and making regular trips with food to shoreline from Spring Cove Point to Round Point. Before male always to Spring Cove Pt.

870512-1 Peromyscus m. halsteri 184-78-22-20-34 gms, ♀ From Bee House. wt mammary glands 2.5 gms, 2x2 plac. scars

11:45 A.M 14 harbor seal north Flower Rock

9 " " Little Flower Rock

3 river otter swimming and feeding along shoreline between Spring Cove Point & Lecken Point.

4:00 P.M Rufous hummingbirds will evade a bumple bee (medium size) if the bee is at one of the holes of the sugar feeder. If the bee challenges the hummingbird while it is feeding at one of the holes, the hummingbird will vacate its position and generally fly from feeder. One bumble bee flew directly from one feeder to another 10' away and then to a third 8' away as if it were conditioned to their position on the porch. At this time There are 2 ♂ and 3 ♀+ rufous hummingbirds at the feeders
4:20 P.M. 3 blue-winged teal, 16 short-billed Dowitchers at Sewft. Flyover.
8:55 4 hummingbirds at feeder. 9:00 4 humers at feeder. 9:05 last of humer left. 17 harbor seal Leo Reef

May 13, 1987

9:50 A.M ad ♀ with black upper edge ear fed for 5 mins. young ♂ & young ♀ of family group arrived. ♂ stood 5' from ad ♀, then approach feeder and put nose within 8" of ♀ last ♂ was immediately rebuffed with threat of ♂ foot. He back up 5'. young ♀ came straight up to feed and almost placed nose on ad ♀ but was rebuffed. Both young fed on sunflower seed 4' from corn feeder and both approached again but again, were rebuffed by ad ♀ by striking with front feet. She left 10" later & 2 young then fed from feeder. This ad ♀ is not a sparky as other deer (other than local family) that occasionally come to feeder. 5 min. later ad ♀ local family at feeder

10:50 A.M young buck, 30" high, antler nubbings 1/2 inch. Of same as last outsider, the pelage has increased about 2" laterally from new hair all around. (see may 9th for previous pelage change. Most change in new hair on anterior front shoulders (see may 9 for addition of pelage change.) Tide 2.3 at 11.30 A.M

4:30 A.M (see below)

6:10 P.M ♂ dark-eyed juncs contacted Townsend Chipmunk as they were feeding on ground in bird feeding area NW of Bee House (out from kitchen window). It darted directly at the chipmunk, struck it and then alighted 2 feet beyond. It did this twice. The chipmunk pull itself near the ground but did not otherwise react to the contact. The same male junco, with food in its mouth flew up over edge of cliff to basal Douglas fir clump to its young ?, and then returned. This same ♂ feed 18" from eastern gray squirrel and respected it.

6:50 P.M Observed 2 rufous-backed chickadees for first time since last recorded in journal. They fed on suet 1 year old.

4:30 P.M 3 immature bald eagles circling Hummell Lake at approx 150' high.

7:00 P.M. Tide 7.5 feet which is exactly at the tip of the arraw paint marker.

7:05 P.M 2♂, 2♀ rufous hummingbirds at feeder

May 14, 1987

9:15 A.M 20 harbor seal N Flower Rock, 8 Les Reef, 71 glaucous-wingedgulls Flower Island. day overcast, fog clouds and sky variable gray.

2:30 P.M. 16 harbor seal Les Reef

21 " " N Flower Rock.

This afternoon at 2:35 P.M first young dark-eyed juncs at feeder. Also 5 song sparrows in one group and is a new family group of young and adult.

8:12 P.M no glaucous-winged gulls on Flower Island nor were these gulls on the water or in the air in the sound. Two minutes later 3 gull returned. no other gulls returned for 5 minutes that I observed the island. Those that returned were on the S end of island.

8:20 P.M 3♂ 2♀ rufous hummingbirds. Male can move sideways on branches without using wings.

8:30 P.M nine glaucous-winged gulls on Flowerls.

May 15, 1987

9:00 A.M ad dark-eyed junco ♂?, fed 2 young from porch feeder also a song sparrow fed 1 young

For the last three days there has been an extraordinary amount of debris in water below the Bee House, someplaces like the stringy eggs of chinese egg soup. The surface film forms continuous masses. This may be associated with the material that forms on the tidal lands at low tide. This time of year the exposed ground at low tide is considerably greener and coverage more complete than in the winter months. Some eel grass.

young of song sparrows are 1/3 larger than adults.

9:05 A.M 4♂, 2♀ rufous hummingbirds at feeder

9:45 A.M 14 harbor seal N Flower Rock

9:45 A.M 1 " " Little Flower Rock

1 " " Les Leek Rock no. 10.

84 glaucous-winged gulls Flower Island.

9:50 A.M 80% above gulls left island, out 200', circled

870515-89



870515-1

FLAT POINT, S OF SPRING COVE, HUMPHREY HEAD, LOPEZ ISLAND, WASHINGTON INTERTIDE AND TIDE MARKER



870515-2

870515-3

INTERTIDE AND MARKER

BEE HOUSE, HUMPHREY HEAD, LOPEZ ISIAND, WASHINGTON

870515-90

and then returned. Count after arrival back 86.

4 to 6 western grebes still in area.

12.54 P.M. low tide -3.3 ft. Took following photographs to document shoreline contour at -3.3 ft:

· 870515-1 Flat Rock Point. (See May 4 for diagram of tide on shore profile.)
· 870515-2 Low tide below Bee House. next phots a panoramic
· 870515-3 Second panoramic phots of above. -3.3 is divide between rectangular rock and its end outlier E ← → W
· 870515-4 Bee House from dessected Point showing -3.5 tide
· 870515-5 ibid with 3 river otter swimming by. to 5,
· 870515-6 Bee House from Spring Cove beach.
· 870515-7 From dessected Point to S along shoreline showing log foreground, Flat Point & Lichen Point.
· 870515-8 From Grotto Ridge with Spring Cove Point and -3-3' low tide
· 870515-9 'Bee House, from O'Leary house. but probably to 100's of ft. most stars are 2-3' above 0 tide to at least -3'. Some 4-5 feet above 0'. They are mainly Ochre Sea Star and Dawson's Sun Star.

Bee Estate, Humphrey Head, Lopez Island, San Juan Co. Washington

May 16, 1987

9:00 A.M 2 ad Canada geese and 4 young at Surf Lagoon near road.

mule deer in middle field 1/10 mi. S. Surf Lagoon
Red-tailed hawk on fence bordering Andrews meadow.

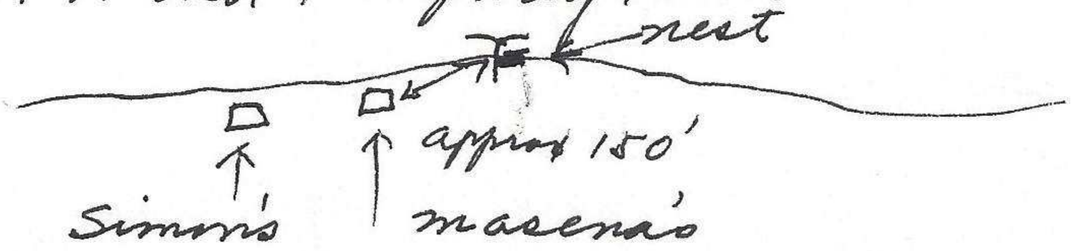
9:15 AM Thamnophis on upper edge cliff below Bee House, sunning in open

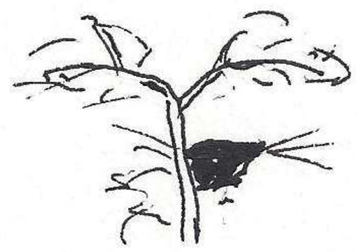
9:45 AM young ♀ (of family group) feed at feeder then left up trail, across cliffs to top stairway, thence up trail to lower parking lot, thence across to Frolic driveway where it continued N up road.

Rufous-sided towhee, adult only, feeds regularly at feeder.

May 17, 1987

9:50 AM.
Left for Anacortes and then to Chris at Lost Lake. Will keep complete record of birds or mammals. Bald eagle nest on N end Humphrey Head





at Pointer Island glaucous-winged gulls every 2-5' apart and more crowded than on Flower Island. Color of water in Rosario Straits green. Log every 125' in straits. Cassin's murrelet. no other birds on trip. Continued on from Anacortes to Chris'.

May 17-18, 1987

at Chris' at Lost Lake. Left for La Conner Thousand Trail Preserve.

May 19, 1987

2 hooded mergansers in lagoon at Thousand Trails Preserve On beach at Lone Tree Point. 2 black oyster catchers, 2 glaucous-winged gulls, 1 kingbird and 3 crows. Bird in lagoon scarce compared to winter season. Left and at Anacortes ferry terminal noted 4 mallards, 1 double-crested cormorant, 2 glaucous-winged gulls, 1 great blue heron. In the building SW of ferry terminal is a note written on the wall "Swallows arrived 6:30 P.M April 11, 1975." Red-shafted flicker called nearby.

Boarded ferry at 11:04 A.M and will keep complete censeus (both sides ferry) to Lopez Island: 2 pigeon guillemots, 2 pigeon guillemots, 1 pigeon guillemots, one Cassin's murrelet, Pointer Island gulls 2-5' apart, 2 Cassin's murrelets passing Lawson Rocks.

11:25 W end Thatcher Pass no NW; 2 glaucous-winged gulls, 2 Cassins murrelets, Lopez Terminal 11:42 A.M. 4 immatures, 2 ad glaucous-winged gulls on piling at ferry terminal.

Continued to Humphrey Head on Lopez Island.

5:00 P.M young ♀ of family group feed at feeder. This
7:00 P.M " ♂ " " " " " "
♂ has antlers 1½" long & hair half the length. Height at shoulders 30",

8:30 P.M 4 ♀, 2 ♂ rufous hummingbirds at feeder.

9:15 P.M 2 ♂ rufous hummingbirds at feeder. Lights fading. Sky clear. Both birds left at same time, 9:18 p.m. first bat this evening.

870520-93

Bee Estate, Humphrey Head, Lopez Island, San Juan Co., Washington.

May 20, 1987

Early this morning before daybreak moon reflected on water. The central reflective angle was approx 10' x 2', at times this reflective area to almost perfect moon image 4' x 2' with only slight movement of water. At times in the past I have witnessed perfect moon and star reflection. At times the moon reflection extended from shore at house to Decatur Island, sometimes in the distance broading to 2/10 mi. Sometimes slight winds at various places would produce a localized broad beam with intermediate still black water

The distant sound associated with exit of Thatcher Pass and winds from South Lopez Sound occasionally were widely covered with shimmering moonlight.

2:00 P.M young ♀ mule deer at feeder and alone. 26" in heighth at shoulders. There is less family grouping at this time with young ♂ + ♀ travelling seperately and the ad. ♀ + fawn travelling independently. They do feed together about once per 3-5 days. ad. ♀ may be giving birth to this years fawn and is preoccupied but will later reform the family group.

6:45 P.M all glaucaus-winged gulls left Flower Island, flew E, circled and returned. An adult bald eagle displaced them by circling at island heigth and then leaving.

7:05 all glaucaus-winged gulls left Flower Island, flew E. circled twice gaining higher elevation and then returning to Flower Island. although I did not see the eagle, the eagle was probably responsible. Bald eagles displace these gull on an average of 6-7 times a day, at least,

8:30 P.M 2♂, 3♀ rufous hummingbirds at feeders of which there are three. area for last month or so

8:37 P.M ad ♀ mule deer (stray that has been in, at feeder. heighth 30 1/4 inches at shoulders. no fawn with her foetal movement on flanks of adult deer.

May 20, 1987

9:15 A.M. young ♀ mule deer. 27" high.

9:30 A.M family group mule deer at feeder except fawn. foetal activity in flank area of ad. ♀.

May 21, 1987

10:30 A.M fawn at feeder 27" high at shoulders.
young ♀ at feeder. ate sunflower seeds for 2 minutes.

Eastern gray squirrel, big adult, 23 sunflower seeds per minute
Squirrels gone way to 2 mule deer at 4 feet. It consumed fewer sunflower seeds when deer feed 6' away than when there were no deer in area.
Another ad. squirrel at rate of 21-23-22 seeds per minute, alone.

May 22, 1987

northern violet green swallows still inspecting new nesting box on SE side Bee House. Five days ago 12 of these swallows

competed for the inspection. This group left and finally one pair persistently inspected the nesting box by landing at the hole in the box but never going completely into the box!

may 23, 1987

northern violet-green swallow (pair) entered box for first time only on sighting of bald eagle today (adult)

may 24, 1987

northern violet green swallows carried dry grass stems, some to 14" long into nesting box. Short stiff twigs inhibited swallows from entering because of crosswise arrangent of building material held in mouth. They finally get it in the box by taking hold of one or the other ends but this may be a random readjustment of the material in their mouths.

2 sightings of bald eagle today.

Pair of northern violet-green swallows carried nesting material into nesting box. I would not be positive the only one or both contributed to nest building.

This evening 33 boats moored at Spencer Spit (7:30 P.M)

Boats have been arriving from E since Friday (22nd)

may 25, 1987

Most boat from E Friday 22 and Sat 23, few on Sun 24. Today is the exodus of memorial day boat travel and is more concentrated than the arrival of the holiday weekenders. Record numbers & kinds of boats for 1 hr / boats pass line E of Hance every minute. / S = sail boat, m = motor boat)

P.M				
12:43	mm	.08	Sm	.30 mm
44	m S	.09	S	.31 mmmm
45	m S	.10	mmmSS	.32 m
46	m	.11	m	.33 mmmm
47	S	.12	0	.34 mmm
48	S	.13	0	.35 m m m
49	m	.14	m m	.36 0
50	0	.15	S m	.37 m m
51	S	.16	m m	.38 m m
52	0	.17	m m m	.39 S
53	m	.18	m m	.40 m m S
54	Sm	.19	m	.41 SS
55	m m	.20	S	.42 m
56	m m	.21	SSm	
57	m m S	.22	0	
58	mmm	.23	0	
59	m m m	.24	m m	
60	m m	.25	0	
1:01	m m	.26	0	
02	m	.27	m S	
03	0	.28	SSm	
04	m	.29	0	
05	0			
06	0			
07	m m m			

at 8:00 A m there were only 5 boats in travel lane. By 9:00 AM travel in fuel slump and by 6:00 P.M tapered off to only 5 boats in Sound.

motor boats = 74

Sail boats = 22

96 per hour.

(5 of the 22 sailboats moved by motor only)

no boats in N Lopez Sound after 7:45 P.M. The greatest number of boat in N Lopez Sound from point E of Bee House to Thatcher Pass was 36. At beginning of census at 1:43 there were 26 boats in sound (17 motor, 9 sail).

7:45 P.M. 104 glaucous-winged gulls on Flower Island. 4 pairs were observed copulating in a 15 minute period. Birds in back standing position averaged 40' each. 10 gulls were on nests.

6:35 P.M 2 imm. and 1 adult bald eagles flying low 300' E of N end Humphrey Head.

This evening and since recording of rufous hummingbirds there have been on an average of 5 birds at the feeders, most frequently 3 ♂'s and 2 ♀'s.

May 26, 1987

870526-1 Peromyscus m. sallesteri. From Bee House.

Two bald eagle sightings today.

May 27, 1987

7:00 A.M northern violet-green swallows active at nest.
12:10 P.M 4 river otter swimming N 3-4 feet from shore.
12:30 P.M 3 ♂, 3 ♀ rufous hummingbirds at feeder.
1:20 P.M an adult size mule deer ♂ had antlers 1 1/2" less than length of ear. It fed in area for 1/2 hr, along with young ♂ of local family group. It finally moved N along beach beyond Boundary Point. All deer are frequently eating new growth on Douglas fir.

1:40 P.M. a band-tailed pigeon flew from Humphrey Head, above Bee House in a straight SE direction. It arrived at Blakely Island at about 300' high at a point above Willows Island and instead of landing on Blakely Island it flew up over a fog bank that covered the upper 1/3 of the mountain; its distination at least Decatur Island & maybe beyond.

2:50 P.M 11 band-tailed pigeons landed on porch rail feeder (9' long) and initially each bird created a 3"-5" interval by pecking at its bordering neighbor. As they started to feed the interval was ignored and the birds moved about sidelyside

Flower Island is more yellowish-brown (open areas) now than earlier in the month when the color was greenish yellow. Trees and bushes are normal summer green.

870528-97

Bee Estate, Humphrey Head, Lopez Island, San Juan Co., Washington
March 28, 1987

870528-1 Sorex vagrans vagrans. 102-45-14-8-5,5 gms ♂
tick (2 mm long ○) above (1/32") eye.
870528-2 Peromyscus maniculatus kellisteri. 176-86-22-19-31 gms ♀

Both specimens above from Bee House.
6:30 A.M northern violet-green swallows active.
8:20 A.M 7 brown-headed cowbird flew E to Blakely.
8:30 A.M a female brown-headed blackbird attempting to enter swallow nesting box (but unsuccessfully as opttrature is 1 1/2" in diameter) was repelled by both swallows. The cowbird flew to Douglas fir 20' away and was physically attacked by the swallows.
9:20 A.M a male dark-eyed juneo alighted on top of roof of house 2' away from the nest of the northern violet-green swallow and the swallows attacked it, fighting with physical contact for 20' as they dropped down at a 45° angle. The swallows also darted (10' away) at a glaucous-winged gull on top of the Bee House. The gulls were 15' from swallow nest.
4:00 P.M young ♂ mule deer of family group has antlers 1 1/2" beyond hair line at base of antler (local)
The angle of bend is (curved) downward as above ↑
The ♂ fed on apple slices from hand without fear.
5:30 P.M. 123 glaucous-winged gulls on Flower Island. 19 of them were singles on nest, 8 were brooding bird and mate standing by nesting bird.
6:15 P.M. when glaucous-winged gull alight on porch, all other birds immediately leave (at this time birds were brown-headed cowbirds, rufous hummingbirds, dark-eyed juncos and band-tailed pigeons. Most of them returned in about 5-6 seconds. Cowbirds feed within 4' of gulls, hummingbirds 1 1/2', and juneos 2 feet.
8:45 P.M sun just left Blakely & Flower Island. cloudy sky.
106 glaucous-winged gulls on Flower Island, 23 of them in pairs, many on nests as singles. In 10 minutes observation to 8:55 P.M 4 copulated.
8:55 P.M. 5 rufous hummingbirds at feeder, 3 ♀, 2 ♂.
no bald eagles observed today.

870523-98

May 29, 1987

The four mule deer of local family group fed separately this morning. ♂ antlers of ♂ approx 2" high

On trip to Lopez Village 11:00 AM noted 2 mule deer, one N of Windsock airstrip and one 1/10 mi W on Lopez Road where it leaves Fisherman's Bay Road to N. One seldom sees deer at this time of day, maybe 5% of the times.

At Swift Lagoon noted 9 blue-winged teal and one green-winged teal. No birds on Humphrey Head Lagoon nor have I seen any in last 3 weeks except crows and glaucous-winged gulls. In winter there are always birds there.

May 30, 1987

Rain last night to early this A.M. Sky cloudy but blue sky 5%. At 9:00 A.M waves 21 per minute and foam streaks from white-caps and parallel to wind.

10:35 4 turkey vultures sailed over N Lopez Sound E of Bee House at about 250'. They continued circling S over Leo Reef, thence to general area above E end Frost Island at 150'. At this point they were joined by 3 bald eagles and for 20 minutes circled from 150' to 300' above the NE end of Frost Island. Each species maintained their own circling patterns but occasionally past thru each others formation. They were compatible. The eagles finally separated from both the vultures and themselves but all remained in S end of North Lopez Sound. The bald eagles circled without bodily contact or attraction. Although eagles can pivot in circular flight, they do not maneuver as sharply and as frequently as the turkey vulture. The turkey vulture is not as steady a flyer as the eagle and tilts wings on a regular basis. One bald eagle circled 400' and then made straight line sail (no flapping of wings to Spencer Spit area.

11:00 A.M only 2 harbor seal on Leo Reef or elsewhere.

11:10 A.M one bald eagle still circling above Frost Island.

12:30 P.M no harbor seal on any rocks although low tide

1:30 P.M Low tide -1.9'. Brownish-red narrow plumelike algae plant to top of water only

From Bee House:

base of tail skinned = 3.0 mm
base of tail include hair = 4.8 mm wide

870530-1 Peromyscus maniculatus hollisteri 192-93-23-19-32 gms ♂ testes 9 mm

870530-2 " " " 146-69-22-18-15 gms ♀

base of tail with hair = 3.9 mm, base of skinned tail = 2.8 mm

870530-99

4:15 PM Friends of O'Leary (renters? 2 males, 2 females) approached Leo Reef in boat. 5 harbor seal left island and as boat circled reef at about 30', the seal displayed at E end by splashing, especially with tail (double (2) cartwheels and general commotion at about 30'. When boat circled second time the seal performed at SW end of reef at 15' from reef. I had never observed seal display in such close quarters. They (the seals left but occasionally a head or two protruded at 200' 300' away. The party of 4 landed on island at 4:25 P.M, tramped the entire reef climbed beacon, one to light level while the boat circled the island 5 times. They left at 4:35 P.M and returned to O'Leary's. O'Leary must be informed of regulations and renter behavior. 9 other people (13 in all) at O'Leary's this afternoon.

7:05 P.M. young ♂ mule deer of local family groups at feeder. noticeable change in pelage and contrast to other 2 young of family groups. He had a narrow reddish stripe from head to tail on dorsum. This same color extended forward from tail to knee . The area immediately above the eye is a colorful tan. The young ♀ and fawn (second season) of family groups were repeated by the male. Antlers slightly longer. The two ♀'s remained 15' from feeder.

June 1, 1987

870601-1 Selasphorus rufus Calliope 163-71-23-18-17 gms. ♀ from Bee House.

For 15 min. period, counted 14 rufous hummingbirds at feeder. Before and after 7:30-7:45 A.M average 6. Last week an average of 5.

Left for Chris' home (Lost Lake) as we passed N end Humphrey Head noted flat topped bald eagle nest but no birds on nest or in area. Slopes of Blakely and Lopez islands have dried brown grasses.

At Pointer Island glaucous-winged gulls average 5 feet space

interval and all above black zone above high tide.

SE of Anacortes where railroad crosses bay (to S) the low tide has exposed an expanse of mud that is only slightly tinged with green whereas a month or so previously the exposed flats were a bright yellowish green.

Continued on to Seatac airport S of Seattle to pick up Jim & Liz Malseed. Returned to Chris & Steves on Lost Lake and remained there overnight.

June 3, 1987

Left for Lopez. Left Anacortes Ferry Terminal 12:00 P.M. while passing Leo Reef counted 11 harbor seal on SE side reef. no seal on N side. Arrived Lopez Island.

4:35 P.M. River otter swam N past Bee House. Did not fish along way.

Rufous Hummingbirds returned to sugar feeder 1½ minutes after new supply of food placed in feed.

Fawn at deer feeder on our arrival.

June 4, 1987

9:15 A.M Bald eagle flew E to Blakely Island.

9:20 A.M. Last year fawn (up until now have recorded this mule deer as "the fawn" of the local family group). fed at feeder and after finishing scratched soil in trail 3' from feeder and reclined. Stayed there for 45 minutes. The local family is seldom associated with their mother when feeding and may be result of female preparing for parturition.

7:30 P.M At least 3 large (3' or more) salmon? fed in front of Bee House from 3 feet from shore to 30' from shore and in a 100' linear area along shore. The fed on surface and created considerable water agitation as they approached the surface and then turned over and submerged again. The candle fish would break water for a second or 2 and the the fish would pass thru the same area a capture the fish. At first I thought they were seal because of size and amount of agitation of water but a closer look at shoreline proved they were fish and most likely large salmon (dark greenish backs). A 5" herring live bait was set in general area but although fish surfaced 3 times not over 6' away, they never touched the bait

9:50 P.M Adult & young raccoon at porch feeder. Last night

they arrived 1/2 hr earlier at late dusk.

This afternoon there were 6 Eastern gray squirrels at deer feeder.

June 5, 1986

870605-1 Peromyscus m. rubidus 170-79-23-19-18gms. ♂

10:30 A.M To N end Humphrey Head above rock quarry. 100' W of 3 forks in road ⊗ (c.f. J. Sauel (new property) Messina nest of orange crowned nest warbler of 4 eggs. Will document and photograph another day. On old logging trail W of saw ad. female mule deer of local family group of Bee Estate. The fawn and young ♀ were at the Bee House at the same time so the family is separated by at least 7/10 mi. At 1:30 P.M this female was observed at feeder at Bee House.

4:00 P.M. 21 harbor seal on Lee Reef and 1 on North Flower Rock. 2 Glaucous-winged gulls were observed breeding on Flower Island. Pair also breeding at Lopez Island ferry terminal this afternoon. They seem to breed at times on remote places far from nesting islands.

June 6, 1986

8:10 A.M 3 river otter feeding in front of Bee House in same area as salmon were feeding on candlefish.

8:30 A.M Single marbled murrelet feeding 150' SE of Bee House.

The family group of mule deer are feeding independently and not associated with ad. female during the period of pending or actual parturition of the ad. female.

8:45 A.M. young ♀ pelage just starting (reddish) on upper rump above tail.

This A.M 10:00 to Friday Harbor. 2 pigeon guillemots at Shaw ferry terminal., appx. 250 gulls (glaucous-winged) in raft E of Canoe Island. Returned Lopez 2:00 P.M.

4:15 P.M Last year fawn at feeder. Takes apples at window but only within 2 feet outside and to this extent differs from young female + young male.

At Shaw one glaucous-winged gull on nest of superstructure over exit of ferry traffic and one on a nest on top of a bundle of piling on S side of slip. Nests on these pilings have been

observed on previous trips of former years but the one on the cross piece is new this year. Photo 870606-1 Shoreline S of Ferry terminal Friday Harbor, San Juan Co..

Bee Estate, Humphrey Head, Lopez Island, San Juan Co., Washington

June 7, 1987

8:00 A.M. male Eastern gray squirrel followed continuously a female for 20 minutes and also other times during the day, keeping 3-5 inches behind the female. The action was persistent but not aggressive.

10:00 A.M to Orcas Island with Annette, Jim & Liz. Brunch at Rosario Resort. Drove top mt. Constitution and on return to Cascade Lake counted 9 robins generally distributed along the way. From sound N Eastbound observed 8 pigeon guillemot in one group and 2 marbled murrelets, To W Beach counted 12 robins and this is a greater no. than on mt. Constitution and elsewhere on the island. This area is a north exposure. On return observed an imm. bald eagle. There are more butterflies on Orcas than on Lopez Island,

June 8, 1987

8:30 A.M. 20 harbor seal on Leo Reef,
31 " " " North Flower Rock
6 " " " Little Flower Island
57 total.

as of this date

Listing of mule deer (black-tailed mule deer subspecies), on Bee Estate. (As of this date unless deer added from later observation) (height at shoulders)

	8 year old?	mamma deer, ad female	(1980)		30 1/4"
	4 " "	spooky, ♀	(1983)		31"
	4 " "	shy doe ♀	(1983)	(her fawn, Tennie 20" see June 24, 1978)	29 1/4"
?	3	single tyne ♂	(1984)		32 1/2"
	2 " "	bimbam ♂	(1985)		30"
	2 " "	little sister ♀	(1985)		26 1/2"
	1 " "	buster ♂?	(1986)		27"
		Orphan ?	(1987) summer		23 3/4"

Also 4 buck during breeding period.

names that have been used in journal for each of the above named deer of local family group (Progeny of mamma deer)

Mamma Deer = ad. female, ad. female of local group, ad. female of family group or territory group.

Spooky = spooky, stray deer

Shy Doe = shy doe, stray female

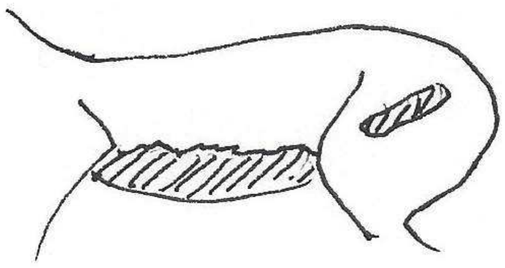
Bimbam = young ♂, young male of local family or territory group, second year ♂

Little Sister = young ♀, young female of local family or territory group, second year female

Beater = fawn, fawn of local female (local group) (even though it grew beyond a fawn we still referred to it as a fawn.

This date Shy Doe shows new pelage and is reddish in color and confined to belly & hind quarters.

9:30 A.M ♂ Eastern gray squirrel copulated with ♀ and chasing a second ♀ shortly (3") after.



June 9, 1987

10:20 A.M bald eagle flew N. past Bee House. Ad. bald eagle at Lopez Village and 3 turkey vultures between here & the village.

June 10, 1987

To Mt. Vernon & Anacortes this A.M, at 8:00 A.M. Bald eagle at Lopez Ferry terminal flying NW around upright Head,

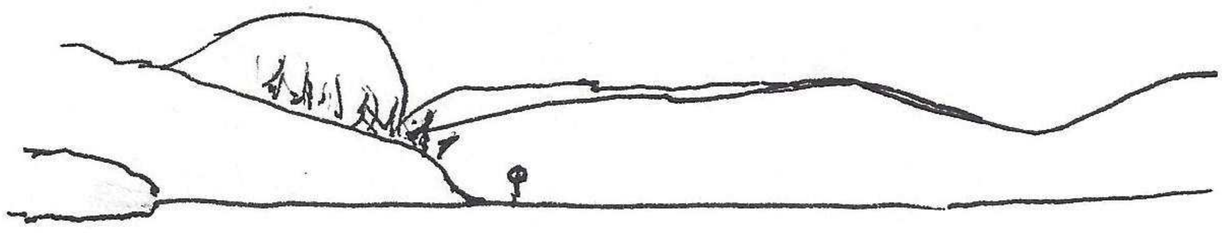
7:45 P.M. 4 river otter around Lichen Point going N. Put-out at Spring Cove Point and ventured 5' up rocks frm water, thence back into water and again put-out a head of Spring Cove (center of beach) where they disappeared into shrubbery and emerged 3 minutes later when they played on exposed logs and at the end of one half submerged log where they search the end of & under the log. 4 minutes later they appeared on top of the log where the largest otter (head & neck to shoulders a light yellowish brown) a ♀ ? preened the necks of the three young which were all a dark brown. They then swam NNE along shore, fed at edge of water directly below Bee House & then

nne to Boundary Point and beyond.
nest of orange-crowned warbler N end Humphrey Head (100' W edit John Saul III Road) 4 eggs on slope at side of trail to top rock quarry

June 10, 1987

10:05 Spooky at feeder (31") replaced with front foot to the head by Grey Doe (29 3/4).

11:07 AM tide level. (low)



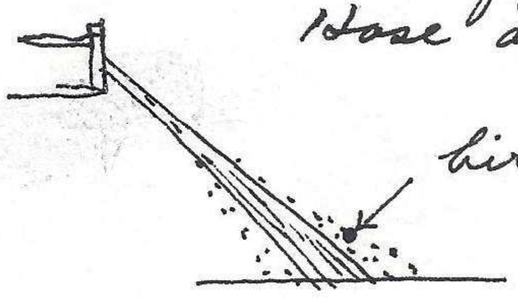
Leo Leaf Rock no 8



10 11 9

tide -3.4 (Orcas Land.)

11:10 Refores hummingbird & approached stream of hose water 7 times with intervals of preening and shuffling feathers on a perch.



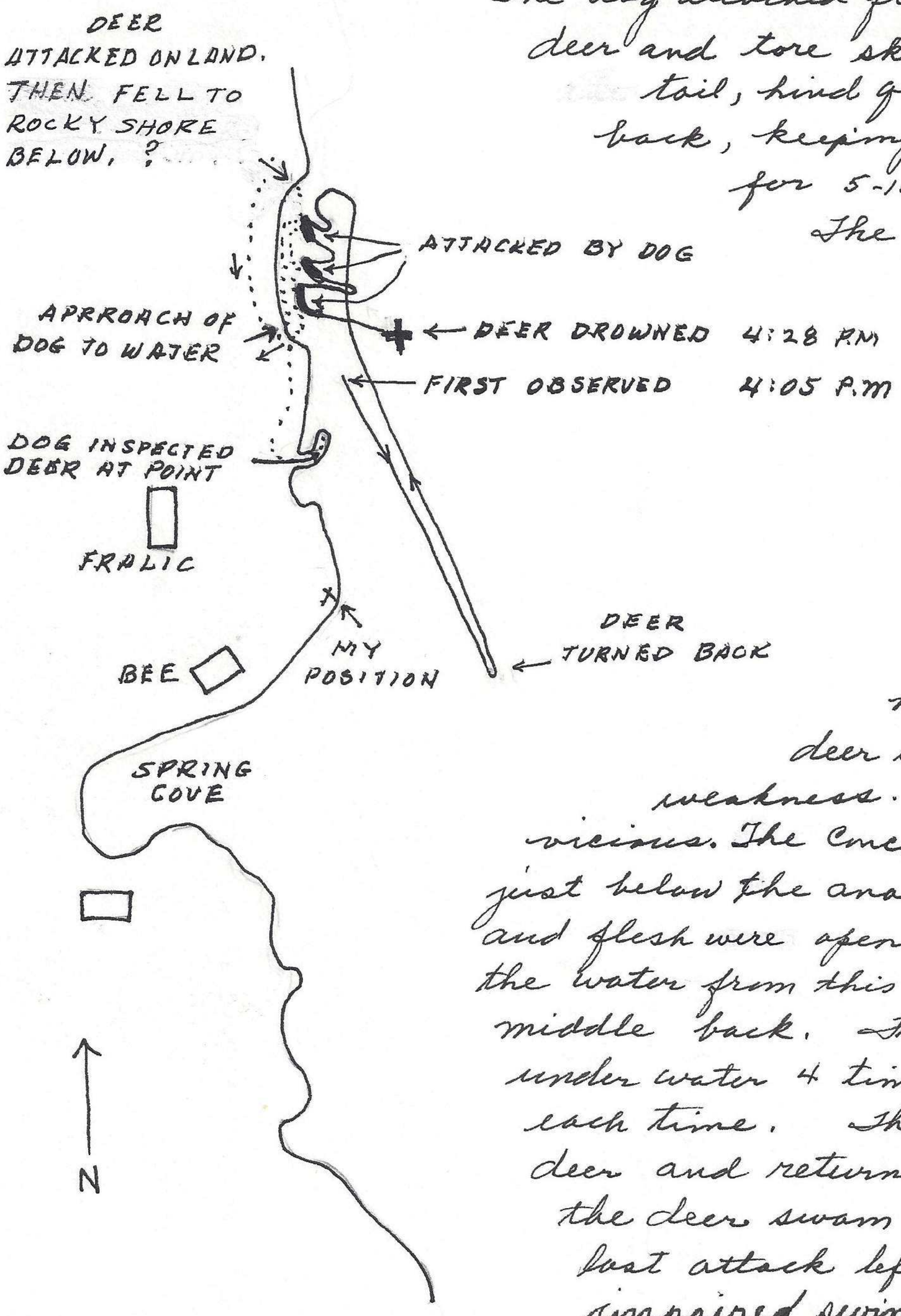
Bird used outer droplets of main force of water but never penetrated to center of stream of water and approx. 2' above ground. at 12' to near point of issue

times it followed up the stream from nozzle.

Bee Estate, Humphrey Head, Lopez Island, San Juan Co., Washington.

June 11, 1987

4:05 PM:
Mamma deer, a mule deer (black-tailed deer sub sp.) Odama hemionus columbiana was observed swimming SSW approx. 300' E of Bee House. It moved approx. 1 mile per hour and created a wake. It stopped, turned around, remained stationary 3 minutes then returned on same route and continued N to N end crescent of cliffs at a point where deer probably fell from cliffs to rocky shore. As it was headed toward land at 25' away a large dog (owned by Harold Klein of Humphrey Head) swam toward the deer now 30' from shore. The dog travelled twice the speed of the deer. The deer swam S but was attacked by the dog for 1 minute as the deer move away from shore some 80' leaving the dog behind which returned to shore and climbed to top of cliffs. In four minutes the deer returned to 25' from shore when the dog,



again swam out to intercept the deer. The dog attached from the rear of deer and tore skin and muscle from tail, hind quarters and lower back, keeping deer under water for 5-10 seconds at a time. The deer turned SSW again and swam out to appox 80', stopped, rested and then returned again toward land to within 30' of shore where it was met by dog. The deer showed signs of weakness. This attack was vicious. The concentration was just below the anas where the skin and flesh were opened. Blood colored the water from this area and from middle back. The deer was forced under water 4 times for 5-15 seond each time. The dog left the deer and returned to land while the deer swam 150' SW. This last attack left the deer with impaired swimming (left hind legg non-functional) The pace was slow and irregular The last 20' it navigated with head under water half the time. In 1½ minutes after the deer stopped swimming it was lifeless. Blood surrounded the body. at the moment the deer drowned the dog appeared on Yellow Ridge n of Otter Cove. It raced around the point, looked at the deer and then left area. Although I called several times the dog did not respond. It was concluded that the dog first attacked the deer on land that produced the tear on neck, then the deer was forced or chase to jump off shoreline cliffs to rocky beach below landing on left front legs & shoulder where

hair and skin was abraded. The first and second incisors of lower mandible were loose or hanging from sockets as result of fall onto rocky beach. While photographing the deer, pools of blood collected in depressions of rocks in amounts that suggested excessive bleeding as cause of drowning.

Photographs are:

870611-2 Mamma Deer, at water edge after floating in after drowning.

870611-3 ibid, wounds on back and left front leg

870611-4 ibid, on shore-line. Left leg wounds.

870611-5 ibid, wounds on tail, side right hip and fatal wounds on both hind legs below anus.

870611-6 ibid, wounds back, front left leg.

While deer floated on water 4 river otter swam 5 toward the deer but after seeing me diverted their course.

In rectrospect: I believe the evasive behaviorism of this female deer of swimming back to land and then turning back toward open water on three consecutive times was to divert dog from her fawn on the hillside above the rocky shoreline.

This mule deer was approximately 8 years old and controlled a family unit of 5 generations of her progeny on Humphrey Head. Her progeny are:

Mamma deer 1980
~~Spooky~~ 1983
~~Shy Doe~~ 1984 Her fawn Teenie 1987
~~Bimbam~~
~~Little Sister~~ } 1985
Buster 1986
Fawn of this year ? 1987

It is noteworthy that the oldest ♀ deer in the group was the first to succumb by a predator. She had shown signs of aging but was still far from being incapacetated.

Humane control of increase deer population is a proper wildlife technique but 20 minutes of torture by a dog is intolerable.

870611-107

mamma deer,

measurements of mule deer Odocoileus hemionus columbiana

HUMPHREY HEAD, LOPES ISLAND

no 870611-1:

Total length 1342 mm Length at shoulders: 30¼"

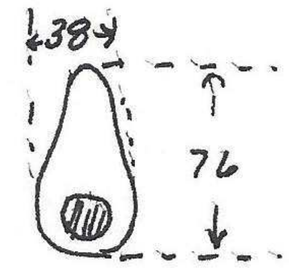
Tail 159 mm

Hind foot 381 mm

Ear from notch 152 mm

metatarsal gland, approx. 78 mm

Tarsal gland 76 mm × 38 mm



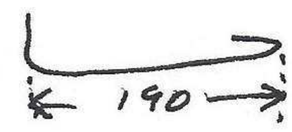
Length of skull 241 mm

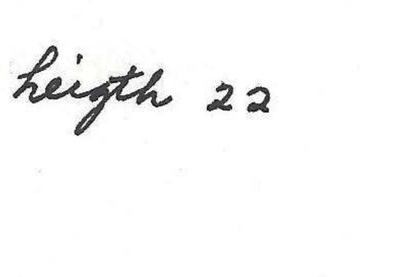
Zygomatic breath 108 mm

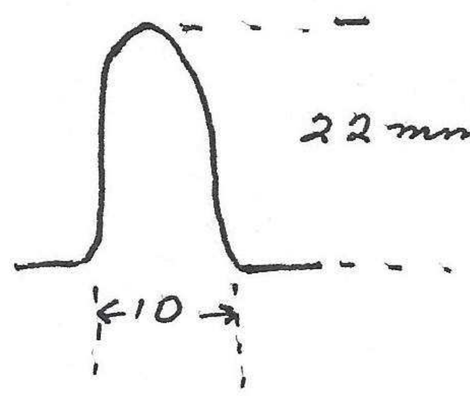
mapillary tooth row 76 mm.

mammae.

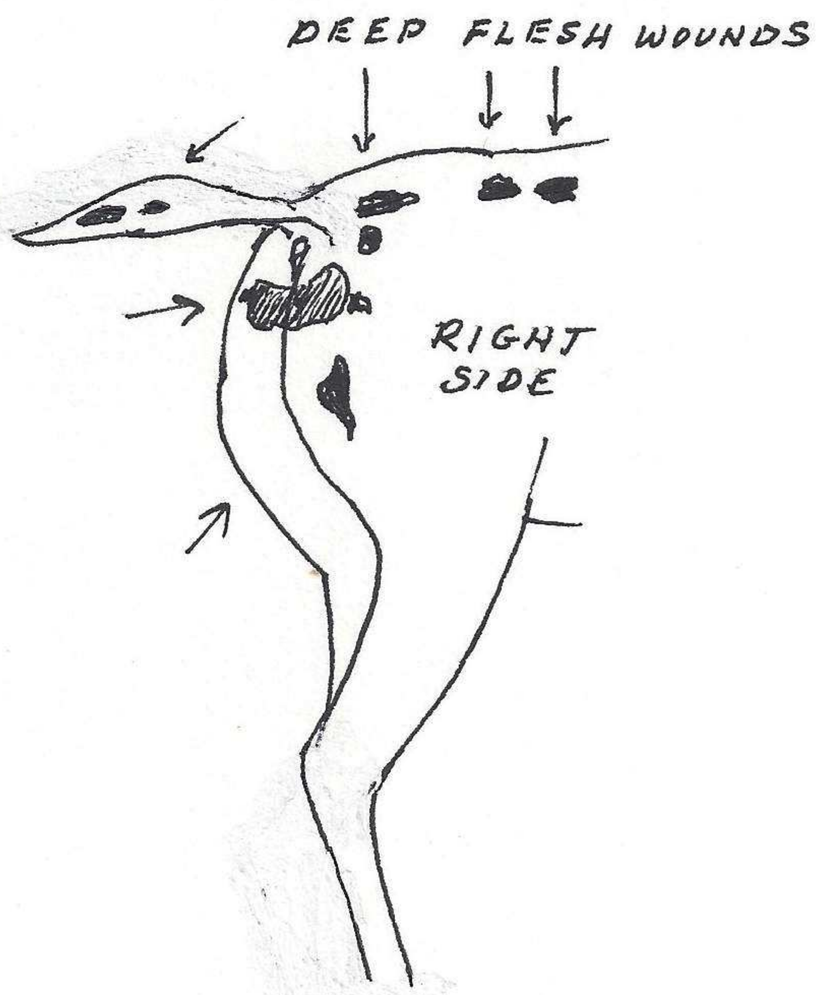
Lower jaw

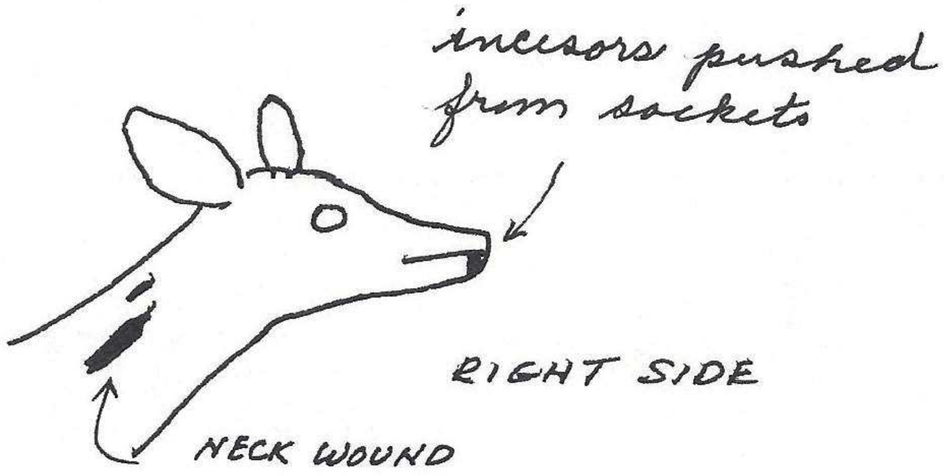


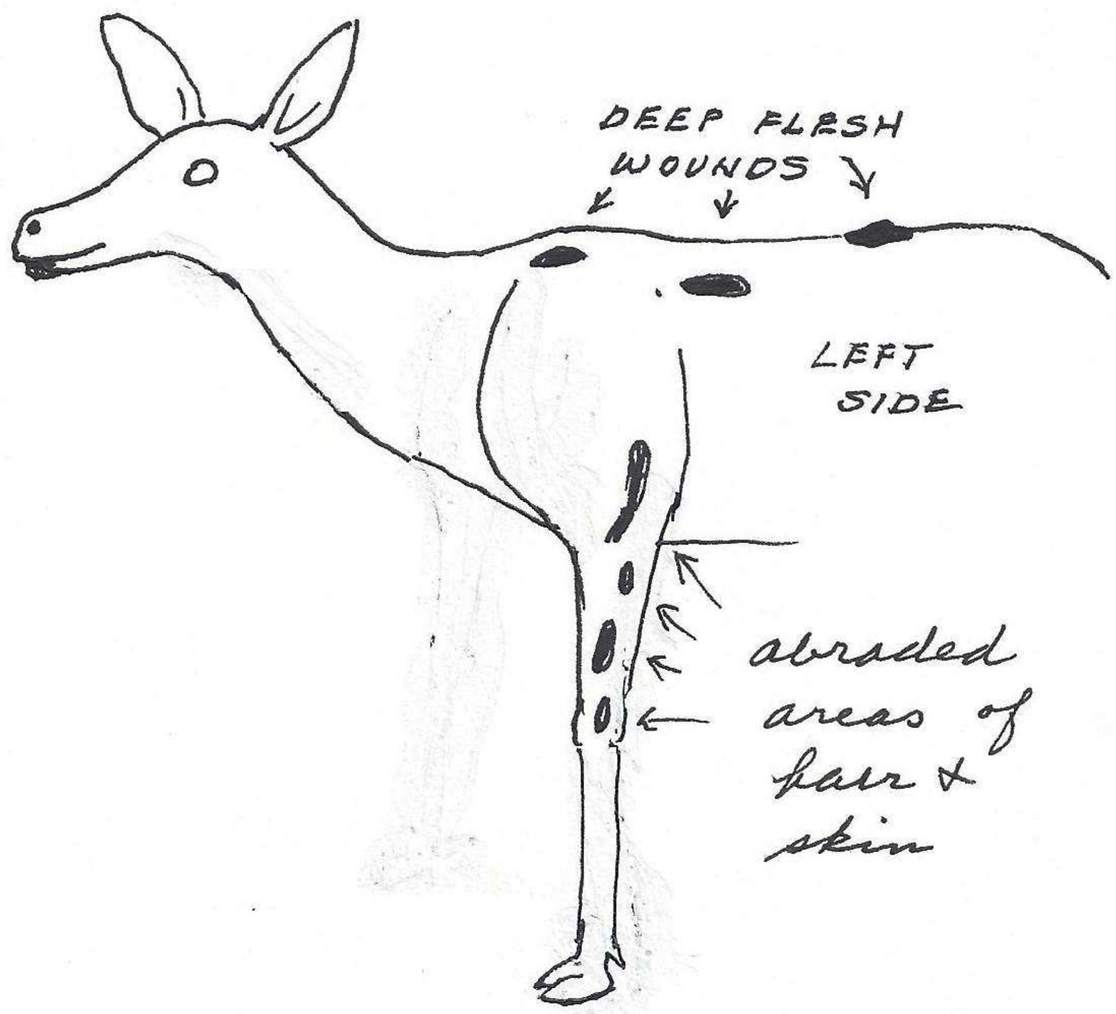




Hooves: front 53 mm, rear 55 mm.







870612-108

June 12, 1987

To Victoria, Vancouver Island. at Shaw Island checked glaucous-winged gulls nesting on top of group of piling bound together on S side of ferry terminal (lateral guard piling for ferry). One nest of 3 eggs, 1 nest of 1 egg. nests separated 4' apart. Eggs darker than Calif. gull. As ferry pulled in alongside of the piling the 2 incubating gulls stepped off nest but remained 1 foot away. nest 8' from ferry.

11:41 adult bald eagle over Speiden Island. Birds rare and first marbled murrelet.

11:51 first glaucous-winged gull since Friday Harbor.

12:00 P.M first double-crested cormorant. Island to left with approx 1600 nesting glaucous-winged gulls. 18 cormorants on top of rocks on N end.

12:08 one group 18 pigeon guillemots, 13 great blue herons, all on sandy reef extending N of Sidney Island.

12:21 Sidney

June 13-14-15, 1987

Chris, Steve and matthew joined Jim, Liz and Annette & I at Victoria. Butchart Gardens yesterday. Sequim on Capitol grounds N.

June 15, 1987

Left 2:00 P.M from Sidney. 1/2 mi out, enroute 2 harbor seals dove 30' from ferry (mid section). Crow, double-crested cormorant, glaucous-winged gull and northern violet green swallow only species of birds between Sidney & N Vancouver Island. Arrived Lopez via Friday Harbor

June 16, 1987

11:00 A.M Little Sister at feeder

2:00 P.M Spooky at feeder.

Mule deer last day observed: (approx.).

Momma deer, 2 1/2 weeks ago.

Bimbam, 1 1/2 week ago

Fawn (second year old), week ago

Sister, today

4:00 P.M 52 crows circled feeding area and some stopped at feeder. Bald eagle flew S over Bee House.

not usual number harbor seal on Iss Reef or other rocks. Their usual pattern of feeding & resting is interupted this time of year.

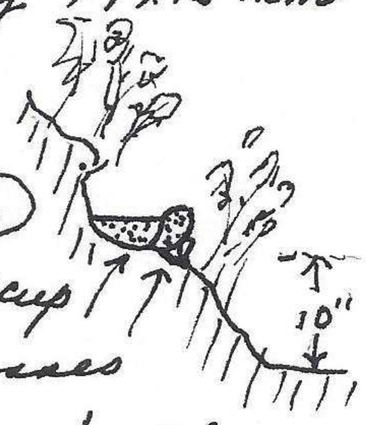
870617-109

June 17, 1987

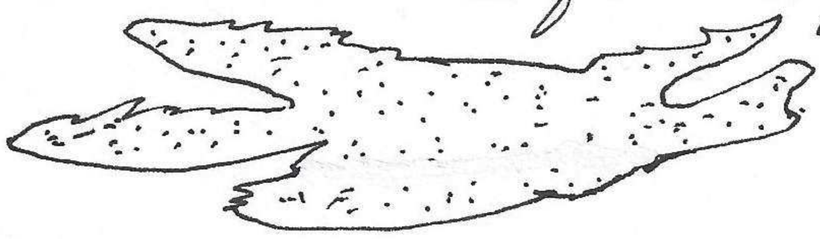
9:20 dark-eyed junco adult feeding young cowbird.
Red-breasted nuthatch fed in Douglas fir at Bee House.
Bald eagle flew S past Bee House at 175 feet.
Bob-tailed eastern gray squirrel still regular feeder at Bee House since our arrival March 1, 1986.
Examined nest of orange-Crowned warbler (see note June 12, 1987) nest undisturbed but only 1 egg (infertile) measuring 19x15 mm Took three photographs

870617-1 General view with nest and 1 egg

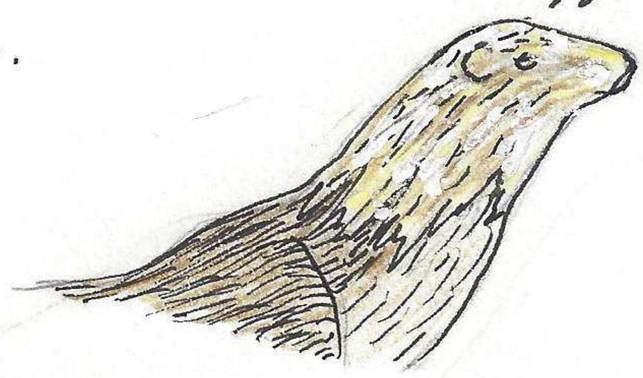
870617-2 nest and 1 egg. (mosses surrounded cup)



870617-3 close-up infertile egg (June 17) nestcup
(see latter part notes June 24, 1987 for addition photos of this date)
2:45 P.M. immature bald eagle flying (20') mosses over field W of junction Baker View Rd & Port Stanley Road. Sheep in field. Turkey vulture in field E of above junction (N side)
3:50 P.M. On our arrival of upper parking on Bee Estate, Sister (mule deer) on Hog Back. (mule deer) Spooky left lower parking lot and ran W along Horizontal Trail Cliff meadow.
4:20 P.M. mass candlefish 55' x 30' 20 feet out from shore at Bee House. Each fish approx 1 1/2"-2" apart. Part of mass distinct border of fish, other margins irregular. noticeably more vegetation in water (low tide zone).



7:00 P.M. 8 river otter swam by to S. by Bee House. Group within confines of 12'x15' and 20' from shore. They crossed directly to Flat Point, alternately swimming and diving and fishing. 6 candlefish consumed in the crossing. They continued to N side Lichen Point, put-out, climbed rocky slope to grassy swale on top of point where they searched and rolled over in the grass. 1 minute later they all returned in single file (in contrast to diversified routes in gaining grassy swale) and immediately entered water and swam S around Lichen Point. One large otter which I presumed was an old adult female, according to her actions in attention to the smaller otter, was different in color of pelage than all the rest of the group. I have noticed this difference on several other occasions this year. The head and neck are a distinct yellowish (light) color which no other member of the group possesses.



870618-110

June 18, 1987

2:00 P.M Trip from Bee House to N end Humphrey Head via rocky shoreline (low tide) Boundary Point, N end Crescent Shoreline and shoreline beyond 2 cove (NE corner Humphrey Head are impossible on rocky shoreline. N or second cove the cliffs enter water without shoreline. From this point trended NW above cliffs, thence up slope thru dense and rugged terrain to a point approx. 450' E of junction of old road to John Saul III new road and Skerrett Road. One ad.♀ mule deer on this brushy, forested slope allowed me to approach 30' before it left. It was feeding on live leaves of ocean Spray. Another adult ♀ mule deer was standing in middle of upper John Saul III road. It walked away with fawn 20' with tail perpendicular, then ran 20' with tail steel held perpendicular.

At first Cove N of Otter Cove (at NE bend of Humphrey Head) 6-8 holes in hard sandstone above high tide level made by bivalves (Flat-tipped Piddock, Penitella penita). The name of this cove will be Piddock Cove.

Noted a rufous hummingbird searching cliffs above rocky shoreline at Otter Cove.

9:35 P.M ad. ♀ deer 'Shy Doe' 29" at shoulders with young deer about size of 'Buster' (last years fawn). Another ad ♀, 'Spooky' at feeder 31" high at shoulders.

9:35 Last rufous hummingbird at feeder.

June 19, 1987

Chris' at Last Lake.

June 20, 1987

Chris at Last Lake

June 21, 1987

Matthew's birthday 3rd.

June 22, 1987

Jim, Liz, Annette & to Seattle.

June 23, 1987

Jim, Liz left 9:30 A.M for Moraiva. Annette & Q returned to Lopez. At 1/2 mi. N 'Chris' observed doe & 2 fawn mule deer. Ferry at Anacortes. At Blakley Island N end at approx 1/2 or middle of N shoreline observed an adult bald eagle

circling from 50' below ridge to 150' above ridge travelling appxd 1/2 mi in 15 minutes. Bird rare to Lopez. Continued to Bee House on Humphrey Head where Mary & Don had already arrived.

Bee House, Humphrey Head, Lopez Island, San Juan Co., Washington

July 24, 1987

9:00 A.M 'Shy Doe' mule deer at feeder. Replaced 'Sister' mule deer.

11:43 Coast Guard arrived Leo Reef for inspection of beacon light. As they approach N end at light and at apprx 100', 28 harbor seal left island. The seal were generally distributed and those at N end left first and in 13 seconds the wave of departure spread to SE end. 9 harbor seal on Leo Reef Rock no. 11 also left at the same time. The glaucous-winged gulls (25 of them) left as the repair ship was 30' away. They flew to Leo Rock no 11 where they remained during the time the Coast Guard was at the reef. At 12:50 P.M the Coast Guard had replaced the beacon light (smaller than the original and a longer metal stand, 1 foot higher. At 1:10 P.M the harbor seal & glaucous-winged gulls had not returned. At 1:00 P.M the gull returned to Leo Reef but not seals up to this time.

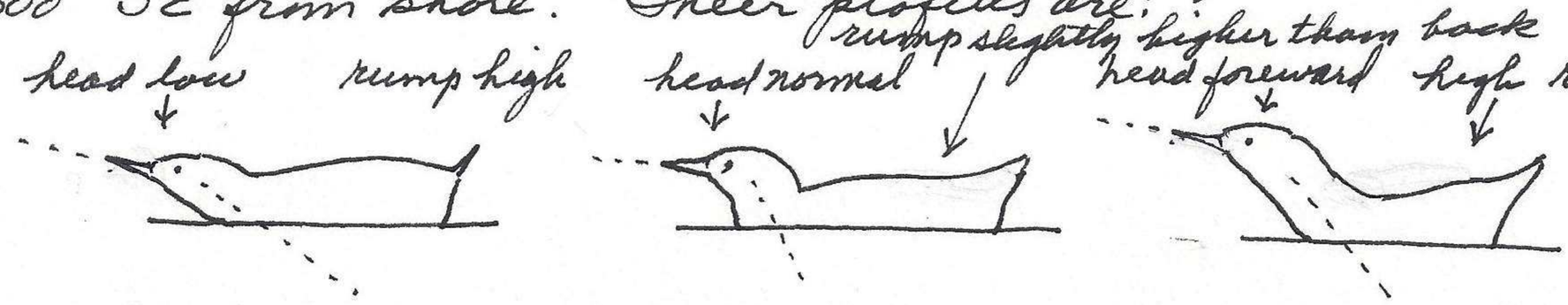
1:30 P.M ♂ & ♀ dark-eyed juncos fed a young brown-headed cowbird.

1:35 P.M 4 rufous hummingbirds at feeder, ael females. One flew thru 2"x4" mesh wire fence on porch without stopping. Others land on wire, stop wing movement, then continue beyond

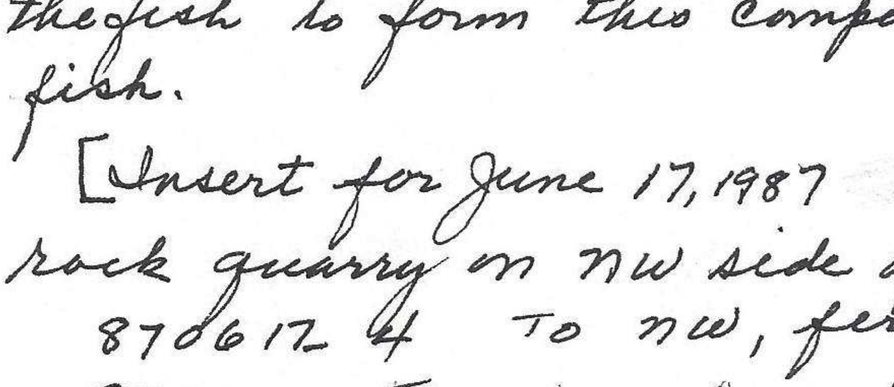
1:38 white-crowned sparrow momentarily at feeder and first observed for several months.

1:40 P.M 'Buster' (28" high at shoulders) and 'Sister' (27" high at shoulders) feed at corn feeder but not at the same instant. 'Buster' has reddish pelage. 'Sister' duller hair and more ruffled than 'Buster'. The fawn ('Buster') of last year has caught up with 'Sister' of 2 years ago. 'Sister' is the runt of the family group.

1:50 P.M 4 marbled murrelet fed in front of Bee House 300' SE from shore. Their profiles are:



a single pigeon guillemot and a pair also fed in same area
2:00 marine plume growth (top of plume) is at present water level which in turn is at heighth of top of rockweed which in turn is at heighth of beginning of zone of barnacles.



Observed 4 marbled murrelet swim 1/10 mile without feeding and in one direction, then diviated straight course to irregular pattern. When they approached area of candlefish?, they would all dive and cause the school of fish to aggregate in close formation and break water with mass of upposed fish with many jumping 2-6" into air. The area of surface masses varied between 1½' x 1½' to 2' x 4'. Each dive cause the fish to form this compacted + elcited mass of surface fish.

[Insert for June 17, 1987 of photographs taken at top of rock quarry on NW side of Humphrey Head:

870617-4 To NW, ferry Lopez terminal
870617-5 " " " " "
870617-6 To NW. Lopez left, Oreas right in distance
870617-7 ibid, madrona leaves changing color of hot summer.
870617-8 To W. Fisherman in Shoal Bay
870617-9 To S of savanna uplands. Shoal Bay.
870617-10 To W directly below. Douglas fir new on floor
870617-11 To S of Shoal Bay & savanna uplands beyond. madrona leaves dry from summer climate, many on ground.]

3:30 P.M. a ♂ & ♀ dark-eyed juncos fed 3 brown-headed juncos, 3 on one mast of time.

June 25, 1987

10 A.M 3 river otter swam S by Bee House out 30'.

7:30 A.M N Lopez Sound with mirrorlike surface. In a pie-shape area from Bee House to N end Blakley to Les Reef out to Les Reef distance observed 33 groups of small fish surfacing in areas 2' x 2' to 6' x 6'. and generally distributed.

>mary, Don, annette and 2 to Orcas to Check house. Adult Bald Eagle at upper slope of mt at Cascade Lake Outlet level. Circled to S. Turkey vultures circling 10'-30' above new cut hay field. adult glaucous-winged gulls on 2 nests on piling at Shaw Island. Returned Lopez.

June 26, 1987

8:45 A.M 'Buster', mule deer at feeder. At this time 'Shy Doe' and her fawn arrived at top of trail 20' from feeder, and the fawn (now known as 'Tennie') came down trail 10' then returned to mother and tried to suckle but doe refused. 'Shy Doe' then cautiously approach feeder to 10' and then returned and left to trail leading past top stairs & then beyond. Buster remained at feeder at all times but was unusually curious of the fawn.

6:40 P.M 'Shy Doe' arrived at feeder without fawn and fed for 9 minutes. Her rump, flanks and hips are noticeably thinner as result of recent birth of young. center of top of head between ears & eyes has an area of bare skin the size of a quarter. Eyes of Shy Doe have always been more bulging outward than 'Mamma Deer'. Height of shoulders 30-in. Deer left, walked to top of trail, groomed then left to N on lower trail for 30' and layed down, ear backwards and horizontal, facing NW. Chewed cud, 68 times each, at 7:10 P.M stood up, groomed. 7:05 left resting spot, walked 15 up slope to upper trail, faced N, inspected several directions with ears perpendicular. 7:12 turned around & moved 10' and groomed then at 7:15 P.M returned to feeder. Left 7:19 P.M, top trail, stopped 5 minutes, then back to where she originally had lain down (7:24 P.M). chewed cud (56 sec. on one cud), (52 seconds one cud). 8:02 P.M doe stood up from resting spot & groomed body. 8:15 P.M Stood up from resting spot, groomed to 8:20 P.M, thence back to feeder. Feed 3½" thence leisurely up trail to cliff top, thence to top of stairs, thence up trail to Lower parking lot thence trail to Fralic back yard, thence across circular drive way, thence N at 8:32 P.M.

8:35 11 rufus hummingbirds at feeder and is more than the usual 5-7 birds at this time of day. All females except one ♂

8:40 P.M 59 waves per minute from SSE., sky clear all day.

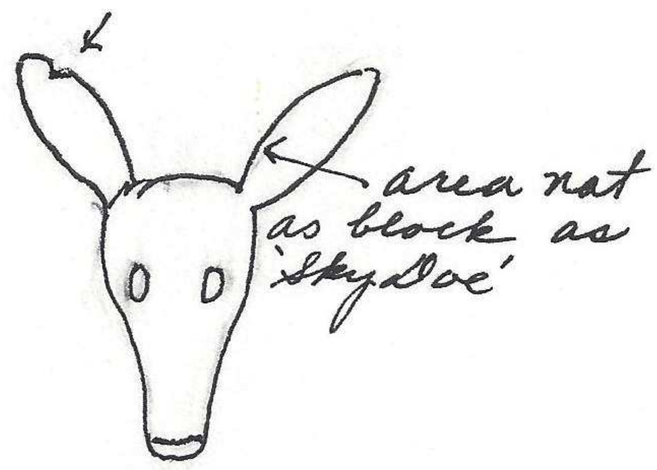
870627-114

June 27, 1987

10:00 A.M. 25 harbor seal on Leo Reef. (Rocks 1-6). no other seal in area. Rufous hummingbird population average 4, all females. 43 boats at Spencer Spit this evening.

June 28, 1987

8:30 A.M 'Spooky', mule deer at feeder, 31" high at shoulders. The right ear (inner border) has nick



11:05 imm (some white in head and tail) bald eagle flying S at 60 feet dropped to water and contacted a 4"x6" mass of whitish algae but did not secure it. It circled and picked up another object and flew to rocks of Boundary Point and remained until 12:10 when it left and flew 40' above water to 1/2 way to Flower Island where it circled, picked up an object and flew to trees on Lichen Point.

1:00 P.M. Average of 15 boats on ferry route N Lopez Sound, both arriving or leaving.

1:05 P.M no harbor seal on Leo Reef or other pullout rocks. 25 glaucans-winged gulls, all adults, on Leo Reef.

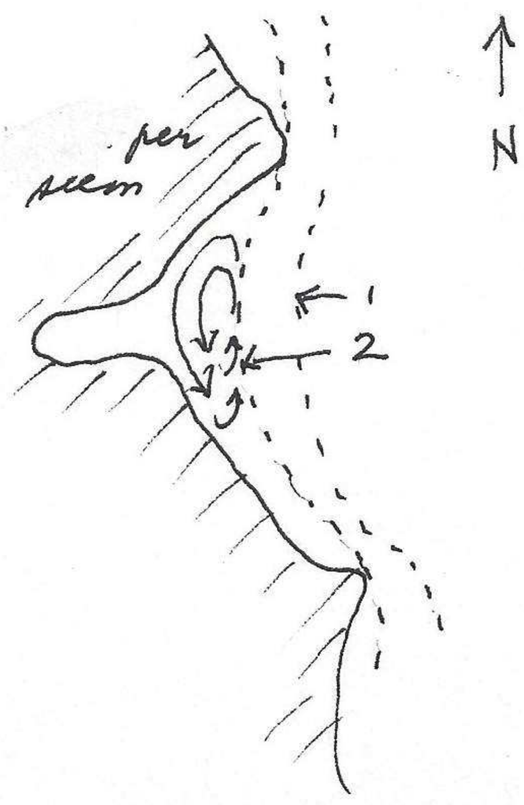
4:00 P.M. Photo 870628-1 of Harold Kleins boat aligning for haul out on boat lift.

870628-2 Peromyscus maniculatus halisteri 169-73-22-18-21gms. ♀. From Bee House captured last night.

5:30 A.M. Long parallel line of debris approached shoreline with increase of currents to N at 1 foot per second. most passed by Boundary Point but the debris headed for Spring Cove circulated in bay in front of Cove.

5:35 P.M Boat since noon are trending S to Thatcher Pass (90%). At 5:35 there is approx. 4 boats moving S (97%). At noon there were 3 boats at Spencer Spit and now there are 14, moored for tonight.

Caught insect (Hymenoptera) at cliff meadow on rocks (5:35 P.M) 870628-3. Wasp. Sphex procerus ?



4:35 a small ♀, same size as Sister, at feeder but ran to top of trail at lower parking area w/out stopping.

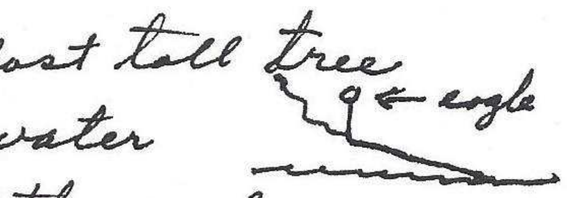
Boats that make most noise are large yachts that are exceeding their speed limits. High speed boats make considerable noise and motors that are need of repair & out of sync are noisy.

Dark-eyed juncos (♂ & ♀) are still feeding 3 young Cowbirds.

5:30 P.M. 62 glaucous-winged gulls on Flower Island, 12 of them on nests. A great blue heron alighted midway up on center of island, walked 20' in 10 minutes then laided down until at least 6:00 P.M. Great blue heron did not displace gulls.

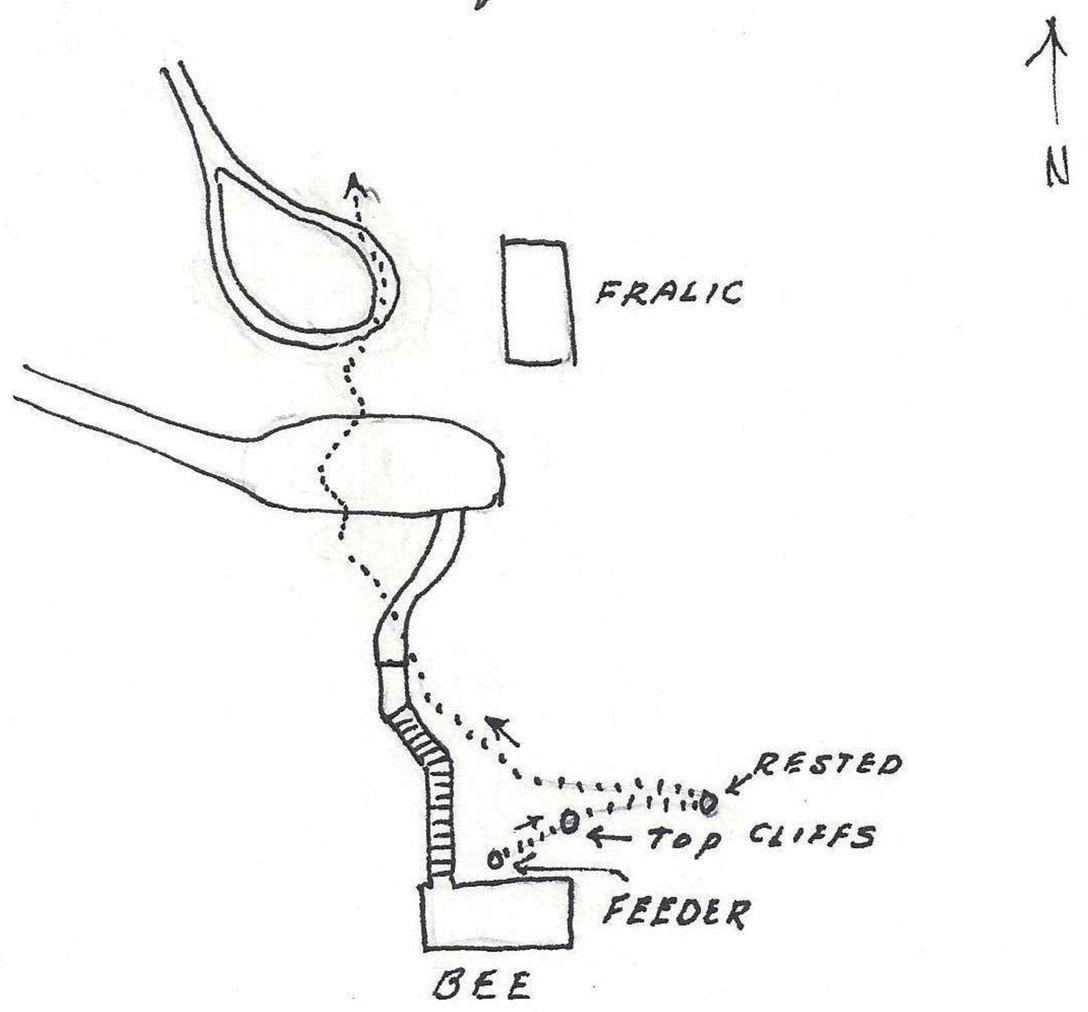
605 Osprey flew W in Channel between Frost & Flower island toward Spencer Spit. It did not displace the glaucous-wing gulls on Flower Island.

6:07 P.M Ad. bald eagle on top Douglas fir (last tall tree on S end Frost Island before gentle slope to water at this moment another bald eagle flew W past the eagle perched on top tree. It was headed toward Swift Bay. GBHeron lift.



6:30 P.M in 1 hrs observation of gulls on Flower Island, 1 pair copulated and 2 pairs performed head-bobbing action.

7:10 P.M. Shy Doe, a mule deer arrived at feeder at 6:30 P.M, fed for 9 minutes, left 80' to slope east of feeder, groomed body and finally left up trail above cliffs to path thence to parking lot, up trail to Frakes driveway then N to forest. This deer followed precisely the route of June 26, 1987. ("1/4" scar inside front heel) at 6:40 P.M.



870628-116

6:45 P.m. 73 adult glaucous-winged gulls on Flower Island, 9 of them on nests, 1 pair copulating. 18 on Leo Reef all adults. no gulls on water or in air. Also 14 crows on Flower Island, when one finds food all crows chase it in flight.

7:00 P.m 3 boat travelling S. 16 boats Spencer Spit.

June 29, 1987

8:00 A.m no boats on ferry route.

9:40 A.m Sister a mule deer at feeder, 26 1/2", a good measurement.

9:50 A.m Photos of Sister Straits Ridge & Double Fir.

· 870629-1

· 870629-2

10:00 Am – 12:30 P.m Hike from Bee Estate, shortcut across ridge to old logging trail, thence N to trail leading down base quarry on NW side Humphrey Head and then return same route. Bird observed:

5 dark-eyed juncos (all census one way)

3 northern violet-green swallows

1 great blue heron, S end Shoal Bay.

4 crows S end Shoal Bay

5 glaucous-winged gulls S end Shoal Bay

4 robin, one old nest 6' high in Douglas fir. 80' N on lower trail of first divergent trails

1 Townsend chipmunk at Flat Trail (crest of trail) below Hitcock

1 swallow-tailed butterfly

2 white admiral

Insects rare on Humphrey Head. The following insects collected were the only ones available in 2 1/2 hrs trip.

870629-4 bumble bee

870629-5 hymenoptera

870629-6 "

870629-7 diptera (mixed conifer-deciduous tree)

870629-8 "

These flies are in trail, where localized sun spots shine on trail. They hover in relatively same spot and share territories with 3-5 other diptera of same species. When one moves into other territories there is a general confusion.

1:00 P.m harbor seal on no 10 rock of Leo Reef.

4:00 P.m young male 'Bimbam' to feeder. Antlers 3 3/4" long and ends shedding velvet. noted a small horizontal Douglas fir tree at first convergence of logging trail that had recently been used to rub antlers of mule deer.

Collected 1 specimens of insects from 50' E of N end Cliff meadow, Bee Estate.

870629-9 Hymenopter, bumble bee. From salal among forest of Douglas fir and madrona. The bumble bee flew thru upper part of salal just under leaf canopy where stems were bare of leaves and navigation was unhindered. From this avenue of movement they would come to surface to work on blossoms of the salal. The flight patterns were regular and one could best capture them by holding net across flightway and then capture them with a quick turn of the net. The insect flies fast and irregular. They interact when their pathways cross.

870629-10 ibid

870629-11 "

870629-12 "

870629-13 "

870629-14 Diptera. Cliff meadow, Bee Estate.

870629-15 Hymenoptera, bumble bee from Cliff Meadows, Bee Estate.

870629-16 diptera, bee fly from same area of salal as (no 870629-9).

870629-17 Hymenoptera from same area as above.

870629-18 Odonata, dragon fly. Cliff meadow

870629-19 " " " " "

870629-20 Diptera, bee fly. " "

10:00 A.M Hike from Bee House on Horizontal Trail to road then on same level across SE end Humphrey Head to Log Trail on W side Humphrey Head just below Hitchcock Cliffs.

5:30 P.M Buster at feeder 27" at shoulders, Sister 26½" at shoulder. Buster a fawn of last year now larger than Sister a mule deer 1 year older. Both left to Boundary Point, thence wooded benchland to N.

July 1, 1987

9:30 A.M caught Peromyscus last night in Bee House.

870701-1 Peromyscus maniculatus rollisteri 173-80-23-19-20gms ♂

July 2, 1987

870702-1 Peromyscus m rollisteri 171-80-29-18-21 gms ♂

9:00 A.M To Anacortes: Ad. bald eagle flying 20' above water below nest on Humphrey Head. 11 harbor seal N side Leo Reef, none on S side. 2 marbled guillmots, 2 rhinoceras auklets, 8 glaucous winged gulls one group.

870703-118

July 3, 1987

9:40 A.M To Friday Harbor. At Orcas ferry terminal noted an immature bald eagle fly 200' over landing towards Shaw Island and at Blind Island turned ↑ SW to mainland at approx. 50' above trees, thence W just below trees on ridge to 200' W of navigation sign (large white) thence gaining altitude circled and soared for first time (wing-beat constantly from Orcas to this point) and then circled W along ridge and gaining altitude and at 1/2 mi. W was over 400' above trees and still soaring without wing beat.

At Shaw ferry terminal. The 2 nests of wrapped piling on S side now (one) have 3 young appro size of or slightly smaller than head of adult. and nest 3 eggs. One gull arrived and replaced the brooding mate. all called. At Bee House an immature bald eagle flew by (40') to N at 9:21 P.M.

Bee Estate, Humphrey Head, Lopez Island, San Juan Co., Washington

July 4, 1987

10:00 A.M. 10 harbor seal on N Flower Rock and only seal in area. Heavy traffic of boats coming into Islands from Thatcher Pass! averaging 15 at any on moment (in sound from Thatcher Pass to Bee House.

Swallows (n. violet green) continuously active in front Bee House at nesting site on house.

Have not seen river otter in last week.

Dark-eyed juncos feeding young brown cowbirds but less frequently. Young cowbirds approaching a non parent juncos are evade by the juncos. One young cowbird fluttered in front of a song sparrow but was ignored.

Rufous hummingbirds average 5 (2-11) and are all females.

Raccoon roadkill 2/10 W Cross Road on Lopez Island.

Last 3 weeks the turkey vultures have been flying low over new cut meadow grass and other kinds of forage grasses.

Mule deer feed more at night than day for last week & half.

Eastern gray squirrel feed (2-4) mainly in morning and evenings.

4:20 P.M Buster replaced Sister at feeder and chased her to Boundary Point and then into beachland of conifer trees at full speed. This also happened yesterday, and is the first time I have witnessed such behaviorism between siblings Sister is the runt sister of Bembam

870704-119

4:45 P.m young of song sparrow came into house three open window upstairs. Ordinarily song sparrows are ground & bush inhabiting birds.

July 5, 1987

9:00 A.M. A new mule deer, named Orphan came to feeder for first time. It measured 23 3/4" and had skull and behaviorism of a young deer. Pelage was past spotted pelage. no spot in evidence and my guess is the deer is one of twin fawns (1987) of "Mamma deer", who was recently killed by dog.

9:20 A.M. Shy Doe at feeder and did not accepted above deer.

9:25 A.M Sister at feeder and now 26 3/4" high at shoulders. She is slightly more wary than when Mamma deer was matriarch of local family group, in fact several signs of antagonistic behavior among local family is more prevalent now than when mamma deer was head of the group. Sister still feeds from hand.

Dark-eyed juncos still feeding at least one of the young Cowbirds.

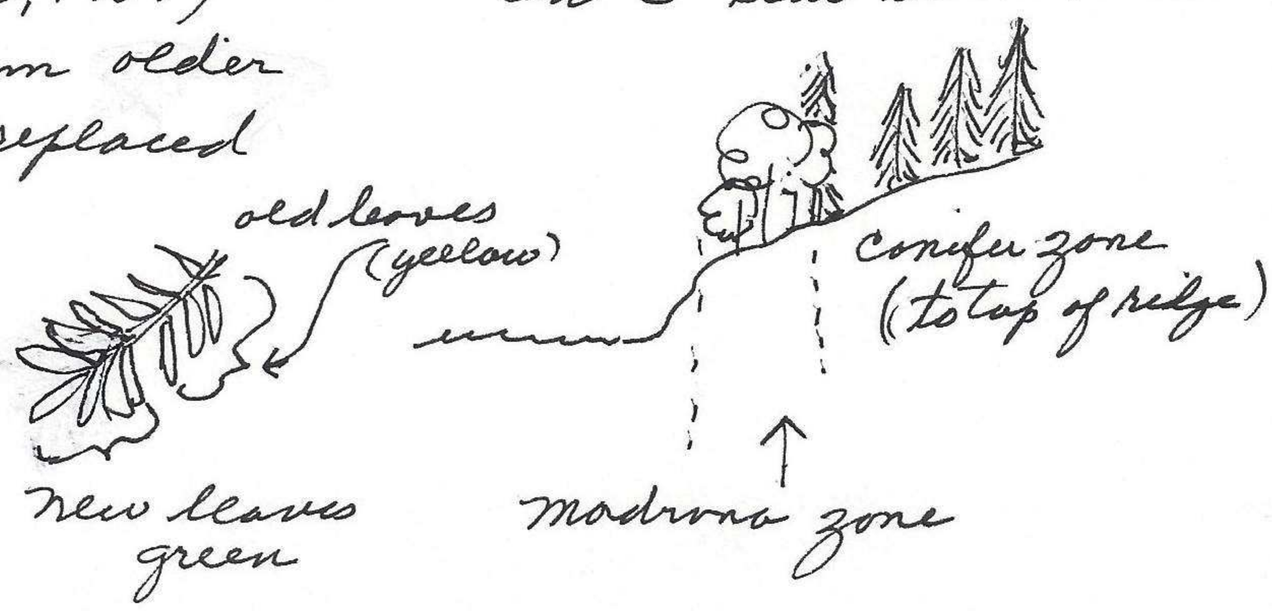
Rufous hummingbirds still present at feeders.

Ferry lane free of motor and sailboats this A.M. at least at 9:30 A.M. It is remarkable how rapidly the tourists prempt the area the day after a holiday.

July 6, 1987

870706-1
870706-2
870706-3

At pre-sunup took 3 photos of sky & Lopez Sound from Bee House To Friday Harbor. 9 imm. glaucous-winged gulls and 10 adults on piling at Lopez ferry terminal. At Shaw ferry terminal on wrapped piling on S side of ferry as it is in dock (half way back) are 2 nests of glaucous-winged gulls, one with 3 eggs, one with 3 young now larger than head of adult gull. One of the young had fallen 8" onto top of another piling in wrapped group but was able to return to nest above. (see notes July 3, 1987) On E side Shaw Island madrona are yellow from older leaves that are being replaced by leave of this spring. Occasionally a madrona is among Conifers 150'-200' into conifer zone.



870726-120

Some shorelines without madronas.

In Friday Harbor checked Jensen Ship Building Marina at S end Friday Harbor. One motor boat 34-36, open, wood and glass all around (Jim Byers, 378-2609) "Isleña; one boat, motar, floor step-up + down and not completely open, 34-36, wood, Gale Carter, 378-4542, "Sea Mint". good condition. Ray Slocomb of Jensen marina (iron fabricator) 378-5055 and showed us the boats, a good contact for knowledge of condition of boats.

On return from Friday Harbor to Lopez:

28 marbled murrelets, 5 of Shaw Island

42 glaucous-winged gulls feeding with marbled murrelets.

6 marbled murrelets E of Shaw Island

2 marbled murrelets N of Shaw.

At Orcas ferry terminal 12 ad. glaucous-winged gulls and 14 immature glaucous-winged gulls. Noted 3 marbled murrelets fly 1½' above water in single file. Returned Lopez

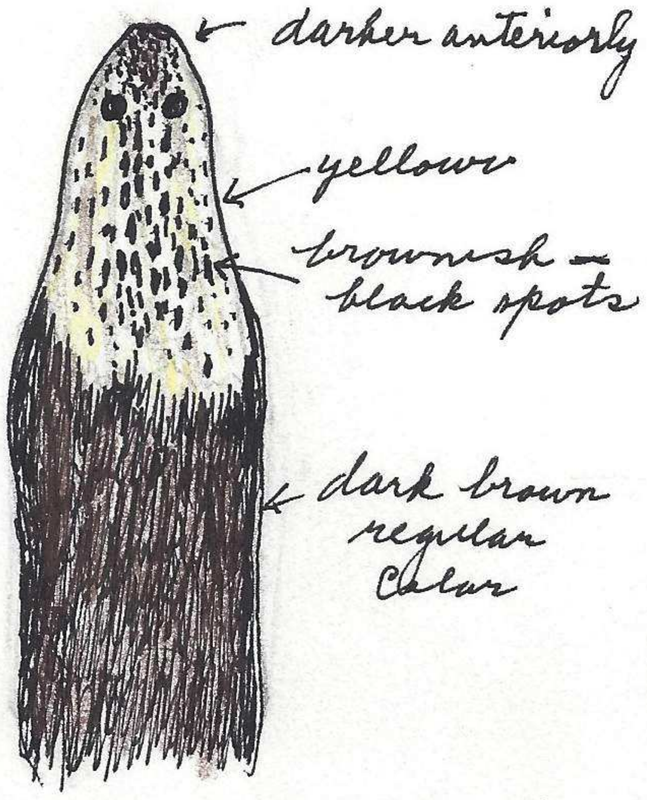
7:45 P.M. at deer feeder Bee House, Shydae touched nose of Sister and then immediately repelled with thrust of front foat.

8:15 P.M Shydae displaced Sister at feeder. Orphan a small mule deer (see notes July 5, 1987) displaced by Shydae, later followed Shydae from area. (toward Lower Parking Lot). The young deer had no sign of spots and fur was ruffled and light. Whether it is an early born young of this year or later last year and a runt is questionable; more likely this years fawn of Mamma deer

8:20 P.M Photo Annette finished feeding Buster, a mule deer at Bee House. no 870706-1

July. 7 1987

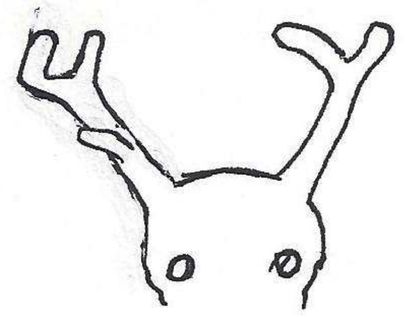
At 7:00 A.M ½ N Lopez Sound between Humphrey Head and Leo Reef the water produced a perfect reflection of trees on top of Bluffs. no disturbance of wildlife or fish of water in area delineated above. At 7:19 A.M 4 river otter came around Lichen Point and passed Boundary Point at 7:38 A.M or 19 minutes later. The entire time was hunting the shore-line as close (1'-4') as they could swim on or under the surface. They search back + forth thru the vegetation which was at low tide. The adult was larger and marked as follows:



First wind at 8:42 A.M.

870707-121

6:00 P.M. Buck mule deer at feeder. (Called Single Tyne) antlers approx 10" high and angles and alignment irregular. all is solid velvet. measured 32" and heegthh of shoulders. This buck now named Single Tyne and could actually be first generation of mamma deer. at feeder it mildly displaced Orphan who at one time tried to nurse from the buck which again mildly changed positions only. Left on middle trail to N. Townsend chipmunks attempted copulated, then partners reversed act.



July 8, 1987

7:00 A.M. 4 river otter swam steady foreward by alternatinally swimming on surface and swimming under water and only occasionally moving laterally in search of food. The travel time was approximately (from Lichen Point to Boundary Point including out reaches of Spring Cove) in 4 minutes. At Bee House made 3 photos as they passed by.

870708-1 2 of the 4 river otter below house 8' from shore.
870708-2 3 of the 4 " " " " 6' " "
870708-3. 2 of the 4 " " " " in seaweeds 3' from shore

Adult female not present in group.
Photo. 870708-4 Shoreline from Directed Point to Lichen Pt. 7:45 AM.

9:00 A.M. Two photo of Sister on rocky shoreline below Bee House. She fed on leaves of native yellow flower at black stain tide zone and clear rocks above. She put herself in a vunerable position of no escape, if her approach to shoreline had been blocked off. From here she came to deer feeder on NW side of Bee House. She left by horizontal benchland to N. Photo nos. 870708-5 and 870708-6

10:30 A.M. Photos Bumbam, mule deer, at feeder area. heigth at shoulders 31". He had antlers approx. 3 3/4 inches long & in velvet:

870708-7 mule deer 'Bumbam' showing size of antlers.
870708-8 " " " " " " "

This deer shows less confidence in us than when last observed (see notes some month or so ago).

4:00 P.M bald eagle circled 300' above Leo Reef and then moved in circles to S.

In last 2 days there are fewer (average 3) rufous hummingbirds than the past week or summer.

870709-122

July 9, 1987

9:00 A.M. Yesterday Rufous hummingbirds consumed 1 inch of sugar water from 2 feeders. For the last month they have consumed the complete contents of both feeders in one day.

Bald eagle circled E of Bee House at about 250', thence E

Three young Cowbird (brown-headed) are receiving food from ♂ & ♀ dark-eyed juncos.

9:50 A.M 4 river otter fished continuously in shallow water along shoreline below Bee House, 3 were young approx 3/4 length of adult female fed and preceded them by about 5 feet. The young were dark brown, the female a light tan over entire body. The young on three occasions left water and searched marine vegetation out to 2 feet. Photos of these otter are:

870709-1 adult ♀ river otter and 1 of the 3 young
870709-2 " " " " " 2 " " " " "
870707-3 " " " " " 3

Photo 870709-4 of madrona E Bee House

2:45 P.M Shy Doe at feeder, measured 29"+ high at shoulders. Displaced Orphan vigorously with thrust of front feet.

2:50 P.M new deer at feeder, 27" high at shoulders. Smelled feeding pan and approached with stretch-out neck.

Sea Wolf displaced harbor seal on Leo Reef.

July 10, 1987

9:30 A.M 2 turkey vultures on E exposure of gravel pit on gravel-sand slope at gravitational repose. Sunning.

3:30 P.M Turkey vulture 7/10 mi. N Lopez Village.

3:45 P.M " " Baker View - Port Stanley roads.

15 small sandpipers & 4 yellowlegs Surft Lagoon

4:00 P.M. Mule deer crossed road at NE Hummel Lake.

4:10 P.M. young mule deer at feeder, height at shoulder 28", a new deer in area. Pelage like Buster and black ✱ between eyes and 2 black stripes between shoulder blades.

5:10 Collected Thamnophis at W end Bee Estate.

870710-1 Thamnophis 340 body, 15 tail, 26 gms.

This snake had a 3" slug half way in mouth and throat.

7:00 P.M Shy Doe at feeder.

July 11, 1987

7:30 A.M. Shy Doe and Teenie (her fawn of this season) were at feeder NW of House. Teenie measured 20" high at shoulders.

870711-123

aug 9, 1987
11:25 | -2.8



870711-5

INTERTIDE AND TIDE MARKER. BELOW BEE HOUSE,
LOPEZ ISLAND, HUMPHREY HEAD, WASHINGTON

The fawn could not get to feeder because of mother but did eat corn on the ground and green leaves of a shrub on the rocky cliffs and one dried madrona leaf. The fawn tried to suckle twice but unsuccessful. At one time the fawn left and move up trail to top of cliffs and then returned to mother. At one time Buster approached mother to within 2' and both extended their necks forward as if to touch noses but mother at that distance moved forward and tried to strike Buster. Buster left to top of cliffs on trail and after Shy Doe finished eating returned to the feeder. The fawn licked the end of the head of the mother for 30". Several photos:

·870711-1 Teenie
·870711-2 Teenie, rear of mother Shy Doe
·870711-3 Teenie and steep fissure it descended off cliff.
Photo 870711-4 from porch to SE showing Leo Reef.

8:00 A.M Adult bald eagle picked up object in front of Bee House (30' out) and flew N. In five minutes the eagle returned and flew S pass Bee House at
10:10 A.M Photo 870711-5 of tide zone below Bee House (NE window). Low tide at 11:40 A.M is to be -3.8'.

11:05 A.M Left for Chris at Last Lake. Waters muddy from W end Thatcher Pass to Rosario Straits cause by ferry traffic at low tide.

July 12, 1987

Visited Boeing at Everett with Chris, Steve, Matthew, Jenn and marian and Jana Bee (Mops' daughter). Returned with Jana to Lopez.

6:00 P.M. Spooky at feeder and 2 young yearling mule deer appr 50' away and not associated with Spooky. The fawns were without spots and we believe they are young of Mamma Deer who was killed June 11. 9:50 P.M. northern saw-wet owl on window seal of master bed-room at Bee House Aegolius acadicus

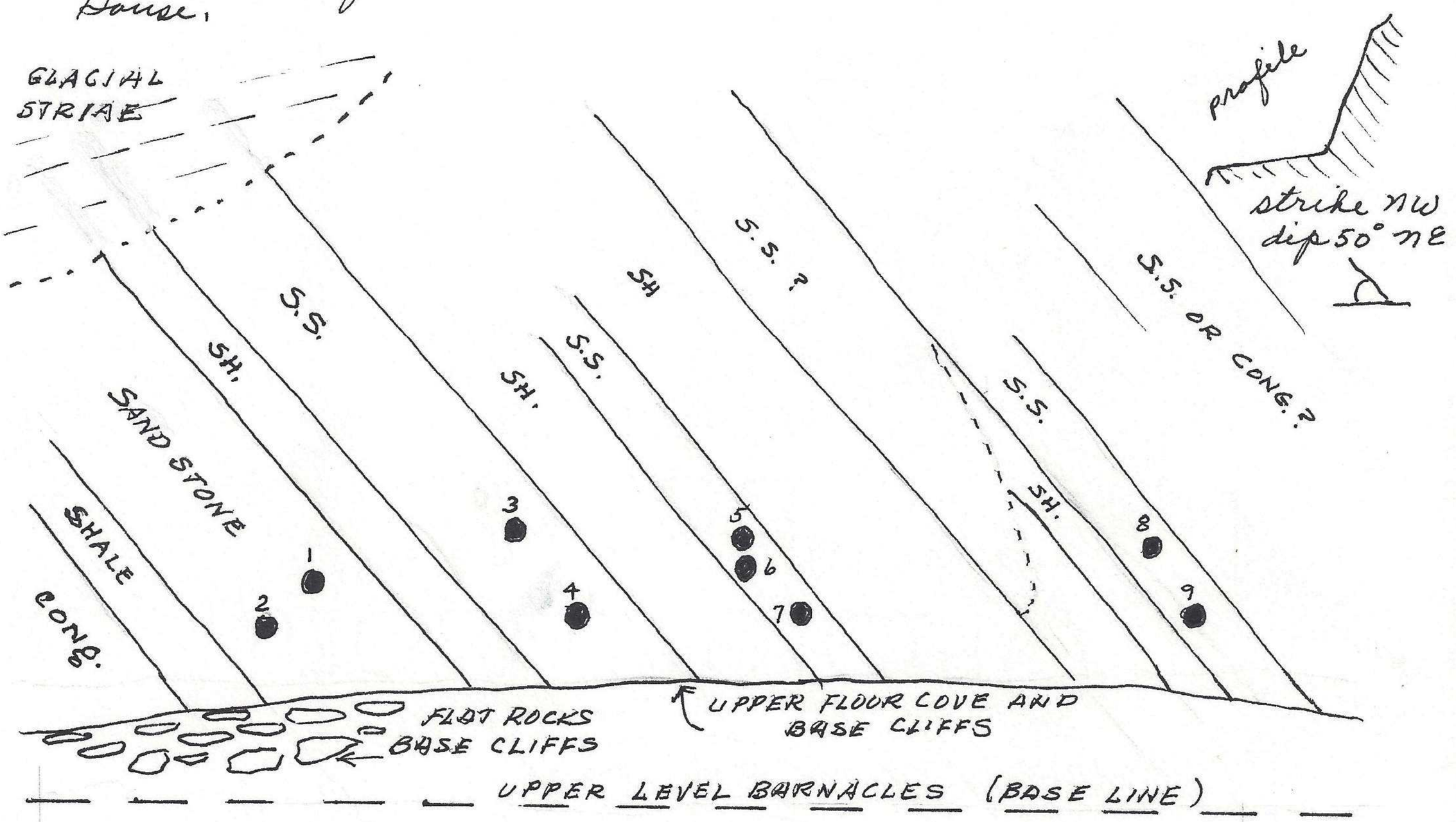
July 13, 1987

To Lopez Village. at marshland SE 1917 School House observed 2 turkey vultures 150' above field. Jana and I walk out to end Spencer Spit. no birds in lagoon or elsewhere. at Boundary Point, 1 river otter swam by at 20'. Candlefish were observed surfacing (one or two at a time) in area. otter captured at least two but was not responsible for other fish that were jumping out of the water & skimmer water.

870714-125

July 14, 1987

Jana Bee and I to NE Sumphrey Head along shoreline to check of series of mollusc hole dug into hard sandstone rock, thence NW to John Sand's property at NW corner island, thence back via road to Bee House.



	SIZE HOLE (DIA.)	DEPTH HOLE	HEIGHT HIGH TIDE (UPPER LEVEL BARNACLES)
1	1 1/16" +	2 1/2"	5'6"
2	1 1/16" +	3"	4'
3	1 1/8"	3"	6'6"
4	1 1/8"	2 3/4"	4'6"
5	1 1/8"	3 1/2"	6'2"
6	1 1/8"	1" (base SS CHIP)	5'9"
7	1 1/8"	2"	4'11"
8	1 1/8"	2 3/4"	5'1"
9	1 1/8"	2 1/2"	4'4"

Base line determined from upper limit of barnacles from shoreline 10' from N end of cove. There is an average but distinct line of the upper zone of barnacles, however in some areas barnacles extend beyond in favorable conditions as narrow extensions.

The random nature of these hole suggest that the organisms

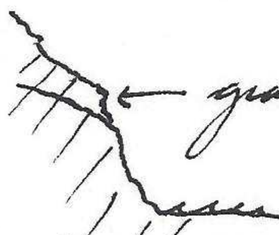
Piddock or angel wing molluscs were responsible for the holes, but after measuring the diameter of the holes I had second thoughts. All but 2 were 1 1/8" and if it were not for 2 in which the diameter was less I would say they were made by a drill; someone checking for favorable sandstone rocks for building purposes, or a geologist looking for differences in 4 consecutive layers of sandstone. The uniformity of depth also indicated an artifical drilling, especially the one (no 6) with a chip at base of hole that was not extracted with the rock sample.

Photos 870714-1 to 870714-6 are photo showing several aspects of the holes in the sandstone.

870714-1 General view to SW of 5 of the 8 holes, others out of view or in shadow. These can be correlated with drawing previous page
870714-2 Holes in view are nos. 1, 3, 4, 7 and 8(?)
870714-3 Holes in view are (upper) 3, (lower) 4, right of photo no. 7.
870714-4 Hole close-up.
870714-5 Hole " ". This hole at edge shows drill mark?

Prior to investigating the above area I took 5 photos of gravel in which I believe is the first bench or from the first bench higher on slope. This area is somewhere in the area below Jack and John Sauls property. The shore-lines have either been elevated or the water has lowered in the post-Pleistocene Epoch.

870714-7 Gravel at exposure
870714-8 " " "
870714-9 To S of gravel exposure, lower center, conspicuous shoreline above.
870714-10 Zona and position of old shorelines



4:00 P.M first appearance of Calif. gulls in area. There have been an increase in this gull at other parts of marine waters on Lopez: example, Fishermans Bay & Ferry Terminal. The darker mantle is good character and yellow feet (plus mark on bill).

This afternoon at 3:30 P.M Annette & L with Jana to Anacortes to meet marian Endicott for them to return to Lynnwood. Stayed Thousand Trails tonight. Rufus hummingbirds at feeder this afternoon

July 15, 1987

5:15 P.M Left Anacortes on ferry for Lopez.

8:15 P.M young mule deer 25" high at feeder. named Skull Cap ♀ and condition of pelage. fuzzy This young deer has last its spot and beginning to loose light fuzz pelage and gain darker pelage. It relationship is undecided at this time. Very shy and does not associate with any other adult ♀ mule deer as far as we have witnessed

July 16, 1987

8:00 A.M adult eagle from Blakley E of us to N end of Humphrey Head and beyond.

11:45 A.M photo 870716-1 of Skull Cap ♀, observed 8:15 P.M yesterday evening.

July 17, 1987

9:12 P.M 4 turkey vultures flying 60' above new cut field SE of junction Baker View and Port Stanley rds.

July 18, 1987

During the last week the rufous hummingbirds have gradually decreased from average of 3-6 to 1-2 at feeders. Sugar water level shows little use of food. There have not been male birds since last one observed (see last entry of male bird)

northern violet green swallow actively feeding young from a few (4) minutes before sunrise to late dusk at the time bats first become active. One young in nest and one stays on top of nesting box, at least during the day but flies out from box on foraging trips.

Two adult bald eagles circled 110 feet above water in Swift Bay at 10:00 A.M.

Shy doe and Teenie at feeder. This fawn in bright spots is approximately 21" inches high or 1 1/2 x the height of the hind foot of the female doe. The fawn fed continuously from between the hind legs of doe while the doe fed 6 minutes at the feeder.

10:30 A.m An adult bald eagle flew past Boundary Point and headed for Flower Island. At this time there were 96 glaucous-winged gulls on the nesting island. As the eagle approached the island at 1/2 the height of the island all gulls left and approx. 25 flew up to meet the eagle. 4 or 5 harassed the eagle with contact or near contact. The eagle circled erratically for 1 circle, then continued to Frost Island, turned around and flew over Flower Island at approx 150'. Three gulls interupted the eagle and the eagle continued NW into Swift Bay. The attack by gulls was considerably more vigorous than attacks earlier in the breeding season.

11:55 2 hornets collected Cliff Meadows, Bee Estate.
870718-1 Hymenoptera From bushes side of meadow
870718-2 " " " " " "

This afternoon beginning at about 5:00 P.M, a single hummingbird flew SE over the water starting at the feeder area and flew upward at about a 40° angle in a rapid straight flight until it disappeared from sight. at 7:00 P.M a single hummingbird (♀) feed from feeder - It had been in area most of the evening.

The mule deer have a black diptera (2-5) on the dorsal and neck while feeding. This association with flies has occurred in the last 5 day.

July 19, 1987

Level of sugar.

Femal rufous hummingbird (1) at feeder at 8:15 A.M. marked ^
Forty five motor and sailboats at Spencer Spit last night and 75% were sailboats. The flies are approx. 1/4" long.
(30" high at shoulders)

8:20 A.M Bimbam, a mule ♂ deer at feeder. Spikes 4" and beginning to curve ⅄. Another female (Shortie): (28" at shoulders with fawn (spots) approx. 28"-30" high. The female displaced the male on two occasions.

5:55 P.M ♀ rufous hummingbird at feeder.

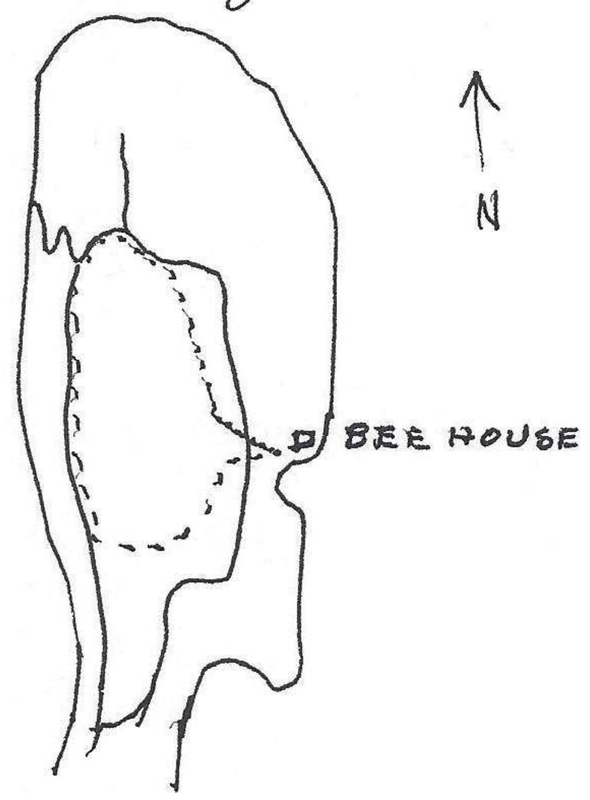
rufous July 20, 1987

10:00 P.M no hummingbirds at feeder. Bimbim at feeder. Buster at feeder and come to apples in hand. Two other young year old mule deer in area.

11:40 A.M first rufous hummingbird at feeder and then only 4 seconds.
Dark-eyed juncs still feeding young brown-headed Cowbird.
Bees and wasps at feeder.
northern-violet-green tree swallows left nesting box today. They did not return.

870720-129

4:30 P.M to 5:30 P.M Hikes from Bee House, Horizontal Trail to road, thence trail around S end Humphrey Head to logging trail, thence N to rd that leads down to base of Rock Quarry, thence S to Bee House. 2 Lorquins Admiral butterflies, no birds, no mammals. Madrona leaves (dead) on ground and from 3 layers thick to completely covering the ground under most trees. Some trees all in green, others full complement dead yellow leaves still on trees. Insect specimen 870720-1 from W side Humphrey Head where logging trail is at highest point (below Hitchcock's place). It was on perpendicular branch of Madrona and repeatedly returned to same tree. Maple seeds 15 per sq foot on ground under trees



5:45 P.M Adult bald eagle flew SW along shoreline below Bee House some 6' from water and 15' from shore. It alighted 3/4 up Douglas Fir tree above N end Dissected Point. It left after 20 minutes.

Only one hummingbird at feeder today and sugar water down 1/8" (2" dia. Cylinder.). Observed at least 6:30 P.M

6:40 P.M first spotted sandpiper on rocks below Bee House since we moved in house.

The last 2 days I have seen a belted kingfish since Spring Creek but rarely so far this summer.

July 21, 1987

9:00 A.M 1 female Rufous hummingbird at feeder.

4:00 P.M 18 mallard ducks in fresh water pond junction Port Stanley & Cross rds. Killdeer and western sandpiper at Swift's Lagoon.

6:25 P.M. Only one female rufous hummingbird at feeder today. Sugar water down 1/8" since A.M.

Six different mule deer at feeder at one time or rather.

July 22, 1987

10:10 A.M. Shy doe mule deer with fawn 20 1/2" high at shoulders at feeder.

10:30 5 Calif. gulls and 6 Bonaparte gulls along flotsam 200' N Leo Reef.

Trip to Friday Harbor by ferry. - no birds to Orcas, Shaw, but in

S of Shaw (between San Juan and Lopez.) observed an increase in bird life over previous trips this summer. It is a rather restricted area E of Friday Harbor to 1 mi. E of Turn Island. The birds were: 1 Heermann's gull, 34 rhinoceros auklets in groups of 5-12, 2 pairs marbled murrelets, 8 glaucous-winged gulls and 6 Calif gulls? On return at Orcas 8 ad, 12 juv gl.w.gulls.

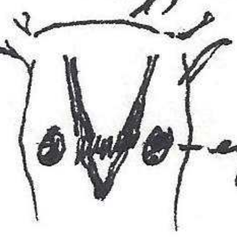
8:00 P.M 1 ♂ rufous hummingbird at feeders at Bee House.

Bee Estate, Humphrey Head, Lopez Island, San Juan Co., Washington

July 23, 1987

7:30 A.M. 2 adult bald eagles circled low over water SE Lichen Point, one to Swift Bay area, one to Douglas fir tree at Flat Point, and remained for 20 minutes.

10:05 A.M ♀ mule deer, Shy doe, 29" high at shoulders and with inverted ∀ on head



. This female was pregnant and foetus moved about in abdomen (?). On 3 occasions it extended back legs and hips to full extent upwards.

10:10 A.M rufous hummingbird at feeder and only one observed.

10:30 A.M 1♀ harbor seal on Leo Reef (low tide).

12:51 P.M Left Bee House for Spencer Spit via shoreline entering beach from E of N end of Humphrey Lagoon at 1:05 P.M. Followed beach entire way at water edge or near so.

1:13 Chipmunk on beach on log. Brushy shoreline not critically examined this trip

1:16 P.M American robin on beach. One Calif. gulls and one glaucous-winged gull flew by. 1 cabbage butterfly.

1:21 P.M 1 great-blue heron on large emergent boulder and one in tree on shore (Douglas fir). The one on rock left without calling, the one from tree call loudly as it left.

1:22 immature Calif. gull dropped to water along shore for particle

American
1:25 2 crows, 1 cabbage butterfly

1:28 1 immature Calif. gull flew by.

1:30 N end Ancient Lagoon. at water edge of Swift Bay:

6 mew gulls
34 Calif. gulls
11 Bonaparte gulls
1 great blue heron
3 glaucous winged gulls
2 black oystercatcher (only birds to leave resting birds)

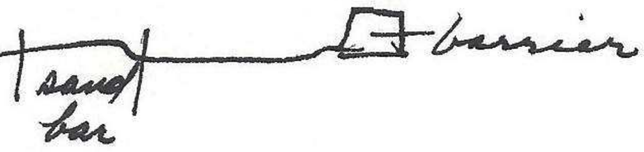
1:45 P.M Outlet drainage from Swift Lagoon

1:53 P.M Shipley's residence to W.

23 western sandpipers

8 least sandpipers

At old boat haulout building cement barrier at head of beach to sandbar to E on beach 50'. Sandbar 20' (dry part) wide and 1 foot high



2:04 P.M 2 barn swallows, dead admiral butterfly in water at edge.

2:11 P.M. Swift Bay Point at 100' E of lone glacial erratic on beach.

2:12 P.M 2 Odonata - (dragonfly) and first observed.

2:15 P.M Sandy Point

2:24 P.M Skeleton Point, 2 Odonata, leg of mule deer with hoof 65 mm long. No river otter tracks on beaches.

2:34 N Spencer Point.

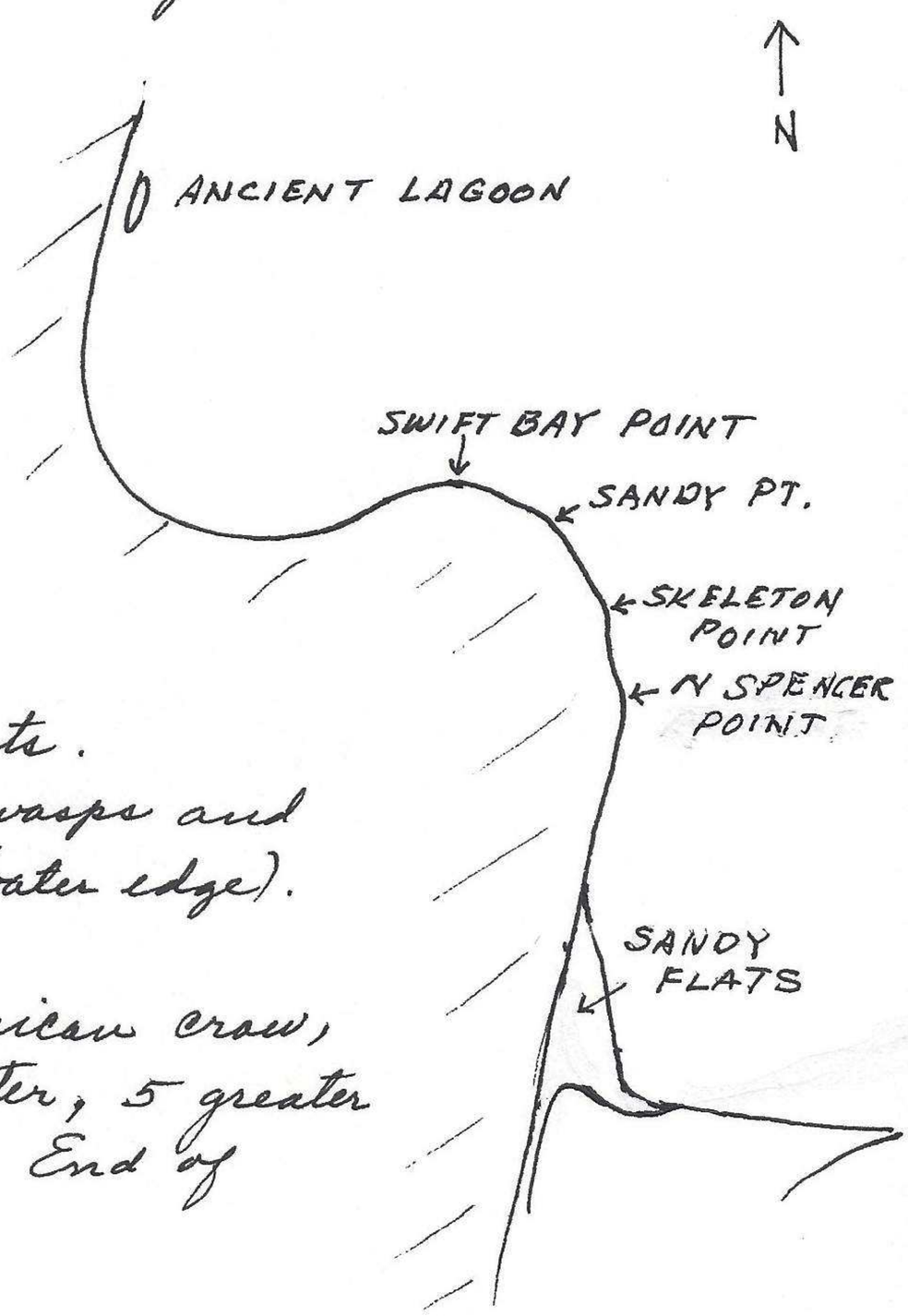
2:38 Beginning of ~~Sandy~~ Flats.

no insects on trip except 3 bees, 2 wasps and numerous small 1/8' black diptera (water edge).

3 Odonata

2:46 Spencer Lagoon, 13 American crow, 2 northern green swallows over water, 5 greater yellowlegs, 8 western sandpipers. End of complete census.

Return to Bee House.



5:30 P.M. 9 mule deer, Chevron at feeder (29" high) but not the one at 10:05 this A.M. This deer was feeding at feeder and a dark barked at O'Leary's residence. The deer from feeder can see & heard O'Leary's. It left feeder and ran full speed to top of Deer Trail Slope, stopped and looked over at O'Leary's for 3 minutes. Has eaten juniper, dry leaves madrona.

7:20 P.M. Mule deer (25" high at shoulders) with dark crown. (Skull Cap ?)

8:00 P.M 76 glaucous-winged gulls on Flower Island, 13 American Crows, 1 cormorant. 8 Bonaparte gulls feeding on water 100' N of Island. Crows are feeding on island but cannot see that they are disturbing the gulls although I would expect them to take eggs or young if available.

8:05 P.M Shy doe at feeder. deer of 7:20 A.M now feeding below house to S.

8:15 P.M 76 glaucous-winged gulls on Flower Island. An individual gained access to island from Cove on N end and remained with small white dog for 28 minutes. Gulls in 50' of individuals and some others circled continuously overhead from 20'-50', 38 at one time.

8:43 5 rhinoceros auklets 200' N of island, one pigeon guillemot, 12 Bonaparte gull.

July 24, 1987

9:25 A.M. Rufous Hummingbird at feeding station. Since July 19th the hummingbird has consumed 1 inch of sugar water. At this rate the hummingbird (or birds) have consumed appx 1.3 the amount of food taken during that time.

9:30-10:00 A.M Thunder and leghtning. Rain not enough to Complet cover surfaces.

9:35 Shy doe and fawn have been at feeder for 10 minutes. They did not react to thunder, nor did the eastern gray squirrel or chipmunk. Photo 870724-1 of fawn with doe. Photo 870724-2 fawn alone. They both left by middle trail below Fralic residence. The fawn attempted to suckle from doe 3 times but was refused. Fawn licked hind legs of doe.

9:40 A.M adult bald eagle flew S past Bee House, around Lichen Point to Swift Bay area.

9:50 A.M 4 river otter to S investigating shoreline alone the way.

July 25, 1987

no rufous hummingbird at feeders this A.M.

9:50 A.M. Purple finch ♂ at porch feeder since last recorded in journal

4:50 P.M red-tailed hawk flew S in front Bee House at 60' high and 30' from shoreline.

Info. from Jensen Boat Building Co. in Friday Harbor: James Byers 378-2609 owns 32 foot motor boat ($29,000) now under cover at his marina. R.A. Baker 378-2729 own 46' motor boat, both made by Jensen.

no rufous hummingbirds all day to evening.

870726-133

July 26, 1987

8:05 A.M 4 river otter to N and by-passing Spring Cove. Fishing along way. One searched shallow waters below Bee House for 25 seconds. when under water and probing vegetation there was a continuous flow of forcefully expelled air of bubbles.

9:10 A.M ♀ rufous hummingbird at feeder. Wasp challenged the bird but bird evaded and returned to feeder. Bird left in 35 seconds to tree then left area. Last hummingbird for this year.

Before sunrise sound mirrorlike and no evidence of bird or fish activity on water. At these times it is easy see any activity of animals on the surface or just beneath surface.

9:20 A.M Buster feed at feeder and came to window for hand fed apples. Bimbam last year was the most confiding deer of family group but now will not come to hand fed situations whereas Buster has acquired the confidence to do so.

9:25 A.M 2 great blue heron flew by to N. On return one alighted on top of Bee House and eastern gray squirrels and Townsend chipmunk scrambled off porch feeding area.

9:45 A.M 25 harbor seal Leo Reef.

2:08 A.M. ♂ Dark-eyed junco fed young junco

2:10 A.M Collected the following insect from douglas fir at Bee House:

870726-1	Diptera	
870726-2	Hymenoptera,	bumblebee
870726-3	"	wasp
870726-4	"	"
870726-5	"	"

6:10 P.M ad. bald eagle flew S, then 15 min. later a eagle (adult) flew N. The usual line of flight when eagle is not actively hunting is from Boundary Point to Lichen Point as an adult eagle flys directly away at eye level, the white tail is a conspicious patch at rear of eagle.

July 27, 1987

8:15 A.M. 3 bald eagles flew N at 70' high above shoreline and interacting in flight.

Rufous hummingbird at feeder last evening but not this A.M Feeder measures 1 1/2" below full marker.

Five different deer at feeder at one time or the other including Shydoe, Skull Cap (a new name for young with conspicuous dark hair on top of head and Buster. Shydoe makes

forceful attacks on Skull Cap both at near contact and as far away as 50', chasing it up & out of area.

2:30 P.M Left for n Rock Quarry (base). Itinerary horizontal trail to w Bee Estate, horizontal trail to logging trail above manma, logging trail to forks of trail, thence first switchback to n, thence down grade to flats below North Rock Quarry.

3:04 P.M main logging trail above manma. Only 5 small 1/4" white moths so far and no other insect.

3:09 P.M Divide of logging trail. no insects of any kind to this point.

3:18 main trail (road) at first switchback.

3:23 Bottom road at flats. I have never seen so depauperate insect or bird population. Sun 50% of time, otherwise cloudy.

On flats collected the following insects from open exposures.

870727-1 grasshopper, brown. Estimate 36 on flats, largest not much larger than specimen to 1/2" long. If chased they finally go to shore rocks or talus at base of cliff. Larger ones fly farther than smaller ones. Wings with yellow.

870727-2 wasp — All below in open ground situations.
870727-3 "
870727-4 "
870727-5 hornet
870727-6 hornet
870727-7 "
870727-8 bumblebee — On thistle at border field
870727-9 " " " " " "

4:07 P.M left flats. 100' up road and large leafed maple with dry leaves completely covering road below. Other leaves on some tree green.

4:25 main Top Road

4:40 P.M Bee House. Number of insects (except minute ones) approx 20. No butterflies, no birds, no mammals.

7:20 P.M 76 glaucous-winged gulls on Flower Island. 2 males? held on to each others bills and together gradually slide down 15' of rocky slope.

7:30 P.M. 2 double-crested cormorants fed directly below Bee House, one caught a worm (8" long & 1/2" wide). yellow of face carried out on lower bill.

7:35 ♀ Skull Cap (mule deer) 25"
♂ " " " " 25" and antler buds, more reddish than ♀
These deer are this years young of manma doe?

870728-135

July 28, 1987

To Mt. Vernon. One pigeon guillemot E end Thatcher Pass and only bird except 6 glaucous-winged gulls.

Returned to Thousand Trails Preserve near La Conner for tonight. (July 29, 1987 at Mt. Vernon and Thousand Trails Preserve.

July 30, 1987

Recorded birds at Thousand Trails Preserve at Lone Tree Peninsula: pigeon guillemot 4, ring-billed gull 1, Bonaparte gull 8, glaucous-winged gull 6, American Crow 4, Barn swallow 3, belted kingfisher 1, American robin 1, black capped chickadee 1.

Left T.T and to Anacortes ferry terminal. Birds at ferry terminal; Bonaparte gull 11, glaucous-winged gull 32, ring-billed gull 9, California gull 18,

En route to Lopez at Pointer Rock. Entire island occupied with glaucous-winged gulls every 3-4' apart. One local aggregate of approx 50 gull circling 50' above island (W side) Continued to Lopez. Collected Sorex from trap in Bee House basement. no.

870730-1 Sorex [173]-[19]-13-8-4.5 gms.

July 31, 1987

From Bee House on Lopez counted 25 harbor seal on Leo Reef at 2:45 P.M.

3:35 P.M. Osprey captured fish at particle 20' out from water at Shipley Residence on Swift Bay. 38 Calif. gulls on beach. 12 Bonaparte and 18 glaucous-winged gulls. Returned to Bee House.

Left 4:22 P.M for hike on Humphrey Head.

4:40 P.M Mossey Point on horizontal trail to logging trail.

4:49 P.M Logging trail.

4:57 Divided Trail, followed upper trail. At 150' N of bifurcation of trail collected a moth no. 870731-1 from in center of trail. Also collected a fawn from same locality in trail no. 870731-2. It appeared to be a newborn. Measurements are:

acquired color aerial map of Humphrey Head from San Juan Co. Planning Commission Office in Friday Harbor. Same building as Police Department. $40.00. They have or can get maps of any scale of San Juan Islands. Map no 870731-3.

5:11 P.M main road.

5:16 P.M Trail to N Rock Quarry (top). Orange-crowned warbler nest previously discribed stell in tact.

5:21 P.M Top of N Rock Quarry.

5:24 P.M Left.

5:25 P.M Bee House or 1 hr & 23 min. in field. At entrance to Bee Estate a Venessa butterfly.

6:35 P.M 65 glaucous-winged gulls on Flower Island.

7:35 P.M adult ♀ river otter and 3 young 2/3 size of ♀ swam N and fished. ♀ mainly light with one conspicuous dark spot (5 x 2 inches)

Bee Estate, Humphrey Head, Lopez Island, San Juan Co., Washington

a mule deer Aug 1, 1987

8:10 A.M Bimbam, (30" high at shoulders) fed 8 min. on corn and wheat, then hand fed 1/2 apple. A domestic rabbit feed 12" from front hoof of this deer. The deer lowered head and nudged the rabbit away. no contact. ↓ Bimbam antlers 3/4" longer than last observed and more outward top Bimbam has scar between shoulder and N rump

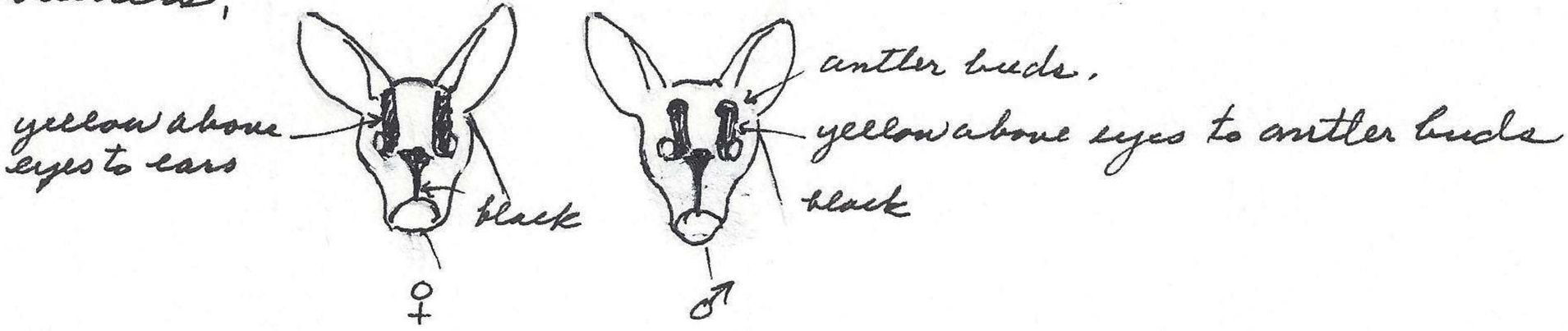
8:25 A.M Shy Deer, a mule deer at feeder, 29" at shoulder. She has 1/4" scar just above wrist of front right leg (medially).

Sky above clear, clouds in low lonzens.

11:00 A.M Sister, a mule deer, at feeder. 27" high at shoulders. Scar upper part shoulder blade, right ← ANTERIOR
Left middle trail under stairs.

11:10 A.M Skull Cap ♀, a mule deer at feeder, 25" high at shoulders, very spooky.

11:40 A.M Skull Cap ♂, a mule deer at feeder, 25" high at shoulders,

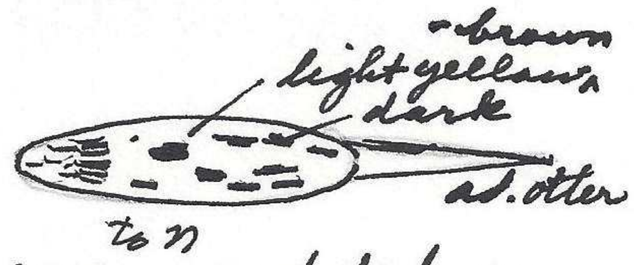


The neck and anterior part of body has light long post-juvenile (not spotted) pelage.

1:16 P.M 9 barn swallows concentrated at Boundary Point Barn swallows are rarely observed from Bee House, and also northern-green swallows except when nesting at the house. Barn swallows from water level to 60' high

1:17 P.M From Douglas fir trees at Bee House collected the following:

870801-1 Diptera
870801-2 "
870801-3 Hymenoptera, wasp
870801-4 " "



1:18 P.M. adult ♀ river otter and 3 young swam and fed on fish and worms along shore (3'-8' from shore). When a young would capture prey, the other two would challenge and try to gain the prey. Female hunted and fed herself.

1:18 P.M Noticed that the 10 barn swallows circling area of Boundary Point both among the Douglas fir and along shoreline from 15' above group to top of highest Douglas fir (approx 60'). (see 1:16 PM preceding page) In the next 45 minutes the swallows gradually increased to approx. 60 birds (90% barn swallows and 10% northern violet green swallows. Then by 2:20 P.M the flock had increase to approx 100 birds. The feed mainly above madrona trees and from there to 100' above water level. At 2:20 P.M they abruptly stopped as I was watching the ant colony which was the source of the flying ants. Toward the last, the ants were leaving about 120 per minute. The birds immediately left the area when the ants stopped flying which was rather abruptly, they did not return. There must be some keen eye recognition from a far distance as neither the barn swallows or northern-violet green swallow rarely visit this area.

Collected the following flying ants from colony as they left and also smaller ants (wingless) covering the rock and debris of this hillside colony. 3 wasps also were associated with the colony and collected one of them. These insects are:

870801-5 flying ant
6 "
7 "
8 "
9 "
10 "
11 "
12 colony ants, 10 per square inch
13 " "
14 wasp, concerned with flying ants.

One adult bald eagle observed this A.M and one at 4:50 P.M this afternoon. The latter flew NW across the middle Humphrey Head.

890802-138

Aug. 2, 1987

Photo 870802-1 general view from S of bench, table and fireplace on shoreline of O'Leary property. Fire pit is recent and has destroyed grasses. Trampling effect in foreground. Defaced shoreline.

Photo 870802-2 Fire pit. of above

Photo 870802-3 General area from N of above

Photo 870802-4 From dessected point showing complete trampling vegetation

Photo 870802-5 Veiw from Cliff Meadows of O'Leary shoreline.

Photo 870802-6 Shoreline N of Humphrey Lagoon.

Photo 870802-7 Sailboat at Humphrey Head Marina.

At horizontal trail at Cliff, passed Shy Doe at 15' without displacing her. I continued on.

12:45 P.M. Shy doe at feeder. Scar of right hoal noticeable

1:30 Shy doe top of cliffs NW deer feeder. From kitchen window.

Photo 870802-8 of this mule deer:

9:45 A.M. Following are photos mule deer at Bee Haven,

870802-9 Shy doe, mule deer,

870802-10 Skull Cap ♀.

870802-11 Skull Cap ♂, Skull Cap ♀.

870802-12 Skull Cap ♂.

870802-13 Skull Cap ♂ licking side of mouth of Skull Cap ♀.

These two deer frequently lick each others fur, especially in head & neck region where a single deer could not reach. Because of size and condition or stage of pelage it is assumed that these are progeny of early parturition of Mamma deer, they are not accepted by other adult females in area,

This afternoon at 3:45 P.M left for Anacortes and Mt. Vernon. Observations on ferry are: (all from N side of ferry lane)

2 glaucous winged gulls at ferry terminal

adult bald eagle flew E across N Lopez Sound to top (just under top) of mt. S of Thatcher. Crossed at Leo Reef about 700 above reef.

Between Willow Island and W end Thatcher Pass were 33 Bonaparte gulls in one group flying 2-5' above water or resting or feeding on water. Also 1 glaucous-winged gull.

Between W end Thatcher Pass to Lawson Rock were 35 Bonaparte gulls flying low or feeding on surface. Generally distributed.

Half way across Rosario Straits were 7 glaucous-winged gulls along a rip tide debris line.

The last quarter distance toward Anacortes from E end Thatcher

Pass were approx. 500 California gulls, 90 glaucous-winged gulls and 20 Bonaparte gulls, all generally distributed and 95% on water.

Noticed old timber burn on Cypress Island, S end. Many burnt trees standing but not much recovery.

Between S end Cypress Island and Anacortes ferry terminal were:

4 Bonaparte gulls flying E 1 foot above water.
1 glaucous-winged gull.
5 Bonaparte gulls on water in one group.
2 glaucous-winged gulls on water
3 " " " " "

Arrived Anacortes ferry terminal.

Continued on to Anacortes, Mt. Vernon and then returned to Thousand Trails Preserve (La Connner area).

August 3, 1987

To Mt. Vernon, Dr. Johnson office and return to T.T. Preserve. Black-Capped Chickadee at camp.

Aug 4, 1987

To Skagit Valley Hospital for surgery on forehead, to remove Malignant Melanoma, parteally removed by Dr. Dengler by Dr. Garry Johnson a week ago. In evening returned to Thousand Trails Preserve.

Aug. 5, 1987

8:40 A.M. Shy Doe, a mule deer ♀, (29"+ heighth at shoulders) with medial 1/4" medial scar on upper edge of wrist, vigorously fought Buster, a mule deer (28"), at times both standing upright on hind legs. Shy Doe dommated. Buster has 3" scar between shoulder blades and parallel and one 7" scar, both on medial line, between hips. Both deer left 8:55 A.M.

8:58 A.M. Chevron doe arrived at feeder. She is marked by 2 faint stripes (45° angle) on anterior leg 1 inch above wrist. Her ears frequently lop and is more confiding than Shy Doe. She measures 29" at top shoulders Her fawn is 20" high at shoulders. and when alone is non-confiding. The spotted fawn did not accompany its mother. The Chevron doe also has a big scar at base of left side of neck anterior to scapula.  this deer displaced Both Buster and Sister (27"), both mule deers. She (Chevron) forcefully displaced and chased Sister although Sister returned

each time. Sister + Buster still feed from hand.

Aug 6, 1987

8:20 A.m. Ad. bald eagle flew S past Bee House to Lichen Point and beyond. At this time of day and even earlier there is seldom birds on water between here and Leo Reef in contrast to winter period. 29 harbor seal on Leo Reef, one of which was on Leo Rock no. 7 and one on Leo Rock no. 8.

Collected the following shrew from basement Bee House.

870806-1 Sorex vagrans. 107-43-12-8-5 gms, ♂

10:45 A.m. Fawn of mule deer Chevron doe (29") preceded doe by 4 minutes. Doe from top stairway trail to feeder at feeder both refused slice of apple at window 4' from feeder but both reacted by upward jerk of heads. Both left 9 minutes later and followed same trail route. Fawn followed 10' back of doe.



1:30 P.M mule deer, Chevron Doe and fawn arrived at feeder and both fed for 8 minutes, then left by upper trail N, fawn followed closely behind, 5-8'.

Last week placed "Lay Crumbles" 16% Skagit brand in feeder and rest on ground E of house. The mule deer, chipmunks, squirrels, birds would not eat the food. Crows and domestic rabbits consumed some but half-heartedly. There is something in the material that is recognized and refuse by the native mammals & birds: The product consists of:

grain
plant protein
animal protein
dicalcium phosphate
calcium carbonate
salt manganous Oxide
copper oxide
ferrous sulfate
Zinc oxide
ethylene diamine dehydriodide
vitamin A acetate.
D-activated animal sterols
dl-alpha tocopheryl acetate
menodione sodium disulfite
riboflavin
calcium pantothenate
niacin
choline chloride
vitamin B-12 supplement
sodium selenite

1495 State Highway 20 W
P.O. Box 345
Burlington, Wa 98233.

870806-141

Identification of local mule deer.
Aug 7, 1987 (Compilation)

♀ Chevron: heavy scar base neck right side and 2 chevrons anterior leg, above (1") wrist. Frisky her fawn 20", spooky ~29"



♀ Shy doe: 1/4" scar on upper medial edge of right front leg moderately confiding but will not hand feed. Teenie her fawn 20 1/2" 29"



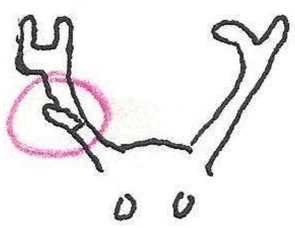
♀ Spooky. Biggest ♀ in area. 31"

♂ Buster, ♀ 27½ Sister 27" } colorful red pelage fawns of Mamma deer 1985 Eye lashes 3" (upper & lower) Tame, hand fed, 4 scars medial front R leg below wrist scar upper shoulder blade, right. Tame, hand fed Slight nick upper edge, posterior border, left ear.

♂ Bimbam 31" medeal linear scar between shoulder blades and between rumps Tame, hand fed.



♂ Single Tyne Buck 32"



Skull Cap ♀ 25" } prominent yellow stripe above eye to ear, spooky.

Skull Cap ♂ 25" } this years fawns of Mamma deer.? prominent yellow stripe to antler buds only, spooky, more reddish pelage than ♀. Both with dark skull caps.

Orphan 23 3/4" pelage without spots. May be one of above 2 (July 5, 1987)

Also 3-4 bucks during breeding season.

870807-142

Aug 7, 1987

6:30 AM 91 glaucous-winged gulls on Flower Island, 2 d/c. cormorant. Nest 2' high tide

7:11 A.M Ad bald eagle passed Bee House from N at 50' high and 20' from shore, dropped to 15', circled Spring Cove above water and continued S alighting in Douglas fir above point (see location on pictoral map date May 5, 1987). Remain for 45 minutes.

8:30 A.M Chevron doe, a mule deer and her fawn fed 6 minutes at feeder.

8:35 A.M. Sister, a mule deer, at feeder for 6 minutes. She was hand fed apple slices

10:57 A.M ad. female river otter and 3 young fed along shoreline (in shallow water) below Bee House. They continued to S side Spring Cove and left water (approx - 2.4) moved over beach along cove to logs at high tide level and then w on slope of spring among trees. They returned to water at 11:11 A.M or 14 minutes on land they continued S, feeding in water at shoreline. This family group is the same as group observed Aug 1, 1987. Female had same spotty pattern.

12:15 new female mule deer, at feeder, 30" high at shoulders Scar Lid and scar mark above eye and behind eye on right side. Fawn 20½" high at shoulders



Aug 8, 1987

7:10AM adult ♀ and 3 young river otter swam 5' from shore N by Bee House, feeding along way.

7:20AM. adult bald eagle flew S by Bee House 150' SE from shoreline and approx 80' high.

7:50 A.M Shy doe displaced fawn of Chevron with forceful thrust of right front foot. I do not see how these repelling acts do not injure eyes of the displaced one. More scars this year than last year.

10:18 AM. Check of boat traffic this Saturday morning:

32 boats all told

sail boats 10 of which 7 going N (4 with sails, 3 without sails)

and 3 going S (1 with sails, 2 without)

motor boats 22 in all, 1 going S, 21 going N.

Wind from N, small whitecaps.

10:20 A.M 49 glaucous-winged gulls on Flower Island.

9 harbor seal on Leo Reef. Rocks 1-6 - no other seal

10:50 A.M 32 sail & motor boats (6 going S, 26 going N)

10:55 A.M This A.M on 3 occasions a belted kingfisher sat on edge of rocky slope (6' above water) for 2-3 minutes each time.

12:30 A.M 28 boats in sound SE Bee House from Thatcher Pass to

point NE Bee House. On the bases of 28 boats that take on an average of 20 minutes to make trip thru N Lopez Sound, the number of boats per hour is approx. 84 boats per hour for this particular time of day.

1:00 P.M 25 boats in N Lopez Sound.

While eating lunch on porch at 12:30 to 1:00 P.M. Counted 7 wasps.

1:05 Skull Cap ♂, a mule deer, came into feeding area and because wind carried voices from Fiske house the deer became confused and departed in several different directions at rapid speed.

4:00 11 boats in N Lopez Sound, 5 to N & 6 to S.

6:00 P.M Chevron lops ears like Momma deer. Both Chevron and fawn at feeder. Left horizontal bench trail to NE.

6:05 Buster at feeder, has 3 scars below wrist

Aug. 9, 1987

870809-1 Sorex vagrans 95-33-[illegible]-8-5.5 gms. ♂

From Bee House. Grayish white tick ○ on right side directly below ear.

9:20 A.M Scar Lid, a ♀ mule deer and fawn at feeder. 30" and 21" heights respectfully.



9:25 A.M Sister at feeder.

9:31 A.M Shy Doe. Juncos (dark-eyed) and Townsend chipmunk fed within 1 foot of front feet of deer.

9:35 9 harbor seal Leo Reef, 2 on Little Flower Rock.

9:55 Skull Cap ♀ at feeder.

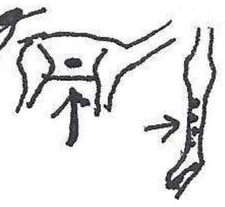
10:15 " " ♂ " "

Aug 10, 1987

James Robert arrived with 22' Chris Craft Runabout. Randy Ragle, his wife Marty & son Luke drove James truck to Lopez. James flew by Braniff. Robert Bailey and son Cullen also from Seattle.

9:25 A.M Shy doe and fawn at feeder. Buster 20' away and waiting. Buster touched side of fawn on side and then struck fawn with front feet. Buster then came to feeder and Shy Doe and Buster challenged each other at feeder with necks & head held high. Shy doe dominated and Buster left to 20' away. after Shy doe left Buster moved right in.

Buster has additional 4 scars below wrist of right leg on medial side and one hair gouge 2×2 on right side body



870810-144

10:30 A.M. 28 Harbor seal on Leo Reef (Rocks 3-5), 3 on Little Flower Rock.

3 band-tailed pigeons flew from Bee House, across North Lopez Sound to Blakely Island

At around noon, approx 600 gulls rested in 3 different groups on outer edge of low tide in Swift Bay.  Did not have binoculars at that time but recognized Bonaparte gull, mew gull and California gull in area. 21 glaucous-winged gulls in area. The group of gulls were predominately either Mew or California gulls. At high tide in late afternoon there were no gulls in Swift Bay except 4 glaucous-winged gulls.

8:40 P.M Sister, a mule deer, at feeder (Bee House)

Bee Estate, Humphrey Head, Lopez Island, San Juan Co., Washington

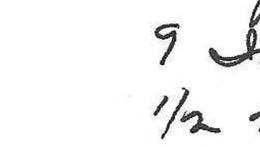
Aug 11, 1987

870811-1 Sorex vagrans 10.4-4.2-1.3-.8-.55 gms

To Friday Harbor by ferry. 2 Bonaparte gulls between Lopez and Shaw, 1 marbled murrelet, 1 glaucous-winged gull at Orcas ferry landing and one American Crow, 2 barn swallows.

At low tide, bottom sediments are dispersed 60'-80' from ferry at Orcas dock.

S of Shaw Island 49 Bonaparte gulls on tidal current contact.



9 Indian fishing boat on SE end Shaw, 

1/2 mile W, 12 glaucous-winged gulls on tidal current fringe.

Return to Lopez from Friday Harbor. N of Turn Island to E end Shaw, 3 groups of glaucous-winged gulls immatures (8)(4)(18) (05)(36)(45). 7 rhinoceros auklets, 2 rhinoceros, 3 Bonaparte gulls, all on rip tided (edges).

E side Shaw Island to Orcas landing, 2 glaucous-winged gulls

From Orcas landing 3/10 mi. E, 2 turkey vultures, 7 glaucous-winged gulls at Shaw ferry terminal, 4 on piling.

From Shaw ferry landing to Lopez ferry landing 5 glaucous-winged gulls.

Aug 12, 1987

Adult ♀ mule deer, 30" high at shoulders, with 2 fawns 21½" high at shoulders. ad. no scars, ears occasionally flopped. Both fawn with spots.

Photo 870812-1 of above ad. ♀ and her 2 fawns. Above Bee House

870813-145

Aug 13, 1987

To Mt. Vernon, Wash. Left 9:35 A.M. Leo Reef had 9 harbor seal on N side, none on S side.

Middle Rosario Straits 3 Bonaparte gulls, 2 glaucous-winged gulls. Small white caps.

Anacortes ferry terminal, 3 Bonaparte gulls.

Continued to Chris' home at Lost Lake.

Aug 14, 1987

TO Northwest Oncology Clinic, Cabrini medical Tower, Seattle. to check with Dr Glenn A Warner. Thence back to Chris'

Aug. 15, 1987

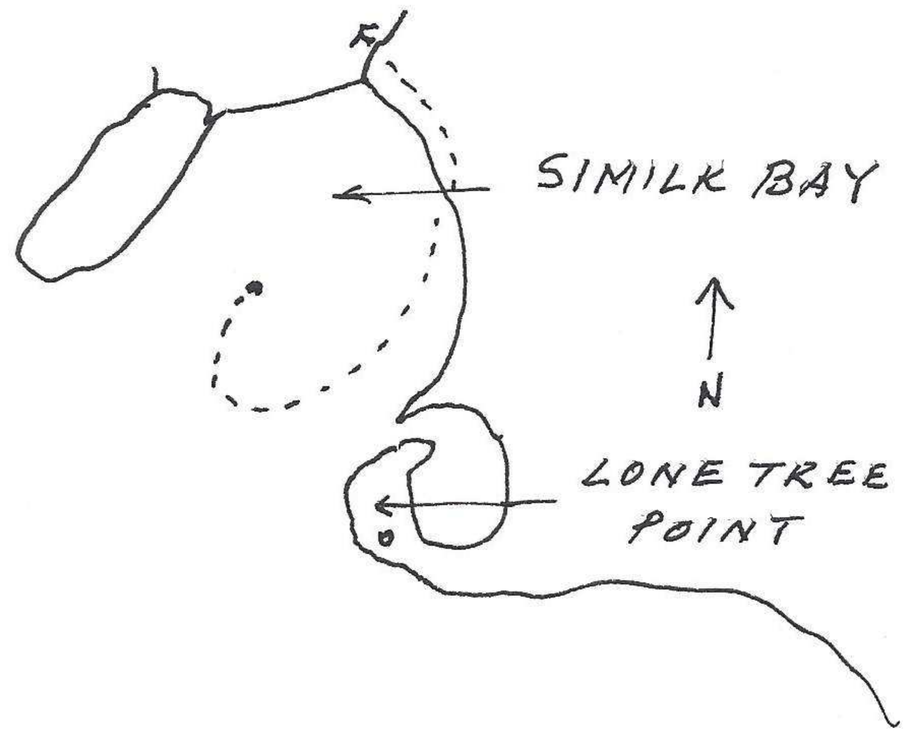
Chris' to Thousand Trail Preserve.

Aug 16, 1987

All day Thousand Trails.

9:00 A.M to Lone Tree Point. 3 ring-billed gulls, 1 glaucous-winged gull, 1 Bonaparte gull. A Caspian tern was being harassed at water level by a glaucous-winged gull & a Bonaparte gull. The tern left area, flew S, then NE to height of conifers, 100', on ridge & then N beyond sight.

Also 2 black turnstones left Lone Tree Point and flew W to barge associated with Indian fishing area. They alighted on a log next to barge. 2 double-crested cormorants, 1 great blue heron, 3 American Crows, 14 surf scoters, 8 barn swallows and 1 Bonaparte gull



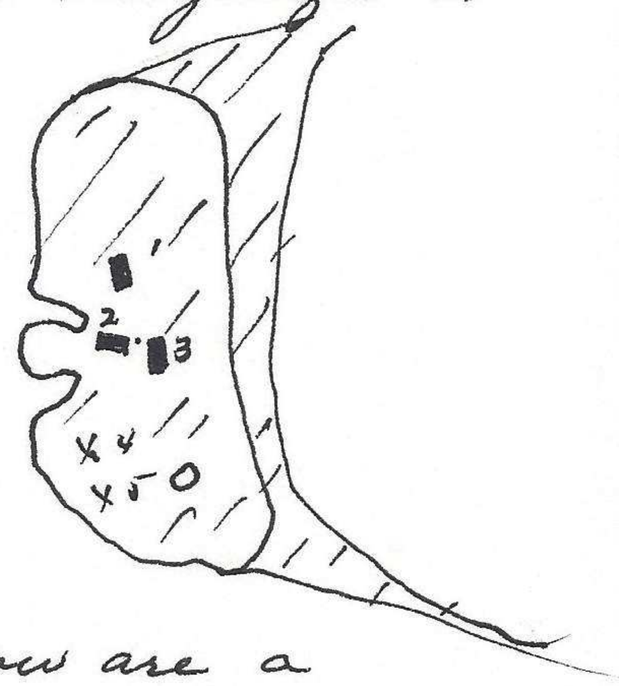
Employee at T.T said an adult bald eagle and 2 young perched on Lone Tree Point (Douglas fir) on several occasions during the week, sometimes as long as 2 hrs. Several other eagles have been sighted within T.T. Preserve, some flying 10'-15' above roads.

At Lone Tree Point noted a beaver cut red alder.

5 immature glaucous-winged gulls rested on shoreline for at least 1/2 hr.

Current passing S of Lone Tree Point at 6 sec. per 10'.

dry grasses on top of Lone Tree Point are more luxuriant than last year. They are severly trampled in areas of concentration of people visitations. Observation area should be established and rest of area restricted. Now the point is completely used as a recreation play ground. 5 burial sites are recognized as rectangular pavement of native stone.
no. 1 and 2 approx 8'4' and no 3 5'x30".
nos 4 + 5 obscured by dead grasses.



Camp sites bordering Lone Tree Lagoon have been cleared of brush and trees by a member who was given permission to clear brush around his campsite by T.T. employees. They have removed a natural growth along lagoon and the sites now are a park in appearance.... T.T has a policy of preserving a segment of natural community of plants and animals but in this case they have created an artificial appearance that has only parklike value. It should never have been approved. Also the natural view from lodge is being destroyed by creating a recreational area of horse-shoe and shuffle board sites.

Aug. 17, 1987

James Robert (son) arrived Thousand Trails Preserve and in A.M left for Lopez by ferry.

Great increase in Bonaparte gulls. There were 180 generally distributed on water at tidal current rip tides between Anacortes ferry terminal and beginning of Rosario Straits, 80 across Rosario Straits, 85 three Thatcher Pass to Willow Island and 8 between Willow Island and Lopez. Also observed in Thatcher Pass were 8 glaucous-winged gulls, 2 double-crested cormorants, 3 marbled murrelets, and 2 rhinoceros auklets.

Aug 18, 1987

To Friday Harbor (Jensen boatbuilding marina) and return with James Robert. Checked Isleña, boat, 32 Trawler.

At home / Buster, a mule deer, at feeder. new scars (4) on medial right front leg below wrist. Heighth 28"

Chevron, a mule deer at feeder, measures 29" heigh.

870818-147

870818-1 Perisoreus m. bollsteri. 171-82-22-17-20gms ♂

Thistle seeds have been blowing in air last 2 day at least.
18 Bonaparte gulls approx. 200 ft SE Bee House. no other birds in sound between Leo Reef & Bee House.
To Friday Harbor by ferry. 35 Bonaparte gulls between Shaw and Orcas ferry terminals. 8 Bonaparte gulls in upright Channel. 130 Bonaparte gulls in San Juan Channel to Friday Harbor, also 1 rhinoceros auklet and 8 marbled murrelets. James Lobert and I checked the 32' Jensen trawler 'Isleña that belongs to Mr. James & Ruth Byers, 5110 Beach Lane, Cattle Point area, San Juan Co. 378-2609. Returned to Lopez.

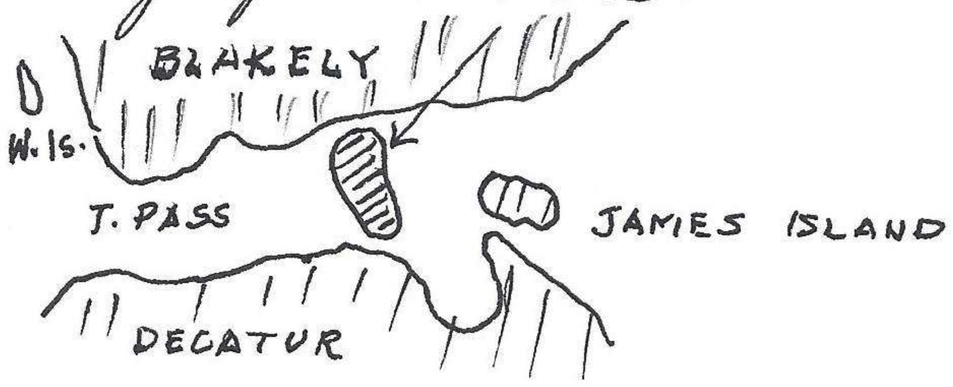
Aug 19, 1987

A bat (4" or 5" wing spread) active yesterday evening at a hour that appeared to be early for bat activity. This morning the bat was active to 6:10 A.M. Sky clear but fog bank approaching from E,

Group 13 Bonaparte gulls in front Bee House 100'-300' from shore. They occurred yesterday also.

Belted kingfisher perched in madrona below Bee House, 20' above shoreline.

10:25 A.M To Anacortes. Bonaparte gulls in following numbers between Lopez ferry terminal and W end Thatcher Pass, 1-1-1-2-1-1. From W end Thatcher Pass to observed concentration of approx 800 Bonaparte gulls, generally distributed along rip tides thus: also 2 marbled murrelets, 4 glaucous winged gulls. Between here (above) and Anacortes ferry terminal 4 Bonaparte gulls.



Returned to Lopez 5:15 P.M. 2 Bonaparte gulls W end Thatcher Pass, 1 at Willow Island and a marbled murrelet between Willow Island and Lopez ferry terminal. Quite a contrast to same route this A.M.

This evening, Buster and Chevron at feeder, 1/2 hr. later Chevron and fawn

7:45 P.M. 91 glaucous-winged gulls on Flower Island, 4 young about size of adults but not yet airborne. One adult fed young in nest. Also 8 double-crested cormorant. 15 Bonaparte flew past to SW.

870819-148

8:15 P.M Buster, a mule deer, to feeder and also hand fed.

Aug 20, 1987

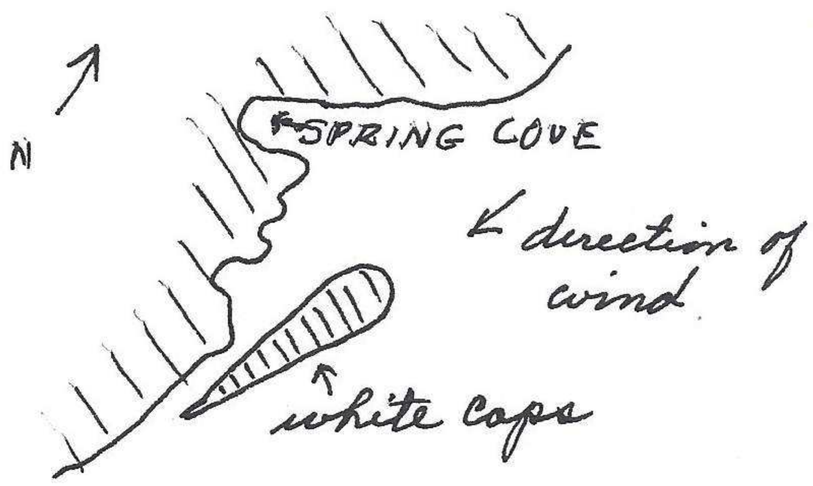
Chevron, a mule deer, and fawn at feeder. Fawn 21" high at shoulders.

Buster, a mule deer, was on porch last night around 4:00 A.M and 4:30 A.M. ate azaleas, poinsetta, marigold. Crossed chair barrier. also jumps from porch to rocky cliffs.

9:45 A.M Shy doe, a mule deer at feeder.

10:20 A.M Chevron and fawn at feeder. The doe spends considerable Concentration attention to O'Learys who have a dog. She will frequently leave feeder and area, generally in a hurry.

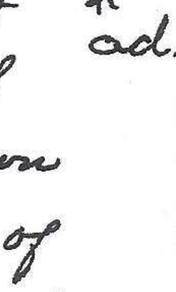
This A.M when currents were strong to the north around Lichen Point: The wind from the north against the current cause localized white-caps.



12:00 P.M One of mamma deer's twins (25¼" high at shoulders)

6:00 P.M Chevron, a mule deer, and fawn at feeder.

6:30 P.M. A ♀ (30¼") "new Girl" ad mule deer, new to area and fawn (20½") at feeder. identifying marks poor Fawn with anterior body without spots, rear half with spots. a dark hair line (2") down dorsal neck, (4") down dorsal back to rump. Line extends between ears and all of top of head. 2 exposures of antler buds which seems unusual for a deer of this size. However, antlerlike base occur on ♀'s.



Aug 21, 1987

Water in sound smooth. no birds between Les Reef & Bee House

7:00 A.M one of mamma deer's twins at feeder.

9:50 A.M Chevron, a mule deer, at feeder.

9:55 A.M Buster, a mule deer, has hair from lashes a area immediately associated with eye 3" long.

This A.M emptied wasp trap  that has been in operation for 2½ weeks (18 days) and recorded info as follows: 161 individual wasps of one species, max length 15mm - min 10mm. Fine specimens of this species of wasp are:

870821-1 wasp, average coloration
870821-2 wasp " "
870821-3 wasp " "
8708214 wasp dark hands
8708215 wasp small size

Two wasps of larger size, one of which was saved as a specimen:
870821-6 larger wasp. 18mm length.

Six blue bottom diptera 7 to 11 mm length. One specimen no:
870821-7

2 ants

1 diptera, small size no: 6mm Two other same kind we sample.
870821-8

Two photos of samples above:
Photo 870821-9 general view, 7 ace sample.
" 870821-10 Close-up large & smaller (dominate) wasps.

Aug 22, 1987

To Friday Harbor. Left 9:10 A.M. Day Clear. Census as follows: Lopez to Shaw (ferry terminals, 1 Bonaparte gull, 2 Bonaparte gulls, 1 glaucous-winged gull. At Shaw ferry terminal 16 glaucous-winged gulls, all adult except one. also 1 kingfisher (belted). At Orcas ferry terminal 1 adult glaucous-winged gull, 3 American crows, 12 barn swallows. In upright Channel, 1 Bonaparte gull, 1 gl.-winged gull, 2 Bonaparte gulls. San Juan Channel S Shaw Island 2 Bonaparte gull. Arrived Friday Harbor 10:20 A.M.

At Mr & Mrs Henry Byers 839 Terrace Dr. observed 2 adult and 6, 1 foot high (from back) wild turkey as a family group. They were dusting in dry dirt, then fed thru garden and finally left area. Mr Byers said he has observed 30 turkey at one time in garden area. The wild turkeys were introduced 2 years ago at Roche Harbor. Ring-necked pheasant common 10-15 years ago, now rare. Few, at least one family of Calif. quail on his property. meadowlarks in early days now rare.

From Byers crossed wooded area of U.W to marine Station. no administrator on duty, thence to Friday Harbor ferry terminal via shoreline from residential area to N. In the trail of wooded area N. UW marine Station, in area of red alder, leaves completely covered trail, no birds in forest.

At 150' N Custom building, Friday Harbor, among boulders on beach, noted a thamnophis (blue stripes). 7/8 inches wide (body).

Left Friday Harbor 1:30 P.M. approx 400 Bonaparte gulls, 8 glaucous

winged gulls to E end Turn Island associated with vigorous currents, and upwelling.

2 Bonaparte gulls in Upright Channel. 4 Bonaparte gulls, 1 glaucous-winged gull in Harney Channel. From Orcas ferry term. to Shaw ferry terminal 6 Bonaparte gulls, several Bonaparte gulls acted like hawking nighthawks coming up to a peak in air and then dropping back or down again. At Shaw ferry terminal, 12 ad. glaucous-winged gulls on piling. Harney Channel 25 glaucous-winged gulls following a dredging fish boat. Also 3 Bonaparte gulls in area.

Purser of ferry said ferrys cruise approx 16 MPR. Returned to Lopez.

7:40 P.M. flying termites with wings approx 20 mm long passed upwards in front of windows at Bee House. At about same time 54 Bonaparte gulls in groups of 4-8 passed by to S and as each group came into the area, they circled and fed on these termites for 2 or 3 minutes then continued S. The general area of hawking was approx 60' to 250' high and 100-300' S of shoreline. The gulls continued hawking the area until 8:28 P.M, the termites to 8:34 P.M Hawking was associated with flash fluttering of wings and peaking at level of height of termites wind from N carried termites out (S) and upward. One specimen of above termites is no. 870822-1

Aug. 23, 1987

870823-1 Paromyscus m. sallisteri. 160-75-22-18-16 gms ♂
From Bee House.

870823-2 Paromyscus m. sallisteri 161-70-22-18-17 gms ♀
From Bee House.

8:30 A.M Chevron, a mule deer and fawn (2 2½") at feeder. more than 50% of adult time at feeder was concern of a dog at O'Learys. Finally the doe ran up slope to N, stopping 4 times to check O'Learys place and finally disappeared at Lower Parking Lot. The fawn remained at feeder for 5 minutes, then left.

8:38 an adult ♀ (28½" high) with ¼" scar on medial surface of hind leg (right) ½ way between ankle & toes. new bird

9:00 A.M Buster, a mule deer at feeder

9:05 A.M A fawn

9:20 A.M Buster back at feeder

10:00 A.M One of Mamma deers twins at feeder (25" high at shoulder), no spots.

1:50 P.M 6 harbor seal Leo Reef, 1 north Flower Rock, 4 Big Flower Rock.

2:00 P.M 26 glaucous-winged gulls on Flower Island, none appeared to be associated with nests. 1 imm sky.
Specimen no 870823-1 of cricket taken from Bee House.

Aug. 24, 1987

8:05 A.M Shy doe at feeder, alone.
9:30 A.M One of momma Deer's twins, 25" high.

To Friday Harbor at 11:00 A.M. Enroute observed 2 Bonaparte gulls in Harney Channel, 26 Bonaparte gulls in one flock in Upright Channel. 1 glaucous-winged gull in San Juan Channel. 1 glaucous-winged gull by Turn Island. Friday Harbor.

Check James and Ruth Byers at 5110 Beach Rd, Cattle Point, San Juan Island. Mr Byers informs me about the Soleño

1. $40,000 insurance
2. documented boat, government can use in time of war, benifits are medical service by Coast Guard etc.
3. generator gasoline.
4. 5 batteries, 1 for starting and should never be used except for starting motor.
5. Maps of S E Alaska showing favorite moorage sites.
6. 300' anchor line and 40' chain, 3 anchors.
7. Easy to dock.
8. Radar useful for determining distances of islands from shore.
9. 3 blade replaced by 4 blade propeller.
10. Cruised SE Alaska many times from Sitka, Glacier Bay, Juneau and points S. Never used on main ocean but rides swells easily. Watch out when swells are cresting.
11. Idyle below 5 knots creates motor vibration as is true with most diesel motors. Ruth has pantings of Denali, Glacier Bay etc.

Left Friday Harbor 6:20 P.M. From front of ship: (return by Wasp Pass)

4 Bonaparte gulls, 3 Bonaparte gulls, 5 Bonaparte gulls, 50 Bonaparte gulls in tidal currents. Begin Wasp Passage, 2 Bonaparte gulls, marbled murrelet, 2 Bonaparte gulls, 4 Bonaparte gulls, 2 Bonaparte gulls, 2 Bonaparte gulls, 40 Bonaparte gulls in floating kelp SE of the beacon rock, 6 Bonaparte gulls, 3 glaucous-winged gulls, 8 Bonaparte gulls, 6 Bonaparte gulls, 1 Bonaparte gull. Orcas ferry landing, 6 ad glaucous-winged gulls, 1 imm. on piling. To Shaw I. 1 glaucous-winged gull, 6 glaucous winged gulls at Shaw. Left Shaw 13 Bonaparte gulls, 16 Bonaparte gulls, 2 Bonaparte gulls, 5 Bonaparte gulls, now E end Harney Channel. At Lopez ferry landing,

7 glaucous-winged gulls, 1 imm. Arrived 7:26 P.M.

August 24, 1987

8:30 A.M Chevron, a mule deer, and new fawn at feeder. Buster arrived but was displaced by Chevron. Faun aggressively tried to suckle female and finally bawled ♀ to leave with fawn but denied fawn food. Chevron later returned to feeder and was compatable with Buster, both heads in feeder.

9:20 A.M Shy doe at feeder.

3:00 P.M To Richardson. Fog 1-2 miles inland, clear beyond to N. They claim this condition has occurred all day.

At SW end Fisherman's Bay: 55 glaucous-winged gulls, 73 Bonaparte gulls, 6 semipalmated plovers, 7 great blue herons, 3 killdeer, 1 least sandpiper?

6:10 P.M, new Girl, a mule deer, and fawn at feeder.

new Girl Aug 25, 1987

7:45 A.M. a large ♀ (29") and fawn at feeder. Scar (1/4") - medial anterior right hind leg half way between heel and foot.

8:00 A.M. harbor seal 6' from shore below Bee House.

9:05 A.M. 4 river otter, all dark, from Sudan Point to dissected Point, bypass Spring Bay to Bee House to beyond Boundary Point. They trailed 10'-20' apart and fished entire way catching black, white, orange fish approx. 6" long.



10:20 17 harbor seal Leo Reef.

8 " " n Flower Rock

53 glaucous-winged gulls Flower Island.

8 double-crested cormorant fishing 100' n Leo Reef.

no gulls on Leo Reef.

10:30 Sister, 27".

11:00 Extremely shy deer (27") and fawn.

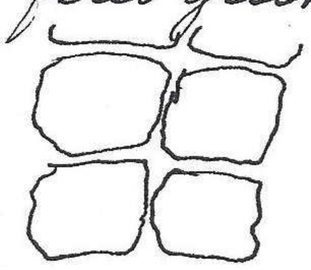
11:10 One of mamma deer twins, 25" high (skull cap ♂) with scar on exterior left leg above dew claw.

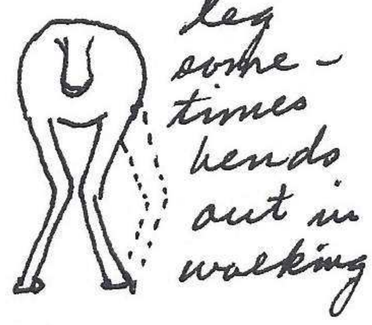


11:40 Twin no ♂ buck to feeder.

11:50 Chevron, a mule deer (29") ♀ fawn.

4:00 P.M Skull Cap ♂, a mule deer at feeder. Had been lying on deer Trail Slope previous 1/2 hr. It is very weak, emaciated especially in hip area with top pelvis prominent. Stomach bloated, holds head down, feces green and compact with large undigested pellets, rear legs angled and unstable when walking.





4:30 P.M 2 surf birds (Aphriza virgata) along shore below Bee House. They fed at water edge and moved N along rocky shore.

8:00 P.M 91 glaucous-winged gulls Flower Island just as sun rays left the Island. 2 marbled murrelet 200' N of Flower Island. 42 surf birds ? on extreme NE end Flower Island.

Aug 26, 1987

9:35 new Girl, a mule deer and fawn (22½") at feeder. Dark pelage on top head, neck and stripe down back. Shy pelage bright reddish. showing Fawn, more new hair on top head, neck and shoulders. Maintaining original spots so far. Both left to NW

12:15 New Girl, a mule deer and fawn at feeder. Ad nosed Skull Cap no. 2 ♀ for 4 secs. then chased away.

2:00 P.M Skull Cap ♂ at feeder and considerably more unexpectated than yesterday. Abdomen more distended. Returned to Bench Forest beyond Boundary Point.

5:30 P.M Chevron at feeder alone.

Aug 27, 187

7:10 P.M Skull Cap ♀ at feeder. 25" high at shoulders.

7:30 P.M Chevron & fawn at feeder.

7:35 P.M Shy doe at feeder, dent in hair front leg above wrist 3",

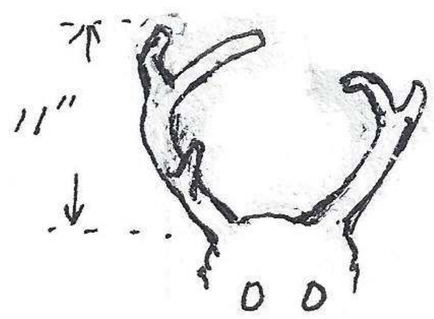
7:40 P.M Shy doe back to feed, no fawn.

Aug. 28, 1987

10:00 AM at Lower Parking Lot, a sharp-shinned hawk, unsuccessfully tried to capture a pileated woodpecker, yellow-shafted flicker and a band-tailed pigeon. When the hawk was first observed it was chasing one of three band-tailed pigeons, they all left the area. Twenty seconds later the hawk chased 1 of 4 yellow-shafted flicker evaded the hawk by flying a circular route at tree tops and then returned to the upright member of Twin Firs where it joined other 3 yellow-shafted flickers and a pileated woodpecker. 1 minute later the hawk chased a second pileated woodpecker approx. 50 feet to another Douglas fir tree. The sharp-shinned hawk then left the area to the northwest. None of these larger birds demonstrated excessive fear of this small predator. While the four flickers and pileated woodpecker were on the top of

Douglas fir they showed complete compatability a least up to 3" interval.

8:05 P.M Chevron and fawn at feeding station and replaced by Single Tyne Buck. It chase the doe for 40-50 feet in an aggressive pursuit and then remained in area for 2 minutes then followed the doe and fawn to Boundary Pasnt and thense n into Bench forest. Buck is more active and alert than are the does.



8:18 P.M. Large doe at feeder.
8:36 first bat.

Bee Estate, Humphrey Head, Lopez Island, San Juan Co., Wash.
Aug. 29, 1987

870829-1 Eutamias townsendii. 238-102-35-18-65 gms ♂
From Bee House and first Chipmunk for 1½ years.
6:53 sunup at highest point of Round Peak on Bladely Island



(30')
12:00 P.M Chevron & fawn, Shy Girl and New Girl at feeder this A.M and at separte times.
8:10 P.M Single Tyne Buck arrived and fed for 7 minutes, left to top of cliffs, returned, fed, then left via head stairs trail. Spent 6 mins, non-feeding time looking systematically in all directions. Heighth at shoulders 32 inches.

Aug 30, 1987
Prepared conversation pit for remodelling.

Aug. 31, 1987
870831-1 Peromyscus m. halleteri 182-84-22-19-25 gms ♂

8:45 A.M
Chevron and her fawn at feeder this A.M 8:15 A.M.
all regular deer visited feeder this A.M
8:30 A.M Shy doe, a mule deer, 28½" high at shoulders and darked scalped fawn 23", at feeder.
Left Lopez ferry terminal for Friday Harbor at 10:55 A.M. Will keep census enroute. 1 Bonaparte gull, 1 Bonaparte gull, arrived Shaw ferry terminal. 4 glaucous-winged gulls on piling there, and Bonaparte nedr. At Areas ferry landing

1 immature and one adult glaucous-winged gull. Left Areas and in Harney Channel 2 Bonaparte gulls, 2 Bonaparte gulls, 1 Bonaparte gull and 1 Bonaparte gull. In Upright Channel 2 Bonaparte gulls, 5 Bonaparte gulls. SE of Canoe Island on floating debris of kelp, 49 Bonaparte gulls. SW Canoe Island 18 Bonaparte gulls. Indian fishermen and boats still in area, 2 glaucous-winged gulls, 2 Bonaparte gulls, 2 Bonaparte gulls, 2 Bonaparte gulls, 1 Bonaparte gull, 8 Bonaparte gulls in rip tides supporting vegetational debris. Friday Harbor 12:10 P.M. To Roche Harbor for lunch. Barn swallows nesting or at least flying in and out under restaurant, 3 glaucous-winged gulls in harbor. Check with Mr Benson of Cove Marina for survey of Isleño and with Mr. Albert Jensen for haulout of boat. Returned to Lopez.

Bee Estate, Humphrey Head, Lopez Island, San Juan Co., Wash.

Sept 1, 1987

870901-1 Peromyscus m. hollisteri 165-78-23-18-19gms ♀ From Bee House.

8:30 A.M Chevron 29", and her fawn 23" at feeder.
8:38 A.M Buster, a mule deer at feeder 28½".
4:35 P.M Shy doe 28½" and her fawn 23". at feeder.

Sept. 2, 1987

Wind changed and now from S this early morning accompanied by slight rain

Left for Anacortes 7:30 A.M. at Pointer Island glaucous-winged gulls every 3'-4' apart and generally distributed. Entire surface of island covered with white excrement whereas presenting the S end of island is the area of white surfacing. 3/10 mi. S Pointer Island 280 Bonaparte gulls in one flying group. 3 glaucous-winged gulls in Rosario Straits. The numbers of gulls enroute is determined by time of day and stage of currents. Arrived Anacortes ferry terminal 8:43 A.M.

To Mt. Vernon, then return to Anacortes. at 7:00 P.M left anacortes ferry terminal. In Rosario Straits 12 glaucous-winged gulls, 18 Bonaparte gulls flying SW, 15 individual glaucous-winged gulls enroute. Also 1 cormorant (double-crested); 6 glaucous-winged gulls flying NW and another single glaucous-winged gull flying NW, all 5 of Pointer Island. 1 glaucous-winged gull flying E at W end Thatcher Pass.

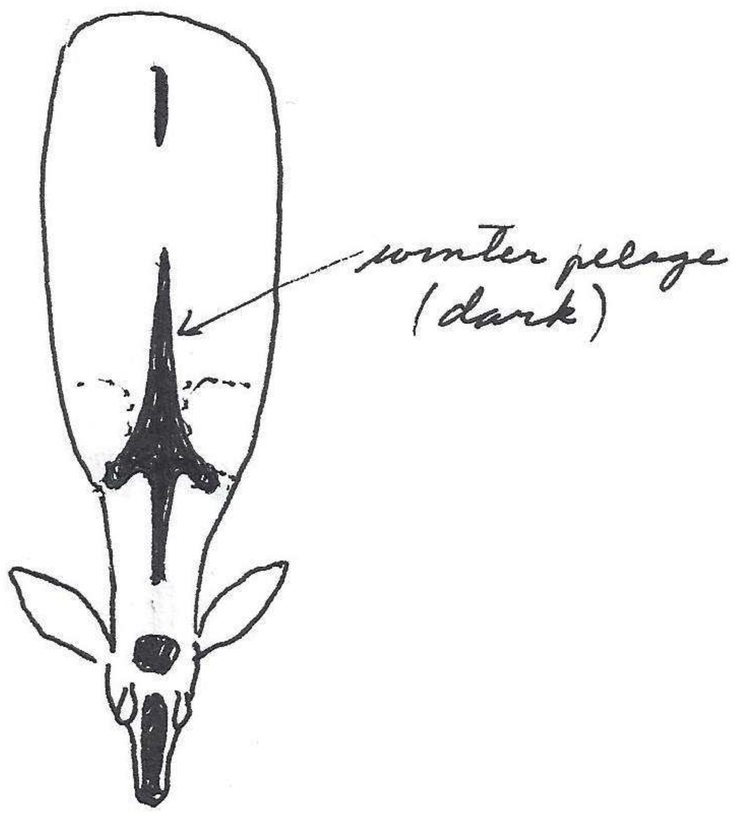
S W Willow Island, 1 double-crested cormorant, 9 Bonaparte gulls, 2 Bonaparte gulls. Arrived Lopez 7:45 P.M.

Sept 3, 1987

9:00 A.M At Swift Bay along low bank beach observed:

6 ring-billed gulls
12 Mew gulls
120 California gulls
8 short-billed dowitcher
2 lesser yellowlegs
18 mallards
3 pintail ducks.

At Bee House, Buster, a mule deer in following winter pelage change

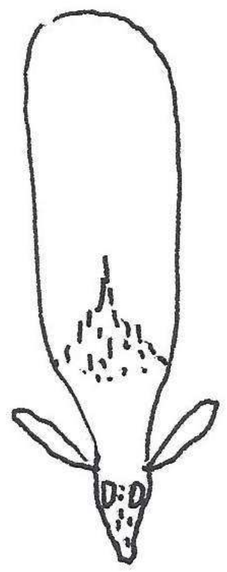


To Friday Harbor. Left from Lopez ferry terminal 1:45 P.M. Complete census birds; 5 of Shaw Island,

3 ad. glaucous-winged gulls
2 " " " "
1 " " " "
1 " " " "
1 imm. " " "

In rip tide zone of San Juan Channel, 1 Bonaparte gull, In Friday Harbor Bay 20 Bonaparte gulls.

Left Friday Harbor 5:43 P.M. Middle San Juan Channel, 8 rhinoceros auklets, 21 glaucous-winged gulls, 1/2 of which were immatures. At Orcas ferry terminal 7 imm. and 16 ad. glaucous-winged gulls. Shaw ferry terminal, 8 glaucous-winged gulls, all adults. Lopez ferry terminal, 7 ad. glaucous-winged gulls, 1 imm.

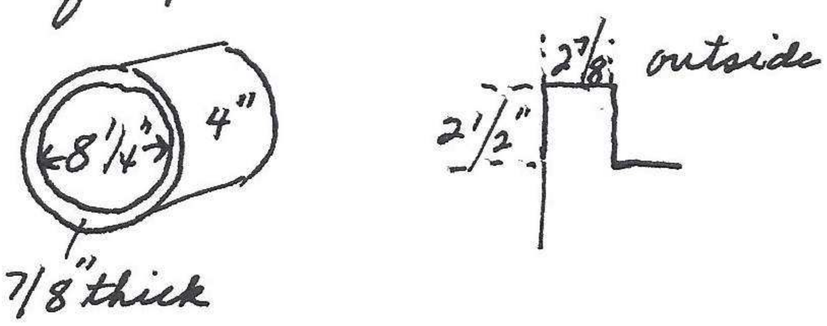


at 7:30 P.M Sister, a mule deer with pelage just starting to show thru old summer pelage

James Robert Bea & Ralph Brodt arrived from Kansas.

The fawn of Chevron, a mule deer 23 1/2" high at shoulders. Complete spots.

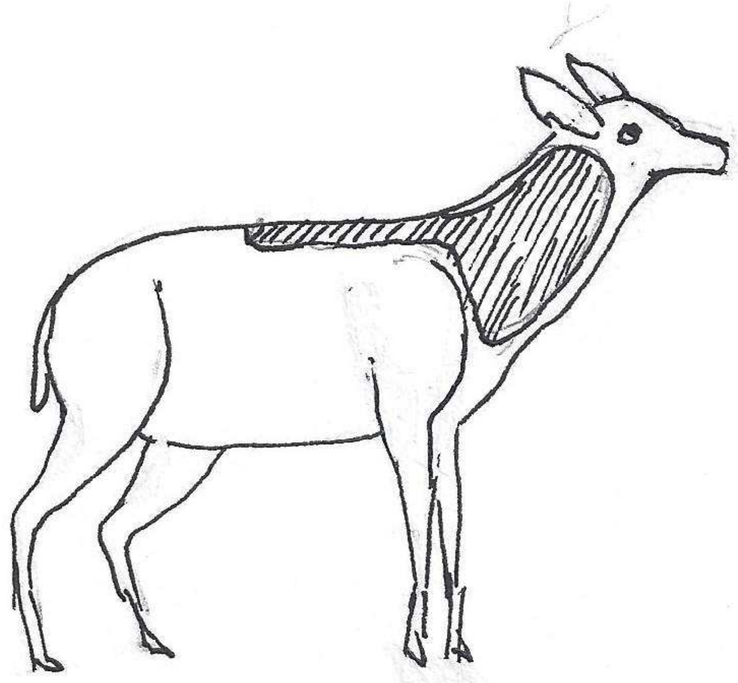
For fireplace:



870910-156

Sept 10, 1987

Bambi, a mule deer has winter pelage as follows:



11:20 A.M a Big Skate moved across waters in front of Bee House, thence into Spring Cove thence S. Raja binoculata. Approx. 3½'-4' wide

Sept 12, 1987

First western grebe observed this summer.

Single Tyne Buck, a mule deer, at feeder. 3" strap of velvet left on tap of antler, right side.

2:30 P.M. 35 harbor seal on Leo Reef

Sept 13, 1987

8:56 A.M. 3 river otter to N in front of Bee House 10' from shore.

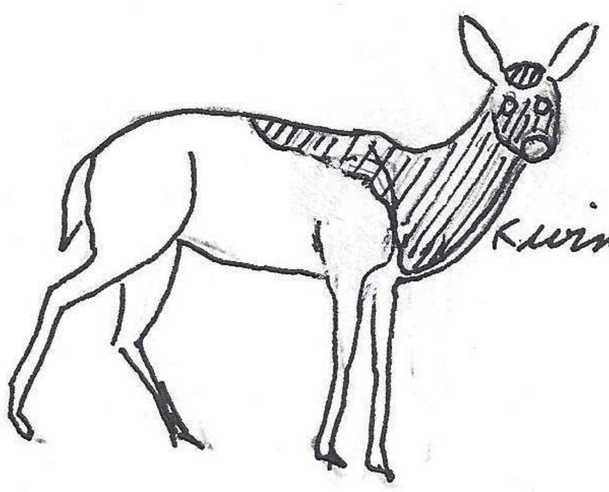
Trip to Rosario Resort for brunch. From top Mt. Constitution 1 turkey vulture 200' below top to E.

Sept 14, 1987

870914-1 Perimyscus m. sallesteri. 180-85-23-19-22 gms ♀

Sunrise from Bee House. Photo no. 870914-2.

Bambi, a mule deer has winter pelage as follows:



K winter

noted turkey vulture E of Cross-and Port Stanley junction. also a red-tailed hawk at Kiel Rd and Port Stanley Rd junction.

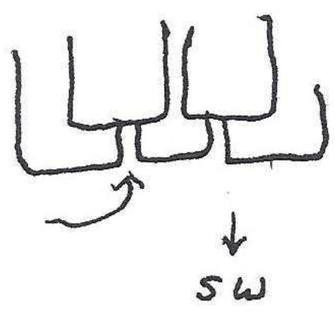
8:01 Single Tyne Buck, a mule deer at feeder, Bee House. strap of velvet still on antler. nearly all local deer have been at feeder. One fawn that has winter pelage still retains spots or new spots along midline of dorsal back. from neck to high rump.

870916-157

Sept 16, 1987

8:45 A.M 6 river otter feeding as they travelled NE past Bee House, all dark pelage.

while on SW roof of Bee House, a myotis like bat left from under cedar shingles. It appear dark red in body.



Sept. 17, 1987

4:30 P.M 5 river otter past Bee House to SW, 15' from shore.

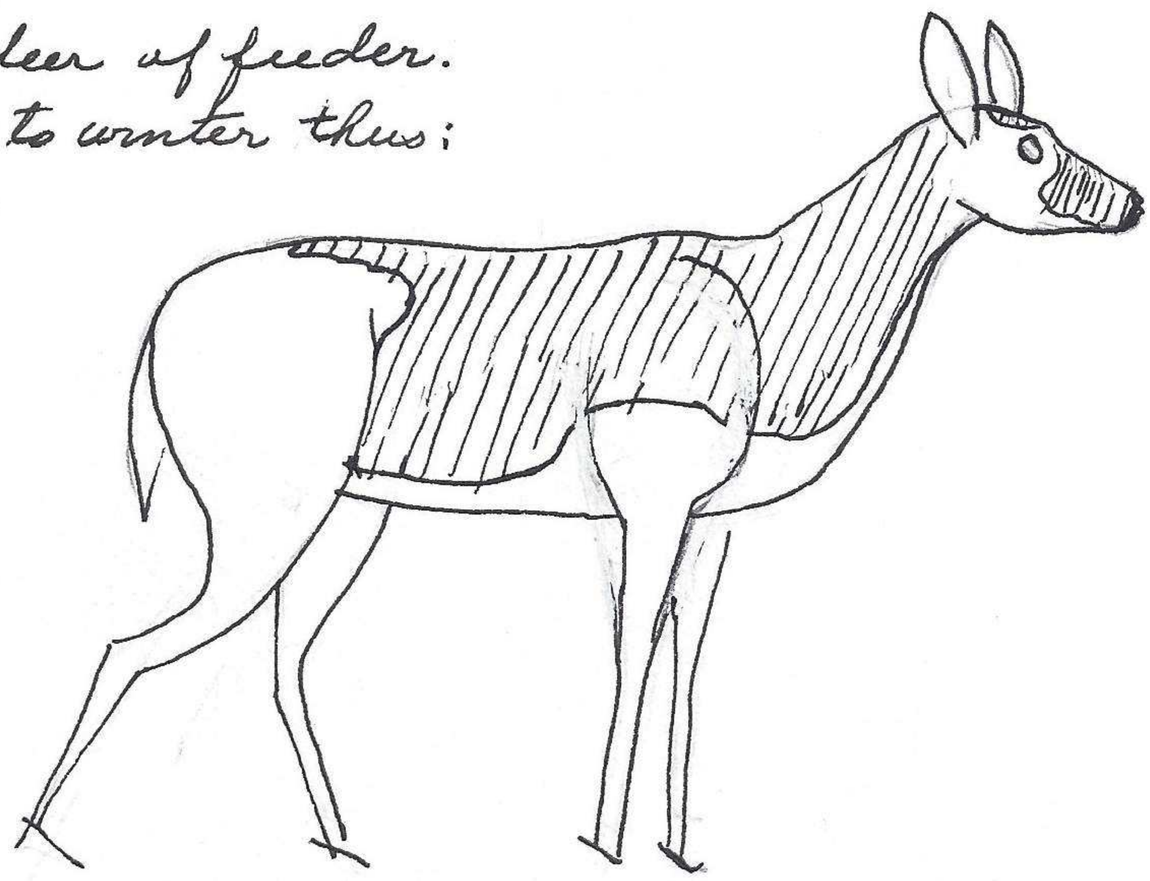
7:15 P.M 5 river otter past Bee House to NE, 3-10' from shore.

Today noted a large flock of approx. 250 crows in field SW. of Cross and Port Stanley rds.

Sept. 18, 1987

8:00 A.M Buster, a mule deer at feeder.

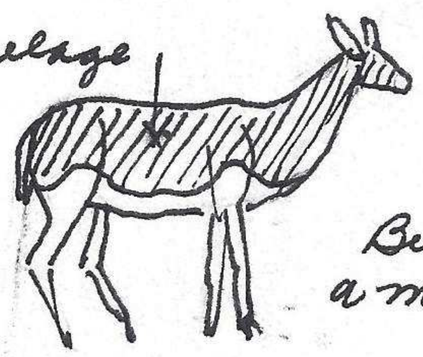
Pelage change of summer to winter thus:
Sister has no pelage change
since last recorded.



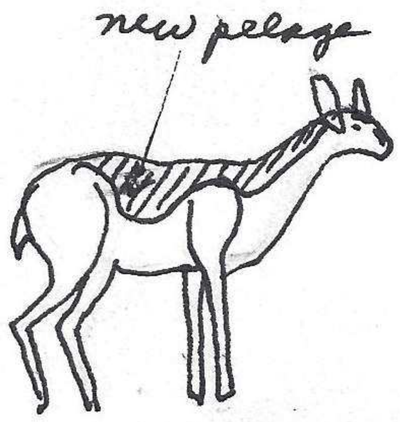


a fawn in winter pelage has a dark stripe down dorsum and lined with spots. An ad. female also has these dots, although faintly outlined.

Collected a Thamnophis at Bee House along upper slope of shoreline. It measured 120 mm body, 30 mm tail, 1.5 gms weight. Its number is 870918-1.



Buster a mule deer



Sister, a mule deer

870918—158

Observed at Swift Bay along low bank beach:

mew gull	80
California gull	250
glaucous-winged gull	20
Bonaparte gull	120
great blue heron	1
black oystercatcher	3

From Swift Lagoon:

lesser yellowlegs	3
greater yellowlegs	1
pintail	13
hooded merganser	6

From Humphrey Lagoon

hooded merganser	4

Adult female mule deer at feeder at Bee House displace other younger deer by:

1 jabbing with front foot.
2 bunting with head turned sideway.
3 bunting with side of neck
4 slamming with entire body.

Mule deer when awaiting for food with rapid elevation head almost perpendicular, nod in that position 2 or 3 times and sniff the air. Photos 870918-2 to 870918-11 Ralph Bradt, Lawrence, Kansas calking NE side Bee House. Nos. 2 and 3 are panoramic.

Sept. 21, 1987

Clear and high temp.

8:35 A.M 5 river otter swam past Bee House going N and 5-20' from shore.

9:05 A.M 7 river otter swimming to N past Bee House. Photos 870921-1, 870921-2 and 870921-3 of 3 of the 7 otter.

Photo 870921-4 of red berries of the madrona. These berries change red from a green color.

Photo 870921-5 of a shark apprx. 4' long.



Photo 870921-6 and 870921-7 Ralph Bradt of Lawrence, Ks.

SPINY DOGFISH
SQUALUS ACANTHIAS

870922-159

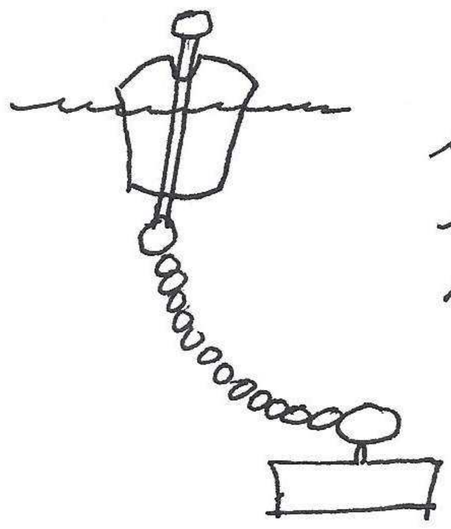
Sept 22, 1987

10:30 A.M 1 river otter passed SW in front Bee House 12' from shore.

11:30 A.M Birds on low bank beach in Swift Bay:

2 raven
12 glaucous-winged gulls
120 Bonaparte gulls
60 California gulls
4 black oystercatcher
1 great blue heron
1 killdeer
3 Brewers blackbirds
6 mallards
15 pintails
14 western sandpipers
21 short-billed dowitchers
1 lesser yellowlegs
6 mew gulls

Tide low and Bonaparte and mew gulls particularly picking up green lettucelike vegetation and searching under for food.



solid tie from top eye to anchor eye. Chain threaded thru eyes and secured.

Sept. 23, 1987

Trip to Anacortes at 8:10 A.M. Day clear but hazy. At Pointer Island glaucous-winged gulls approx. 10% fewer than previous Census. At navigation light in Rosario Straits 260 glaucous-winged gulls in 3 equal size rafts, 12% were immatures. 6 marbled murrelets flew S. 1 double-crested cormorant near Anacortes ferry terminal.
Photos 870923-1 to 870923-10 Ralph Bradt prepdrunk Bee House for caulking painting
(1 and 2 panoramic)

Sept 27, 1987

Annette, Chris, Steve, Mathew, Ralph and I to Rosario Resort for brunch, celebrating my birthday of Sept 25.

Sept. 28, 1987

11:05. At Bee House (Sicken Point to Boundary Point) 7 river otter put in at Spring Cove for 7 minutes spending most of the time in vegetation of spring area. Other time was spent playing on beach, sometimes in a close mass of bodies or running along, under and over logs. At the time they passed directly below Bee House enroute NE toward Boundary Point took 10 photos. nos. 870928-1 to 870928-10. At Boundary Point as I approached for photos, one otter called in a sharp, high marmotlike whistle of 6 distinct calls in 4 seconds. The otter

raised in water and faced us at 40' below and 20' out from shoreline. The otter otter immedeately dove. Another otter, or could be same animal called again at a point 200' beyond without our provocation. Four photos were taken from Boundary Point.

870929-11
870929-12
870929-13
870929-14

One otter directly below cliff and immediately not visible to us left and swam 150' under water at a depth of 8-10 feet toward main group ahead. The otter also have another call that sounds like a grunt made in clearing their nostrild(?) and is given without provocation by outside sources of intrusion. One frequently hears this grunt before seeing the otter.

Buster, a mule deer, at feeder.

The ♂ fawn of mamma deer is 27" high at shoulders. The female fawn of mamma deer was diseased, bloated stomach, emaceated and crippled in hind quarters has not been seen since last recorded in journal and is now presumed dead.

Measured mileage along road from Bee House to Sunset Hardware (also Opalco office). Distance 6 mi and 2/10.

8 33.2 Bee House
8 33.3 Bee Estate gate.
8 33.6 Marina Rd.
8 33.7 Humphrey Lagoon gate.
1 mi. { 8 33.9 Port Stanley Rd.
8 34.6 N end Swift Bay
8 34.9 S " " "
8 35.2 Rd to S (SW Swift Lagoon)
1 mi. { 8 35.4 Cross Rd.
8 35.7 Baker View Rd.
8 36.2 School House 1917.
8 36.5 Rd to S.
8 36.7 Hummee Rd now W
8 37.2 Center Rd.
8 38.0 ? Rd to E.
8 38.5 Rd to W
1/2 mi { 8 38.8 Rd to S
8 39.2 Dell Rd.
8 39.4 Sunset Hardware.

870928-161

5:30 P.M. Ad ♀ mule deer and twins (all winter pelage now) at feeder and they are the same ones photographed Aug. 12, 1987 when twins were in juvenal pelage (spots).

Bee Estate, Humphrey Head, Lopez Island, San Juan Co., Washington
Sept 29, 1987

Sunrise (first top rays) at 7:25 A.M where Bald Bluff meets horizontal ridge E of Thatcher, when viewed from Bee House



Ralph Bradt left on early ferry (arrived Sept 3 and left Sept 29)

work accomplished:

Chalked and glazed 2/3 SE side house (approx 15 days)
cement floor 3'x10' (1 day)
helped build floor above old Conversation pit. (1 day)
built floor on top basement floor. (1½ days)

Paid #1640.00

10:20 A.M. On Leo Reef 13 double-crested cormorant, 2 glaucous-winged gulls, 29 harbor seal. Three rhinoceros auklets in sound N Leo Reef and not associated with gulls.

10:45 A.M Photo 870929-1 of red berries of madrona. These are first green and then in last month have changed to a red.

no bald eagles since last record in journal.

9 wasps in trap since set (see journal). Collected 4 live specimens at Bee House, nos: (2 diptra also in trap)

870929-2 wasp
870929-3 "
870929-4 "
870929-5 "

These wasps are fewer than say 3 weeks or less ago.

2:35 P.M single otter travelling S around Lichen Point.

2:55 P.M 19 harbor seal Leo Reef. Also 8 double-crested cormorants and 2 glaucous-winged gulls.

3:00 P.M 6 glaucous-winged gulls on Flower Island, none of which seemed to be nesting. 12 double-crested cormorants on high rock at N end main part island. 2 surf scoter flew N up N Lopez Sound near Leo Reef.

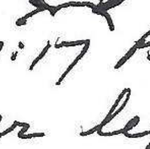
6:45 76 glaucous-winged gulls on Flower Island. Only 6 on N extension of lowland. Only 5 are immatures.

6:50 with evening lights the deciduous trees on lower slopes of Blakely Island become same color as conifers.

870929—162

6:50 A.M lights just left Blakely. 150 Bonaparte gulls flew over Flower Island, Leo Reef and thence N up North Lopez Sound. 150-200 feet above water and in compact group.

7:00 12 mule deer arrived at feeder at Bee House including 3 ad females, 3 subadults including Bimbam, Sister & Buster, twins, 4 young of the year. They fed according to dominance. dominant ♀ challenged by another ad ♀ and there was a standoff of upright posture and thrusting of front legs and body. The dominant ♀ drove other ♀ from feeder and then continued to feed with her fawn. Others 10'-20' away and one or two would occasional share feeder with dominant ♀.

7:05 P.M ad ♂ mule deer arrived and walked to feeder without hesitation. Tail perpendicular and remained so until all other deer left feeder at which time the tail dropped to about 60° angle. All other deer held tails close to body. Some remained 10'-15' from feeder but most retreated, some with heads held low to ground, to upper slope of Cliffs. The buck fed uninterrupted for 12 minutes then it shared feeder with fawns and Buster but occasionally displacing them being more gentle with fawns than subadults. Fawns would occasionally smell antlers of buck as well as posterior end of buck. The buck fed for 23 minutes at a rapid rate of consumption with head & neck movement more rapid and wary than ad. females. Sister and Buster fed on porch feeder while buck occupied regular deer feeder. (Bimbam) (33" high at shoulders) ? Buck with symmetrical antlers  8" high, 6" wide at top, clear of velvet. no tynes.

At 7:17 P.M a bat arrived and fed over deer 1'-3' until all deer left feeder.

Sept 30, 1987

8:15 A.M Leo Reef, 7 harbor seal, 3 glaucous-winged gulls, 9 double-crested cormorants. Low tide

9:10 A.M 26 harbor seal on Leo Reef. and 8 double-crested cormorants.

9:15 A.M Common murre Uria aalge found dead in water on shoreline below Bee House. Photo 870930-1 of this bird (head only), measurements are: TL. 410 mm; tail 43, hind foot 100; medial phalanx 55; wing 176; wing spread 662; exposed culmen 36; bill from anterior nostril 30; nostril 6 x 1.8; width eye 8.8; height bill thru anterior nares 11.9; thru angle lower bill 10.9 wt in grams 659;

10:00 A.M 7 river otter swimming NE past Bee House, feeding along way and occasionally to edge of shore. Group average 20' (10'-50') swimming formation.

10:40 A.M. 21 harbor seal and 18 double-crested cormorant on Leo Reef.

10:50 A.M Twin fawn mule deer at feeder. One measured 23" at shoulders, the other slightly smaller. The smallest one with black venter from breast and same color as tail. Large one with less black. Both groomed head regions. Pelage not as healthy in appearance on small fawn as on larger fawn nor is the health in general of smaller fawn as good as on the larger fawn.

12:25 PM 5 river otter past SW in front of Bee House at Lichen Point they gained divide above the point and then continued up slope to next knoll where they disappeared beyond. One of the 5 remained 30' behind and faced a great blue heron that was on shore and which flew to near where the otter had set up its observation post. I have witnessed several times when great blue heron were attracted to groups of otter playing in a ball formation or simply investigating land surface as a unit.

Oct 1, 1987

Between 9:00 - 10:15 AM observed activity of mule deer at feeder NW Bee House. A total of 10 deer fed or waited for chance to feed. including 3 breeding adults (one of which had twins, the other two with single fawns), 2 non-breeding ♀ (Buster & Sister), one fawn of Mamma Deer. The ♀ adult of twins is lighter (summer pelage), than the other deer with irregular pelage and bodily activity strained when ascending or descending trails. One dominant ♀ (30" high at shoulders) kept all deer from feeding by thrust of front feet or in case of challenging ♀'s by combat in upright stance and clawing and forcing body against invader. The fawn of Mamma Deer is 26" high at shoulder. All breeding ♀ with stripe of yellow tan on posterior back with some remnants of summer pelage.

Only twice did other deer (fawns) feed with dominant ♀ and then only for 3-4 seconds. The ♀ would tolerate so much thrusting of front feet before she would strike viciously.

Photos 871001-1 light colored ♀ and her two fawns.
871001-2
871001-3
871001-4
871001-5
871001-6

12:30 PM 18 glaucous-winged gulls feeding in 8'x30' area, some diving into water. This occurs occasionally when only gulls are present. Most times they are associated with double-crested cormorants, rhinoceros auklets, marbled murrelets, common murres etc.

Oct 2, 1987

Mule deer active at feeder between 9:00-10:30 A.M. Wind from S and first cloudy day of continuous clear weather this summer.

Oct. 3, 1987

9:17 AM 7 river otter SW past Bee House (all previous reference to direction S of Bee House should be SW). They left water at Flat Point and spent 3 minutes in traditional grasses spat beyond the bare rocks. They returned to water and continued S around Lichen Point, keeping apprx. 10' from shore.

87/003-1 Peromyscus m. sollicitari 162-73-23-18-21 gms ♂ From Bee House.

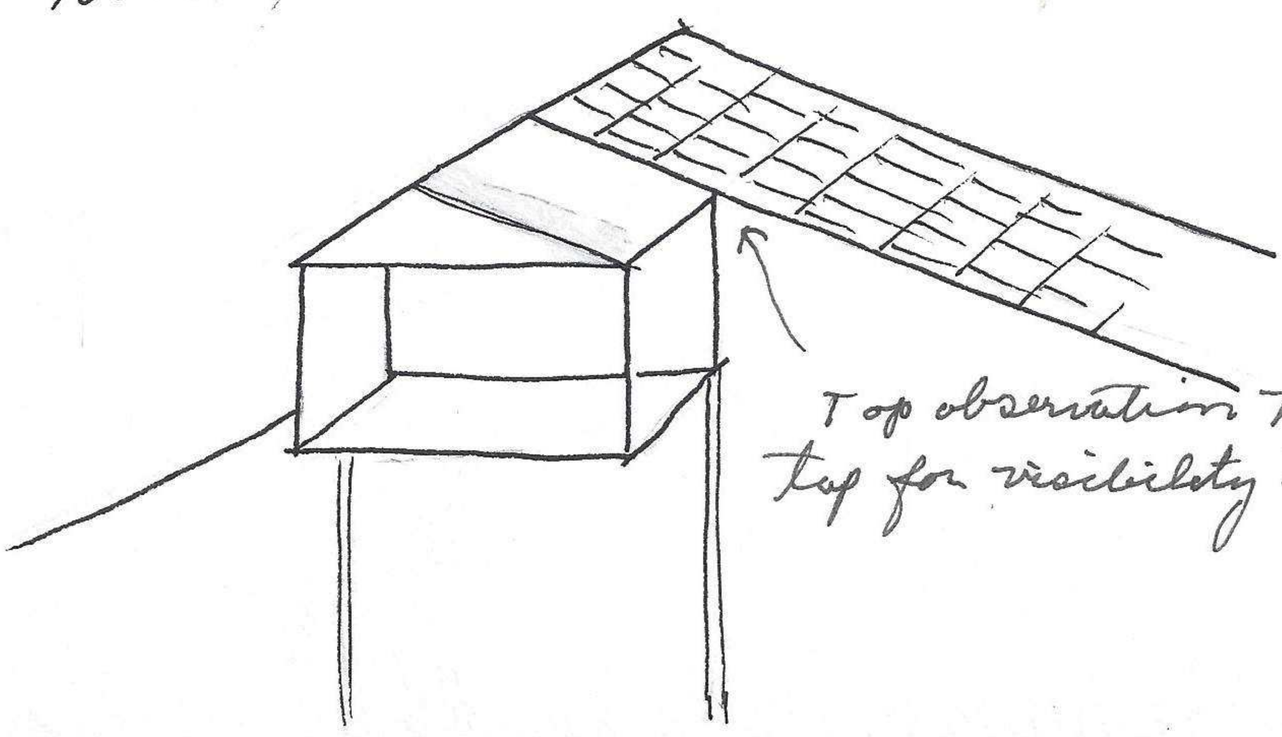
Oct. 4, 1987

This AM at 9:20, noted 15 double-crested cormorant and 24 harbor seal on Leo Reef. 7 glaucous-winged gulls on Flower Is.

On Little Flower Rock were 9 harbor seal, 21 on Big Flower Rock. For 3-4 week and maybe longer, there has been a covering of beaches and on rocks of shoreline (intertidal zone) of a green lettuce-like plant.

10:10 A.M. 3 western grebes and 3 rhinoceros aukelets in sound NW of Leo Reef. Both aukelets and grebes were alone as a group of fishing birds.

A possible all glass observation post on SE end of Bee House.



11:40 A.M A single American crow called from 1/2 way up a 50' Douglas fir. It sounded like a tree frog with slightly increase scale and ended with a click. (frog call.) A second and lasted .80 sec call was typical regular caw of 3 notes (varied 1-5) and the average three calls were 1.5 sec (total 3 calls). A third call was like regular call but 3 times as fast and louder. (3 calls in 2.88 sec.) and is designated as fast. The crow had called three minutes before I started recording. Calls are: frog, frog, frog, frog, regular (1), frog, frog, regular (2 calls), frog, frog, frog, frog, regular (1), regular (1), regular (2), fast (3), fast (3), fast (2), fast (2), fast (2), fast (3), fast (3), fast (2), frog, frog, fast (2), frog, frog, frog, frog, frog, frog, frog, frog, frog, frog, fast (3), fast (3), frog, fast (1), fast (3), fast (3), fast (3), fast (3), fast (2) (two means two calls, one following the other in the fast sequence etc), fast (3), fast (2), fast (5), fast (2), fast (3), fast (1), fast (4), fast (4), fast (4), fast (3), fast (2), fast (2), regular (1), frog, fast (2), fast (2), fast (3) fast (3), fast (3) fast (1), fast (3), fast (2), fast (3), fast (2), fast (2). The crow left and flew 100' away and continued fast (2), fast (2), fast (1) — pause 10 secs — fast (2). Crow moved another 50' and fast (2), fast (2), end of calling.

Oct 5, 1987

7:20 A.M 5 river otter to SW in front Bee House, 8' from shore. In nearly all cases otter swim, then dive, in a consecutive forward movement.

4:35 P.M 5 river otter NE past Bee House, fishing along shore from 1' to 5' out. When a loud noise was made by unloading a wheelbarrow one of the 5 otter call 3 times with a consecutive high pitched marmat call. They continued to Boundary Point and as I stepped into view 150' from otter a single whistle or chirp was given.

6:25 P.M light colored ♀ mule deer at feeder. Posterior end still in summer pelage. Her 2 twin fawn preceded her by 150'. This PM the same doe fed with only 1 fawn and at other times I have seen either one or both twins feeding at the feeder without ad. ♀ mother.

Oct 6, 1987

Sunup 7:31 A.M. Last 2 days we have been able to see Cascade Range in dip S of Mt Erie but then only around sun up. Later pollution in mainland obscures the range.

871006-1 Junco hyemalis (Oregon race of dark-eyed junco found dead below window NW corner of house (facing NE.) The bird measured (only): T.L 153 mm, tail 61, wing 75, foot 43, middle plalanx 19, exposed bill from culmen 10, weight in grams 17, ♂, wing spread 238.

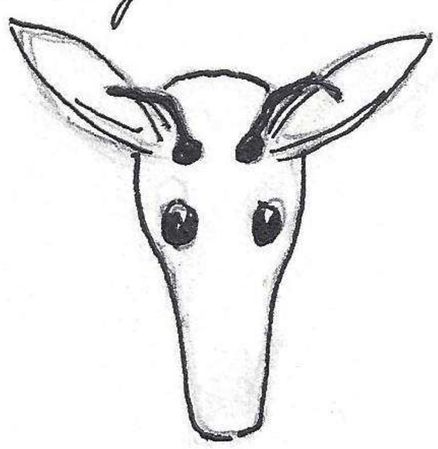
11:30 A.M ♀ mule deer and ♂ fawn at feeder. The ♀ of the twins died (see journal). This ♂ fawn is lighter than other fawns in area and antler buds present.

6:32 P.M sun left Flower Island.

Oct 7, 1987

Mule deer are active all night but main group arrives appx. 6:45 A.M and leaves feeder at 8:45 A.M after consuming 1 gal of cracked corn and whole wheat (standard scratch). If additional food is given, they remain to appx. 9:00 A.M, then bed in area - 50-150' from feeder or disperse in directions of each individuals habits of movement. deer are seen less frequently during day and arrive in evening at sundown (6:00 P.M) but variable! most remain for appx 1½ hrs or longer. Bucks with antler usually feed later (late twilight and after dark.

This evening at 6:00 P.M. the light colored ♀ and her two fawns, a single fawn, 1 year old and three other ♀'s feed at feeder. Largest ♀ dominated. At 6:30 P.M an ad. ♀ buck arrived. and dispersed all the other deer at feeder. The ad. ♀ would crouch low and head almost to ground as they moved away. Fawn had some of the same tendency as ad ♀ but less so. Three of the deer reluctantly return and cautiously took their feeding position by ♂ at feeder but then only for a second or two.



at 9:20 P.M another buck arrived (same one as observed Sept. 29, 1987) (Bumbam ?)

7:31 A.M. Oct. 8, 1987

First bald eagle (an adult) flew SW past Bee House, 55' above water and 60' from shore. (see journal for last one observed this summer.)

The following mule deer observed at feed and adjacent area, (out 150')
all told 9 individuals, 7 at feeder at one time:

Light ad ♀ (almost albanistic when compared with darker pelage of all other deer) and her two fawns. The smaller of the twins has some physical incapacity in walking and especially climbing.

a large ad ♀, dominant and aggressive. She tolerates others for 2-3 seconds, then thrust front feet or pushes away with head or neck and if this does not displace other deer, she will aggressively and forcefully charge or even take upright stance, in other words she expresses mild aggressive and then gets mad and continues with force.

Sister, a mule deer, 2nd year. } pair of Mamma Deer's fawns.
Buster, a mule deer, 3rd year }

a single fawn ♂ (brother of twin ♀) of Mamma Deer.

Ad. female and single fawn. Competitive size physical condition good but the least aggressive and timid

Total 3 adults, 2 subadults, 4 fawns.

General observations:

all adults and subadults chase juvenile ♂ (an orphan) of Mamma Deer

most deer, especially fawn come into feeding area with tails held 90°-120° then drop tail to body at feeder

Twins of light color ♀, groomed each other at feeder. Elsewhere the mother + two twins groomed each other at 75' from feeder.

Buster, in his own rank, disperses fawns.

One of the twins of light colored ♀ attempted mounted the mother. On several occasions when one of the twins would touch the top of rump of the ♀, she (the ad) would crouch down for a second or so.

young cower to presence of ad ♂, especially as they leave the feeding area if displaced by the ♂.

8:30 A.M a single Harbor seal, 40' from shore, dove for 2 minutes and 20 seconds.

9:15 A.M Single river otter swam NE past Bee House, 20' from shore to Boundary Point and beyond. At one time it remained underwater 38 secs. 8-10 sec is usual surface time when otter are moving forward and hunting at the same time.

9:20 A.M 1 western grebe out 25' from shore below Bee House.

Between approx 8:30 A.M to 11:00 A.M. an average of 9 Bonaparte gulls hunted waters of Spring Cove Bay (area between Lucken Point and Boundary Point. They were from water contact to 20' high most of the time.

12:30 P.M western grebe fishing for candlefish 2-6' from shore directly below Bee House. Dive successfully 3 times, each time coming up from under fish and causing them to scatter on the surface. Most of the time the bird made 2-3 continuous attempts within the surface fish before making a catch. A Bonaparte gull capture one of the candlefish when fish were

jumping on the surface. This bird was almost all white with black edgings on the tips of all the primaries.

5:56 P.M a myotis? (all brown and appox 3" long flew back and forth in front of window of Bee House. It travelled 20' each side of window at approx 45 ft. It alighted on beam above window for 3 seconds then left again and each time it passed the window flew forth and farther to SW & NE until at 6:05 P.M it had left the area and not seen again to at least 6:25 P.M. Sun left Flower Island at 6:28 P.M.

Light colored ♀ with 2 fawns measured 28" high at shoulders.

6:50 P.M 2 common murres dove under school of 2-3" fish causing the fish to for a concentrated black mass of surfacing fish. 2 Bonaparte gulls joined the murres.

7:00 P.M now late twilight. Harbor seal surface appox 110 ft SE Bee House.

Oct 9, 1987

7:30 A.M. wind all last night but clear skies. 24 waves per minute. Harbor seal 30' from shore at Bee House in waves. These are the first high winds of or since summer season.

6:50 A.M. Lone fawn 21" high at shoulders. This is the smallest fawn in area and physical condition below average and pelage ragged. Buster gently displaced the lone fawn.

Oct 10-12, 1987

Chris' home on Last Lake. Polly arrived from Kantishna, Denali Nat'l Park, Alaska.

Oct. 13, 1987

On our trip home to Humphrey Head in evening, noted only 5 glaucous-winged gulls on Pointer Island. Bonaparte gulls (125) on kelp at Lawson Rock and 8-10 singles from there to Willow Island.

At Bee House at 7:00 P.M the orphan deer came to feeder, 20 minutes after grain was placed in feeder. One hour later two fawn and an ad ♀ at feeder.

Oct. 14, 1987

11:20 A.M an adult ♀ bounced down hill toward feeder. The twins of light colored ♀ fed 10 min.

1:30 P.M ad. bald eagle flew SW past Bee House at 60' high to Lichen Point and then beyond. 3, river otter to NE past Beehouse

Oct 16, 1987

7:30 A.M. ♂ mule deer with deformed antlers at feeder, followed by ad. ♀ and 2 ♂ fawns. ♂ of "mamma" deer fed last as did the 21" orphan deer.

To Anacortes by ferry, left 10:00 A.M.

On Leo Reef 9 harbor seal and 13 double-crested cormorants and 3 glaucous-winged gulls.

Between Willaby Island and Pointer Island, 33 single Bonaparte gulls generally distributed and 2 glaucous-winged gulls. At Lawson Rock 18 Bonaparte gulls rested on kelp grouning around the rock. I have seen Bonaparte gulls on the kelp on several other occasions

Eight glaucous-winged gulls on Pointer Island

Rosario Straits smooth except for zone of tidal currents.

In middle of strait in currents: 250 glaucous-winged gulls (10% this year's young); 80 Bonaparte gulls, 18 Herrmann gulls, 6 rhinoceros auklet, 2 marbled murrelets, 18 common murres, most of the above generally distributed but 3 or 4 groups comprising fishing groups.

At Anacortes ferry terminal 28 glaucous-winged gulls and 5 common murres but no birds from here w to bay.

Oct. 17, 1987

Wind NE, cloudy skies.

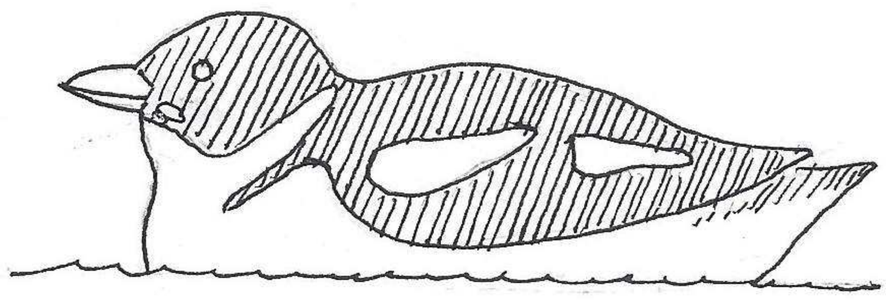
Left for Anacortes from Lopez Island by ferry at 10:05 A.M. Complete census birds enroute: 2 common murres, groups of 3, 1, 1, glaucous-winged gulls, group 8, 1, Bonapart gulls, 2 cormorant, sp.?. Leo Reef groups 1, 1, 1, 10, glaucous-winged gulls, 2 cormorants, 2 marbled murrelets, groups 1, 3, 6, Bonaparte gulls, 1 cormorant. Thatcher Pass, groups glaucous-winged gulls, 8, 1-1, 3, 1-6, groups Bonaparte gulls 1, 1, 3, 1, 1. Between James and Decatur islands, 141 glaucous-winged gulls, 60 Bonaparte gulls, 20 mew gulls, 6 cormorants. Rosario Straits 1 glaucous-winged gull, 1 common loon, 1 mew gull, groups glaucous-winged gulls 1, 1, 1, 1, 1, 1, 1, 1, 1, 1, 1, 1. Arrived Anacortes 10:15 A.M. On piling bay SW terminal 23 glaucous-winged gulls, 12 double-crested cormorant, Continued to Annette C and Steve Kenagy home on Lost Lake in Snohomish Co., Wa.

Oct. 18, 1987

Left Chris' and drove to La Conner Thousand Trails Preserve.

871018-170

The marbeled murrelet has a 2 spot pattern on side of body when observed at a distance. The anterior white is part of the white scapulars, the posterior spot may be side of body below black tail.



La Conner
Thousand Trails Preserve, Fidalgo Island, Skagit Co. Wa.

Oct 19, 1987

27 cormorant on roof of small shed on piling in bay SSE of Lone Tree Peninsula (Toci Point), 1 great blue heron, 6 glaucous-winged gulls, 3 ring-billed gulls. Left T.T.

Red-tailed hawk 2/10 mi. S Farm House Inn on La Conner Road.

18 ringed-necked gulls at bend of Skagit River 1 mi. N Mt. Vernon.

8 ringed-billed gulls in parking lot in Mt. Vernon Mall.

at Anacortes ferry terminal observed: 21 double-crested cormorant on outer piling in bay to SW, one had an aluminum band (1°), 2 western grebe, 170 glaucous-winged gulls, 3 ring-billed gulls, 2 mew gulls Of the 170, 15 were dark juveniles, 150 adult and the rest 2nd and 3rd year olds, 2 hooded mergansers, 1 killdeer. Left 5:31 P.M for Lopez Island. wind from N and rippled, 2 common mergansers, 2 groups of 120 glaucous-winged gulls, 51 Bonaparte gulls, 38 cormorants between Pointer Island and land. Between Pointer Island 1/4 way to Block Island: 158 glaucous-winged gulls, 62 Bonaparte gulls and 27 cormorant. 26 Bonaparte gulls between Lawson Rock and W end Thatcher Pass, arrived Lopez Island.

Oct 20, 1987

Collected following mammal from Bee House:

871020-1 Peromyscus maniculatus Rollisteri 174-79-23-19-25 gms. ♂

To Friday Harbor. Left Lopez Island 9:39 A.M. Enroute to Shaw: 18 single glaucous-winged gulls, 2 double-crested cormorant, 38 common mergansers in one groups, 6 single Bonaparte gulls. at Shaw terminal, 3 double-crested cormorant, 1 Bonaparte gull, 3 glaucous-winged gulls. Blind Island W of Shaw terminal: 16 harbor seal, 23 double-crested cormorant, 7 glaucous-winged gulls. From Orcas terminal can see: a single common loon, it still has some of summer pelage, 8 single Bonaparte gulls, 12 single glaucous-winged gulls, 3 double-crested cormorants 3 mew gulls, 6 pelagic cormorants. Left Orcas and Checked Upright

Channel: 31 red-breasted merganesers, 21 single Bonaparte gulls, 14 glaucous-winged gulls, 2 surf scoters, no currents but ripples in San Juan Channel. From Flat Point observed (to 3/4 way across San Juan Channel observed 4 separate groups of feeding birds including 200 glaucous-winged gulls, 30 Nerrmann gulls, approx 300 Bonaparte gulls, 65 mew gulls. Each group was associated with 12 to 30 cormorants (80% double-crested, 20% pelagic). For the entire channel covered (S.J.C) approx 3000 glaucous-winged gulls. Wind from N and good currents. 21 Bonaparte gulls in Friday Harbor. Arrived 10:48 A.M.

Left Friday Harbor ferry terminal 1:20 P.M. At this time the submerged rock in middle of channel was being prepared for blasting. In Fri Harbor Bay, Bonaparte gulls in groups or individuals: 8, 4, 1, 1, 1, 16, 1, 1.) glaucous-winged gulls, 6, 1, 1. To E end Turn Island (currents), 28 Bonaparte gulls, 12 glaucous-winged gulls. In center San Juan Channel in currents; Bonaparte gulls 1, 1, 1, 1, 18, 145 and generally distributed, glaucous-winged gulls, 8, 18, 210 and generally distributed.; 1 common loon. Approaching Flat Point and out of main current zone: 4 common murres, 3 marbled murrelets, 2 harbor seal, 18 cormorants; 81 glaucous-winged gulls, 120 Bonaparte gulls, 4 common loon. Flat Point to Harney Channel via Upright Head Channel; 4 Bonaparte gulls, 21 glaucous-winged gulls generally distributed. Harney Channel to Shaw: one group approx 100 gulls (50-50 glaucous-wing and Bonaparte gulls, 2 double crested cormorant, 8 mew gulls, 2 ring-billed gulls. At Areas ferry terminal 6 double-crested cormorant, 2 glaucous-winged gulls, 2 American crows. Arrived Lopez Island.

Oct. 21, 1987

6:42 A.M bat still flying and first horned grebe in area. 7 mule deer at feeder.

Oct 22, 1987

2 ♂ mule deer in area, one 32" high at shoulders, giving a female full attention. Bimbam also in area.

10:20 A.M 7 river otter E of Bee House, one came to rocks to feed on a large prey.

12:40 P.M. 6 otter swimming south past Bee House.

1:00 P.M. now otters passing Licken Point after put-out for several (6) minutes.

2:10 P.M. 64 double-crested cormorant and 34 harbor seal on Leo Reef.

3:30 P.M. Ram, a mule deers at Bee feeder. 32" high at shoulder,

right antler broken off 3" from base.

Oct. 23, 1987

1:30 P.M. 82 double-crested cormorant, 9 glaucous-winged gulls and 31 harbor seal on Leo Reef. On Flower Island no gulls but 2 American crows. 1 horned grebe and 1-3 western grebes feed in front of Bee House.

3:20 P.M. In front Bee House 4 western grebes, 9 juveniles and 1 ad. Bonaparte and 2 glaucous-winged gulls fed about 100' from shore. Another group approx. 300' from shore of 18 Bonaparte and 3 glaucous-winged gulls, 4 double-crested cormorant and 1 western grebe

5:00 P.M. ♂ mule deer (♂) at Bee feeder, 33" high at shoulders, no eye tine left antler. Fed 3-5' from 2 fawns.

7 river otter past S out 10' from shore below Bee House.

Oct. 24, 1987

Nine mule deer including 2 males interested in ♀, fed at Bee feeder from 1/2 hr. before sunrise to 9:30 A.M. One 4 point ♂ mule deer stood immobile at a vantage point and concentrated in looking beyond area for 20 minutes.

11:30 A.M. a 4 point mule ♂ deer followed a ♀ for 150' at a fast run keeping about 30' behind.

2:30 PM a 4 point mule deer at feeder at Bee House and only deer in area.

Oct. 25, 1987

Today maximum yellow in all deciduous trees on W side Blakely Island. First color change approx. 7 weeks ago. Some trees show beginning of fading.

Mr. John Saul of Humphrey Head on Lopez Island reports; "Raccoons at his home house been there all summer." At the Bee House feet from Sauls home we have not seen them except an occasional track in trail.

11:00 A.M "Ram" a mule deer at Bee feeder

12:20 A.M 26 harbor seal and 37 cormorant on Leo Reef. As high tide progressively cover the reef, they move to the plateform of Leo Reef beacon.

One junko at feeder had brown on top head whereas rest of dark-eyed juncos the head is black.

2:15 P.M. Adult bald eagle alighted tree (Douglas fir) above Lecken Point. (See may 5, 1987).

• 2:40 P.M. adult bald eagle left Leo Reef and flew N over Bee House.

Oct. 26, 1987

4:30 P.M At Humphry Lagoon, 2 greater yellowlegs, 4 American crows, 1 killdeer, 1 glaucous-winged gull. At Swift Bay Low Bank, 23 surf scoters, 21 buffleheads, 8 glaucous-winged gulls. at Swift Lagoon, 16 northern pintails all ♀, 4 green-winged teal, 1 killdeer, song Sparrow. At Hummel Lake, pied-billed grebe. At 2/10 mi. W High School on Center Road 17 Brewers blackbirds and 2 flocks of American Crows (25, 28) 3 mi. E by road beyond Islanddale on Lopez Island.

Oct. 27, 1987

7:30 A.M ad. bald eagle flew S past Bee House.

8:30 A.M 4 point mule deer 32½" high at shoulders.

8:32 A.M double-crested cormorant 8' from shore in water, below Bee House. 1 red-necked grebe 20' from shore below Bee House. From 8-15 barked-eyed juncos at feeder at Bee House on a daily regular basis. Rufous hummingbird average 1 in 3 days at feeder. Song sparrow at feeder every other day. Townsend chipmunks 2-5 every day. a ♀ mule deer urinated 3' from a male mule deer.

10:20 A.M a pileated woodpecker worked Douglas fir from ground to 1½' high.

Oct 28, 1987

a 4 point ♂ mule deer (32" high at shoulders + without eye tines) chased "Buster" a ♀ mule deer from 7:00 A.M to 9:31 A.M. One ♂ chased 2 ♀ and 2 fawns of the year. Buster chased a fawn, a ♀ chased Buster. A spice male stood 10' from a large 4 point buck.

Oct. 29, 1987

7:20 A.M a fawn of the year 29" high at shoulders, 2 subadults, 2 females and 2 bucks at feeder at Bee House.

8:10 A.M. a harbor seal swam 2 feet under water for approx. 100' and out 10' from shore. A Common loon called twice.

at Bee feed 1 ♂ mule deer with 8" high antlers

Left Lopez Island, at 9:35 A.M by ferry for Sidney, Vancouver Island. Will keep complete census. Sky overcast. At Lopez Island terminal ob-

served 25 pelagic cormorant, 8 glaucous-winged gulls and 3 double-crested cormorants, all on water.

Lopez Island to Shaw: 4 Bonaparte gulls, 8 glaucous-winged gulls.

At Shaw terminal: 4 glaucous-winged gulls, 3 Bonaparte gulls.

At Orcas terminal: 8 pelagic cormorant, 6 (2 of which juveniles) glaucous-winged gulls, Thayer gull

no census on return Horney Channel.

Upright Head Channel to E side Conoe Island: maple trees yellow, madrona with red berries, poplar yellow, old green or yellow. because of drought, 2 common loon, golden-yellow of maples associated with draws of more moisture and shade, 2 glaucous-winged gulls, 21 glaucous-winged gulls generally distributed, 5 western grebes, 7 pelagic cormorants, 3 Bonaparte gulls, 1 mew, all shoreline immediately above water a light brown (dried).

Conoe Island to Friday Harbor (tide guage N side): 10 Bonaparte gulls, bull kelp mass 300' S Conoe Island, 2 glaucous-winged gulls, one fishing group of 15 double-crested cormorant, 18 glaucous-winged gulls, 3 Bonaparte gulls; 11 white-winged scoters, 12 red-breasted mergansers, 2 harbor seal, now beginng currents, marbled murrelet, horse whip kelp every 100-150' apart, 21 Bonaparte gulls feed mainly along edge of currents.

W. of Outer edge Friday Harbor Bay: 2 rhinoceros aukletes, 26 Bonaparte gulls, 5 glaucous-winged gulls, and left

Arrived Friday Harbor ferry terminal 11:00 A.M

At beacon E Friday Harbor N in San Juan Channel: One fishing group 23 glaucous-winged gulls, 6 Bonaparte gulls, 14 double-crested cormorant. Another group of 13 red-breasted mergansers, 8 glaucous-winged gulls and 4 Bonapart gulls. Another group 32 red-breasted Merganers and 4 Bonaparte gulls. One group 21 and 6 ad imm glaucous-winged gulls and 3 Bonaparte gulls, floating Kelp ade along 1 San Juan Channel, 3 rhinoceros auklet, 1 horned grebe, 2 glaucous-winged gulls, 31 sandpipers (western?) flew by, 2 common murres, 3 rhinoceros aukletes, 6 glaucous-winged gulls, 1 loon sp.?, 3 rhinoceros auklet, 1 double-crested cormorant, 3 double-crested cormorant, Bonaparte gull (designation without a number indicates 1 bird), fewer birds as we approach Spieden Island and less debris in water, 1 glaucous, winged gull, 1 double-crested cormorant, 1 double-crested Cormorant.

E end Spieden Island at 11:30 A.M. now W. Still only few birds or debris, bull kelp etc, but numbers increasing, Bonaparte gull, double-crested cormorant, 2 Bonaparte gulls, 1 double-crested cormorant, 3 common murres, 1 horned

871025—175

≥16 double-crested cormorants on kelp mass, white antelope on Spieden
grebe, 1 harbor seal, 1 glaucous-winged gull,
Sentinel Island
W end Spieden Island at 11:35 A.M., 4 double-crested cormorants, 2
rhinoceros auklets, 3 common murres, 1 common murre.
Green beacon at 11:38 A.M N of beacon a mass of intact bull
kelp 200' long starting 40' from beacon.
11:40 Battleship Island to S, 3 common murres, 2 common murres, 2
double-crested cormorant, debris in water, 2 Common murres, 1 double-
crested cormorant, 1 glaucous-winged gull, more log here than in
San Juan Channel, hazy, 2 glaucous-winged gulls, 1 common murre,
Mandarte Island, B.C., 11:52 A.M. 12 double-crested cormorants, 10 glaucous-
winged gulls circling above Mandarte Island but none on island, 1
common murre, no debris in water, 3 Common murres,
Cylinder beacon to N at 11:56 A.M 5 common murres, 1 glaucous-winged
gull, one boat so far since Friday Harbor.
Cylinder beacon on small island at east end Forrest Island, B.C. 12:00 P.M.
8 double-crested cormorants on rocks, 5 common murres, 3 double-crested
cormorants, 3 common murres, groups of 1, 2, 1, 1, common murres
N end Sidney Island Spit 12:03 P.M. 5 common murres, water smooth,
3 common murres, 1 glaucous-winged gull, groups of 1, 2, 4, 4, 1
common murres, 1 glaucous-winged gull, 1 double-crested cormorant,
groups of 1, 1, 6, 2, 1 Common murres, 1 glaucous-winged gull. 280
surf scoters, 10 white-winged scoters. Arrive Sidney ferry terminal
12:13 P.M. at the terminal 1 American Crow and 31 pelagic cormorants.
On return to Friday Harbor from Sidney recorded consecutive occurrence of birds.

	TO W end Spieden Is.	along Spieden Island. Veg, light yellowish brown	San Juan Channel	Fri. Harbor Cay.
glaucous-winged gull	||||||||||||(2)||	||||	|||(8)(4)||||||	(2)|\(3)|| ||||(5) ||||(10)(2)
common murre	||||||||||||||||||||||||||(6)(1)(5)(5)	|||	1 (2)(3)(2)(2)-1	
Bonaparte gull	|||||	||	(38)||||(6)|||(5)(3)|||| (10)	
Cormorant	|||||(20)||||(5)	1 (3)	(2)||	
d.c. cormorant	|||||	|(3)		
pelagic cormorant	||||||||||||||||			
red-breasted merganser	1			
surf scoter			1	
white-winged scoter				
Common loon			1	
harbor seal			(2)	

The above listing has no reference to grouping of birds enroute
(return trip) The figures are for total numbers within each segment
of trip. Arrived Friday Harbor 2:18 P.M.

871029-176

Oct. 29, 1987

The 1 mule deer fawn of the year of "mamma deer" 29½" high at shoulders, 7:50 to 8:05 A.m. "Buster" and runt mule deer fed peacefully at Bee feeder. An adult ♀ deer arrived and displaced them.

Oct. 30, 1987

At Swift Bay Low Bank: 28 bufflehead, 18 surf scoters. At Swift Lagoon 4 green-winged teal, 2 mallards, 1 loggerhead shrike (SW side lagoon), 8 goldeneyes, 14 northern pintails (2 of which were males. At S Fishermans Bay Lagoon, 1 harbor seal 150' S of entrance to Bay, 2 surf scoters, 2 glaucous-winged gulls. On W side of causeway 19 surf scoters, 2 horned grebes, 3 glaucous-winged gulls.

At 80' SE Bee House 2 horned grebes.

Bee Estate, Humphrey Head, Lopez Island, San Juan Co., Wa.

Nov. 1, 1987

108 American Crow in field S of 1917 school house on Port Stanley Road.

At Richardson: 6 harbor seal (Race Island), 6 glaucous-winged gulls, 13 surf scoters, 3 ringed-billed gulls, 1 western gull, 3 common murres.

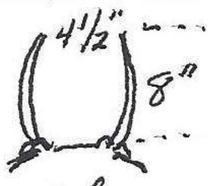
Surf scoters light on water with wings up.

At Hummel Lake, 28 ad + 4 yearling glaucous-winged gulls bathing, 8 Bonaparte gulls, 15 ring-billed gulls

At Bee House, ad. bald eagle flew N and into Douglas fir tree on Boundary Point NE of Bee House.

At put-in at gravel pit N of Mackaye Harbor: 16 hooded mergansers, 2 common loon, 13 bufflehead, 8 surf scoters, 1 great blue heron, 5 glaucous-winged gulls.

'Buster', an ad. female mule deer fed with this years fawn. The ad. measured 32" high at shoulders.



Ram a mule deer measured 32½" high at shoulders. Buster displaced this deer.

Buster chased Bimbam, minutes later they fed head to head. Buster has noticeable respiration which I have not noticed in any other deer.

An eastern gray squirrel fed and between back legs of ad. mule deer. One Squirrel brushed against front leg of ad. deer and both panicked

young ♂ of this year measured 27" high at shoulders.

Sister, a mule deer measured 27½" high at shoulders.

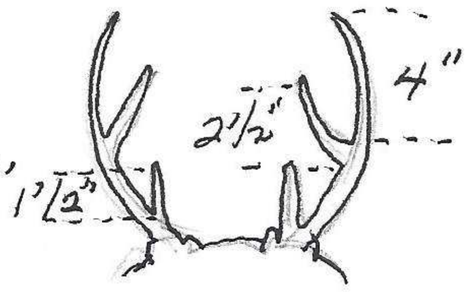
Common roven called for 1 hr near Bee House.

Nov. 7, 1987

8 river otter 10-20' out from shore and swam NE past Bee House.
Bimbam, a mule deer, worked antlers on a dead young juniper tree, although velvet gone for several weeks.

Nov. 5, 1987

Fall Color of deciduous trees above fault scar on Blakely gradually disapearing, 2 out of ten trees have last leaves. From last week bright yellow to golden in color have faded to a faded golden,
at 6:10 P.M 2 adult male mule deer, one of which had the following antler configuration, also 2 1 year olds and 4 young of this year were with the males at the feeder.



Nov. 6, 1987

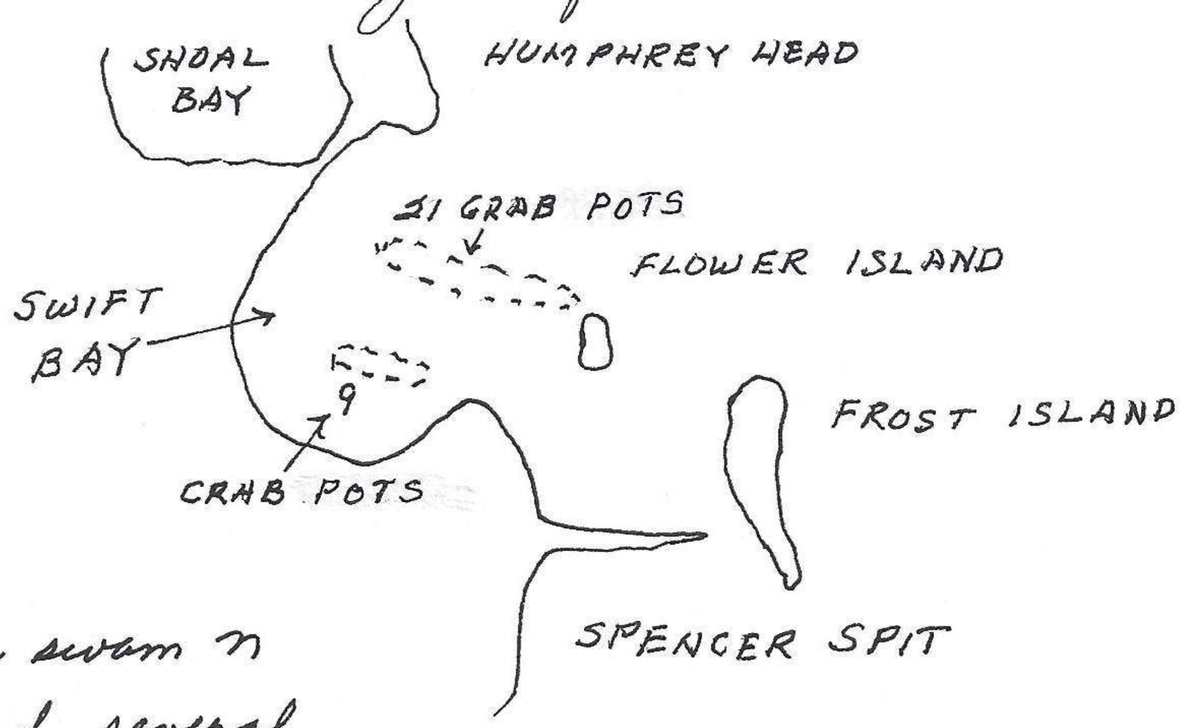
5 mule deer at feeder, one with a black cap (25½" high shoulders) which is a twin of one of larger ♀'s.

Nov 7, 1987

1:10 P.M 6 river otter NE feeding leesurely as they past Bee House.
A fawn of the year checked odor of posterior of adult ♀ mule deer and attempted 2 times to mount its mother. at Bee House feeder.

Nov. 8, 1992

Pre-sunrise red sky. First glaucous-winged gull active 6:42 A.M.
Tail band wider in mew gull than in Bonaparte.
7:46 A.M. Harbor seal 50' from shore below Bee House.
8:15 A.M 4 Bonaparte and 9 mew gulls fed on 1½" minnows in front Bee House.
30 crab pots placed in Swift Bay 5 days ago.
Black-faced fawn 25" high at shoulders at Bee House feeder.
2:25 P.M. 1 river otter swam N past Bee House. It made several 80' underwater passages



7 adults and 11 subadult glaucous-winged gulls and 4 double-crested cormorants fed in front of Bee House.

Nov. 9, 1987

Fawn of the year mule deer approached an eastern gray squirrel to 14" and inspected it for several seconds (10).

A raft of feeding Bonaparte gulls, approx 800, occupied an area of 50' x 300', in middle of N Lopez Sound between Bee House and fault line directly E on Blakely Island. Wind from S.

Nov. 10, 1987

Photo 871110-1 of early lights over Blakely Island from Bee House. Red streaks in sky.

Photo 871110-2 early lights over Blakely Island from Bee House. major red to right.

7:30 A.M. Light pelaged ad. female mule deer (27" high at shoulders) and fawn fed at Bee House feeder. Both left uphill where they met another female 26" high and a ♂ fawn of the year. The female going upgrade charged ♂ which was 15' up hill. The ♂ reared on hind legs and walked upright 3 steps in response. The charging ♀ stopped charge and with her young continued uphill. The other 2 continued down slope to feeder.

7:45 A.M first glaucous-winged gull passed S past Bee House.

7:59 A.M Ad. bald eagle E to S, 15 glaucous-winged gulls have moved S.

Color of deciduous trees above Fault Line on W side Blakely are; 1 yellow, 4 leafless, 6 faded gold to brown. Trees at N end Blakely E&S airstrip, from green to yellow to golden, to brown to leafless.

4:37 P.M Waves 25 per minutes and wind all day,

Douglas fir blocking driveway in upper parking removed: Photo 871111-3 large Douglas fir, 871111-4 small Douglas fir.

Nov. 12, 1987

6:55 A.M. first glaucous-winged gull to S at Bee House.

6:58 A.M first bald eagle flying south past Bee House, also 2 American Crows.

7:27 A.M 45 cormorant Lee Reef plus 8 glaucous-winged gulls and 2 harbor seals.

7:30 A.M instant fog developed in 150' zone along Blakely and Decatur Islands. At 8:00 A.M all N and as far S in Lopez Sound in fog. 7 bufflehead alighted in fog in front Bee House out 30' from shore, all ♀'s

1:30 A.M. 15 ♀ and 1 ♂ common mergansers, 23 double-crested cormorant, 3 pelagic cormorants, 12 glaucous-winged gulls and 7 Bonaparte gulls in on feeding formation. The merganser after finishing a local feeding area with other above birds, swam to Lichen Point, thence along shoreline to Spring Cove, thence Boundary Point then S back to Lichen Point in 1 hr and 14 minutes.

Nov. 13, 1987

Trip to Richardson at 1:40 P.M. 2 adult bald eagles enroute. At junction Fishermans Bay and Davis Bay roads approx 1300 american crows covering 10 acre field, 3 mi N approx, Lopez 900 ♂ & ♀ red-winged blackbirds. at ½ mi. S, High School on Center Road one group, approx. 700 starling. at SE of 1917 School House, approx 500 brown headed cowbirds. Associated were 21 Brewers blackbirds and 13 starling.

Nov. 14, 1987

Day clear, low clouds to E, temp. 42°F.

6:20 A.M. bat, myotis size, flew back and forth in front Bee House window (3rd story facing SE) 5 times in 4 minutes at twilight.

6:40 A.M first glaucous-winged gull flew S past Bee House.

7:50 A.M ad. bald eagle flew S, 7:15 A.M ad. bald eagle flew N.

At this time in morning 3-12 surf scoters fly S toward Surft Bay generally 1/3 way out to Lee Reef.

10:05 A.M 2 common ravens on upper part of ridge SW Bee House both call froglike every 3 seconds.

10:10 1 hooded merganser in Spring Cove ♀ feeding.

10:18 Red-tailed hawk circling SE Bee House 100' high and 40' from shore) and chased by American Crow.

1:20 P.M 5 river otter swam S past Bee House.

1:45 P.M 12 .22 rifle shots from O'Leary's home.

Nov. 15, 1987

6:59 A.M first bald eagle flew S past Bee House.

7:33 A.M. 2 ad. bald eagles flew N past Bee House (out 40' from shore and 45' high.

Last color of deciduous trees above Fault Line, Blakely Island.

From Bee House:

87 1115-1 Peromyscus maniculatus Lollisteri. 178-74-23-19-26 gms. ♂

Mary & Don arrived from Utah.

87 1116-180

Nov. 16, 1987

A male mule deer with total 4 points and 2 eye tines with heighth at shoulders 35 1/2 inches and left lower edge of ear with large nick. More interested in food at feeder at Bee House than females. displaced one adult ♀ and then fed on cracked corn. Buster a ♀ mule deer was displaced by a large female. Later a fawn of year alone at feeder.

Photo 87 1116-1 of "Ram" a ♂ mule deer 33 1/2" high at shoulders. Photo 87 1116-2 also of this deer.

Color of deciduous trees on Blakely Island S of airport gone except reddish dead leaves and some faint color remnants of yellow and yellow-green.

4:10 varied thrush 87 1116-3 killed flying into windows of Bee House. (E back door). Measurements only: T.L. 237 mm, wing 135, tail 85, foot 62, tarsus 34, bill 19, 72 gms, wing spread 381.

6:32 P.M ♂ mule deer with 2 prongs, one side deformed and only one eye tine (right side).

6:41 P.M Song sparrow, 87 1116-4, killed by flying into window of Bee House. T.L. 160 mm, 26 gms.

Nov. 17, 1987

6:36 A.M. first glaucous-winged gull called.

6:49 A.M first bald eagle (ad.) flew S past Bee House. Fog in S Lopez Sound.

7:11 A.M ad. bald eagle flew N past Bee House.

7:30 Fog now into N Lopez Sound from S Lopez Sound.

Nov. 18, 1987

2:35 P.M. 7 river otter swam N past Bee House. The direction is NE but most frequently stated as N. 2 of the otter left the group and entered Spring Cove where they put-out on beach, the rest continued to in front Bee House where they fed on candlefish from 5' to 30' out from shore. dives were 100% successful. They remained here for 5 mintues then left NE for 50' but returned to area of candlefish concentration where they fished for 1 1/2 min. the NE again

Nov. 20, 1987

2 adult bald eagle sightings this A.M.

Nov. 21, 1987

3 bald eagles (all adults) sighted this A.M.

7:04 A.M. adult bald eagle flew S past Bee House
7:10 A.M. adult bald eagle flew N past Bee House.
♂ mule deer with symmetrical antlers and left ear notched at Bee feeder.

Nov 22, 1987

6:56 A.M first glaucous-winged gull past Bee House, then to 7:20 A.M groups of 1, 6, 5, 2, 3, 1, 6, 2 past by, all going S toward Swift Bay.

Ram at feeder this A.M. Mule deer active at night, heard 6 times. Hungary this A.M. and ate 2 gallons standard scratch. Mule deer have 2 main feeding periods, one from daybreak to about 9:30 A.M and from about 4:00 to 7:00 P.M, although they may be at feeder at any time of the day but these are exceptional! Observed the first mule deer in Klein property since 1985 because of a deer running dog. The dog was recently removed from Humphrey Head.

From Bee House collected the following mammals;
871121-1 Peromyscus maniculatus sollisteri, 198-98-23 20-24 gms ♂
871121-2 " " " 190-87-23-18-24 gms ♀

Nov 24, 1987

7:00 A.M. first glaucous-winged gull today. Groups of 2, 1, 1, 1 in next 5 min, groups 6, 4, 2 in next 5 min, groups 1, 2, 1, 3, 1 in next 5 min, 20 in next 10 min. Gulls observed above all flying S at approx. 8 per 5 min for at least next hour. Average 70' above water and 20'-50' from shore below Bee House.

Flat Point covered at 9.5'. Wind all last night and today.

Nov. 25, 1987

7:02 A.M. First glaucous-winged gull flying N past Bee House. Only 2 gulls in next 10 min. no bald eagles.
Mammal from Bee House;
871125-1 Peromyscus maniculatus sollisteri 172-77-23-18-25 gms ♂

Nov. 26, 1987

7:30 A.M. 32 floating logs between Lichen Point and Boundary Point where currents carry them in direct line. They vary from 3" x 7' to 18" x 30'. Also approx 15 pieces of wood under minimum size above generally 2" x 2'.

These are first massive aggregations of fall season and are dislodged by high tides and wave action. There is another similar group of logs and debris between Flower Island and Lichen Point. not more than 20 logs in N Lopez Sound that are visible from Bee House.

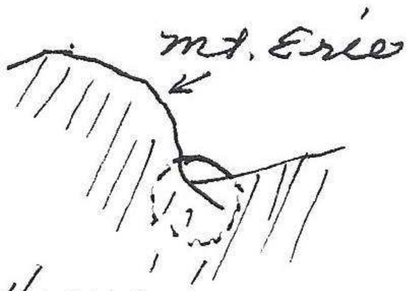
Approx 160 Bonaparte gulls and 60 glaucous-winged gulls NE Frost Island to Flower Island.

2 hooded mergansers in Spring Cove. 24 Common mergansers between Leo Reef and Flower Island,

871126-1 Peromyscus maniculatus Sallisteri 181-83-23-18-24 gms ♀ vaginal plug.

Nov. 27, 1987

Sunrise 7:44 A.M at neck of Mt. Erie



Nov 29, 1987

8:40 A.M 4 river otter swam past Bee House!

Nov 30, 1987

"Single Tine" mule deer and "Ram" at Bee feeder last 2 days. They High wind makes deer spooky and, are alerted at all times.

971130-1 wasp from Bee House. Two others observed near by.

Waves 26 per minute, white-capped and foam trails from direction of wind.

No Townsend chipmunks since last recorded.

3:00 P.M. Waves 22 per minute

4:30 P.M. Waves still 22 per minute

4 ad. females and 2 yearlings at Bee feeder.

Three bald eagle sightings today at Bee House.

Bee Estate, Humphrey Head, Lopez Island, San Juan Co., Wa

Dec. 1, 1987

No Cowbirds this season so far.

8:10 A.M. Adult bald eagle flew S past Bee House. Rain all last night.

Raft 300 birds of which 95% were glaucous-winged gulls. Others Bonaparte gull, mew gulls, double-Crested cormorants, common murres and marbled murrelets.

Dec. 2, 1987

8:20 A.M. 65 Bonaparte gulls feed 10 to 50' apart in front Bee House

871203-183

Dec. 3, 1987

Rained all last night.

9:00 A.M. Greatest number logs in front Bee House. The logs ranged from 2' to 40' long. 18 logs moving out of Spring Cove.

6 eastern gray squirrels at Bee feeder at one time. The frequent bob-tailed squirrel not present.

Left Lopez Island 10:00 A.M via ferry for Chris' at Lost Lake in Snohomish Co. Don Jensen will pick up mary at Seattle airport at noon Monday. Enroute observed a bold eagle circling below mt. Erie over the Lake on S side of mt. Continued down Widbey Island. Birds in sound at Mukeltio: 2 western grebes, 8 common goldeneye, 1 red-necked grebe, 6 Bonaparte gulls, 6 glaucous-winged gulls, 1 double-crested cormorant.

Dec. 8, 1987

Don Jensen reported water, about one foot, over road on E side Swift Bay on Dec. 6th to 8th and also over Humphrey Lagoon Road. On return from Chris I observed 32 glaucous-winged gulls flying past ferry after dark at 9:05 P.M, being in light of ferry search light.

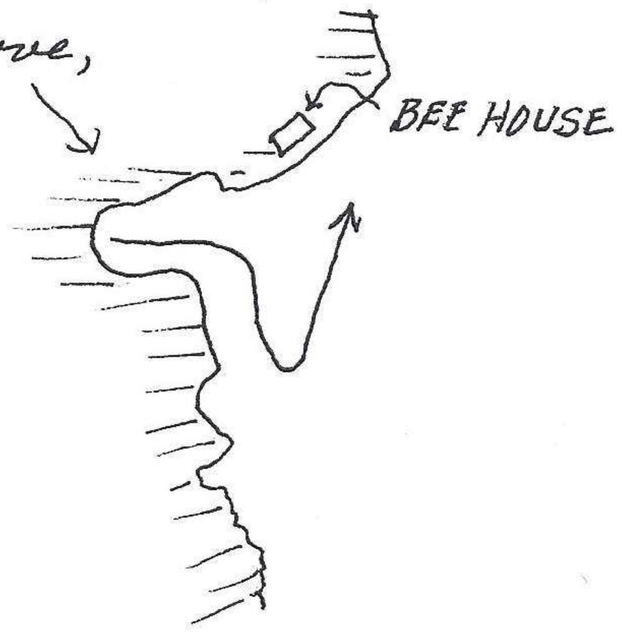
Dec. 9, 1987

8:20 A.M. Ad. bald eagle flew N past Bee House. 5 hooded mergansers in front Bee House.

Driftwood logs in ~~Spring~~ Cove after high water. Common mergansers, hooded mergansers, glaucous-winged gulls and double-crested cormorants in Spring Cove in fishing formation for minnows.

Dec. 10, 1987

2:23 P.M. Birds in one fishing group: 64 common mergansers, 18 glaucous-winged gulls, 21 double-crested cormorant. Photo 871210-1 of dreft-logs leaving Spring Cove, they left to E, then S, then north. A.M.



Dec 11, 1987

Trip to Lopez Village, 1030 A.M. Swift Lagoon 25 mallards, fields E center and Dill roads, E of junction Hummel Lake and Port Stanley rds, 125 Common crows.

Humphrey Lagoon 1 ♀ bufflehead.

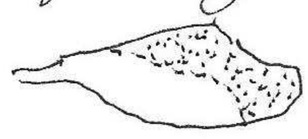
at Bee House, 12:42 P.M, 13 common crows on feeder. 32 common mergansers flew N past Bee House.

1:05 P.M. 15 common crows and 2 eastern gray squirrels fed together with equal dominance.

52 gulls (1/2 glaucous-wing and 1/2 mew gulls) started fishing activity in localized spot. 66 double-crested cormorants arrived 3 minutes later, then followed by 3 western grebes, 3 common loon and 2 common murres. 20 minutes later the fishing group dispersed and the cormorants returned to Leo Reef making total number of cormorants on reef 72.

3:30 P.M. 75 double-crested cormorants (68 double-crested and 7 pelagic on Leo Reef.

In evening ice on Swift Lagoon forming on half N and half of lagoon on E side.



Dec, 14, 1987

9:00 A.M. waves 32 per minute. Rain has stopped. Tide covering Leo Reef caused cormorants to feed, and mammals.

12:30 PM to 1:30 P.M large fishing group of birds, between Leo Reef and Bee House in localized area; 62 common mergansers, 1 ♂ 13 ♀ red-breasted mergansers, 16 double-crested cormorants, 4 pelagic cormorants, 6 common murres, 32 glaucous-winged gulls, 46 mew gulls, 11 Pacific loons, 1 harbor seal. 1 immature bald eagle flew over group but was not interested in the activity below. 40 minutes later 40 common mergansers and 4 double-crested cormorants returned to same area after the initial group had dispersed.

2:30 P.M 1 river otter swam S past Bee House.

4:20 P.M. Common murres normally carry neck perpendicularly or at a 45° angle foreward. Just before diving they extend head and neck horizontally for 1 1/2 seconds befor diving. The head and neck is then lowered into water. The body is forced foreword and downward by a flip of the wing into the water. This is in contrast to the jump dive of grebes and some other aquatic birds.

The view thru 10×50 binoculars in any marine direction of N Lopez Sound one can see approximately 15-20 glaucous-winged gulls, mew gulls and Bonaparte gulls in equal numbers and collectively but fewer numbers of alcids, cormorants, loons and grebes Today is clear between intermittent rain storms.

871215-185

Dec. 15, 1987

Talked to dr Benjamin Hall today. E R Hall his father, deceased, has an endowment for research in mammalogy of which I have already contributed. Benjamins address is Univ. Washington medical center, Rm J. 167A. Phone 543-1100.

Today made study of local trees (douglas fir, grand fir, hemlock and yew on Bee Estate; douglas fir - leaves small base, scare parallels axis, leaves same length, narrow, flat, axis to stem 45°, young trees branches of needles flat, terminal leave rounded ∩, leaves round, thick stems, scars close together }|, buds ⊃.

Grand fir: large base of leaf (needles), ⊏, scar same axis stem, wide needles, flat needles, needles 45° to stem, 2 rows, needles terminal notched ∩, thick stems, scars far apart, scars large and rounded }|

Hemlock: small }| scar 90° to axis of stem. { petiole, needles variable, wide needles and flat, less than 45° on stem, needles terminal round, scars far apart.

Yew: branches green, small green buds, needle large base, thick petiole, leaves taper ⟨, terminal pointed and ridged ⋀, ridges across ventral needle instead 2 rows white dots

Dec. 16, 1987

12:05 Originally a group of 35 glaucous-winged gulls and 18 mew gulls fed in localized area 10' X 20'. Within 30 seconds both the double-crested cormorant and pelagic cormorant arrived as singles or in groups of 6 or 8 individuals, all told 2, pelagic and 8 double-crested. These were followed by 3 Pacific loons, 7 common murres, and 2 marbled murrelets. Cormorants single to 8, marbled murrelets together, common murres singles or doubles, 3 Pacific loons together. Intensive action lasted 5 minutes and then a motorboat deviated course and headed directly into the feeding birds. They all left except 11 glaucous-winged gulls.

5:15 P.M. Lam, a ♂ mule deer measured 32" high at shoulders fed at Bee feeder. a female displaced ♂. She was 30" high at shoulders. 2 ♀ yearlings and Buster were in area of feeder.

Dec. 17, 1987

7:10 A.M. Deep reddish brown in eastern horizon this A.M. First adult bald eagle flew N past Bee House and also first glaucous-winged gull moved S.

7:19 A.m. Second bold eagle (imm.) sighting this A.m. It flew across Lopez Sound from Blakely Island (Thatcher area) to Swift Bay.

7:31 3 imm. bold eagles flew S past Bee House.

Droup approx 200 glaucous-winged gulls flying in a Circle; they were not fishing.

7:40 A.m. 4th imm bold eagle flew N past Bee House.

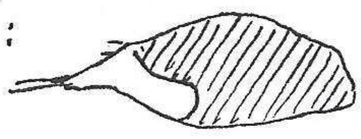
7:47 A.m. Fifth bald eagle (ad., flew S past Bee House.

8:05 A.m sunrise at point where Burrow Island ridge intersects Decatur Ridge.

Joyce Fralic, our neighbor to the N reported an adult bald eagle (at 7:47 A.M.) perched on top Douglas fir tree in front of her house

8:50 A.m. Orphan, a mule deer and smallest of this years young (25" high at shoulders), at Bee feeder.

Ice on Swift Lagoon thus:



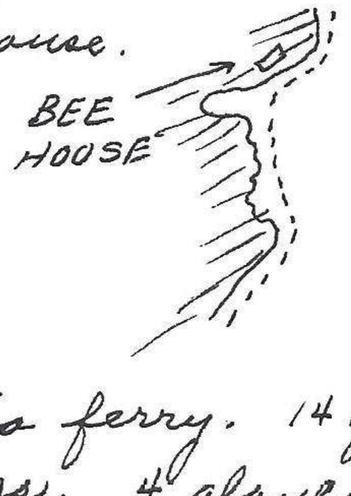
2 ♀ mule deer Spencer Spit.

1 ♀ mule deer Bee Estate;

Six domestic rabbits, one at Burke, rest at Humphrey Lagoon E side.

Dec. 18, 1987

7:15 A.m. First bald eagle (imm.) past Bee House to S. Eight other sightings between 7:15 A.m and 9:00 A.m (5 imm, 3 aduets). Eagle sighting passing Bee House are, on the average 60' above water and 45' out from house.



. One eagle flying S alighted on rocks of Lichen Point and then flew up into a Douglas fir.

To Anacortes via ferry. 14 glaucous-winged gulls and 5 mew gulls to W Thatcher Pass, 4 glaucous-winged gulls and 3 Double-Crested Cormorant thru Thatcher Pass. across Rosario Straits, 2 marbled murrelets, 1 mew gull, 1 glaucous-winged gull, 28 glaucous-winged gulls on top gravel barge moving S., 1 mew gulls, 17 glaucous-winged gulls on piling at Anacortes ferry terminal. On return to Lopez Island after dark, 8 glaucous-winged gulls flew across bow of boat.

Dec. 19, 1987

7:10 A.m. First bald eagle. (ad.) flew S past Bee House.

8:02 A.m. large imm. bald eagle circled 5 times, 75' above water in front Bee House. 8 juv. and 6 adult mew gulls in water directly below eagle. On last circle of eagle, it dove at 45° angle at high speed and attempted to capture one of the gulls but unsuccessfully. The gulls

returned to same area as eagle continued S to Lecken Point where it alighted in the tall Douglas fir.

9:35 A.M. 9 ♀ and 5 ♂ common mergansers swam past Bee House and moved S. They cover great distances.

10:10 A.M smallest mule deer ♂ in herd at feeder alone.

1:20 A.M. Light colored mule deer, 30" high at shoulders and her 2 twins each 25" high at shoulders fed at feeder.

At least 12 bald eagle sightings this A.M, including 2 pairs of adults. There has been an increase in numbers of mule deers in the last 2 weeks

Single right eye tine mule deer 34 1/4" high at shoulders ate with Buster, a ♀ mule deer.

Dec. 19, 1987

Dark-eyed juncos at feeder at Bee House with crescent in black head  1/8" wide  1/8.

Left Lopez Island for Chris at Lost Lake. Census from ferry to Anacortes (right is ferry only), raining. Glaucous-winged gull, 1 double-crested cormorant, 2 double-crested cormorant. Wind from E, white-caps every 50'-75'. Glaucous-winged gull, red-throated loon, red-throated loon, 6 pelagic cormorant on Leo Reef beacon platform, no reef exposed. no gulls (glaucous-winged) on Flower Island, 2 single mew gulls, 1 glaucous-winged gulls, 1 common murre, 1 glaucous-winged gull, W end Thatcher Pass. 2 double-crested cormorant, 1 mew gull, 1 glaucous-winged gull, red-throated loon, pelagic cormorant. E end Thatcher Pass. Pigeon guillemot, mew gull, red-throated loon, mew gull, 2 common murres, arrived Anacortes ferry terminal. Continued to Chris' for night

Dec. 21, 1987

Snow at Chris' 3" deep.

Left Anacortes ferry terminal 4:06 P.M. Low clouds, no whitecaps, water black. Double-crested cormorant, pelagic cormorant flew S, 2 double-crested cormorant flew S past ferry, 2 double-crested cormorant flew S ahead of ferry, 1 double-crested cormorant flew S ahead ferry, 3 mew gulls, mew gull, Thatcher Pass (E end), 18 double-crested cormorants, 3 double-crested cormorant, mew gull on log, glaucous-winged gull, 8 pelagic cormorants. 1 double crested cormorant, Leo Reef submerged. glaucous-winged gull, mew gull, pelagic cormorants. Arrived Lopez Island.

871222-188

Dec. 22, 1987

no clouds. Sunrise 8:07:20, from Bee House.
mammal collected from Bee House:
871222-1 Peromyscus maniculatus Rallisteri 190-90-23-18-23 gms ♂

2:30 P.M. 58 double-crested cormorant fed in Spring Cove, then swam approx 210 ft NE without diving or fishing enroute. The group gradually moved N 1 or 2 at a time. 18 double-crested cormorant on Leo Reef.

Dec. 23, 1987

Daybreak fog mass over top Blakely Island and move S and dissipated. also masses of fog 100'-150' in length form in N, Lopez Sound between Thatcher Pass and Frost Island and then disappear.

Dec. 24, 1987

7:10 A.M. 3 imm. bald eagles flew S past Bee House. at 3 story window level and 15' from Bee House.

Dec. 25, 1987

9:50 A.M 4 bald eagles circled Leo Reef and then moved W to Swift Bay.

4:45 P.M. Two twin mule deer (each 25" high at shoulders) fed with light colored female (30" high at shoulders).

4:30 P.M 2 ad. bald eagles on plateform of Leo Reef beacon. Below on exposed reef were 12 harbor seal and forthest away were 2 glaucous-winged gulls. I have never observed gulls on the reef when bald eagle are also there, crows yes but not gulls.

Dec. 26, 1987

Left Lopez Island 9:40 A.M by ferry for Friday Harbor; will keep complete census as is alway the case unless specified as selective observations on some trips: group 2, 3, mew gulls; groups of 5, 4 mew gulls; glaucous-winged gull (when birds are stated thus it means 1 bird of that species); 3 mew gulls; mew gull; glaucous-winged gull, 18 common mergansers, 2 common mergansers, 4 pelagic cormorant, 3 glaucous-winged gulls. Arrived Shaw Island. In immediate area of terminal; 3 double-crested cormorant, one on log, 4 mew gulls, mew gull, 1 double-crested cormorant, 4 mew gulls, 2 glaucous-winged gulls, 8 mew gulls. Crossing Channel to Orcas ferry terminal; 5 mew gulls, 1 marbled murrelet, 2 double-crested cormorant, 1 common loon, 1 marbled

murrelet, 3 mew gulls, 1 pelagic cormorant, 2 american crows, 2 glaucous-winged gulls. Arrived Orcas. Left Orcas and birds in Harney Channel going E; 1 pelagic cormorant, 1 common murre, 2 glaucous-winged gulls, 3 mew gulls, 3 red-necked grebes, 1 common loon, 1 double-crested cormorant, 5 common murres' no going S in Upright Channel; pelagic cormorant, 6 glaucous-winged gull, 4 common mergansers, 8 common mergansers, 1 mew gull, 1 double-crested cormorant, 2 mew gulls. Opposite Flat Point; 3 common murres, 8 glaucous-winged gulls, 1 double-crested cormorant, 3 common murres, 6 common mergansers, 5 common murres, 1 double-crested cormorant, mew gull, double-crested cormorant, glaucous-winged gull, 1 marbled murrelet, 8 cormorant, 15 double-Crested cormorant, 12 double-crested cormorant, 2 common murre, 5 common murres, 1 glaucous-winged gull, 2 common murres, 7 double-Crested cormorants, 1 double-crested cormorants, 1 glaucous-winged gull, 15 double-crested cormorants, 1 pelagic cormorant, 3 common murres (one of which with much thicker bill.); 3 common murres, glaucous-winged gulls in groups of 2,1,1,2,1,1; common murre, 3 glaucous-winged gulls, 1 double-crested cormorant. ns at E entrance of Friday Harbor bay opposite tide guage of Univ. Wash, marine Station. Birds in bay W of marine Station: approx 450 double-crested cormorants, 80 pelagic cormorants, 180 common mergansers, 70 red-breasted mergansers, 42 glaucous-winged gulls, 30 mew gulls, 18 common murres, 14 hooded mergansers, 2 western grebes, 5 American Crows, 21 Common goldeneye, 1 harbor seal. Arrived Friday Harbor. ns censers return trip to Lopez Island.

Dec. 27, 1987

To Chris at Last Lake in Snohomish Co.

Dec 28, 1987

Returned to Lopez Island from Chris',

at junction Interstate 5 and Conway, 1 red-tailed hawk, also 7 Trumpeters swan in field E of junction

at refuge 5cu of where Fir Island Road turns abruptly N. talked to hunter who says that swans return to Sound in morning and leave at 4 or 5 P.M. for fields to N & E. no swans in this area today, 15 coots along shoreline, and also 2 marsh hawks. at 3 mi. S farmhouse Inn on La Conner road observed 1 red-tailed hawk 2 western grebes in Swinomish Channel, at La Conner.

at Anacortes ferry terminal in bay to SW observed:
3 western grebes, 3 greater scoups, 319 northern pintails in one flock, 5 double-crested cormorants, 4 pelagic cormorants, 6 glaucous-winged gulls. Left on ferry 4:15 P.M for Lopez Island. Red-throated loon, red-throated loon, pelagic cormorant, 23 American crows flying N to Cypress Island, 3 marbled murrelets, 1 glaucous-winged gull, 1 pelagic cormorant, 1 double-crested cormorant, mew gull, 3 marbled murrelets, double-crested cormorant, now N James Island, 2 glaucous-winged gulls, 1 double-crested cormorant, 3 common murres, 1 double-crested cormorant, glaucous-winged gull, double-crested cormorant, common murre, now W end Thatcher Pass, double-crested cormorant, 3 double-crested cormorants, 2 common murres, 3 common murres, 3 double-crested cormorants, 1 double-crested cormorant, 2 individual double crested cormorants, 2 mew gulls, 2 double-crested cormorants, 1 glaucous winged gull, 1 common murre, harbor seal on Leo Reef, 2 glaucous-winged gulls, 1 mew gull, 3 double-crested cormorants, 1 harbor seal, 3 glaucous-winged gulls, 3 surf scoters, 6 surf scoters, 1 double-crested cormorant, 3 glaucous-winged gulls. Arrive Lopez Island at 4:53 P.M. 98% of the birds flying in Thatcher Pass were going W. Those in N Lopez Sound were flying S. The upwells in Rosario Straits and Thatcher Pass had none in N Lopez Sound. There have been censes along some course in which no birds were observed.

Dec. 29, 1987

9:01 A.M 7 river otter swam S out 20' from Bee House shore.

3 bald eagle sightings from daybreak to 9:00 A.M.

10:30 A.M 3 bald eagles flew N over Bee House some 150' high, ordinaryly they fly along shoreline below Bee House,

1:05 P.M, 9 common mergansers flew N out 300' from shore.

1:20 P.M 25 common mergansers flew S out at 300', 200' from shore

1:25 P.M 2 adult bald eagles circled S, 1 from Humphrey Head to over Leo Reef. A glaucous-wing accompanied eagle but was not aggressive.

50 double-crested cormorant on Leo Reef, no harbor seal.

26 American crows on Bee feeder.

32 common merganser flew S and alighted out 50' from Lichen Point, thence swimming to Spring Cove and then all left Spring Cove in unison flight. When fishing several mergansers at a time would paddle on water 8 to 10' to join current activity.

871230-191

Dec 30, 1987

Left Lopez Island 10:00 A.m via ferry for Anacortes. Wind from N, cloudy, cool, high tide. 2 glaucous-winged gulls, pelagic cormorant. Leo Reef covered with water. marbled murrelet, mew gull, mew gull, 3 bald eagles circling above N end Humphrey Head, 4 mew gulls, glaucous-winged gulls, 4 mew gulls; 2 pigeon guillemots, mew gull, 4 glaucous-winged gulls, 3 glaucous-winged gulls, 2 mew gulls, W end Thatcher Pass, 6 individual glaucous-winged gulls, 2 individual mew gulls, 1 double-crested cormorant, 2 individual glaucous-winged gulls, 3 glaucous-winged gulls, red-necked grebe, glaucous-winged gull, double-crested cormorant.

Dec. 31, 1987

8 sightings of 5 bald eagles representing 3 imm. and 2 adults,
PM
12:57 ^ a single glaucous-winged gull dove into group of minnows and within 30 sec. a single red-breasted merganser arrived and started diving.
PM
12:59 ^ 4 glaucous-winged gulls, a red-breasted merganser and 1 double-Crested cormorant had arrived and were diving.

1:00 P.M. 6 glaucous-winged gulls, 6 double-crested cormorant, 3 common murres, 4 marbled murrelets arrived.

1:01 P.M. 8 glaucous-winged gulls, 18 double-crested cormorants, 3 common murres, 1 red-throated loon, 3 red-breasted mergansers and arrived and joined the fishing activity.

1:02 P.M. 5 marbled murrelets, 9 glaucous-winged gulls, 32 double-Crested cormorants, 5 common murres, 3 red-throated loons, 3 red-breasted mergansers.

1:04 P.M. active fishing stopped but birds remained in Cmcentrated formation.

1:05 P.M harbor seal arrived.

P.M
1:08 ^ birds began dispersing

PM
1:10 ^ Only birds in fishing area are the common murres, red-throated loons and marbled murrelets.