

JOURNAL 1989

JAMES W. BEE

1989

## JOURNAL - JWB

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

Jan. 3, 1989  
 Left 9:40 A.M.  
 To Anacortes, Selective census. Kinds of birds: Common murre, double-crested cormorant, pelagic cormorant, glaucous-winged gulls. Groups of glaucous-winged gulls: 1-1-1-1-1-2-1-1-1-1-1-1-1-1-1. mew gulls. 4-1-1-6-12-1-1-2. 18 cormorant on Leo Reef (Rock no. 3). Rocks only 6" above water. Waves foot high, white caps. and from S.  
 11:00 A.M.

at 1 mi. W of South Fork Skagit River, at Conway, Skagit Co., noted an estimated 1140 trumpeters swans, 700 in air from 2/10 mi N to 3/10 mi S of road. Groups on ground 300, 40, 12, 18, 70 Day overcast, high wind from S.

Mt Vernon, Skagit Co., Washington  
~~mt vernon, skagit co., washington~~

Jan. 4, 1989  
 Annette had cataract removed left eye by Dr. Stewart at hospital. 2 hrs, 5 mm. Overnight at hospital.

Jan 5, 1989  
 Annette checked with Dr. in A.M. and then in evening to Chris'. 23 western grasshops at Chris' home on Lost Lake.

Lost Lake, Snohomish Co., Washington  
~~lost lake, snohomish co., washington~~

Jan 6, 1989  
 To Univ. Wash. med. Center for my melanoma radiation. Returned same day to Lopez in snow storm. Seattle reported 13" snow, Everett 4".

Bee Estate, Humphrey Head, Lopez Island, San Juan Co., Washington  
~~bee estate, humphrey head, lopez island, san juan co., washington~~

Jan. 7, 1989  
 Snow down to and on shoreline.  
 Observed a group of 120 fishing birds in an area of approx. 20' x 30' in N Lopez Sound half way between Bee House and Leo Reef. They were actively diving and scrambling on surface for small fish 3"-6". Birds represented are: 52 glaucous-winged gulls, 18 mew gulls, 2 common loons, 7 common murre, 2 marbled murrelets, 2 red-necked grebe,

1-horned grebe, 18 red-breasted mergansers, 6 pelagic cormorants and 21 double-crested cormorants. An adult bald eagle left top of Douglas fir tree (Boundary Point Tree) and glided straight to feeding birds, descended abruptly from 20' at end of glide, hovered 3 sec above water (6' below) then dropped into water and picked up a 6" fish. This method of capturing fish was repeated 3 times, each time returning to the tree with fish. Each time the eagle left the water 1-3 mew gulls chased the eagle all the way back to the Boundary Tree perch following 2-5'. As the eagle reached end of glide the gulls dispersed from feeding area but immediately returned and were within 3-4' when the eagle captured the fish. The other species on the water formed compact groups and swam out 20'-40' but returned after eagle ceased feeding.

Jan. 8, 1989

Snow still on Blakely Island.

Jan 9, 1989

Practically all snow now off Blakely.

Jan. 10, 1989

To Anacortes. White excrement (mainly from cormorants) off SW side Willow Island due to recent rain & snow. All slopes of Islands green. Wind blown slopes light yellowish green. No glaucous-winged gulls on Painter Island.

Jan 14, 1989

Left Chris' for Lopez Island. At 2 mi. along river road from 522 highway underpass in Snohomish River Valley noted 153 mew gulls in a field.

at 1 1/2 mi. S Snohomish observed a coyote crossing over a large field Coyote fully exposed. also one sparrow hawk.

At Ferry Terminal (Anacortes) in bay to SW noted: 8 baldpate, 6 double-crested cormorant, 42 glaucous-winged gulls, 1 ♀ goldeneye, 1 harbor seal among piling (along beach).

Jan 16, 1989

12:20 P.M. 8 glaucous-winged gulls started a fishing area 200' S Bee House. In 2 minutes 18 double-crested cormorants arrived. <sup>then</sup> 9 pelagic cormorants, 14 Pacific loons, 3 red-breasted mergansers, following in the next interval of 3 minutes.

9 common goldeneye in a compact group 150 feet S Bee House.  
 3:45 P.M. 13 harbor seal, 18 double-crested cormorants and 5 pelagic cormorants on Leo Reef.

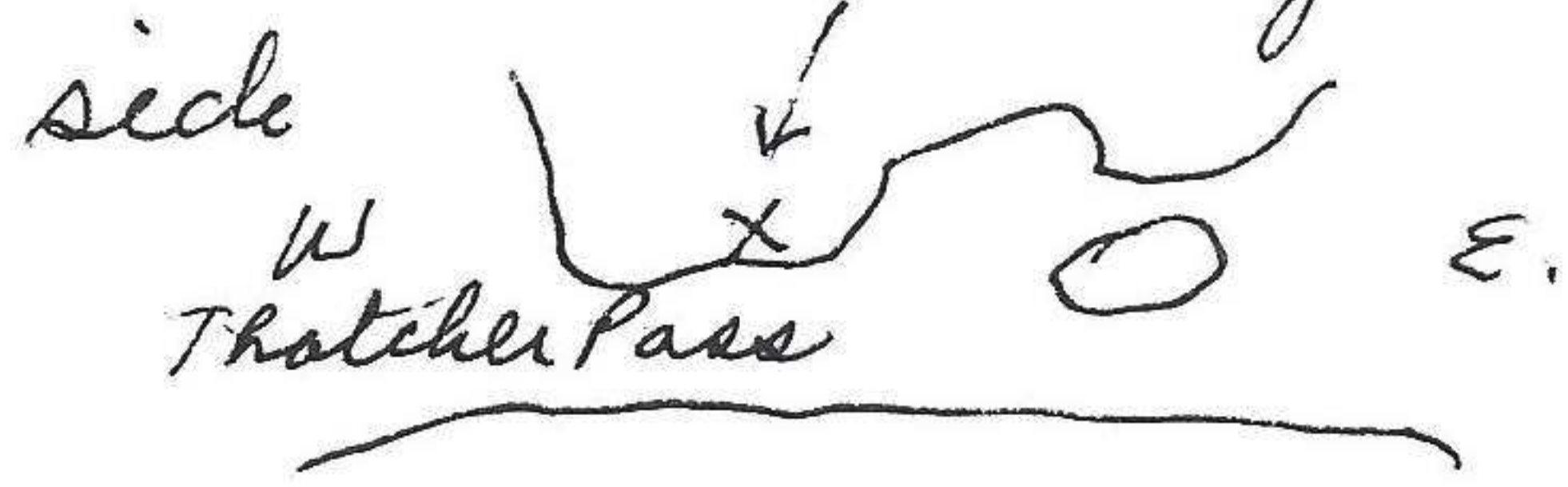
3:48 P.M. Spike buck mule deer at feeder at Bee House.

4:00 P.M. 70 mule deer at feeder at Bee House, one retaining spike, the other having shed the antler.

5:03 P.M. Ad. bald eagle joined group<sup>8</sup> of glaucous-winged gulls at a fishing area. Late evening, poor light for critical vision, cloudy. This is as late, or dark, as I have witnessed eagle hunting for food.

Jan 17, 1989

2 adult bald eagles at top of dead tree in Thatcher Pass on N side



On the mainland, E Anacortes on highway 20 between E end of bridge over Swinomish Channel and Whitney-La Conner Rd, observed 3 great blue heron in drainage paralleling road (right-of-way).

Across Skagit Valley were approx 250 ducks in 3 flooded fields.

Jan 16, 1989

Left Chris. On return to Lopez Island observed approx 1200 trumpeter swans in grassy field 1 mi W and 1/2 mi N of bridge of South Fork Skagit River at Conway, Skagit Co.

Between Lost Lake, Snohomish Co. and Anacortes noted 3 red-tailed hawks and 3 American rough-legged hawks.

At Anacortes ferry terminal in SW bay were 6 ♀, 5 ♂ buffleheads, 3 scaup ducks, 2 common goldeneyes and 1 great blue heron. Also 18 glaucous-winged on piling at end (head) of bay

Left Anacortes ferry terminal at

3:20 P.M. clear to W, clouds overhead.

Birds (complete census):

2 double-crested cormorants

1 pelagic cormorant.

5 common murre

1 glaucous winged gull

1 common murre

1 common murre

1 " "

now N of James Island.

2 double-crested cormorants

4 marbled murrelets

now N Pt Fontleray

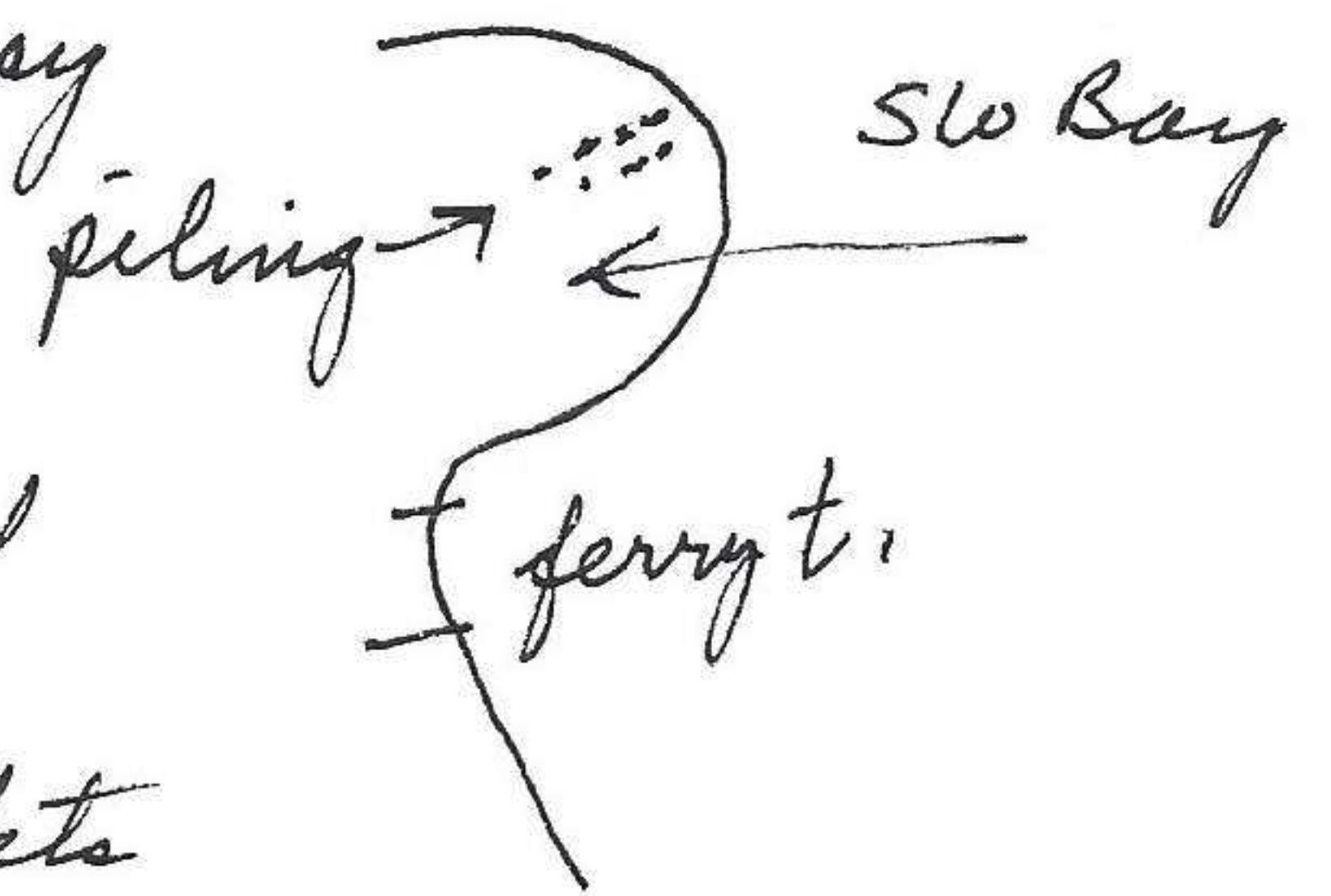
2 common murre

2 glaucous-winged gulls.

now W Thatcher Pass

1 double-crested cormorant

no cormorants on SW corner of Willow Island



1 red-breasted merganser, 6 harbor seal on S side Leo Reef and 6 harbor seal on N side of Leo Reef, and 13 double-crested cormorants on the reef also. no bald eagle on nest at N end of Humphrey Head. Arrived Lopez Island.

Check temperature in the Sea (Grand Banks) for last week. min 33°F and max 69°F.

Jan 20, 1989

Approx 200 mew gulls generally distributed in N Lopez Sound N of Leo Reef. Also, in addition, 3 groups of mew gulls in feeding formation, one of them (group) not associated with cormorants or other fish consuming birds.

Jan 21, 1989

On a trip to Richardson noted the following: 3:45 P.M. on Humphrey Lagoon 2♂ 2♀ buffleheads. at 1/10 mi. E Lopez Cemetery a duck hawk flew N over field (pasture) at approx 100 high. It was harassing robins which were generally distributed in the field.

all wet meadows (marshland) now full of water and most flooded beyond their normal carrying capacity. <sup>These are</sup> These marshlands are higher than I have observed in the last 274 years.

Along causeway (to Parry peninsula) 18 bufflehead.

no birds in Swifts Lagoon

along low beach of Swifts Bay approx: 90 American widgeon, 8 gadwall, 8 scaup.

at Bee House the black-eyed junco average 25 daily at feeder.

Song sparrow average once per day at feeder.

Rufous-sided Towhee arrives at feeder at early twilight and also late evening as well as regular visitor during the day.

Observe an average of 4 bald eagles per day 4(1-6). They are active when lights in morning and evening are only strong enough to identify the bird as an eagle. They are observed at all hours of the day but especially in morning. Adults 80% per cent of the time and immatures 20% of the time.

The average number of birds observed in a day are;

8 bufflehead

2 hooded mergansers

3(1-8) double-crested cormorants

2(1-4) pelagic cormorants

6(1-12) red-breasted merganser

1 red-necked grebe

1 horned grebe

2 common loon

4 common goldeneye

1 great blue heron.

8 (1-10) glaucous-winged gull      2 (1-4) marbled murrelet  
 4 (1-6) mew gulls  
 1 belted Kingfisher  
 3 common murre

John (Jack) Saul of Humphrey Head reported a bald eagle that perched on dead tree in front of his place for  $3\frac{1}{2}$  hours and is the longest time he has recorded a resting eagle.

Jan 22, 1989

Single tine mule deer still with antlers.

One of the mule deer having 6" long spikes has lost its antlers.

One 4 point mule deer without antlers. All above observations this date.

Jan, 24, 1989

Lopez Island ferry terminal. Trace snow. Scotch broom with 4 yellow buds and still in blossom since last observed (see journal). To Chris at Lost Lake, Snohomish Co., Wa.

Jan. 25, 1989

Left Chris' home at 10:10 A.M. At oblow on lower road bordering Snohomish river valley (W side) observed 27 Canada geese in field 150' to E and 18 in oblow. 12 mew gulls and 21 ducks (sp.?) also in field to E.

248 American crow in one flock at Arlington turn-off.

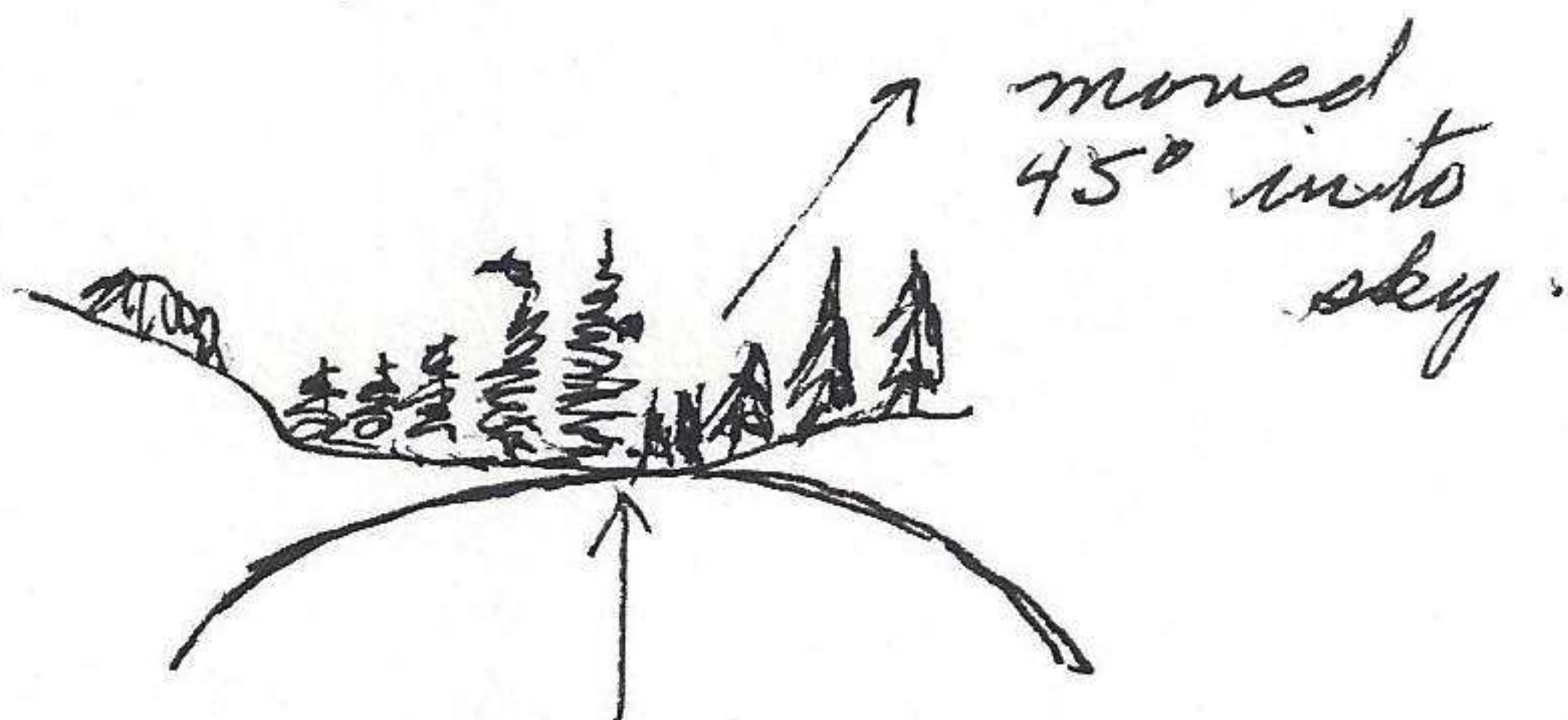
1:30 1 mi. W of bridge over South Fork Skagit River at Conway, approx. 80 trumpeters swan  $\frac{4}{10}$  mi to N.

2 redtail hawk across Skagit Valley.

Left Anacortes ferry for Lopez Island at 3:23 P.M. no census.

Jan 26, 1989

Sun-up 7:53:58 A.M at base Bald Bluff.



From 7:30 A.M to sun-up 3 bald eagles soared above sunrise area.

On emergent rocks of Leo Reef, 3 harbor seal displaced 8 cormorants.

a ferry wake displaced all cormorants and one of the harbor seals on Leo Reef,

412 mew gulls fed on surface of water between Bee House + Leo Reef but nearer the latter. In the evening they formed local groups but did not attract cormorants or other fish-eating birds such as mergansers, murre, loons etc.

Jan 27, 1989

11:35 AM. 21 American crows fed on beach of Spring Cove on Humphrey Head.

11:40 AM. 5 ♀ Common goldeneyes and 2 ♀ Hooded mergansers fed for 1/2 hour in front of Bee House and Spring Cove and entire from on shoreline to 4' out,

Jan 28, 1989

11:45 AM. On E side Fishermans Bay on Lopez Island observed 6 surf scoters and 34 buffleheads. On E side of causeway of Fishermans Bay were 17 glaucous-winged gulls, 9 mew gulls, 14 Thayer gulls?, 7 black-bellied plovers, 1 great blue heron, 6 buffleheads. On W side Causeway of above area no birds at least out 300'. Beyond were 4 white-winged scoters and 6 buffleheads.

At Hummel Lake:

4 Common mergansers

At Spencer Lagoon:

6 ♂, 15 ♀ buffleheads and these only water birds present.

no birds on Swifts Lagoon

At low beach on Swift Bay:

46 American widgeon

2 mallards

18 glaucous-winged gulls

8 mew gulls

1 great blue heron

2 black-bellied plover

marshlands are flooded and birds observed:

9 northern pintail

6 green-winged teal

27 American widgeon

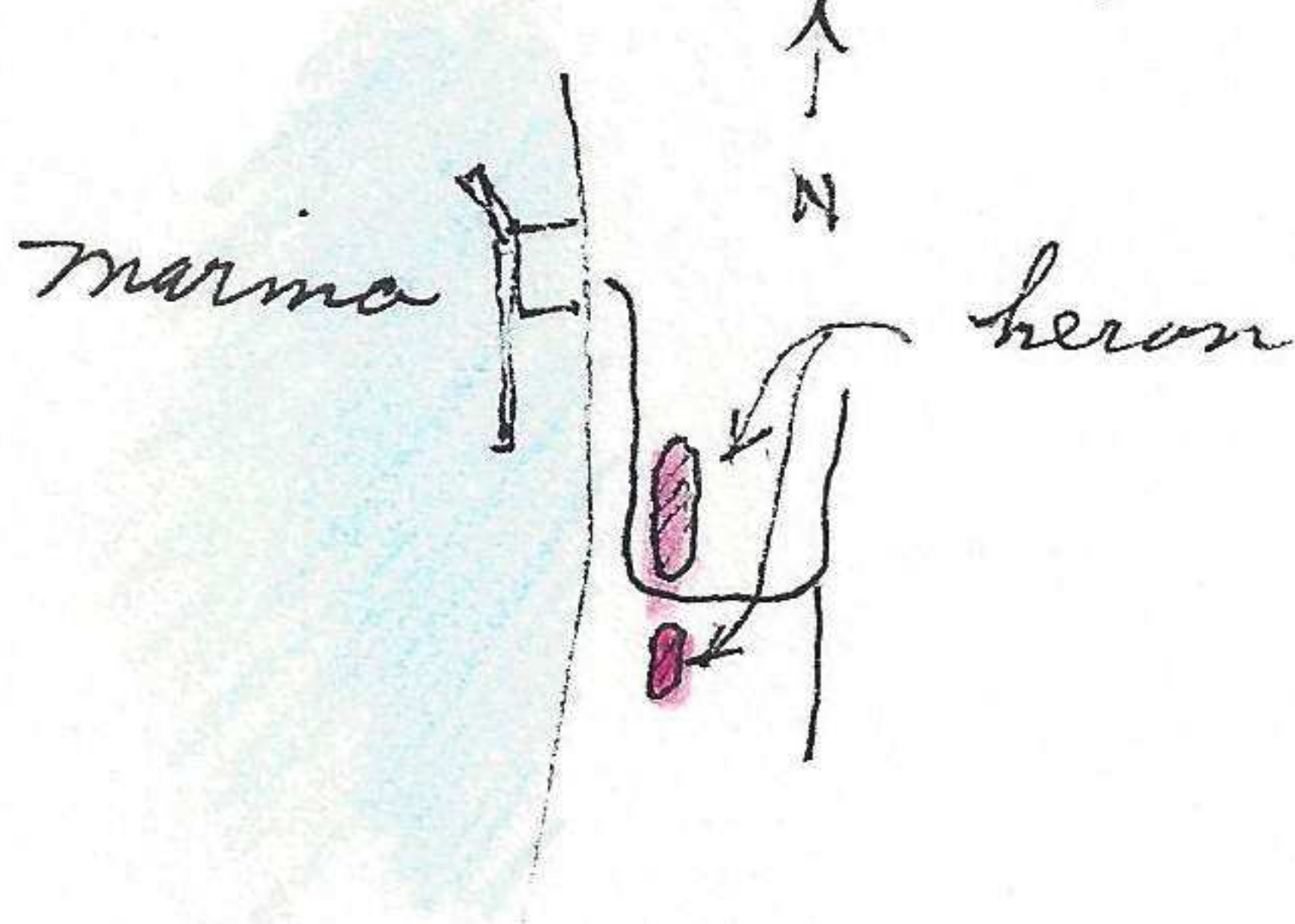
4 gadwall,

There were undetermined number hidden by marsh vegetation but above at least visible.

Jan 30, 1989

8:45 A.M. 45 American Crows at Bee feeder.

1:30 P.M. 23 great blue heron in tops of conifer trees (Douglas fir) at Humphrey Head marina



I have observed this aggregate of herons in the same groups of trees on previous occasions. Cars pass by on road and the herons do not leave but when one walked by they leave the area and on this occasion they flew out into Shoal Bay, circled and returned.

3 bald eagles today.

Day windy, cloudy, rain and no seals used Leo Keef today.

Jan 31, 1989

In the 'Bee Boat', max temp last week 70°F, min 33°F. The cold, windy, nor-eastern started during the night (Jan 31, Feb 1) In fact we called 3:30 AM to Opalco <sup>(Feb 1, 1989)</sup> that power was off in our home.

Feb. 1, 1989

All day snow, wind 90 MPH, 14°F. All weather movement horizontal to shoreline, then up over top of Humphrey Head. Temp in house 33-44°F with wood stove full force. all fallen trees occurred during the storm and well as telephone service. Recorded several photos from Bee House of shoreline S of Spring Cove and taken during non gust periods when shoreline was visible. sometimes visibility 5'!

- 890201-1 From Bee House to S along shoreline. Snow, spray horizontal
- 890201-2 " " " " " " " " " "
- 890201-3 " " " " " " " " " "
- 890201-4 " " " " " " " " " "

Feb. 2, 1989

From section of red cedar at approx 38 feet from base for cyclic interpretation. This specimen is no. 890202-1 I would estimate there were 150 trees downed by the storm on Humphrey Head. (See photos 890202-13) 12' Circumference at chest high. of above cedar tree 890202-1

Day partly clear, windy. Temp 14-18°F. Waves at 9:00 AM 12-18 per minute. all snow and spray horizontal past house. Between Early morning and 11:00 A.M took several shoreline photos:



890202-2 From Bee House to S along shoreline. Ice from salt water spray completely covering shoreline and at some places into vegetation and coniferous forest for 110'. Wave action keeps rocks bare up to upper limits of wave action; beyond some ice 2-3 feet thick. This mantle of ice will undoubtedly kill some low lying vegetation on the shoreline.

890202-3 *ibid*, showing Lichen Point. Ice on a table (upper center) with 16" of ice on top and \_\_\_\_\_ feet from water. Waves moderate and some spray above lower limit of ice and water covering rocks from last wave.

890202-4 *ibid*. Round Point and Flat Point in lower right. Bare shoreline irregular according to pattern of wave action.

890202-5 Lichen Point on shoreline S of Bee House. Waves with trailing spray some white-caps.

890202-6 waves immediately S of Bee House (100'), The greater velocity of wind the greater smoothening out effect of the waves. These waves crashed at 10 per minute. Wind velocity not as great as other times when waves become obscured by spray.

890202-7. *ibid*.

890202-8 Bee Estate. E from Lower Parking area. fault line visible E side N. Lopez Sound. madrina left, Douglas fir right.

890202-9 Bee Estate, S from Lower Parking area with 2 large Douglas fir trees in foreground. Diameter tree to left = 112 inches

890202-10 "Barth" on Lower Parking Lot. Extent of snow ground lee of motorhome.

890202-11- Entrance Bee Estate. Guard trees are red cedar, one of left \_\_\_\_\_ inches at chest high.

890202-12 Road on Humphrey Head, mailboxes of John (Jack) Saul Sr. Three large Douglas fir trees had fallen from E side road and blocked roadway. measurement (circum.) of these 3 trees are: \_\_\_\_\_ inches

Below (S of these were 5 trees blown down on Joyce Frolic property. Mr. "Buck" Plummer on right, Mr Klein left.

890202-13 Road on Humphrey Head on \_\_\_\_\_ property. Section of red cedar (no 890202-1) from end log where Mr. Timothy Barbara is adjusting chain saw. Cut all \_\_\_\_\_ and power lines branches from this tree for firewood. Telephone lines down.

- 890202-14 Shoreline Humphrey Head below Joyce Fratic and John Sauls property. Otter Cove in foreground.
- 890202-15 Ice covered shoreline on Boundary Point of Bee Estate. Global formation of ice on shoreline. Upper shoreline covered with ice. Photo to S.
- 890202-16 *ibid.* Closeup of ice formation in photo above.
- 890202-17 *ibid.*
- 890202-18 *ibid.* note ice to upper shoreline level (same level as house, 40' above water, note interreal of waves.
- 890202-19 Promontory N of Otter Cove on N side Boundary Point. Yellow growth covered with ice.
- 890202-20 Boundary Point, Bee Estate, showing wave return and ice on shoreline.
- 890202-21 *ibid.*
- 890202-22 Shoreline S Spring Cove from Bee House showing Lichen Point, Round Point, Flat Point and Dissected Point. Note icicles formed on log on shoreline.
- Only 1 harbor seal, 2 double-crested cormorant and one glaucous-winged gull observed today in front Bee House.
- Douglas fir branches covered 98% of road from at least John Sauls Sr. residence to Lunda residence. except wind swept road at head of O'Leary's driveway. no snow or branches there. Only a few larger limbs on road. Trees blown onto road were large red cedar from property next S of O'Leary's, 4 on Joyce Fratic and 5 on John Saul Sr's properties. One large Douglas fir NW of garden plot W of John Saul III. It measured: —
- 11:00 A.M. Head Swift Bay, low beach, approx 200 mew gulls and 24 glaucous-winged gulls feeding on last 2 surf waves contacted the beach.
- Humphrey Head Lagoon frozen and curvilinear lines crossing ice in several directions.
- Ponds enroute Lopez Village frozen
- Hummel Lake frozen except 40x40' opening at outlet.
- Swifts Lagoon frozen and covered with film soil.
- no birds on frozen lakes or ponds.
- A song sparrow and rufous sided towhee took refuge in wood shed at Bee House. Dark-eyed junco on lee of rocks. Other birds fed in all exposures including wind.

no birds or harbor seal on Leo Reef for last 3 days.

Bee Estate, Humphrey Head, Lopez Island, San Juan Co., Wa.  
Feb. 3, 1989

10:45 P.M. Waves 18 per sec all A.M. Height wave estimated 3 1/2 ft, wind blew spray off whitecaps. Sunny,

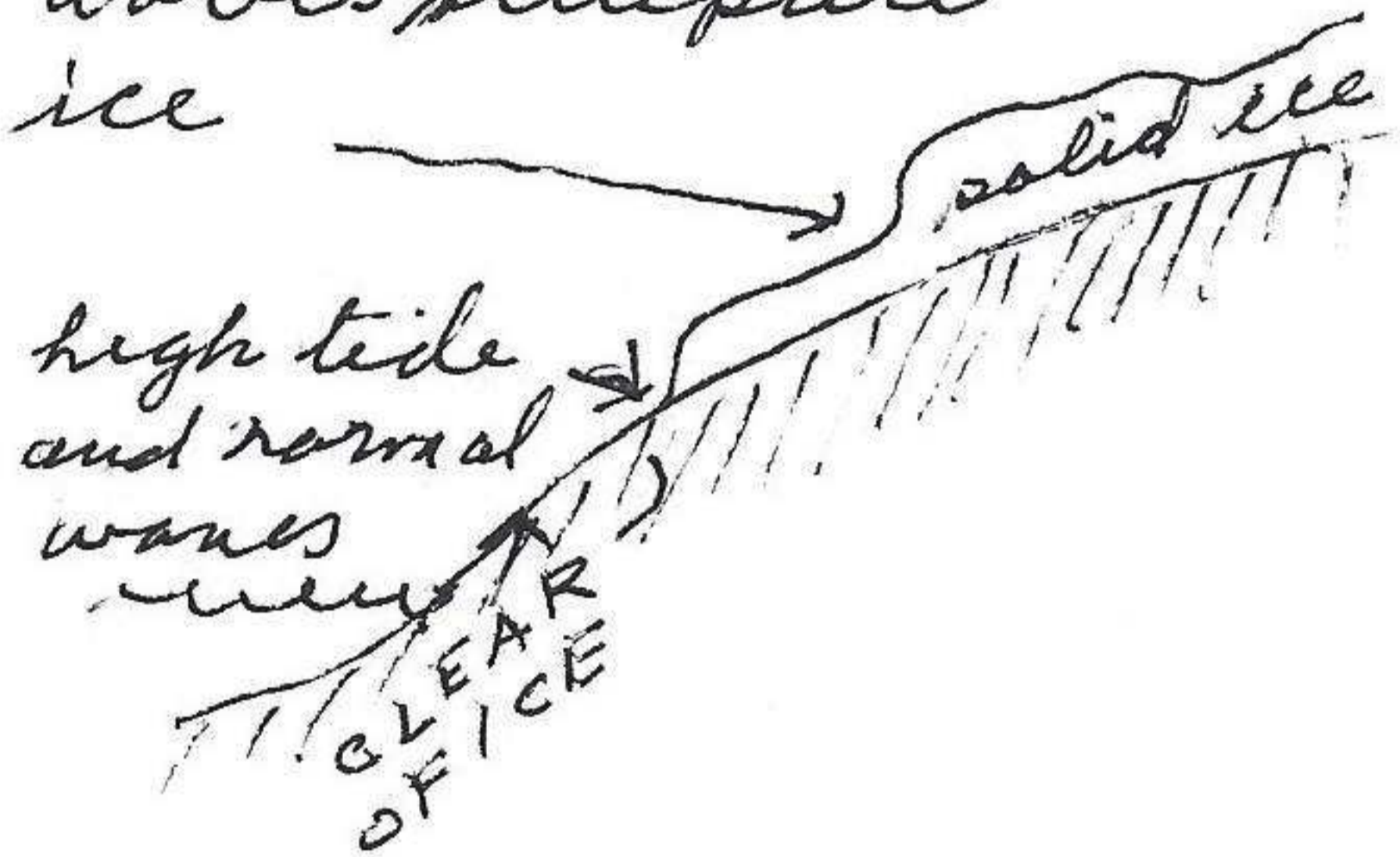
Bee House 50°F, outside 18°F, kitchen 41°F, bedroom 60°F, bathroom 50°F.

R.O. Plummer informs me that after storms from NE, weather clear & warm but is rain and snow on ground, there is severe erosion. On Blakely Island (E of Willow Island) a gully eroded 15' deep, another 5' deep.

1:30 P.M. waves 19 per minute. Waves 2' high, mist or spray blows off white-caps in long trails.

Rope holding boats freeze and break.

waves sculpture  
ice



Temp. 22° and warmer than first 2 days preceding,

varied through after storm increased from pre-storm 1 per day to 5 per day (5 at one time).

American robins rarely at Bee House but on main island 1 every 200', especially along road. Dark-eyed juncos, and song sparrows are also along road at edge between dry road and snow cover.

3:30 P.M. Low Beach Swifts Bay (just N of Swifts Lagoon outlet onto beach) are 193 mew gulls and 23 glaucous-winged gulls plus 16 <sup>American</sup> crows, 6 mallards, 17 American widgeon and 12 northern pintail, all feeding on material brought onto beach by NNE waves. The mew gulls and glaucous-winged gulls feeding over water < waves 5-20' from shore. A small crab (2") was eaten by all birds there, even pintails.

Photo 890203-1 of the mew and glaucous-winged gulls in the surf action feeding profile. (slides). The higher the wind velocity the more birds hover above the waves.

Photo 890203-2 ibid

Counted trees (95%) downed by wind of Feb. 1, 1989 between Swift Bay and Humphrey Lagoon (along road):

54 on E side road (only obvious ones near road). On W side road 216.

Feb. 4, 1989

Sky clear, windy and high waves.

Took 2 rolls of colored slides one between Bee House and Lichen Point along shoreline and 1 roll on return route plus some gull photos beginning first & last of 2nd roll.

Photo 890204-1 2 spike mule deer (antlers 6"), above Bee House on slope.

Photo 890204-2 single mule deer with 6" antlers and one of 3 spiked deer in Bee Estate group of deer. Above Bee House.

Photo 890204-3 ♀ mule deer on slope above Bee House

Photo 890204-4 shoreline to S from Spring Cove area. Lichen Point, Round Point, Flat Point & Dissected Point, showing extent of tidal water range.

Photo 890204-5 Ice covered rocks on S side Bee Estate. (N side Spring Cove).

Photo 890204-6 Shoreline S of Spring Cove from Bee Estate. Lichen, Round, Flat and Dissected points. Tidal wave demarcation on rocks. Solid ice up to and into deciduous forests.

Photo 890204-7 male mule deer, antlers 6" on slope above Bee House on Bee Estate. Framed with madrona.

Photo 890204-8 2 male mule deer with 6" antlers on slope above Bee House. Mule deer remain part of a matriarchal group for 6-7 generation.

Photo 890204-9 female mule deer slope above Bee House.

Photo 890204-10 2 male deer of same family, one recognizes the other by licking neck. Slope above Bee House.

Photo 890204-11 male mule deer, antlers 6", slope above Bee House. Madrona left, Douglas fir right.

Photo 890204-12 Madrona (left) and Douglas fir on top E wall Bee Estate. The Gratto on beach beyond.

Photo 890204-13 Douglas fir tree splintered from wind of Feb 1, 1989 storm. SW corner O'Leary property, Humphrey Road.

Photo 890204-14 Bee Estate, E wall. Beach covered with ice. The Gratto at end of line of ice. Bee House in background.

Photo 890204-15 Rocks on beach E wall Bee Estate. (mouth Spring Cove).


Photo 890204-16 boat pull-out at Klein residence. Illegal.

Photo 890204-17. Shoreline S Bee Estate. Round Point. Overhanging ice covered limb. water action at shoreline below.


Photo 890204-18. Ice covered chair on Lichen Pt S Bee Estate.

- 890204-19 Shoreline ice on Lichen Point S Bee Estate.  
 Photo 890204-20 *ibid*
- 890204-20 Ice covered chair on Lichen Point, S Bee Estate.  
 890204-21 Ice covered log on Flat Point, S Bee Estate.  
 890204-22 Round ice formation on Lichen Point, S of Bee Estate
- 890204-23 Round ice formation on Lichen Point S Bee Estate  
 890204-24 Ice wall Lichen Point, S Bee Estate.  
 890204-25 " " " " " " " "  
 890204-26 Bee House<sup>n</sup> from Lichen Point to S. Four days since ice formed on shoreline.
- 890204-27 Bee House from Round Point S of Bee Estate.  
 Mt. Constitution on Oreas Island in background.
- 890204-28 Klein boat put-out at Round Point, S of Bee Estate,  
 890204-29 Ice formation shoreline (Lichen Pt.) S Bee Estate,  
 890204-30 Vegetation covered with ice, Lichen Pt. S Bee Estate  
 890204-31 Lichen Point to S from shoreline S of Bee Estate,  
 890204-32 Ice formation Lichen Point S of Bee Estate,  
 890204-33 Bee House from Flat Point, S of Bee Estate,  
 890204-34 Flat Point S of Bee Estate.  
 890204-35 Ice covered logs on Flat Point, S Bee Estate,  
 890204-36 Icicles on log at Flat Point, S Bee Estate,  
 890204-37 *ibid*
- 890204-38 Ice on Flat Point, S Bee House,  
 890204-39 " " " " (icicles). S Bee Estate,  
 890204-40 Ice covered rocks base E cliffs, Bee Estate,  
 890204-41 Sheet ice on or from wall on Flat Point, Bee Estate,  
 890204-42 Shoreline S of Spring Cave to Lichen Point,  
 890204-43 Sheet icicles E beach Bee Estate, Gratto left pendulous cylinder of ice. Bee Estate,  
 890204-44 Dissected Point, S Bee Estate.  
 890204-45 Deformed Douglas fir at junction Bee Estate and Spring Cave.
- 890204-46 Boulders base E face wall of Bee Estate, Ice covered.  
 890204-47 Douglas fir above Gratto on Bee Estate.  
 890204-48 Spring Cave from Bee Estate, Madrona foreground.  
 890204-49 Douglas fir on cliff above Gratto, Bee Estate.  
 890204-50 Madrona on Gratto Ridge, Bee Estate,  
 Swift Bay (low beach), at a point 100' N Swift Lagoon outlet 2 photos of mew gulls searching surf waves before striking beach.  
 890204-51 and 890204-52.

Did not observe <sup>any</sup> bird while photographing the shoreline S of Spring Cove.

1:00 P.M. upper light beacon on Leo Reef covered with ice from wave spray.  ice. no birds or mammals on reef proper. Waves and wind all day. no clouds.

To Perry Island causeway. Enroute:

Swift's Lagoon; still frozen and covered with a film of sand and soil blown from Swift Bay beach. Wind effect on lagoon is parallel lines  wind from NE.

Spencer Spit: Counted trees blown over by Feb 1, 1989 storm are: 36 on N side of road (in to 100') between State Park entrance and headquarters and 65 on S side of road in 100' from road.

Hummel Lake: 18 common mergansers, 50 scaup. water open for 10' x 20' at culvert outlet of lake.

Back to Swift's Bay. at approx middle of beach or 150' north outlet of Swift's Lagoon into Swift's Bay observed approx. 200 mew gulls, 26 glaucous-winged gulls, 82 northern pintails, 1 shoveller duck, 9 american widgeon, 3 black turnstones, 8 american crows, 5 greater scaup, 3 goldeneyes, 4 buffleheads and 1 sandwing.

Then S to Perry Peninsula causeway. 2 adult bald eagles circled over forest S of causeway, then both glided N to top of flat top conifer tree on SW corner of Perry Peninsula.

Ice from ocean spray on N end Frost Island, E side Lopez and NW side Decatur

Lopez Island, San Juan Co., Washington

Feb. 5, 1989

At Odlin County Park, 1 ad. bald eagle in top conifer tree N park and one (ad.) arrived to same area from S. In bay are: 18 buffleheads, 1 pacific loon, 4 red-breasted mergansers.

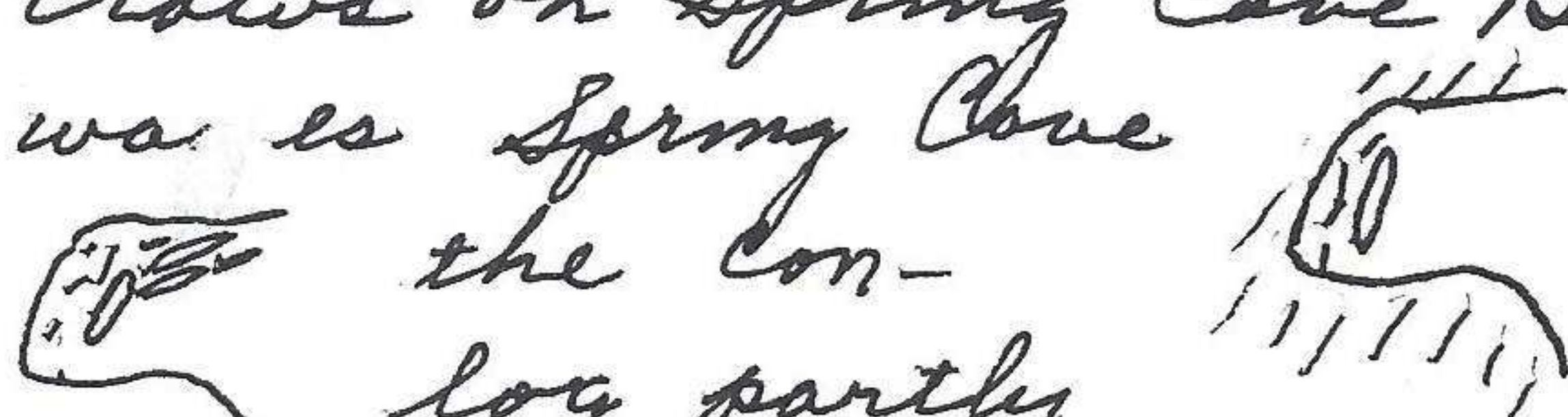
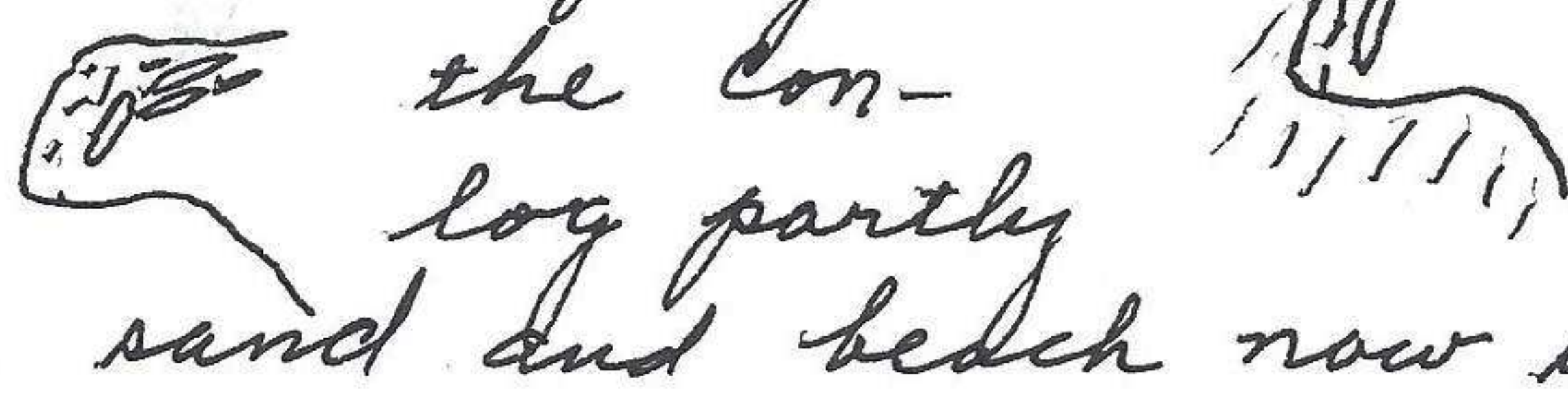
On Slaughter House Road off Port Stanley Road just N of Swift's Bay are 10 downed conifer trees on S side of road and 11 on N side of road, all down in same direction from northern winds.

at Swift's Bay are: 76 buffleheads in 2 equal groups, 53 scaup, greater (one group 12 ♂ and 11 ♀)

8 goldeneyes dispersed in bay, 18 surf scoters and 18 northern pintails.

In one feeding group are 250 mew gulls, 46 glaucous-winged gulls, 6 mallards, 8 northern pintails, 6 american widgons, 7 american crows and 8 sanderling.  
The snow on Bald Bluff should disappear by evening.

Bee Estate, Humphrey Head, Lopez Island, San Juan Co., Wa.  
Feb. 6, 1989

Clear sky, temp 38°F at 8:00 A.M. Ice cover still complete.  
9 american crows on Spring Cove Beach.  
Before high waves Spring Cove  now after high waves  the log partly covered with sand and beach now with steeper grade.

Spencer Spit, Lopez Island, San Juan Co., Washington.  
Feb. 6, 1989

At 12:30 P.M. took several photos of the Spencer Spit area:  
Photo 890206-1 Spencer Spit State Park with Frost, Decatur and Blakely islands in background.  
Photo 890206-2 South Lopez Sound between Decatur, left, and Trump Island to right.  
Photo 890206-3. 77 bend of lower road in Spencer Spit State Park with road covered (100%) with branches and leaves of the Douglas fir from last winds.  
Photo 890206-4 Spencer Spit and Frost Island.  
Photo 890206-5 South Lopez Sound of Thatcher Pass and Decatur Island to right

2 adult bald eagles soaring above Baker View and Port Stanley rds. also 2 common ravens.

Wimmel Lake frozen except 8' x 15' at outlet to n.  
1 glaucous-winged gull, 1 shoveller and 1 sculp (sp.) in Lake.

Photo 890206-6 Plummer (Buck & Shirley) home on Swift's Bay taken from Stanley Road.

Swift Bay: no aggregate of gulls or ducks. Clear day, no wind.

From Bee House at 2:45 P.M. 2 photos of ice on shoreline S of Spring Cove (to Lichen Pt.);

Photo 890206-7 Cold shoreline of ice.

Photo 890206-8 Leo Reef with remnant of ice from

last ice storm. Blakely Island beyond.  
min. temp. 26°F in Bee Boat.

Bee Estate, Humphrey Head, Lopez Island, San Juan Co., Wa.  
Feb. 7, 1989

Day clear, breeze from NE. see on  
Leo Reef still in ice and beacon damaged. shoreline  
south Spring Cove unchanged.  
Runt mule deer ♀ 23½" at shoulders and is smallest  
of this years deer. Associated with mother.  
min. temp. in Bee Boat 46°F.

Feb. 9, 1989

To Anacortes for develop of film. Left <sup>Lopez</sup> 9:45 A.M. Eagle  
nest (bald) gone from tree on N end Humphrey Head. Leo  
Reef in ice. Light of beacon last night was approx. intensity  
of first magnitude star. 8 glaucous-winged gulls, no  
Cormorant on Willow Island. Glaucous-winged gull.  
Thatcher Pass W, mew gull, 32 glaucous-winged gulls  
generally distributed on Louter Island. Ice covers shore-  
line of James Island like on Lopez. Pelagic cormorant,  
mew gull, mew gull, 2 mew gulls, 1 double-crested corm-  
orants.

Bee House, Humphrey Head, Lopez Island, San Juan Co., Wa.  
Feb. 10, 1989

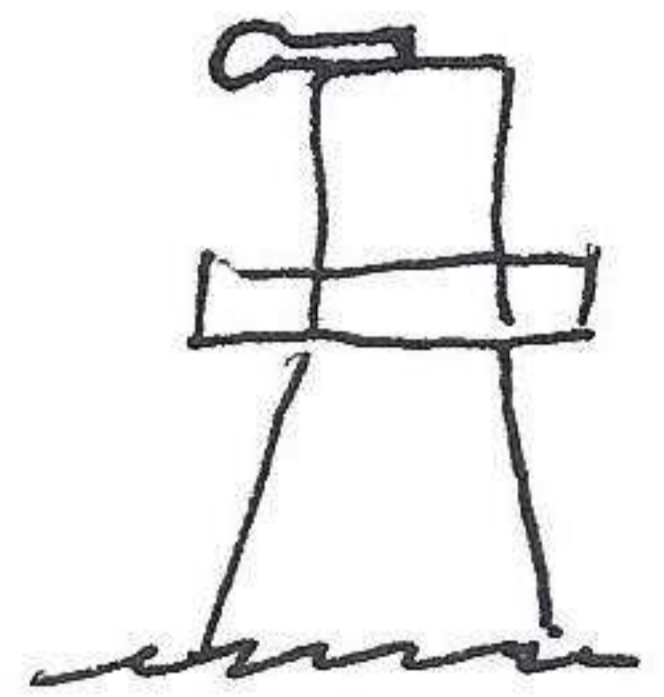
The following *Peromyscus* from <sup>open</sup> basement of Bee House:  
890210-1 *Peromyscus maniculatus hollisteri* 186-83-21-18 -26 gms ♀  
890210-2 " " " 200-92-22-18-32 gms ♂

Leo Reef at low tide one harbor seal.  
Light and some ice remaining, Light  
bent from perpendicular.

Informant said: above Lasario Heights,  
approx 30 trees blew down in a path  
50' x 200'. Shallow soils and excessive rains cause the trees  
to fall.

Fires on Lopez Island from Bee House to Lopez Village via  
Stanley Rd and Hummel Rd were 5 from burning of down  
timber. Today is foggy.

The storm of February 1, in recollection, dropped temperature  
from 41°F at 1:00 P.M. Tues to 8°F at midnight and 5°F Wed. at 7:00 A.M.





wind chill  $-40^{\circ}\text{F}$ . Ferry service halted one day. Winds 95 MPH on Lopez Island.

Feb. 12, 1989

Since Feb. 1 when we had the ice storm, there have been few birds on Leo Reef. The harbor seal average 2(0-4) daily and double-crested cormorant 4(0-8) daily. Today there are 1 harbor seal, no cormorants and 2 glaucous-winged gulls. The ice is almost gone on Leo Reef Beacon but the ice on the mainland S of Bee House especially, but elsewhere is the original amount.

Common raven fly N along crest of Humphrey Head almost daily. American crows visit Bee House 2-3 times daily in numbers of approx 20(6-30). Dark-eyed junco (Oreg. subspecies) constant.

Varied thrush before storm (Feb. 1) observed at Bee House 3(1-4), rarely seen after storm. American robin same distribution as varied thrush and always with fluffed feathers and appeared larger than usual.

Reifous sided towhee same numbers before and after storm.

Ice also covered shoreline above Spring Cove. Larger logs removed by storm.

This A.M. and for 2 previous weeks, 5 hooded mergansers, 2 common golden-eye ducks fed in front of Bee House out as far as 100' from shore and at various times of the day.

Feb. 13, 1989

4 ♀ and 1 ♂ red-breasted mergansers, 3 ♀ 2 ♂ hooded mergansers. had fan tails extended and resting on surface of water. A glaucous-winged gull perched on a red-breasted merganser. ♀ red-breasted merganser shows white breast. ♀ hooded merganser shows dark breast or chest area. Storm of Feb. 1 brought in logs to Spring Cove, post storms removed them.

10:30 A.M. 1 harbor seal on Leo Reef. Beacon light still defective. mule deer eat <sup>green</sup> madrona leaves in autumn but not at this date in February.

From Rock Quarry NW side Humphrey Head you have a race track on flat field below. New owner, that bought the two properties including the quarry, has made initial cut of trees

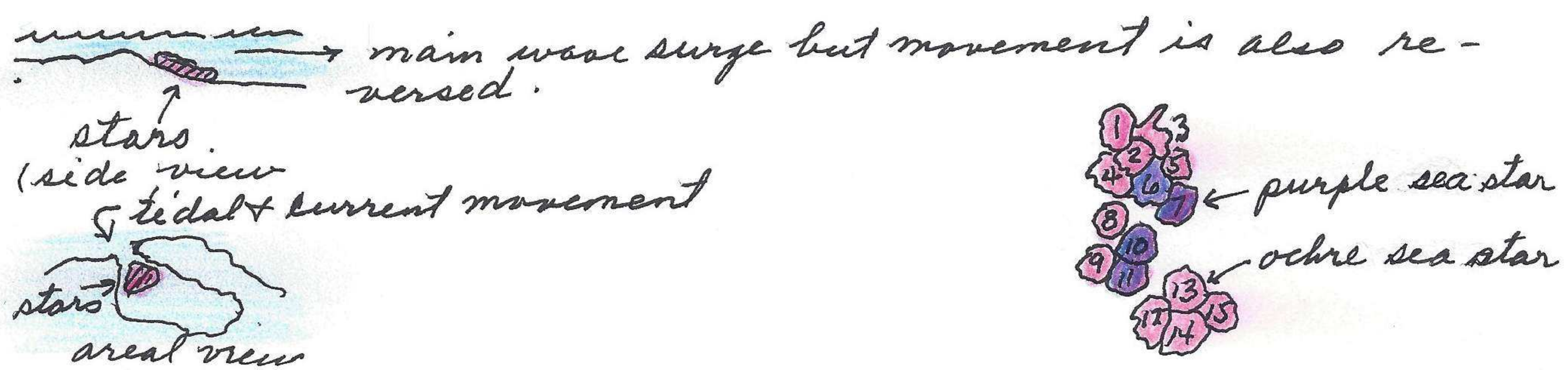
Top of quarry and include 20 Douglas fir, 4 madrona. Largest Douglas fir 16" diameter, smallest 1". Some madrona at least 14" diameter. Another road leads into property N of the quarry property and is defacing some of the most unique rock & cliff exposures on Humphrey Head. A road engineer should not be entrusted to elevation and planning of clearings and roadways. All areas on W side of Humphrey Head should have been set aside for natural areas.

The large tree blown down by Feb 1 storm at spring and garden plat on Humphrey Head is a Grand fir. This tree and all others blown down should be left for natural diversity except those blocking roadways or damaging home sites.

On entire trip along W trail to N end Humphrey Head and return by road observed only 2 American robins and 6 dark-eyed juncos (Oregon subsp.). Also 1 dead varied thrush and another varied thrush partly eaten, at Bee House ♂ & ♀ golden-crowned Kinglet.

Feb. 14, 1989

In front of Bee House a group of ochre and purple sea stars, *Pisaster ochraceus* have inhabited on specific area of tidal area most of winter. They change position among the cluster but the cluster remains in the same area.



3:10 P.M. 3 harbor seal and no cormorants on Leo Reef.

Feb. 14, 1989 (cont)

Left Lopez Island at 9:29 A.M for Sidney, Vancouver Island. Day clear, frost and ice on road. Temp. 32°F. Will make complete census according to locality and time:

9:30 A.M 2 red-breasted mergansers, cormorant (sp.), 4 glaucous-winged gulls.

- 9:34 A.M 2 glaucous-winged gulls.
- 9:36 bufflehead, glaucous-winged gull. Fields that have been green early this winter are now brown.
- 9:38 great blue heron
- 9:39 4♀, 2♂ buffleheads, 6 mew gulls,
- 9:40 3 glaucous-winged gulls, 1 double-crested cormorant.  
6 American crows flew N to S across Harney Channel.
- 9:42 4 double-crested cormorant, 1 common loon.
- 9:43 arrive Shaw Island. 143 crab traps in bay to SW of Shaw Island (Blind Bay), 4 common golden-eye, 6 red-breasted mergansers, 6 bufflehead ducks. 6 glaucous-winged gulls circling boat (ferry).
- 9:47 Left Shaw Island. 2 glaucous-winged gulls, 4 mew gulls in one group. Approx 30 logs 3' to 20' and misc. debris in Harney Channel including 13 pieces styrofoam (largest 2' x 2').
- 9:52 Adult bald eagle at point W of Orcas Island landing.
- 9:53 6♀, 1♂ common mergansers. At Orcas ferry landing 13 pelagic cormorant, 1 double-crested cormorant and 11 glaucous-winged gulls on peling.
- 9:55 Orcas Island Terminal. 1 scaup (sp?), 3 buffleheads, 4 common goldeneye ducks. From ferry terminal observed 18 glaucous-winged gulls, 9 mewgulls, 13 cormorants (sp.), 24 ducks in West Sound (S. end
- 10:04 left Orcas Island.
- 10:15 now Upright Channel NE end Shaw Island. (no censes in Harney Channel on return to Upright Channel). More than 99% of ice gone from E side Shaw Island on shoreline.
- 10:18 as one goes S all ice disappears. 2 glaucous-winged gulls.
- 10:20 On N side Canoe Island 3' remnants of ice or 12% of ice on shoreline.
- 10:22 SE Canoe Island. All fields on Shaw Island and Lopez Island are tan.
- 10:24 bufflehead duck, 1 double-crested cormorant, 1 glaucous-winged gull.
- 10:26 pelagic cormorant.
- 10:27 glaucous-wing gull (a name without a number is always a single individual).
- 10:28 1 double-crested cormorant. no current action in San Juan Channel.
- 10:31 4 bufflehead ducks.

10:33 A.M. Seen - red beacon light to N. 2 double-crested cormorant.

10:34 6 marbled murrelets

10:35 Univ Wash. marine tide station, 8 mew gulls, 1 ad bald eagle picked up debris 150' from passing ferry, 8 glaucous-winged gulls followed ferry from Arcas. Gulls following ferry are counted only once.

10:39 double-crested cormorant, pelagic cormorant, double-crested cormorant, 2 harbor seal, red-necked grebe, belted Kingfisher.

10:40 arrived Friday Harbor.

10:48 Left " "

10:54 Tide gauge outer harbor now N in San Juan Channel. glaucous-winged gull.

10:59 3 mew gulls.

11:02 4 buffleheads. First slight breeze.

11:06 double-crested cormorant. No debris in channel.

11:08 common loon

11:09 3 glaucous-winged gulls, 6 mew gulls on log.

11:15 pelagic cormorant.

11:16 9 pigeon guillemot.

11:17 E end Spieden Island.

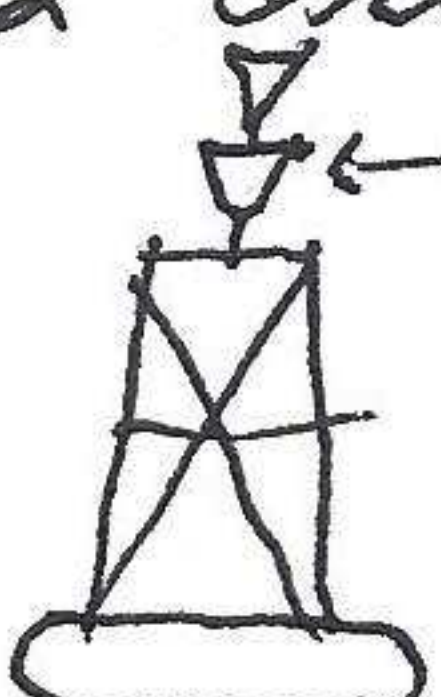
11:19 80 antelope-deer type exotic mammals near top of E end main part of <sup>18 N end</sup> Spieden Island, white to dark color. These grazing animals have completely graze the understory growth and interrupted interaction of root, soil understory vegetation and as a result the coniferous trees are dying.

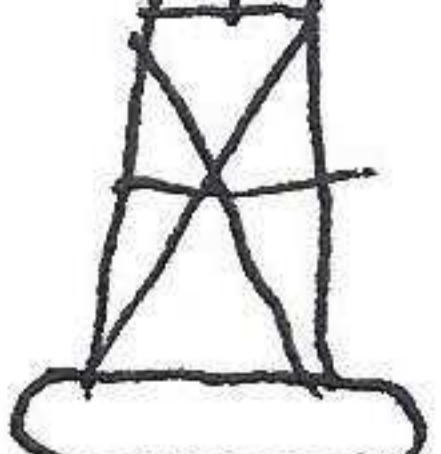
11:23 Sentinel Island has approx 32 young conifers 3'-15' high on S side open slopes whereas on Spieden Island there are none.

11:25 low green marker, kelp and no birds.

11:28 green-red buoy  no entering Haro Straits.

Less breeze (practically none).

11:36 2 Orea? moving E. Out on surface 4 sec in 5", mew gull.  black

11:45  yellow 13 pelagic cormorants and 1 glaucous-winged gull on buoy-beacon

11:46 <sup>cormorant</sup> 2 pelagic, 1 pelagic cormorant, 3 pelagic cormorant, 1 pelagic cormorant.

11:47 pelagic cormorant.

11:48  red, a beacon pelagic cormorant.  
white

at SE end Forrest Island, Canada.

11:49 2 pigeon guillemots, 2 pigeon guillemots, 1 pigeon guillemot, 2 common loon.

11:50 3 pigeon guillemots, 1 marbled murrelet.

11:52 1 pelagic cormorant, 2 pigeon guillemot, 3 pigeon guillemot, 1 pelagic cormorant, 1 glaucous-winged gull.

11:54 1 pelagic cormorant, 18 pigeon guillemot.

11:55 25 pigeon guillemot, 1 glaucous-winged gull.

11:56 19 " " " " " "

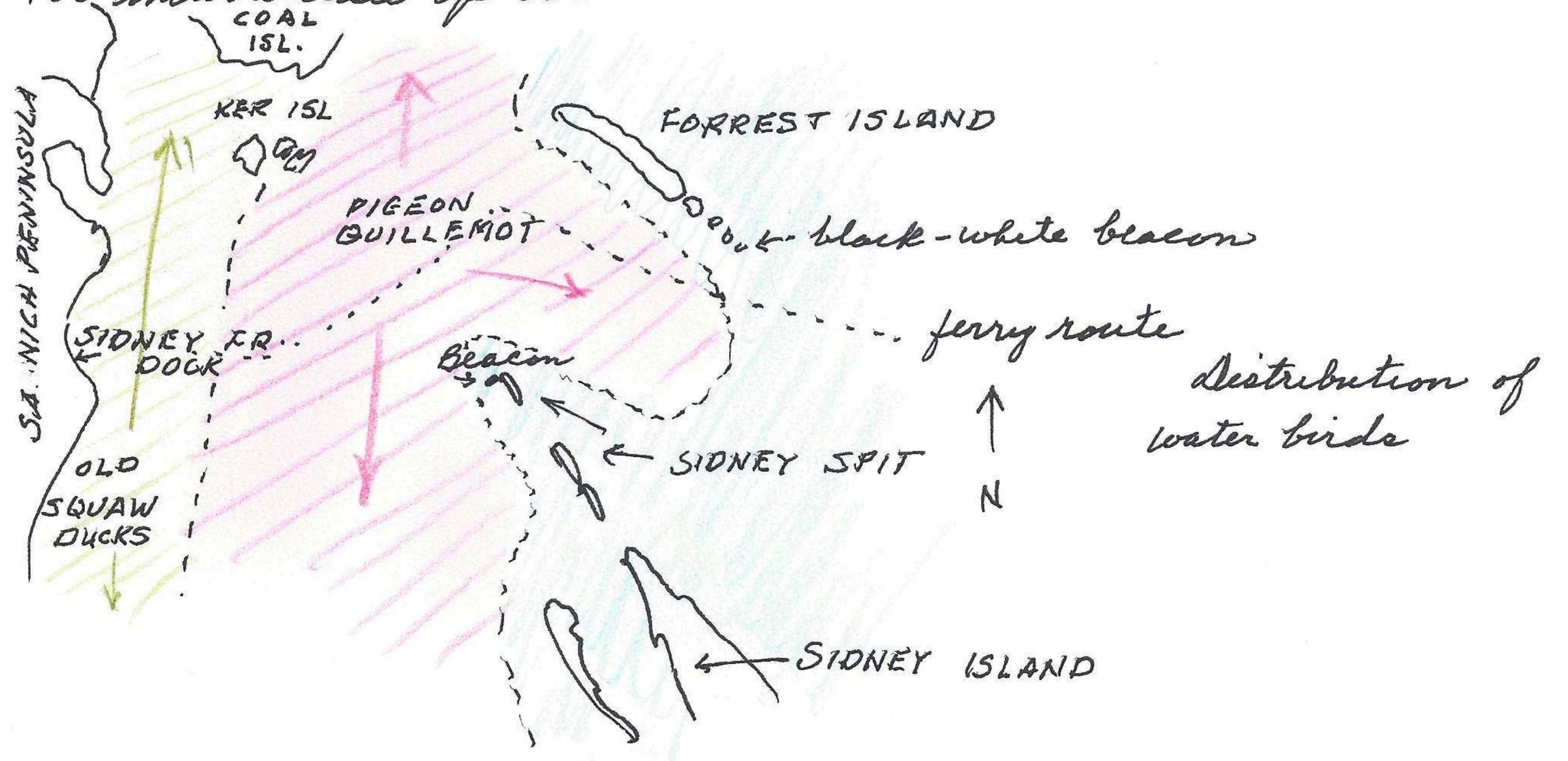
11:56 22 " " " " 3 pelagic cormorant, 2 pigeon guillemot, 6 pigeon guillemot, 12 marbled murrelets

11:57 16 glaucous-winged gulls, 45 pigeon guillemots, 8 pigeon guillemots, 12 pigeon guillemots, 6 common murre, 2 pigeon guillemots, 1 bufflehead duck.

11:58 11 pigeon guillemots

12:00 38 old squaw ducks, 8 surf scoters, 40 pigeon guillemots, 3 bufflehead ducks, 3 hooded mergansers, 4 horned grebes, 18 surf scoters, 4 river otter, 8 sculp(?) sp., 12 red-breasted mergansers.

Arrive Sidney ferry terminal 12:02 P.M. All observations on starboard side of boat today and out to 300' laterally. In entire area of view on all sides approx 3000 birds, of which there were 5 flocks of pigeon guillemots of 200-400 individuals apiece.



Left Sidney 12:44 P.M. Select observation only on return trip.  
 12:52 450 old squaws in one group.  
 Seaspan shipping barge 36' x 80' held 80 resting glaucous-winged gulls.

On basis of boulders above shoreline of Speiden Island would say there has been a benchland (old shoreline) 30 or 40' above present shoreline.

Beyond E end Speiden Island for 2 mi SE only 1 double-crested cormorant and 2 pigeon guillemots were observed in contrast to the thousands in Sidney Bay area.

2:00 P.M. Friday Harbor. Continued to Orcas, disembarked and boarded next ferry to Lopez. 40 glaucous-winged gulls on piling at Orcas and 9 on piling at Lopez Island ferry terminal.

Feb 16, 1989

Snow and cold this A.M. Snow is from no cover low on Humphrey Head to complete cover on upper slopes (Bee Estate). Stairs to lower parking lot of same sequence.

To Anacortes. Only birds observed enroute were: 2 mew gulls (W side Haro Straits, 2 pigeon guillemots (E side Haro Straits, 1 pelagic cormorant and a mew gull near Anacortes ferry terminal. Returned later to Lopez Island.

Feb. 17, 1989

Snow stopped 10:30 A.M., wind diminished 11:05. made trip to N end Humphrey Head. Left 11:06. Snow on stairs to Lower Parking Lot with tracks of Eastern grey squirrel. On parking lot snow 55 mm deep. 2 dark-eyed juncos (Oregon subsp.) and 2 raven overhead calling. Eastern grey squirrel tracks in John Sauls driveway. Spring at garden plot frozen, deer track. 11:28 varied thrush. at least 5 trees down along route. Snow depth 102 mm along route.

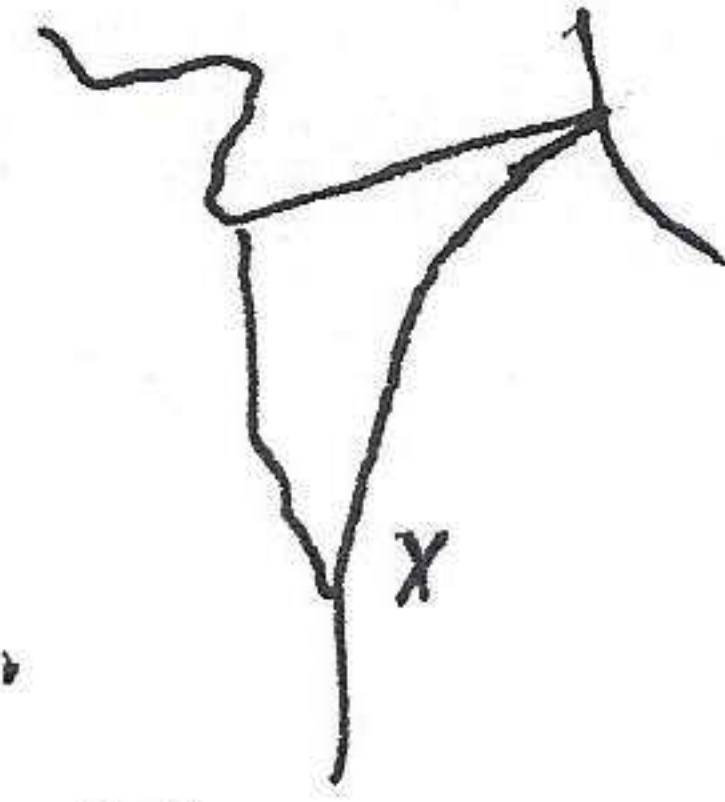
11:34 north end Humphrey Head at John Saul III new residential site. 6 trees down.

11:49 return to top of rock quarry. Wind less on W side Humphrey Head.

11:57 Entrance Messina driveway.

11:59 row on old log trail W side Humphrey Head.

12:00 P.M. now log trail to S.  
 12:02 convergence 2 trails  
 domestic rabbit.

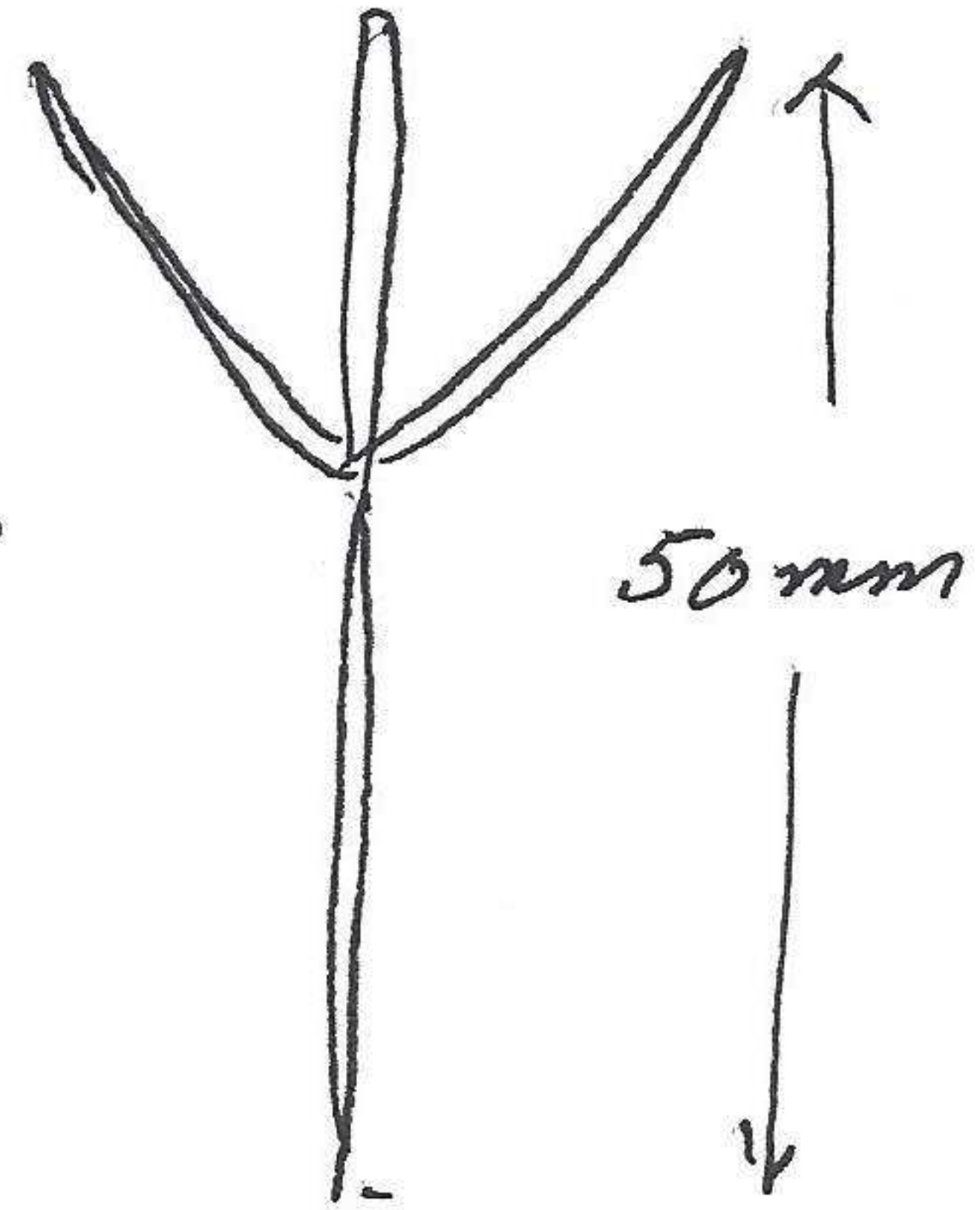


12:06 divide at clearing to S & W.  
 8 surf scoters below in Shoal Bay. 12 sculp. (Sp.?)

12:17 trace Epi church. American crows active at digging along side of trail

12:26 Bee House.

From in front (W side) Bee Estate after above trip, took several photos of snow condition. at 12:45 P.M.: Photo 890217-1 Lower Parking Lot and Omega yellow car. 55 mm of snow.



890217-2 Barth.

890217-3 Road W side Bee Estate.

890217-4 ibid

890217-5 Closeup snow on trees

890217-6 Road W side Bee Estate.

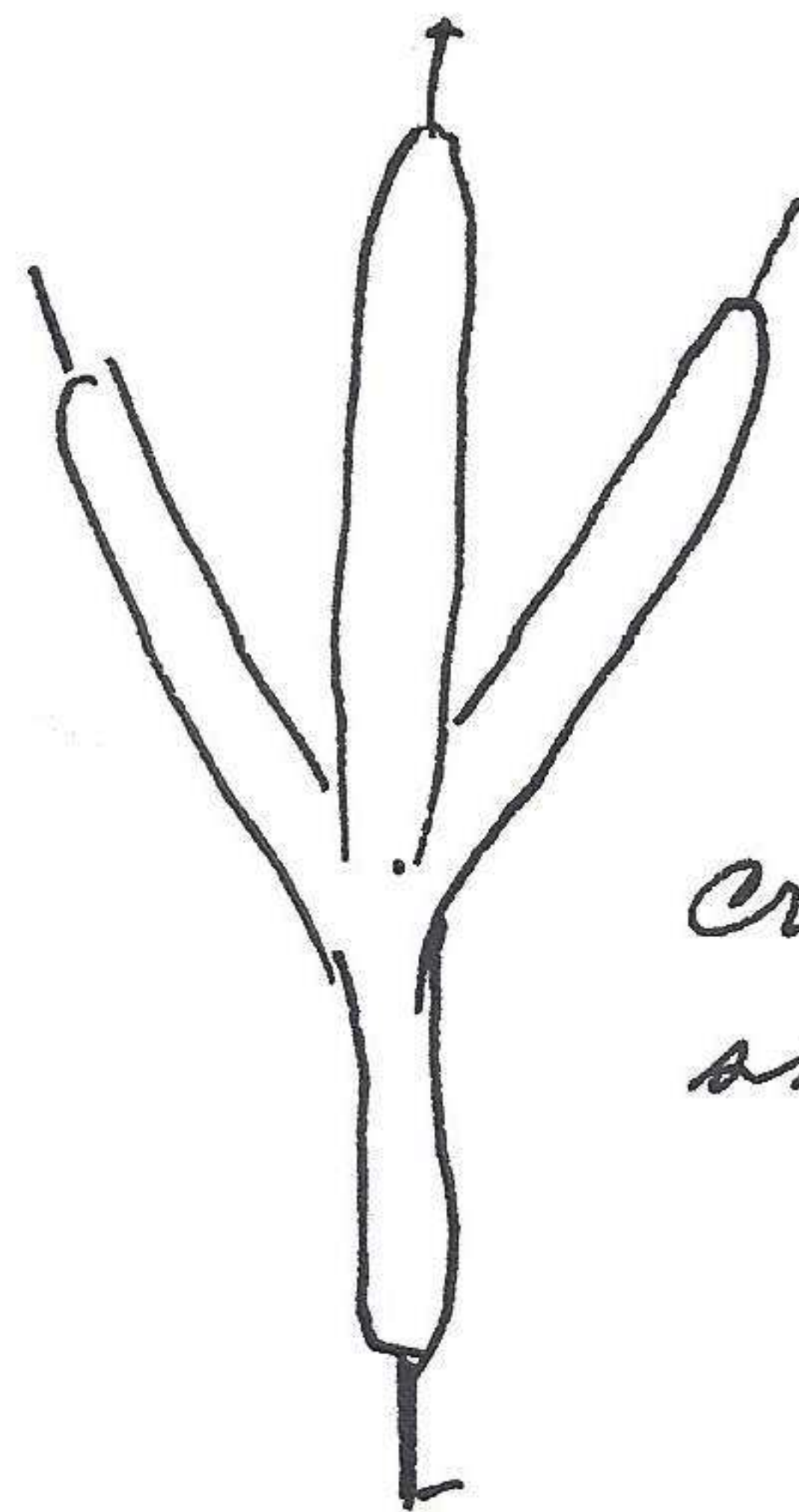
890217-7 ibid

890217-8 ibid

890217-9 closeup of snow on trees. all above same location,

at Bee House area, N side of trees blasted with snow. Only after dark did the mule deer come to feeder, then 5 of them. Deer tracks on.

Humphrey Head scarce indicating deer hole up after snow storm for at least a day.



American Crow track in snow.

Feb. 18, 1989

at Bee House, Myotis active at 6:15 A.M. and passed by upper story window 5 times before settling in for the daylight hours.

2 mule deer at feeder at 8:10 A.M.

Trip to Agate Beach S end Lopez Island: at 2:50 P.M.

Humphrey Lagoon 3 bufflehead ducks, 4 glaucous-winged gulls. Shoal Bay.



Open water of Humphrey Lagoon.

The following birds have been observed in open water of this lagoon, especially after the cold weather:

mew gulls, mallards, common goldeneye, glaucous-winged gulls, american widgeon, great blue heron, bufflehead, pintail and hooded mergansers.

Sweet's Lagoon. Water open around lagoon and at exit. no ducks or other birds.

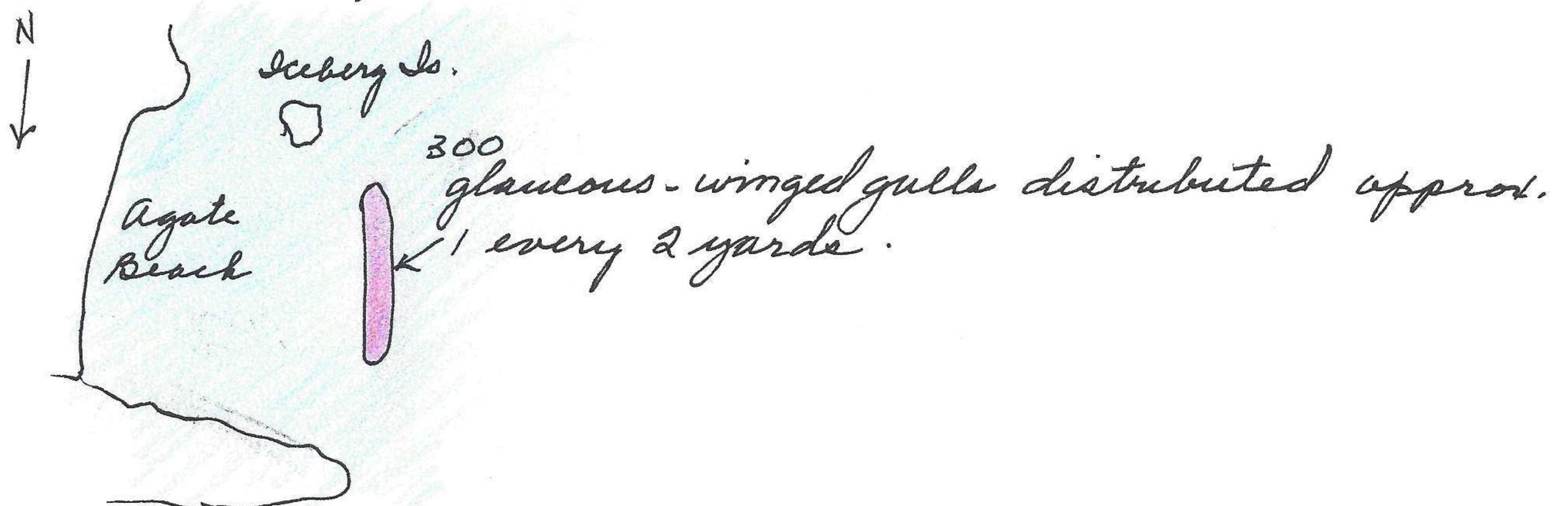
Summel Lake. Adult bald eagle circling above lake. All water frozen even water previously open at exit to N.

Richardson Store, S end Lopez Island. 1 double-crested cormorant, 6 common goldeneye, 6 surf scoters.

Grange building, Richardson Road. Adult bald eagle circling above, 500' altitude.

Barlow Bay, out from long beach, 53 bufflehead ducks, in one group, 14 surf scoters, 8 american crows, 16 red-breasted mergansers.

Agate Beach. 3 buffleheads, 5 surf scoters, 1 american robin on lawn of private home, 2 common ravens.



mud and Cousins rds. 3 mule deer in field to W.

Return to Bee House. Last 3 days rapid melting of ice on shoreline. On Lichen Point one patch ice 3'x2' on shoreline, 5 other patches average 2 sq. feet on grassy flat above Lichen Pt. On N end Frost Island 3 patches at 40' high level, which is upper end of shoreline ice. One small patch on projection of N face Frost island at near water level.

2:10 P.M. Cooper hawk N over Bee House over water.

3:15 P.M. 32 American Crows at feeder. Usual number for this season of year is 18.

4:00 P.M. Sharp-shinned hawk flew N past Bee House 10' out from bank and 40' high.

Feb. 21, 1989

One 4 pt. mule deer, 1 spike and 2 ♀ mule deer at feeder.



Mrs. Simmons of Humphrey Head reports:

10 large Douglas fir trees, averaging 1' in diameter and 3 large madrona were blown down during Feb 1 storm. The Benders property to S had a large Douglas fir tree down on border of property.

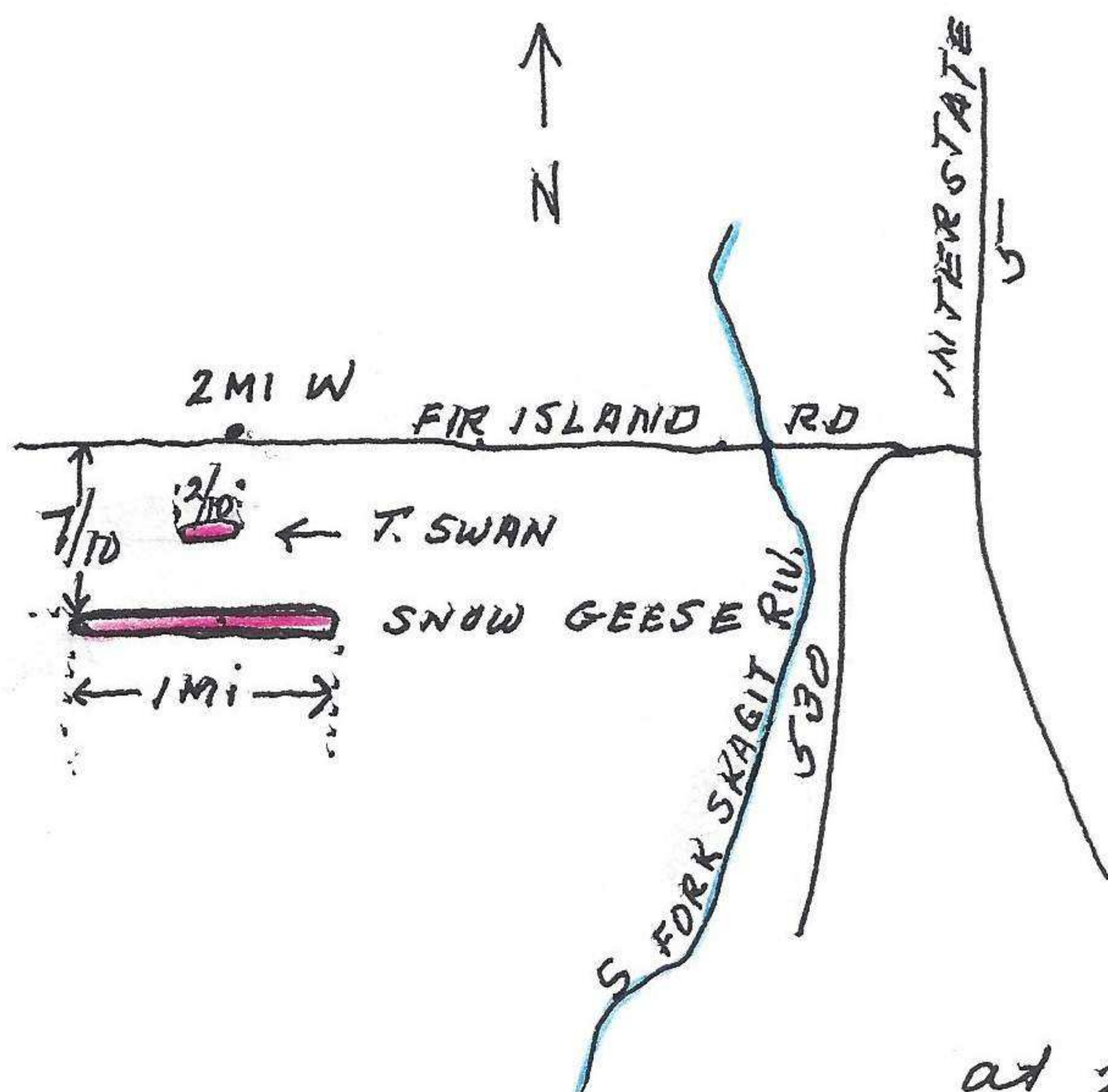
Bald eagle nest on N end of Humphrey Head can be seen from Skerrett residence. It is W of his house. Skerrett's home had 5 broken pipes, one broken window and a tree on his garage.

Two bald eagles circled above their home this A.M.

At Bee House can see 1 patch of ice approx. 50' N of Lieben Point. 2 patches on N end Frost Island. The most remaining ice from last storm (Feb. 1, 1989) in Spring Cove consisting of approx. 25 sq feet on shoreline slope,

To Anacortes. no census enroute. Between Anacortes and Conway 4 red-tailed hawks, all in Skagit Valley lowlands.

At 2 mi W of S. Fork Skagit River bridge and  $\frac{2}{10}$  mi S of Fir Island Road noted a raft of snow geese in cultivated field measuring 1 mi long and 100' wide. On the basis of 1 goose per 4 sq feet would calculate 107,000 geese. A group of trumpeter swans consisted of 1100 birds in an area of  $\frac{2}{10}$  mi. long and 200 feet wide, also in cultivated field.



Returned to Anacortes. Enroute

at marsh Point noted 2 bald eagles circling over the point at N end of peninsula. NE of marsh Point and out approx  $\frac{3}{10}$  mi were approx 900 brant in a raft a mile long.

at Boomer's Landing restaurant in NE Anacortes along Quemes Channel noted 3 american robins flying S across the channel. Birds at Boomer's Landing are:

- 8 red-breasted mergansers
- 1 hooded merganser
- 1 harbor seal
- 6 double crested cormorant
- 1 pelagic cormorant
- 4 glaucous-winged gulls flew by,
- 1 belted kingfisher.

at fresh water lake (Lundquist marine Laboratory) N of Anacortes ferry terminal observed:

2 mallards, 8 bufflehead ducks, 2 hooded mergansers, 8 American widgeon, 6 shoveller ducks and 1 great blue heron. From ferry terminal (Anacortes) noted 2 adult bald eagles circling high (100ft) at N end Guemes Island, then sailed straight S in low degree angle to SE corner of Guemes Island.

Left Anacortes ferry terminal 3:30 P.M. for Lopez Island.

Birds observed:

2 pigeon guillemots, 2 double-crested cormorants, pigeon guillemot, Pacific loon, 4 pigeon guillemot. Heavy swells in Rosario Straits.

W Thatcher Pass, 2 glaucous-winged gulls, double-crested cormorant, 3 glaucous-winged gulls, 1 glaucous-winged gull, 4 pigeon guillemots, 6 pigeon guillemots, glaucous-winged gull, 1 double-crested cormorant, pelagic cormorant. Arrived Lopez ferry terminal, 3 glaucous-winged gulls on piling plus 8 pelagic cormorant. <sup>4:38 P.M.</sup>

Humphrey Head Lagoon clear of ice, 9 bufflehead ducks, 9 American Crows at lagoon outlet. This is commonly used by birds when tide enters or leaves at low water.

Informant says 3,000 trees, mainly conifers in Moran State Park during Feb. 1 storm. 24 truck loads of prime trees removed averaging 20"-24" diameter

Bee Estate, Humphrey Head, Lopez Island, San Juan Co., Washington  
Feb. 24, 1989

9:40 AM

5 river otter swam N at approx 150' out from shoreline. First ones observed since last recorded in journal.

10:00 AM. First chipmunk active since they went underground in fall. Extremely active.

1:10 P.M. 18 harbor seal on Leo Reef and first increase this winter. Usually there are 0-5 on reef.

Humphrey Lagoon still open. 11 bufflehead.

Samuel Lake like yesterday, all in ice except 1/2 acre at north outlet. 4 bufflehead and 6 mallards.

The last of the spike ♂ mule deer at Bee House is shedding antlers. Today one side remains. All 3-4 point ♂ mule deer now without antlers.

3 bald eagles sighted today from Bee House.

Feb. 25, 1989

Uplands S of 1916 School House on Port Stanley Road have pools of shallow standing water. 3 pairs of mallards in some of these ponds.

Hummel Lake in ice except  $\frac{2}{10}$  mi on n end. 5 common mergansers (3♂ 2♀) in opening.

3 bald eagles observed today.

Feb. 26, 1989

13 harbor seal on Leo Reef.

Feb. 27, 1989

7:10 A.M. Raccoon on front porch feeder eating cracked corn and wheat. Feeding by moving forward then backward.

Feb. 28, 1989

Snow last night and all day to 2". Birds in area: 50 dark-eyed juncos (Oregon subsp.) 5 varied thrush, 3 rufous-sided towhee, 3 song sparrows. Overall an increase of approx 60% from previous days.

From newspaper of Feb 4, 1989: Douglas fir, some 150' tall, down or leaning in Moran State Park. Worse than Jan 1972 storm which required 18 months cleanup, 250 logging trucks, 2,000 trees. One young juniper 50' high. One resident on Oreas had  $2\frac{1}{2}$  acres of trees blown down. 75 trees down on a 14 mi. stretch along road between Deer Harbor and East Sound. 4 million pounds of sea urchins harvested in N San Juans. The number would fill 2,000 cars.

March 5, 1989

Ground (10:00 A.M.) NW Bee House frozen, but soil warming on NE side of House. Snow in Seattle stopped school buses in Seattle for 2 days. Sunny today and clear skies.

Photo 890305-1 of Bald Bluff on Blakely Island.

12:28 P.M. Approx. 4000 mew gulls in N Lopez Sound from Thatcher Pass to Leo Reef to N end Blakely Island. One group of 142 in front of Bee House and feeding S into wind as they flew and fluttered 1' to 2' above water. They continued S for approx  $\frac{2}{10}$  mi. then flew N again to repeat the feeding activity. They repeated this for 5 consecutive times. Another group of approx 1000 concentrated in middle of N Lopez Sound and fed while swimming S.

Largest groups 2 days ago but today numbers gradually decreasing.

During recent storm, varied thrush increased 8%. There are usually 1-5 varied thrushes around Bee House and some increase on Humphrey Head wherever there is good stands of trees. Today there approx 110 dark-eyed junco (Oreg. subspecies) which have increased to average of 20 birds at feeder and elsewhere. Madrona hard hit this winter and leaves a drylike. Salt spray on shoreline effected all vegetation including Douglas fir.

A large ♂ mule deer shivered while at feeder this A.M. The mule deer use the feeder less and sometimes not at all during severe cold windy days.

A single ♂ red-breasted merganser is the only duck in sound E of Bee House at least out to 1/2 mi.

Madrona branches placed at feeder one week ago have only 2% of leaves consumed. In other seasons the leaves would be gone in one day.

Swift Lagoon 1/2 frozen (SW corner). Hummel Lake, was open yesterday but 99% frozen today. Open only at exit of lake. Ducks do not keep holes open in winter as they do in Kansas. Temp in Bee Boat 30°F.

March 6, 1989

At twilight a river otter paused while swimming N past Bee House and appeared to be looking at new chandelier in basement room.

A single marbled murrelet swam 20' out from shoreline below Bee House. It left abruptly to N.

This morning at 10:10 4 river otter swam by Bee House to N. At 1:20 P.M. 2 otter swam S in front Bee House.

March 7, 1989

9:30 A.M. 3 river otter to N past Bee House

2:35 P.M. 1 river otter to N past Bee House.

3:00 P.M. Trip to Richardson at S end Lopez Island.

Wet meadows NE airport and Fisherman Bay rds flooded. In this meadow 12 mallards, 6 northern pintail, 4 boldpates, 18 green-winged teal, 6 shovellers. There were other ducks in high sedges but could not be counted. The wet marsh SW of same road junctions is larger but had 1/3 less ducks than the one on NE of road junction.

Redtailed hawk at Richardson and at least 5,000 starling in 5 groups.

2 Common raven in field  $\frac{1}{2}$  mi. S of Lopez High School.

2 groups of American Crows (60 <sup>approx.</sup> individuals each) in field at junction (SW of) Richardson and Fishermans Bay roads.

No ducks in Swifts Bay but one northern shrike in tree south side lagoon.

Hummel Lake: 18 common mergansers, 4 bufflehead ducks, at 100' N of Baker View Road on Port Stanley Road took photo 890307-1 of drift snow. Also photo 890307-1 in same area.

Last month flocks of 32 (10-54) American Crows fed at Bee House feeder at least 3 times a day commuting from Swift Bay area. They arrive at about sunset on first trip in the following sequence of numbers 2-8-2-1-15-3-2. Othertimes the entire flock will arrived at same time.

March 8, 1989

7:10 A.M. one group <sup>American</sup> 17 Crows arrived Bee House

8:20 A.M. 3 bald eagles sighted this morning. One ad. bald eagle flew S to Lichen Point dropped a branch which it was carrying and returned N.

From 2:00 P.M. to sunset made trip inland on Lopez Island. Humphrey Lagoon 3 bufflehead ducks, 1 greater yellowlegs. Swifts Lagoon 1 northern shrike.

marsh NE + E of 1916 School House. Approx 35 ducks. Swifts Bay Low Beach out <sup>to</sup>  $\frac{1}{10}$  mi 17♀ 9♂ common merganser. Hummel Lake. 12♂, 5♀ common mergansers.

March 9, 1989

2 bald eagle sightings from Bee House this A.M.

1:35 P.M. adult bald eagle on top Frost Island opposite Spencer Spit and one adult bald eagle on top Flower Island, each for at least 1 hour.

1:45 P.M. 8 harbor seal on Leo Reef, this year

1:55 first band-tailed pigeon on feeder, at Bee House

March 10, 1989

Observations of effect of Feb 1 storm on vegetation of the area of Lopez Island. Spencer Spit. The Douglas fir <sup>immediately</sup> above shoreline S of Spencer spit are (up to 150' from shoreline) 50% brown from salt spray. madrona (90%) on lower slopes of W side of

Blakely Island have brown leaves (dead leaves). On Lopez Island in general 80% madrona are either partly or entirely with dead leaves.

Trip to Victoria, Canada at 9:00 A.M. <sup>(early)</sup> Day clear now changing to cloudy. Left Lopez Island ferry terminal 9:30 P.M. Will keep complete census. 3 glaucous-winged gulls, 1 double-crested cormorant.

at Orcas Island, 13 pelagic and 7 double-crested cormorants on piling, 6 glaucous-winged gulls. Sky now 85% clear. Slight breeze. Left Orcas Island 10:01. 10:06 double-crested cormorant. Will pick up census at Upright Channel.

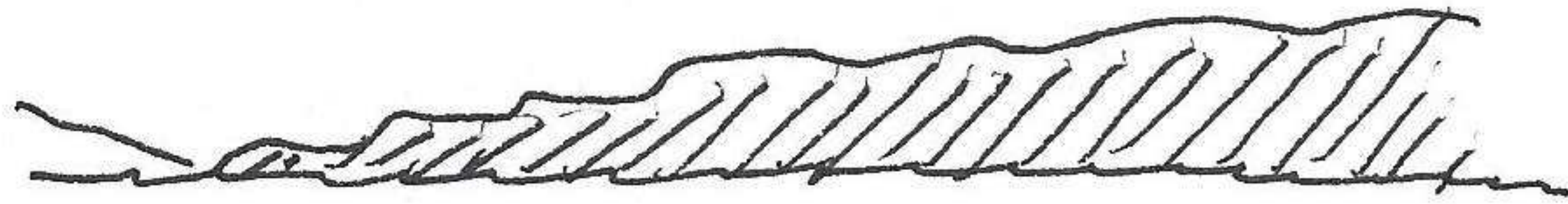
10:17 S end Conac Island. Ripples but no waves. Birds uncommon so far. Now in San Juan Channel. 10:25 red-breasted merganser. Friday Harbor Bay. 9 red-necked grebe, 2 glaucous winged gulls, 1 surf scoter, 4 mew gulls.

Arrive Friday Harbor 10:38. Nine glaucous-winged gulls at ferry (5 adults, 4 immatures).

Left 9:49. Line of kelp, styrofoam, logs & debris from Univ. Wa. tide gauge to N end Brown Island. (C Curve).

10:54 Tide gauge, Univ. Wa. marine station. 1 surf scoter

11:02 3 Pacific loon, 11 mew gulls. Island profile to N



11:17 3 marbled murrelets, 11:18 E end Spieden Island.

11:23 3 glaucous-winged gulls.

11:27 Island NW San Juan Island.

11:33 2 glaucous-winged gulls.

11:40 E end Mandarte Island in Canada. Entire Island with glaucous-winged gulls, generally distributed on territories. Estimate 6,200 birds (glaucous-winged gulls). Only one glaucous-winged gull flying in channel to N. 5 pelagic cormorants, 1 pelagic cormorant. 11:47 beginning of

narrow part of spit on Sidney Island. and continued on to 11:51 at N end of the spit. Along the NE side of spit were: 6 groups of oldsquaw ducks (each group 8 individuals.), 180 pigeon guillemot, 4 white-winged scoters, 8 glaucous-winged gulls, and 2 common loons.

From N end of Sidney Island Spit at 11:51 to 11:56 observed: 2 pigeon guillemots, 8 pigeon guillemots, 1 surf scoter, 1 pigeon guillemot, 14 pigeon guillemots. 11:56 end of most birds.

11:59 approaching Sidney ferry terminal. In this area are:

2 pigeon guillemot, 3 pigeon guillemot, 8 pigeon guillemot, 1 pigeon guillemot, 3 surf Scoters, 2 western grebes, 4 pigeon guillemot, 8 pigeon guillemot, 12 pigeon guillemot, 2 pigeon guillemot, 9 pigeon guillemot, 3 double-crested cormorant, 3 glaucous-winged gulls.

Arrived Sidney ferry terminal 12:03 P.M. 12:49 continued S to Victoria arriving at Huntington Hotel. 3 hrs 19 mins from Lopez Island.

Victoria, Vancouver Island, Canada

March 11, 1989

visited Provincial national museum. measured a grizzly paw at 15" long. Returned to Sidney ferry terminal for return to Lopez Island.

Birds in bay at ferry terminal: 10, 5♀ red-breasted mergansers, 2 goldeneye ducks, 4 horned grebe, 1 glaucous-winged gull, 8 pelagic cormorant (on pilings), 1 common loon. Tide currents carried turbulence of ferry prop 200' N. Left Sidney.

Between Sidney + N end of Sidney Island Spit observed: 4 pigeon guillemot, 6 oldsquaw ducks, 2 cormorants sp.?, 1 glaucous-winged gull, 1 common murre.

On NE side of Sidney Island Spit. approx 250 ducks, all in water. also 6 pigeon guillemots.

1:16 Light beacon E end Forrest Island. 6 pigeon guillemot, 4 pigeon guillemots, 1 pelagic cormorant.

1:39 22 harbor seal on rock SW of Sentinel Island off Speeden Island. Sentinel Island has more green grass than Speeden Island.

1:48 E end Speeden Island.

2:11 pelagic cormorant.

2:17 Univ. Wash marine station tide gauge.

2:20 Friday Harbor ferry terminal. Here: 1 red-necked grebe, 1 common loon, 2 American crow, 8 horned grebe, 14 glaucous-winged gull (on pilings)

2:32 left Friday Harbor

2:51 glaucous-winged gull, 2:53 glaucous-winged gull,

2:56 NE Shaw Island, glaucous-winged gull. 2:59 double-crested cormorant. 3:01 12 pelagic cormorant, 1 marbled murrelet, 2 glaucous-winged gulls, 2 marbled murrelets,

3:03 Orcas Island.

Crossing today, windy enough to cause Hyak ferry to list.

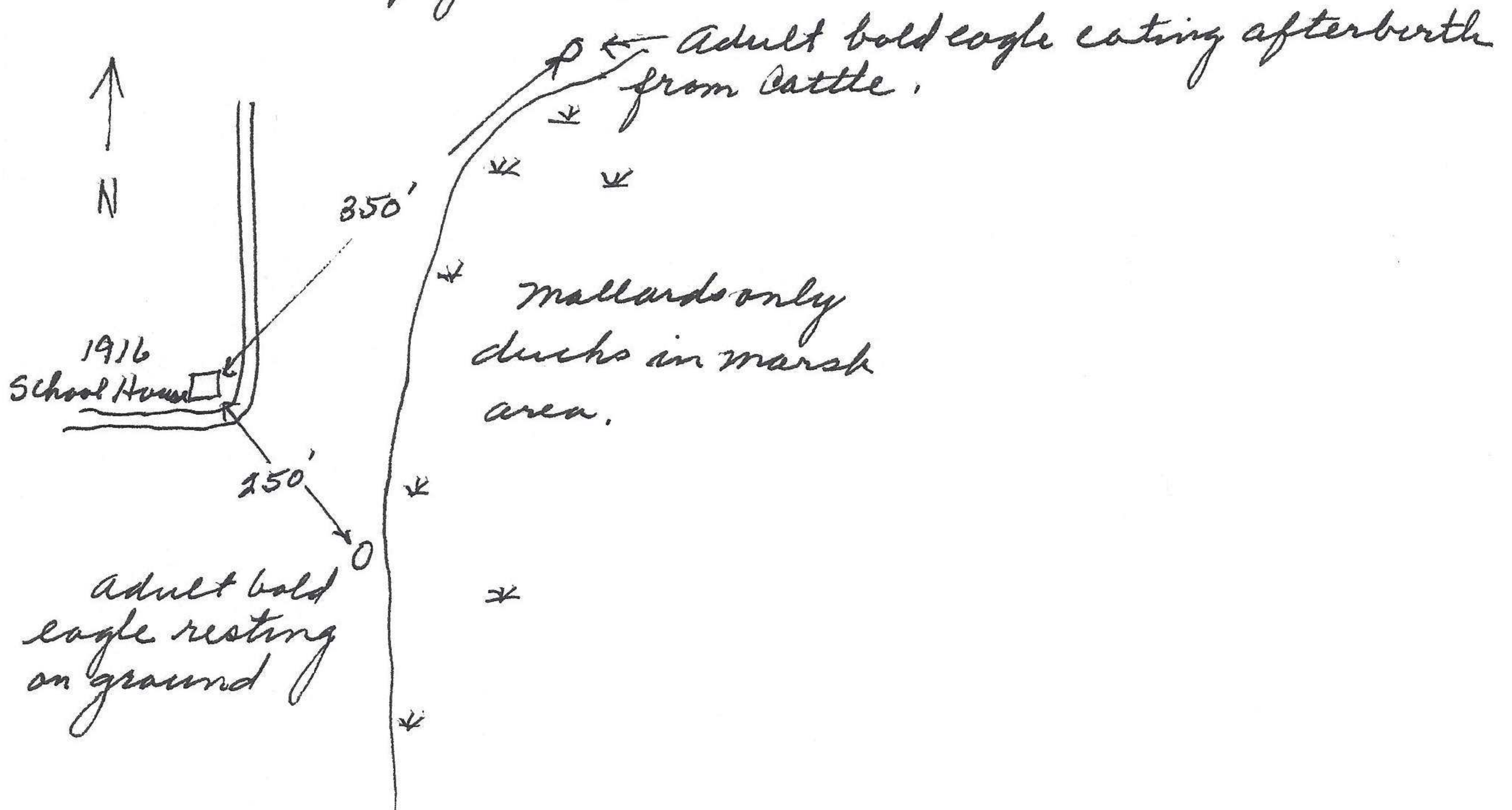
currents heavy.

On this return trip met a Dr. + Mrs. W G Macgregor  
1005 Westport Place, Victoria, British Columbia.  
V8V-1X5 604-658-8956. He was the Ungulate specialist  
for the Ministry of Environment Fish & Wildlife Branch.  
He knew Phil Krutzek while they were at Ben Neely, Calif.  
He and Mrs Macgregor were enroute to Lopez Island for a  
session of the summer hostel (sponsored by university) He  
reported a swallow on San Juan Island on Jan 6, 1989.

March 13, 1989

2:25 P.M. 31 harbor seal on Leo Reef. Only 2 glaucous-winged gulls on Flower Island.

3:25 at: (on Lopez Island)



No birds on Hummel Lake

March 14, 1989

At Swifts Lagoon 1 northern shrike on wire S side lagoon. Ponds, Lakes and wetlands and many fields flooded beyond normal capacities. Pond approx. 1 mi. N Lopez Village along Fisherman Bay Road was recently drained and dry, now water level higher than normal level.

March 15, 1989

6:22 A.M. 43 American crows in compact group circling



100' above water approx 100' SE Bee House. They gained 200' level, divide into 3 groups but remained as 1 single circling group. At 300' altitude then in one group again, leveled off and flew directly SW over Humphrey Head. In most instances (98%) they fly S around Lichen Point and thence to inner beaches of Swift Bay.

The bald eagle sightings this A.M.

2:10 P.M. 4 river otter swam N past Bee House out 20'. One delayed but caught up by swimming continuously on surface. No harbor seal on Leo Reef at least in P.M.

March 16, 1989

This A.M. 2 bald eagles sailed high above Lichen Point. One adult bald eagle on highest ridge of Flower Island. It remained for at least 1 1/2 hours. No glaucous-winged gulls on island. However, in high woods above N end of Flower Islands 150 glaucous-winged gulls circled without noticeable wing beats.

Frog in chorus in marsh area of Alex Bay.

March 23, 1989 (insert).

Left Lopez Island for Anacortes and thence Univ. WA. med. Center in Seattle.

Left 9:46 A.M. 9:51 double-crested cormorant, glaucous-winged gull. 9:52 marbled murrelet. 9:54 Leo Reef, 4 harbor seal, 2 glaucous-winged gulls. 9:58 S end Willow Island. 4 marbled murrelet. 10:00 glaucous-winged gull. 10:02 W end Thatcher Pass at red light beacon. 10:04 S Lawson Rock. 10:07 4 pelagic cormorants. 10:08 1 pelagic cormorant, 1 glaucous-winged gull. 10:12 pelagic cormorant. 10:14 pelagic cormorant. 10:19 pigeon guillemot. 10:24 Arrive Anacortes ferry terminal. Between Anacortes and Best Road off highway 20 noted 3 red-tailed hawks and on group of 124 glaucous-winged gulls in field.

march 17, 1989

To Chris' on Lost Lake in Snohomish Co. 80% sky clear, clouds mainly in E. Small waves. Lopez Island ferry terminal. 14 glaucous-winged gulls at terminal. Left at 9:06 P.M. 80 mew gulls in compact fishing formation, 1/10 mi. to S in Shoal Bay. One adult bald eagle on tree n end Humphrey Head. Old nest being replaced. 2:13 approx 15 mew gulls. 85 mew gulls between Bee House and Leo Reef. Only one glaucous-winged gull on Flower Island. 2:20 S end Willow Island. no birds on white wall roosting area. 2:22 W Thatcher Pass. 1 glaucous-winged gull. all madrona show brown leaves. but not every case complete. 2:26 S Painter Island. 340 glaucous-winged gulls in view and on Territories. 5 glaucous-winged gulls on Black Island. 2:29 now in swells, no white-caps. no birds so far since 2:29. (now 2:31). 2:34. S of light beacon SW Cypress. 2:36 5 mew gulls. 2:46 Anacortes ferry terminal. On highway at Oak Harbor turnoff. 2 American roughleg hawks. Field in lowland Skagit Valley still holding rain runoff, daffodil fields green. 3:32 one American roughleg. N. Fork Skagit River at 3:36. no ducks on ponds of flooded fields. S. Fork Skagit River at Conway. 3:44 now on Interstate 5 at Conway. 728.4 redtail, <sup>River</sup> Stellanquamish, 729.9 now on overpass (Int 5) and headed E to Darrington. at 730.8. (highway 530). 731.9 American roughleg hawks redtail 3 mi. W Monroe 762.7 Monroe at 4:41 P.M. Continued to Chris' on Lost Lake.

march 20

Left Chris' 10:50 A.M. at 12,843.5 mileage. Will keep complete census. 44.7, <sup>American</sup> robin, American robin, American robin. and 2 dark-eyed juncos (Oreg. subsp), American robin. 47.0 Ellet Rd, in pond, 18 Canada geese, 10 mallards, 35 northern pintails, 3 shovellers and approx. 40 American widgeon and 10 teal (sp.?), Redwinged blackbirds, ♂ in trees at pond. 48.4 3 mallards on Connelly Rd, mole digging in most fields. 48.6 2 Steller jays 56.6 Springgully Rd, 3 American robins. 53.1 American robin. 52.8 now Highway 9. 73.8 common raven 78.3 now on Int. 5, 78.9 Stellanquamish River. On a 5 mi. road test our odometer was .13 more than road. 87.4 Skagit Co. line. 97.7 College Way in Mt. Vernon just off Interstate 5. at 12:05 P.M.

To Unw. wa. med. center, thence to Chris' on Lost Lake. (earlier today)

March 23, 1989 (preceded from insert previous page)  
at Chris' home on Lost Lake, not one group of 6 reefous-  
chickadees.

March 24, 1989

From Chris' at Lost Lake to Unw. W. med. center to Lopez Island via Widdby Island by mukilleto. across sound:  
6♀, 1♂ common goldeneye in one group, 1 red-breasted grebe,  
2 double-crested cormorants, 4 glaucous-winged gulls. Con-  
tinued to Anacortes (no census).

Left Anacortes ferry terminal 5:25 P.M. Overcast, water smooth,  
2 horned grebe, 5:29 glaucous-winged gull. 5:32 2 pelagic  
cormorant, 5:35 glaucous-wing gull flew N. 5:38 glaucous-  
winged gull flew N. 5:39 23 pigeon guillemot one flock.  
5:40 2 glaucous-winged gulls flew S. 5:41 2 double-crested  
cormorant flew S., 4 pigeon guillemot flew S. 5:42 7 pigeon  
guillemots flew S. 5:43 Funtleroy Pt. 3 glaucous-winged  
gulls on water. 5:46 W Thatcher Pass. 5:49 glaucous-  
wing gull flew S. 5:50 5 pelagic cormorants, 3 glaucous-  
winged gulls in feeding group. 5:54 6 mew gulls on log in  
water, 1 pigeon guillemot on water, 2 glaucous-winged gulls  
on water, 1 glaucous-winged gulls flew S. 5:57 4 pigeon-  
guillemots on water, 23 mew gulls on water, 1 pigeon guillemot  
on water. 5:59 1 double-crested cormorant on water, 1 pelagic  
cormorant flew S. 3 pelagic cormorants flew S. Arrive Lopez  
Island.

March 27, 1989

To Anacortes and return to Lopez Island. Left 9:54 A.M.  
9:59 Leo Reef. 9 north side, none on S side, 2 frolicing on  
E side. Ad bald eagle of beacon (Leo Reef) but did not disturb  
the 9 harbor seal, some only 15-20 away. 28 glaucous-wing-  
ed gulls on Flower Island and generally distributed. As I recall,  
this number is about 1/20 the number of glaucous-winged 2  
years ago. This island is being harassed by people anchoring  
at Spencer Spit and exploring the island in dingys. 10:08  
W end Thatcher Pass at red light beacon. 10:09 2 pigeon  
guillemots left water. 12 glaucous-winged gulls followed  
ferry as passenger offered them food. Up to now they have  
increased to 16. Pomter Island covered with glaucous-wing-

ed gulls. 10:24 pigeon guillemot. 10:26 pigeon guillemot.  
 10:30 Anacortes. 13 glaucous-winged gulls on peling.  
 Returned to Lopez Island. On N end Humphrey Head no  
 bald eagle nest in tree but 2 adult bald eagles 20' away  
 in same tree.

Humphrey Lagoon, 9 bufflehead ducks.

5:38 P.M. 2 adult bald eagles in upper Boundary Point  
 Tree. They left when I approached within 110'.

March 29, 1989

2:10 P.M. 6 bufflehead in Humphrey Lagoon. Photo 890329-1  
 of Shoal Bay from above Humphrey <sup>Head</sup> marina.

March 31, 1989

To Port Angeles for Mrs C Bee birthday, 80 years old.  
 Left Lopez Island for Anacortes at 9:48 A.M. Started to  
 rain but cleared to W. Wind from SW. Continued Widley  
 Islands to Keystone ferry terminal. Following observed  
 there: 2 horned grebes, 2 common goldeneye ducks,  
 1 surf scoter, 2 glaucous-winged gulls, 1 pelagic cormorant,  
 1 red-breasted merganser. Arrive Port Angeles. Birds in  
 area (2.10 mi. E ferry terminal at home of Mrs C. Bee, 417 E  
 Front Street, Port Angeles, Wa) and Port Angeles Harbor, 5 sides:

American crow, common raven, black scoter, surf scoter,  
 white-winged scoter, bufflehead duck, pigeon guillemot, red-  
 breasted merganser, red-necked grebe, glaucous-winged gull,  
 greater scaup, song sparrow, fox sparrow, dark-eyed junco (Oreg.  
 subsp.) American robin, varied thrush, starling, rufous-sided  
 towhee, mt. bluebird, common loon, double-crested cormorant,  
 common goldeneye, Thayer gull, Steller jay, Barrow goldeneye,  
 golden-crowned sparrow, white-crowned sparrow, mourning dove.

Port Angeles, Clallam Co., Washington.

April 1, 1989

Birds observed on Ediz Hook, NW Port Angeles:  
 Brant, glaucous-winged gull, sanderling, greater scaup, black-  
 bellied plover, bufflehead, Barrow's goldeneye, common golden-  
 eye, American crow, double-crested cormorant, pelagic  
 pelagic cormorant, surfbird, horned grebe, black-oystercatcher,  
 durlin. Returned to Lopez. Mary + don as part of Lopez  
 Island as were Chris, Steve + Mathew from Lost Lake.

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

April 2, 1989

Violet-green swallow at Bee House, checked areas where last year bird houses were placed. new boxes had not been put in place since Feb 1 storm ripped them from the house.

6 surf scoters and 3 horned grebes fed in close association and they kept this organization for at least 1/2 hour in front of Bee House.

In Swift Bay surf scoters and white-winged scoters fed as one group.

April 3, 1989

To Chris at Lost Lake.

April 4, 1989

To Univ. Wa. med. Center and thence return to Lopez Island.  
 marsh hawk (northern harrier)

April 5, 1989


10:06 River otter swam S past Bee House. Also a harbor seal.  
 1 harbor seal on Leo Reef.

3:20 P.M. rufous hummingbird at feeder and first one this year.

April 6, 1989

10:20 A.M. River otter swam S past Bee House. Out approx. 20'. The range is from along shoreline out to 60', average 10'.

1:08 P.M. 3 river otter swam S past Bee House.

2 pigeon guillemot flew by in undulating pattern -  They would fly up then descend to water level, sometimes in a reverse manner.

An adult bald eagle left Lichen Point and sail a low angle descent to a glaucous-winged gull 1/2 way between Lichen Point and Leo Reef, displaced it then chased it but unsuccessful.

Turkey vulture observed on a stump in the coniferous forest on Humphrey Head.

First barn swallow at Humphrey Lagoon and at Hummel Lake. Also 4 ♂ red-wing blackbirds in marsh N of Hummel Lake.

2 purple finch at Bee House.

6 ♀, 1 ♂ bufflehead Humphrey Lagoon. Also bufflehead observed at Hummel Lake and Fishermans Bay.

Installed 2 violet-green swallow nesting boxes on E side Bee House toward water. While I had one box in my hand at top of ladder preparing to place it into position, a violet-green swallow alighted upon it at hole entrance & remained for 5 seconds.

April 8, 1989

River otter swim past Bee House going S.

A bat (*Myotis*?) flew back and forth in front (E) of Bee House between 8:15 and 8:35 P.M.

April 9, 1989

6:53 A.M. sun up

Drove to Perry Peninsula Causeway and observed:  
12 bufflehead, 13 horned grebe, 6 common goldeneye, 5 red-breasted mergansers, 14 glaucous-winged gulls, 1 greater yellowlegs, 1 great blue heron, 6 mew gulls, 6 American crows, 4 common raven.

at Swift Bay: 28 mew gulls, 6 glaucous-winged gulls, 16 American crows.

Humphrey Lagoon: 11 bufflehead.

Bat starting flight in front of Bee House at 8:15 P.M.

April 10, 1989

2:10 P.M. 18 harbor seal on Leo Reef.

4:47 P.M. single western grebe in front of Bee House.

April 11, 1989

sunrise 6:49 A.M.

In 1/2 hour wait for ferry at Lopez ferry terminal, only 2 violet-green swallows flew by.

Ocean spray of last year had flowers preceded leaves, this year leaves preceded inflorescence.

Trip to mainland. Left Lopez Island 9:42 A.M. Double-crested cormorant, adult bald eagle 50' from nest on N end Humphrey Head. The nest is being reconstruction since it was displaced by Feb. 1, <sup>1989</sup> storm. 3 western grebes, 2 glaucous-winged gulls, 1 harbor seal, 3 pigeon guillemots. 3 harbor

seals on S side Leo Reef. These animals cannot be seen from Bee House. mew gull, S end Willow Island, W end Thatcher Pass at beacon. All madrons brownish red on N side Thatcher Pass. usual emigration of glaucous-winged gulls on Pointer Island. 2 mew gulls, pigeon guillemot, glaucous-winged gull, 2 double-crested cormorant. 5 of beacon light SW Cypress Island. 2 glaucous-winged gulls, 1 pigeon guillemot, 2 rhinoceros auklets, 1 glaucous-winged gull, group of 12 glaucous-winged and mew gulls. Groups of rhinoceros auklets 2-6-2-3-2-2. 4 double-crested cormorants, 4 pigeon guillemots, 6 marbled murrelets, mew gull, 2 mew gulls. Arrive Anacortes ferry terminal.

April 12, 1989

To Mt. Vernon Hospital for PET scan. On return thru Skagit Valley via Conway. At bay SW marsh Point E Anacortes noted ring-necked duck. Approx. 40 glaucous-winged and mew gulls (60%) generally distributed in bay (low tide) Bottom bay mud colors and no green or yellow of other seasons. Returned Lopez Island.

April 14, 1989

1:20 P.M. River otter swim N past Bee House out 10'.  
3:10 P.M. River otter " S " " " " "

April 15, 1989

To Richardson, S end Lopez Island. From 2:00 P.M. to 3:30 P.M. Red-tailed hawk 1/2 mi. E on Vista Rd. off Richardson Road.

Perry Peninsula Causeway. 1 common loon only bird.

1916 School House. 2 turkey vultures circling marsh area to SE. marsh areas have mallards + American widgeon at least. It is difficult to see ducks in these wetlands because of the high grasses & sedges.

2/10 mi. W on Cross Road, Humphrey Lagoon. 2 turkey vultures, 1 common goldeneye, and one bald eagle flew over lagoon and thence N over Hiteck's residence on Humphrey Head.

5:10 P.M. 82 mew gulls in flight formation between Bee House and Leo Reef. Hunting from about 2 feet above water. The movement was along axis of formation

April 16, 1989

6:15 A.M. One river otter swimming N at least 100 feet on surface. Moved continuously.

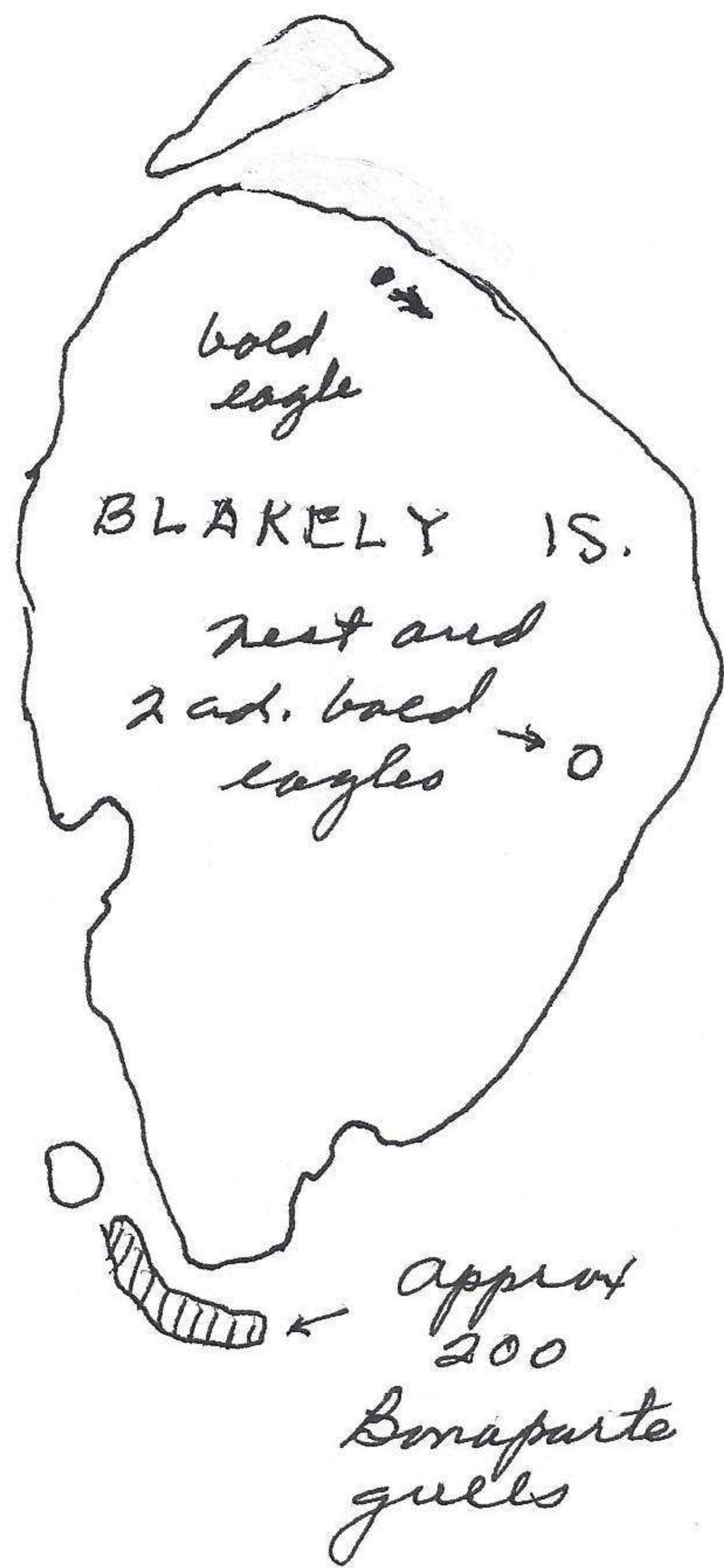
Otter hold head upright when consuming food in water whereas the harbor seal aligns head horizontally with surface of water when object of food is too large, otter come to shore and finish eating



with support of the rocks or shoreline.

4:32 P.M. single otter swam S out 15' from Bee House.

On a trip around Blakeley observed 2 bald eagles on nest on E side Blakeley and one fly along island on N end.



April 17, 1989

Band-tailed pigeon at Bee House feeder.

April 18, 1989

2 band-tailed pigeons at Bee House feeder. Douglas fir tree in early yellow budding

8:34 P.M. Bat first active this evening.

April 20, 1989

Bat first active 8:38 P.M. this evening.  
Collected specimen of Western red cedar, Thuja plicata from tree blown over Feb 1, 1989 100' S of SW corner of Bee Estate and



numbered 890202-1. 2 carpenter ants came to new exposed edge of cut and when a small twig was placed within  $\frac{1}{4}$  inch of the ant it jumped out and struck the twig and then retracted to the edge of the hole again. I repeated this 5 times and in each instance the ant attacked the twig. The three ants defending corridors were collected and are:

- 890420-1 carpenter ant
- 890420-2 carpenter ant
- 890420-3 carpenter ant

April 23, 1989

First day the ochre sea stars Pisaster ochraceus moved out of winter aggregation. Also observed one sunflower star, Pechnopodia helianthoides.

6:00 A.M. 18 scoters flew S in line. Fish, <sup>(big)</sup> began feeding in N Lopez Sound, half way between Blakely and Lopez islands.

6:22 Fewer big fish and increase in small fish.

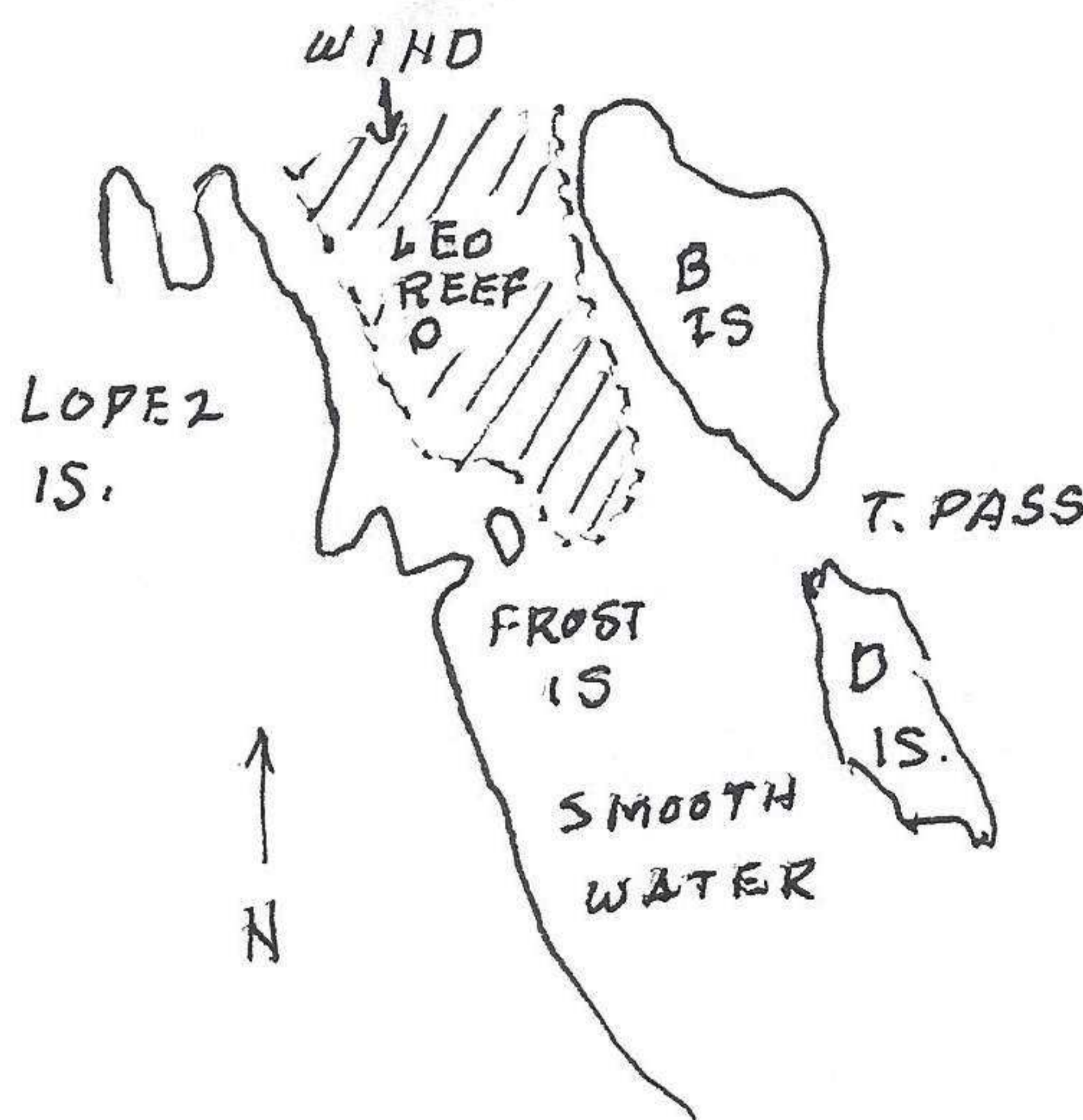
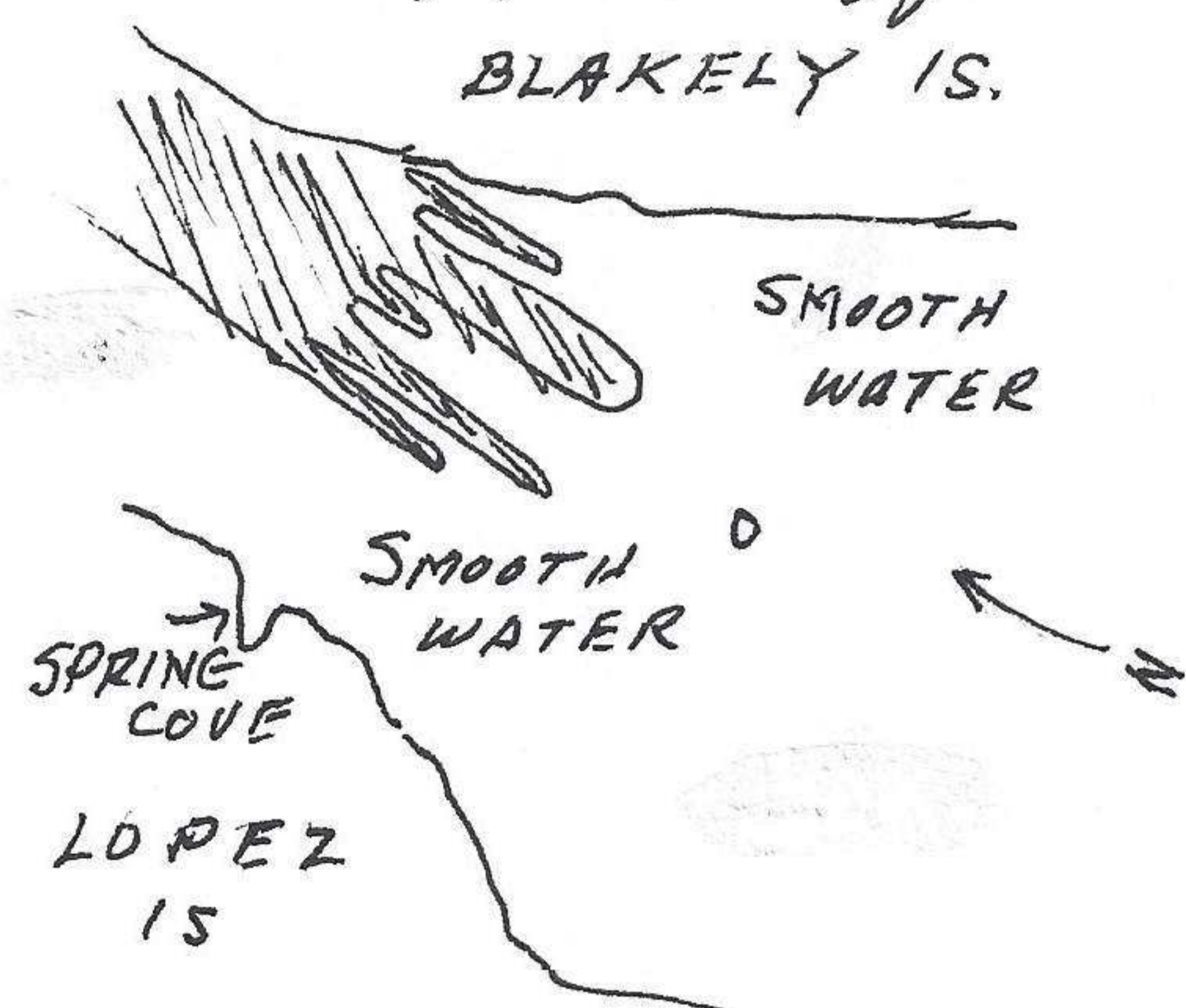
6:27 sun up on ridge at base of trees. 6:28 sun top of trees.

most big predatory fish stopped feeding. 6:35 first gull.

6:40 wind now to Leo Reef. Both large and small fish stopped feeding.

6:46 only one gull so far. 3 common on loon, 5 western grebes, 3 red-necked grebes, 8 ducks sp.? in area now.

6:50 Am.



6:58 first ferry (w Thatcher Pass)  
1:05 P.M. 2 ♂ rufous hummingbirds, one  $1\frac{1}{2}$  foot above the other and gyrating up & down with tail closed and at  $45^\circ$  angle from horizontal body.

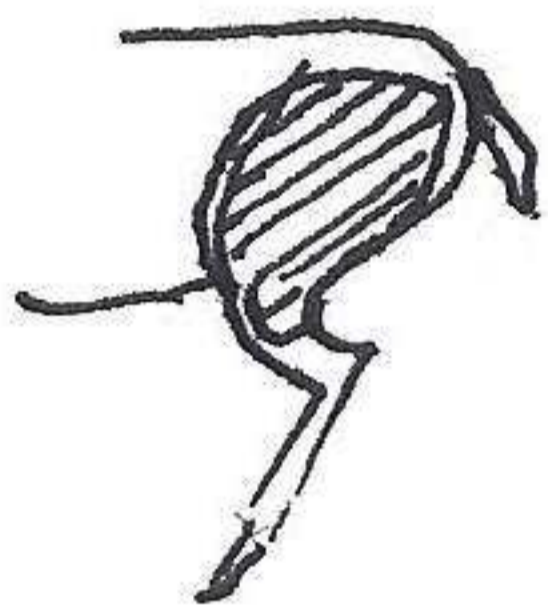
April 25, 1989

wind from N, day clear.

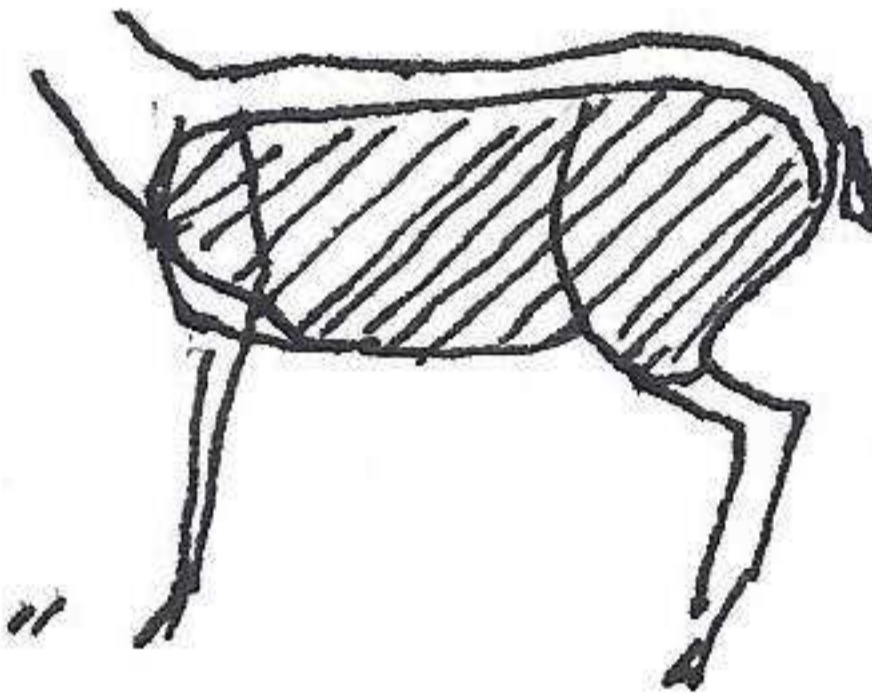
at 15 min. before sunrise one immature and 2 adult bald eagles were perching in tops of Douglas firs on Lichen Point. 10 min. later a 3 adult bald eagle arrived. at the same time,

14 glaucous-winged gulls were feeding and circling over the remains of an otter-size animal with hair. The bones were hanging by strips of skin. At one moment all 4 bald eagles joined in the activity, one of which picked up the carcass and flew low to Lichen Point <sup>and</sup> not able to gain altitude landed on rocks at water edge. One of the other eagles pirated the body and flew out over water where it dropped it and the carcass disappeared beneath the surface. At all times 2-3 gulls chased the eagles. The eagles remained in the area for 15 minutes then left to N past Bee House. The eagles called almost continuously.

10:35 A.M. ♀ mule deer 29" high at shoulders showed foetal activity. In last 3 weeks there has been a pelage change. The ♀ above



Another ♀ mule deer (29" at shoulders):



A deer can raise its height 1 1/2 - 2" if at attention, with head and neck high and forearms stretched upward as is the case when they peer into the window of the kitchen at the Bee House. Another ♀ at 30" with foetal activity in abdomen area.

April 26, 1989

Photo 890426-1 snow drifts along side of Port Stanley Road at 100' N of Baker View Turnoff. Winds from SW.

Photo 890426-2 ibid.

April 27, 1989

To Mt. Vernon. Passing Leo Reef noted 4 harbor seal on S side of reef and 35 on N side of reef. One adult bald eagle on Leo Reef beacon.

Glaucous-winged gulls on Pointer Island. Arrived Anacortes (no complete census this trip). Camped at <sup>Mt. Vernon</sup> Thousand Trails Preserve

April 28, 1989

Left Thousands Trails Preserve and drove to Baker Lake, thence to trailhead on Baker Lake Road arriving at 65521, 1 at 1:30 P.M. On return trip to Baker Camp observed (at trailhead) bald eagle, osprey, beaver, robin, Stellers jay & mourning clock butterfly. Continuing S at mileage 21.5. beaver. 22.9 crossing



a cascading creek, 26.4 bridge over river, 26.6 Baker Camp where we camped at mouth of creek at E end of the camp.

at 2:05 P.M. osprey hovering above creek outlet at camp. Birds in area: 3 pairs common loven, myrtle warbler, violet-green swallow, rough-winged swallow, common merganser ♂ ♀, 2 mallards ♂ ♀, savanna sparrow, white butterfly.

2:45 P.M. osprey dove into running water, completely submerged but caught a small trout. (swift Creek)

2:58 P.M. osprey hovered above mouth creek, at camp but did not dive.

♂ & ♀ mallard fed on debris or animals just below water level of emergent limbs in water.

Examined one stump of early logging in which the 4' diameter stump was almost completely consumed or modified by pileated woodpeckers, from  original to  modified form. Ground chips 2' high.

Largest deer track (mule deer) 84 mm.

Plants in blossom, Trillium, salmon berry, elderberry and others.

7:05 P.M. Photo 890428-1 of mouth of Swift Creek, Baker Lake and high mts in distance. Taken from Baker Camp. to NE. This is Whatcom Co. An avalanche occurred today on the snow covered mt. The mt. could be mt. Blum.

Photo 890428-2 ibid, fading lights and n/c.

The violet green swallows worked the area of the outlet of Baker Camp all day and evening and search about 150' above the water.

Baker Camp, Baker Lake, Whatcom Co., Wa.  
April 29, 1989

Left camp at mileage 65528.0. From Panorama Point one photo 890429-1 to W of mt. Baker area. Continued S to Concrete at 556.1 thence E 20 to 530, thence S towards Darrington. At Bennett Villa two photos to SW but light not adequate. At northern City limits of Darrington on 530 highway 6 photos of white Horse area to S.

890429-2 white Horse Resto, SW Darrington, Snohomish Co., Wa.

890429-3 " " " " "

890429-4 " " " " "

890429-5 " " " " "

890429-6 " " " " "

890429-7 " " " " "

From W of Clarrington on highway took 11 photos of white Horse peaks 2 of which have yellow dandelion foregrounds with alpine backgrounds.

890429-8 white Horse peaks, Snohomish Co., Washington.

890429-9 " " "

890429-10 " " "

890429-11 " " "

890429-12 " " "

890429-13 " " "

890429-14 " " "

890429-15 " " "

890429-16 " " "

890429-17 Stellaquamish River valley, Snohomish Co., Wa.

890429-18. " " " " "

Continued down Canyon on 530, thence to Best Road in Skagit Valley W of Mt. Vernon. 2 photos of tulips.

890429-19 Tulips in Skagit Valley, Skagit Co., Wa


890429-20 yellow mustard flowers " " " mt Baker in distance.

Continued W to Anacortes ferry terminal and boarded ferry for Lopez Island. Selected observations.

From W. Thatcher Pass to Willow Island out 50-150 feet from shore were approx 375 Bonaparte gulls and generally distributed. Arrived Lopez Island.

April 30, 1989


5:50 A.M. First bald eagle of the day passed Bee House. It was approx. 50' high and 40' from Bee House.

2 ♂ mule deer of feeder, 32" and 30" high at shoulders, and both with antlers 1" high as knobs. 

Collected large black Carpenter ant outside Bee House, no. 890430-1

3:15 P.M. River otter swam 5 past Bee House, Out 12' from shoreline.

May 3, 1989

♂ mule deer 30 1/2" high at shoulders and antler knobs 3/4" high above hair 

Fresh water stopped running in Spring Cane but drainage damp.

May 4, 1989

Made trip from Bee House to S end Lopez Island. At Causeway of Perry Peninsula observed: single ruddy turnstone, 2 great blue heron, 1 common loon ♂, 6 glaucous-winged gulls, 2 American crows.

On return trip to Bee House. (Center Road) observed: 4 redtail hawks, 8 Brewers blackbirds, 18 redwing blackbirds, 21 brown-headed cowbirds, 6 American goldfinch, 6 barn swallows, 20 violet-green swallows, 6 great blue heron, 1 northern flicker, 2 mourning doves, 2 Turkey vultures, 25 American robins, 6 mallards, 4 common raven, 4 blue-winged teal, 3 gadwall, 18 American crows. Returned to Bee House on Humphrey Head.

At Bee House shoreline the aggregate of winter ochre or purple sea stars have moved out to at least 20' from original aggregate of 9-12. One sunflower sea star in area.

At Bee House antler 1" long on one of the mule deer. The pelage change from winter to summer is not at all like previous seasons and change of hair looks more like a diseased hair than a molt change.

at 7:30 P.M. 7 band-tailed pigeons at feeder at Bee House. Usually there are 2-8 at one time and 3-4 visits per day.

May 5, 1989

6:21 A.M. harbor seal active. no wind, overcast, perfect reflection up to time sun rises. Birds always more visible when water is calm than on a windy day. Birds observed 5 western grebes, 1 red-necked grebe, 1 harbor seal, bobs into water instead of forward diving, 4 glaucous-winged gulls.

Returned Bee Boat to Shoal Bay moorage. Dead cow in Upright Channel opposite Odlin Park.

Scott Cowan, son of Commissioner Cowan observed a bald eagle capture a duck in marsh E of his home on Fisherman Bay and airport rds.

May 6, 1989

8:00 A.M. Water quiet. 5 western grebes only birds in North Lopez Sound in Bee House - Leo Reef area.

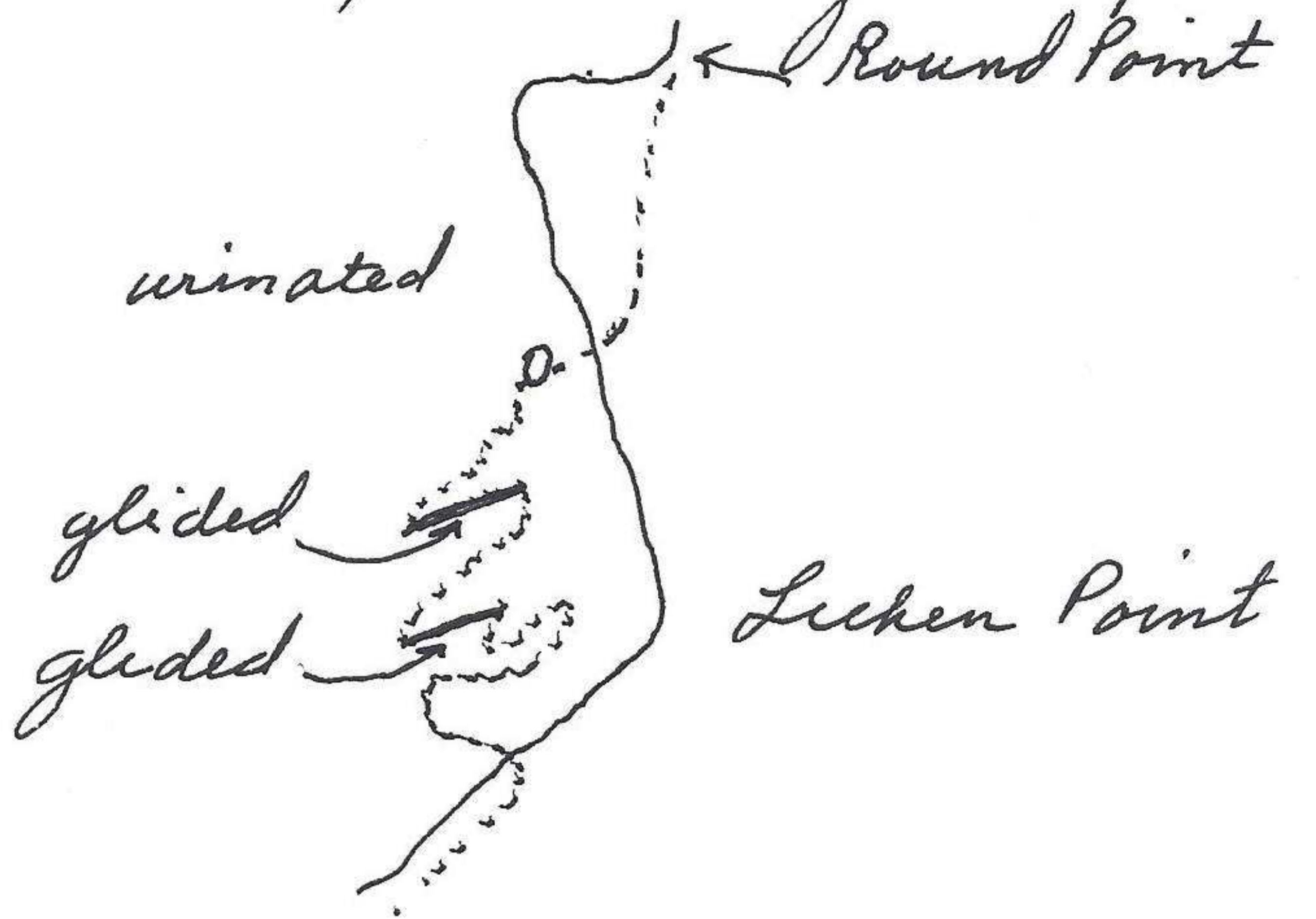
8:20 A.M. 4 river otter swam N past Bee House. Another followed 200' behind. It swam continuously without diving until.

it caught up with the other 4 river otter.

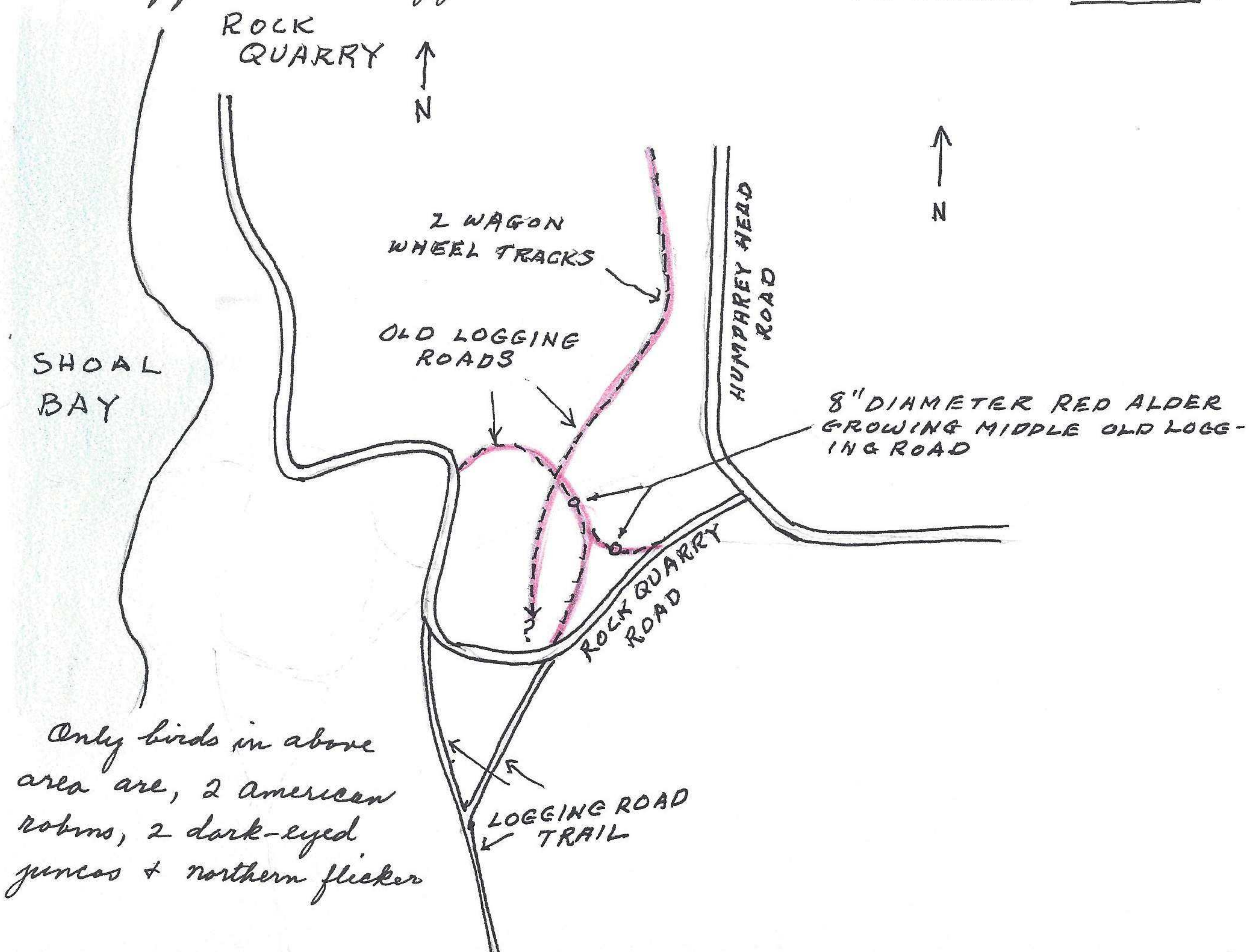
10 band-tailed pigeon at feeder at Bee House.

adult May 7, 1989

9:05 a single river otter, light colored in head and neck region, swam S past Bee House, swimming on top of water 80% of time, left water at Lichen Point. It wminated on rocks at base of shoreline, then climbed to grassy slope above, glided at two different times, inspected top then returned to water on S side of Lichen Point. It rolled over several times on this grassy slope.



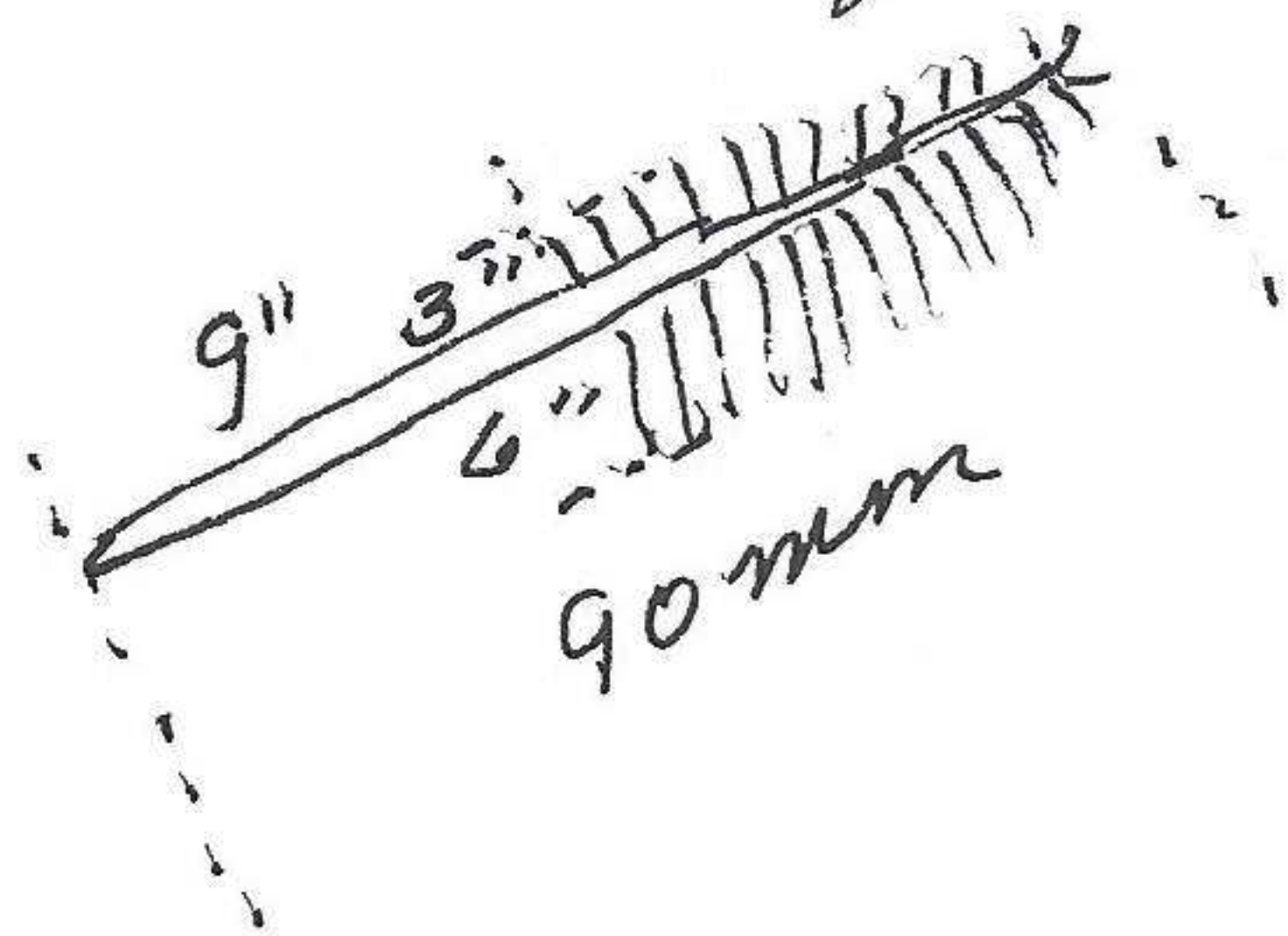
Trip from Shoal Bay marina, N to Rock Quarry, base then top and thence back to Bee House via Humphrey Head road. At marine (Shoal Bay, Lopez Island, San Juan Co., Wa) collected a giant acorn barnacle that had been taken off a dock support. No. 890507-1, Balanus nubilus.



Only birds in above area are, 2 American robins, 2 dark-eyed juncos + northern flicker

at Spring Pond, measured grand fir tree that had been blown over during Feb 1, 1989 storm. It is located at NW end of garden plot and fell to W. It is still growing. 120' high, 112" circumference or 9.3" feet. The new needles have grown 1". 5 other trees Douglas fir are down in the same area.

Examined a tail feather of a bald eagle as:



also noted a dead varied thrush mostly feathers. It had been placed under at edge of log on the ground.

Some plants in blossom: western service berry, Amelanchier alnifolia; ocean spray, Holodiscus discolor; thimbleberry, Rubus pariflora; Great Camas, Comassia leichtlinii var. suksdorfii Scotch Broom, Cytisus scoparius. new leaves of madrova 1/3 to 3/5 size of the old dry leaves on the tree.

May 9, 1989

To Lopez Village.

Swift Lagoon. 10 mallards, 5 gadwall.

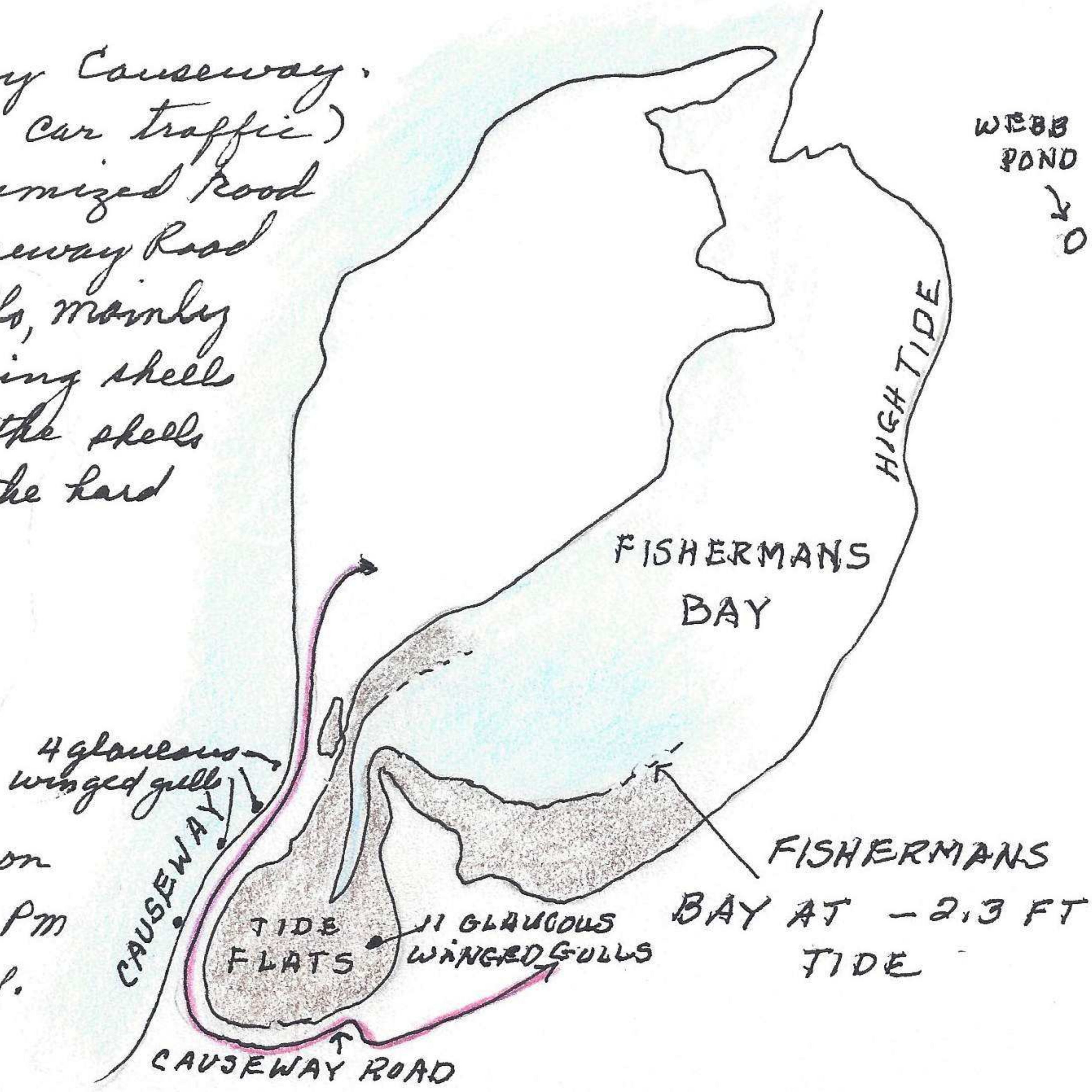
Swift Bay Low Beach: (water edge) 18 glaucous-winged gulls, 6 American Crow,

Fisherman's Bay Causeway.

Fragment shells (from car traffic) 1 foot out onto macadamized road the entire length of Causeway Road on causeway from gulls, mainly glaucous-winged breaking shells on road by dropping the shells from 15-30' high on to the hard surfaced road.

On Webb Pond NE Fisherman's Bay observed 2 bufflehead ducks.

Returned Bee House on Humphrey Head, at 4:30 PM no harbor seal on Leo Reef.



May 10, 1989

via ferry To Anacortes; Left 7:25 A.M. no bald eagle at nest on N end Humphrey Head.

adult bald eagle top dead tree N end Willow Island. Glaucous-winged gull on water below. W Thatcher Pass.

1/3 fewer glaucous-winged gulls on Pointer Island than usual. 2 marbled murrelets. Beach SW Cypress Island. Arrived Anacortes ferry terminal, thence Univ. War. Med. Center and return to La Conner Thousand Trails Preserve for overnight.

May 11, 1989

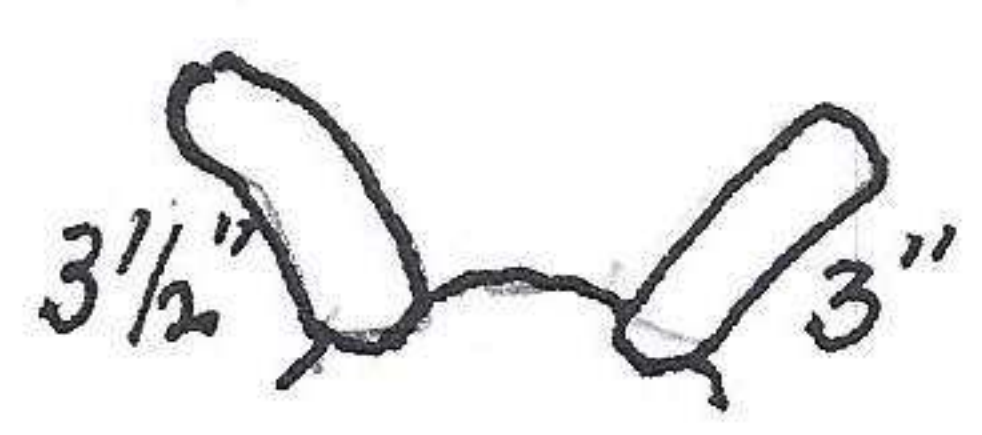
Arrived Anacortes ferry terminal. Prior to departure, (5:10 P.M.) noted 27 double-crested cormorants in loose formation to W and approx 100' above water. 24 glaucous-winged gulls in bay to SW. at 5:15 P.M. another flock 13 double-crested cormorants in flight pattern to W.

Left Anacortes ferry terminal 5:18 P.M. Sky overcast.

1 glaucous-winged gull, 3 glaucous-winged gulls. 5:21 P.M. pigeon guillemot. 5:22 P.M. pigeon guillemot, 5:24 P.M. pigeon guillemot, 5:26 P.M. pigeon guillemot, 5:25 P.M. glaucous-winged gull. 5:27 P.M. pigeon guillemot, 5:28 P.M. glaucous-winged gull, 5:29 P.M. 2 glaucous-winged gulls, 5:34 P.M. glaucous-winged gull (when so recorded means 1 bird), 5:27 P.M. pelagic cormorant, all above birds from 5:21 P.M. were flying S across front ferry. 5:39 P.M. 7 jauntleray Point 5:41 W Thatcher Pass, pigeon guillemot. 5:46 P.M. pigeon guillemot flying S. 5:55 P.M. pigeon guillemot flying S. 5:56 P.M. pigeon guillemot flying N. 5:57 adult bald eagle flying W across Upright Head. 5:59 P.M. arrive Lopez Island ferry terminal.

May 11, 1989

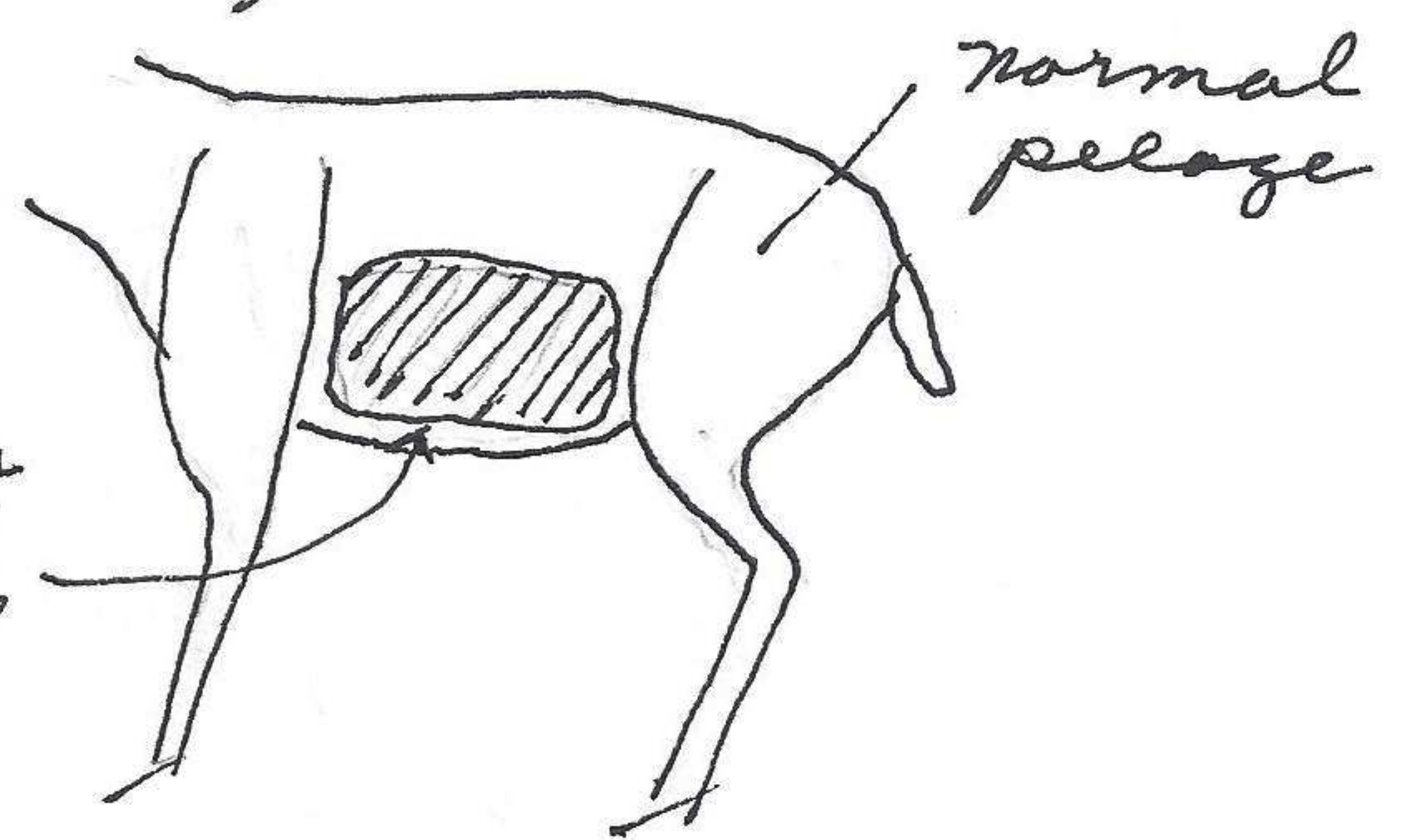
mule deer at Bee House feeder.



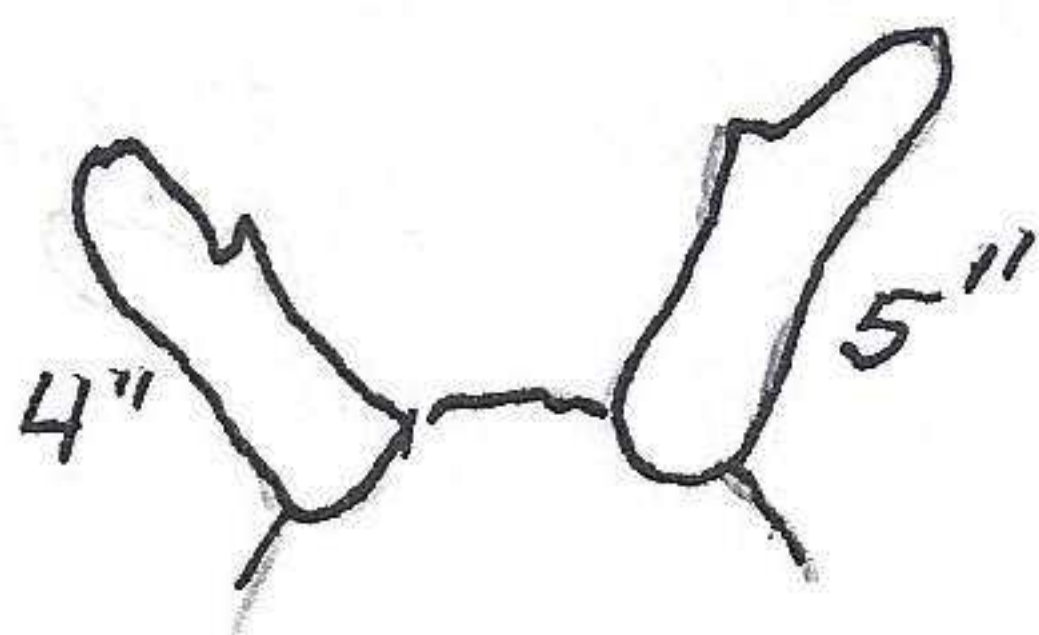
33" high at shoulders ♂ mule deer

pelage of this deer

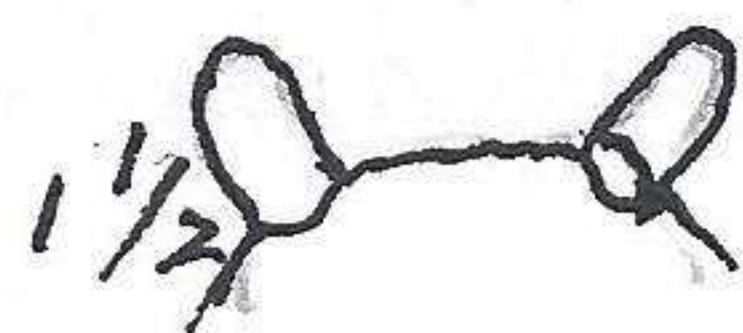
underfur whitish and appears as if plucked by deer.







dominant ♂ mule deer  
33" high at shoulders



mule deer ♂  
30" high at shoulders  
left ear knotted



♂ mule deer 3'  
inches high at shoulder,  
pelage normal and lighter  
than other deer in group.



♂ mule deer, 32"  
high at shoulders,

♀ 28" high at shoulders

♀ 27" high at shoulders

♀ 29" high at shoulders, scar on left, midway, inside cannon bone.

1:25 P.M. 48 harbor seal on Leo Reef (Rafts 1-7). none on outliers of Flower Island.

First gusty winds in last week or so.

6:45 P.M. 9 harbor seal on Leo Reef. Tide level increasing. 9 band-tailed pigeons at Bee feeder. 4 dark-eyed juncos (Oreg. subspecies) fed within 4" of the band-tailed pigeons.

6:40 P.M. river otter swam N past Bee House, out 25'. Feeding and swimming as it moved N.

6:45 P.M. 2 ♂ mule deer, one with 2 eye tines and the other with antlers 4" long (right longer) were both standing in water 6' out from beach of Spring Cove. Water to ankle level. Both deer raised one of their rear legs out of the water and forward and clean hair especially on outer side of leg from ankle to hoof. The angle gland was given special attention. Each hind leg was cleaned alternately but thoroughly. The buck with the 2 eye tines (just bumps) left in 5 minutes walked to upper end of beach, ate leaves of willow then ascended spring drainage. The other buck remained 12 minutes and continued to alternately clean each back leg, when lifted out of the water. It left by climbing rocky

shoreline of Spring Cove Point and continued up thru the forest. The ankle gland was persistently cleaned but did not show color change.

May 12, 1989

5:48 A.M. Bald eagle flew S past Bee House at approx 75' high. a harbor seal active 1/10 mi. E Bee House.

Sun up 5:55 A.M.

6:03 A.M. approx 20 fish 8" long surfacing 150' S<sup>E</sup> of Bee House and moved progressively SE.

6:06 A.M. band-tailed pigeons at feeder and first ones of the day.

6:07 A.M. violet-green swallows active.

6:11 A.M. Western grebe active half way to Leo Reef. 2 American crows arrived.

6:15 2 more western grebes. They travel on water in Sound almost continuously and cover great distances. 1 great blue heron.

when pigeon guillemots leave they produce a rushing noise that might be an adaption to confuse predators.

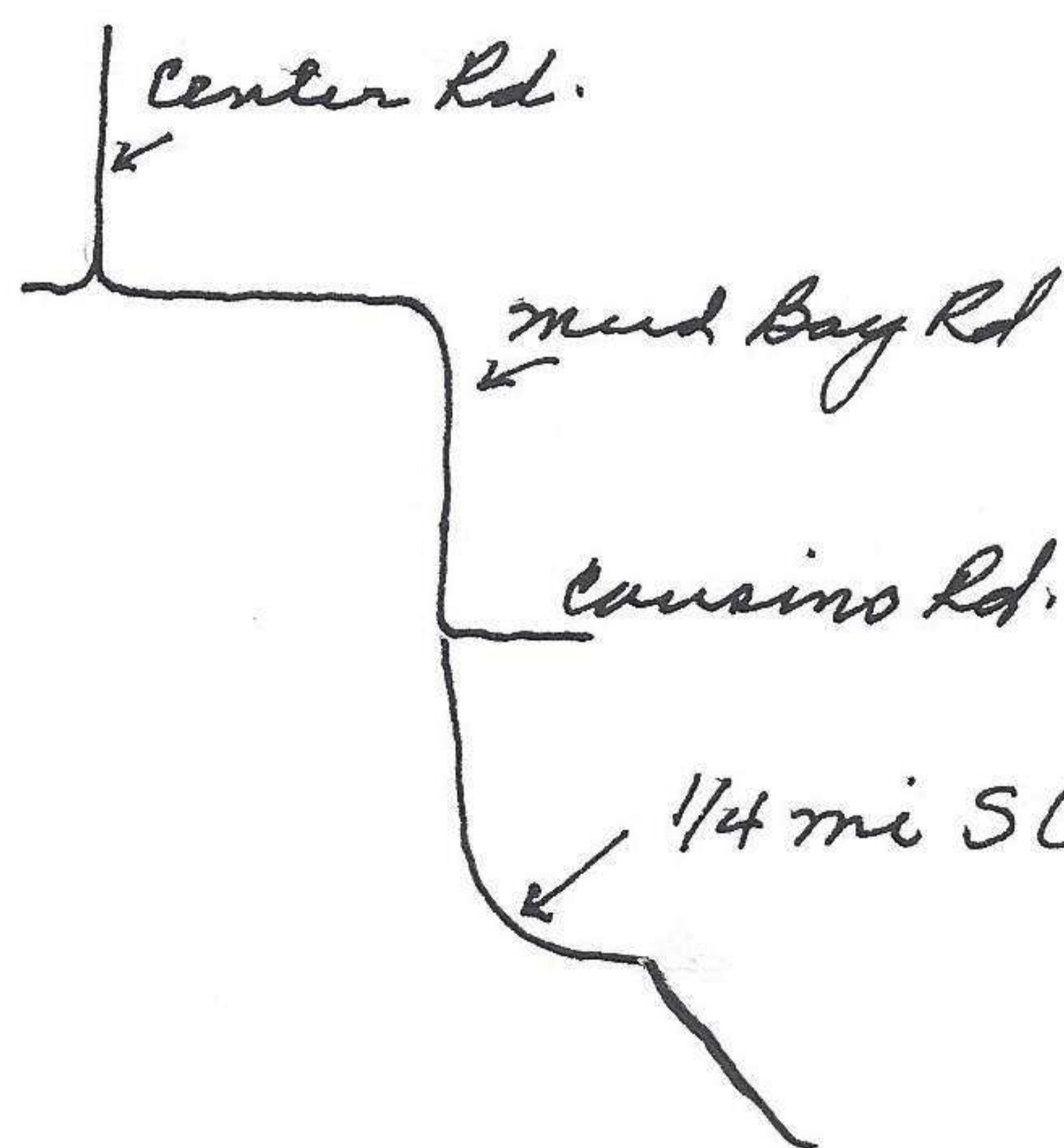
Rufous hummingbird concerned about band-tailed pigeons coming within 3-4 inches but not making contact.

6:20 A.M. Great blue heron left Spring Cove and flew E to Blakey Island.

6:38 no harbor seal on Leo Reef.

6:39 38 glaucous-winged gulls on Leo Reef.

9:00 A.M. at 1/4 mi. S Cousins Road on Mud Bay Road



noted a juvenile mink along E side of road. It acted like a weasel and walked back and forth along edge of road, with attention directed off road. It finally moved off road onto right-of-way and thence into vegetation beyond. I wondered

if a member of the family might have been killed at this point. I could not find such evidence by searching area. I estimated total length as 13". Top of head with abraded slip of hair as if injured at one time.

Continued to Mackaye Harbor. In Barlow Bay observed 4 double-crested cormorant, 6 ♀ 1 ♂ red-breasted mergansers, 2 common loons, 4 glaucous-winged gulls, 1 great blue heron. On return at 1916 School House 18 barn swallows.

One bald eagle circled over field S of the 1916 School House.

At Swift Bay: 18 mallards, 5 gadwalls,

12:06 P.M. 1 river otter swam S past Bee House. In one dive remained under water 45 seconds.

9:10 P.M. Bald eagle flew N past Bee House.

9:20 P.M. first bat <sup>Chris evening</sup> active in front Bee House at 45' high.

May 13, 1989

Sunrise 5:53. Both band-tailed pigeon and violet-green swallow began activity.

6:35 A.M. bald eagle flew N, an immature, Chris, Steve and Matthew to Bee House.

May 14, 1989

Sunrise 5:51 A.M. band-tailed pigeons and violet-green swallows active 5 minutes before sunrise.

3 western gulls moved S past Bee House.

Violet-green swallows bringing in rootlets.

Harbor seal 3 minutes under water.

2 bald eagles flying N, both immatures.

Chris, Steve, Matthew, Annette and I to Teasdale - Bay View Interpretation Center today. Enroute via ferry to Anacortes noted bald eagle in top dead tree N side w Thatcher Pass, approx 100' from water.

While at Cape Sante Hill NE Anacortes (view point) at 1:30 P.M. noted a bald eagle circling overhead. Also violet-green swallows flying above point.

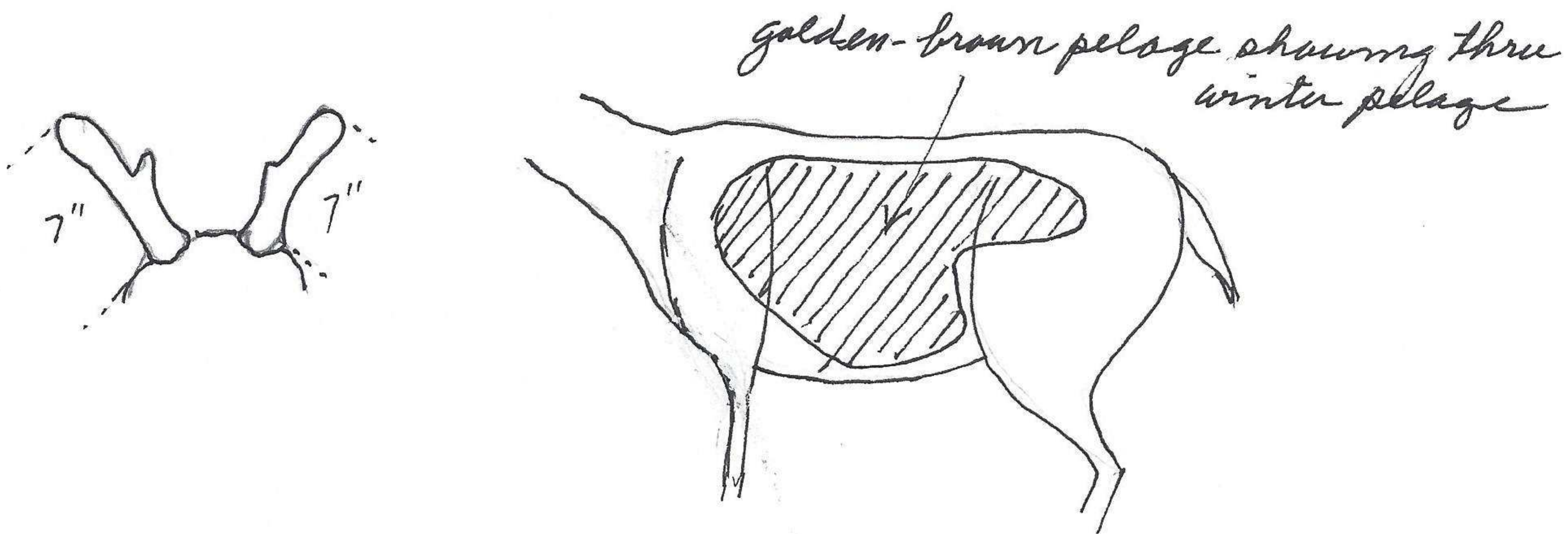
Steven Kenagy that yesterday at the high point of Whitney Road N of Lost Lake, Snohomish Co., Washington, he saw an adult black bear cross road from W to E at 1:30 P.M. The bear left timber on W side and entered timber on E side. He also reported observing 5 mt. goats on Jumbo Peak area S of Darrington, in Snohomish Co. Wa.

May 15, 1989

To Univ. Wash. med. Center, Seattle and return to Lopez Island.

May 17, 1989

at Bee House, ♂ mule deer 33" high at shoulders, now have antlers 7" high. (see ♂ deer of May 11, 1989 4" right, 5" left and 33" high at shoulders.) This ♂ is dominant in herd.



The inside upper Cannon bone darker than other ♂'s. This one is 3" x 3 1/2" x 33 of May 11 recording, now antlers 5" high.

May 19, 1989

21 harbor seal on Leo Reef at 2:10 P.M.

5 " " " Little Flower Rock

5 " " " North Flower Rock.

5:30 P.M. 13 harbor seal on Leo Reef. The rising tide moved these up to top of exposed rocks. At low tide they are near water and not at higher exposed portion of reef.

May 20, 1989

at 6:30 A.M. at Bee House, 9 American crows and 8 band-tailed pigeons at feeder. 1 Eastern gray squirrel dominated feeder when only 2 or 3 crows or band-tailed pigeons fed on feeder, but when 8-15 of above birds fed at one time the squirrel left the feeder and become confused. American Crows aggressive toward pigeons and pigeons respect crows.

Last night moon a single globe in reflective water which indicated a perfectly smooth surface. No apron of light associated with moon, some nights the moon will produce 3-5 blurred moving reflections but never like last night.

Left Lopez Island ferry terminal at 6:49 A.M. for Port Angeles as a walk-on passenger via Sidney, Victoria, Port Angeles. One glaucous-winged gull at Terminal.

- 6:55 A.M. Adult bald eagle in dead tree 40' from ground at point before Show ferry terminal.
- 6:56 3 glaucous-winged gulls.
- 7:00 10 glaucous-winged gulls on top dolphins, one nesting but no eggs. One also on outer piling E side.
- Left Show 7:05 A.M. Half way to Oreas an American crow alighted on ferry. Oreas Island. 10 glaucous-winged gulls on piling 3 of them subadults. Violet-green swallows in air. Left Oreas Island 7:21 A.M.
- 7:30 A.M. Turning into Upright Channel now S.
- 7:34 A.M. ad. bald eagle to W 40' up in tree along shoreline.
- 7:37 A.M. Flat Point to E. Water smooth. 1 double-crested cormorant and 1 marbled murrelet.
- 7:41 A.M. Turning to W. Some currents. marbled murrelet.
- 7:48 A.M. 5 harbor seal approx 50' apart except 2 which were together
- 7:50 A.M. Tide gauge at Univ. Wash marine Sta.
- 10:51 A.M. Left Friday Harbor for Sidney.
- 10:53 A.M. Tide gauge.
- 11:17 A.M. E end Spieden Island, glaucous-winged gull. Introduced animal on Spieden Island in shade on top island.
- 11:25 A.M. Beach SW Spieden Island, one harbor seal, 3 pelagic cormorant and 1 glaucous-winged gull.
- 11:42 A.M. Mandarte Island. Glaucous-winged gulls completely covering island and on territories.
- 11:51 W end Sidney Island Spit. 12 pigeon guillemots, 120 glaucous-winged gulls and 2 double-crested cormorants, and 1 great blue heron.
- 11:58 A.M. 2 pelagic cormorants.
- 12:03 Arrive Sidney ferry terminal.
- Bus to Victoria Left at 11:15 A.M.
- Left Victoria (Coho) at 3:06 P.M. for Port Angeles.
- 3:18 P.M. Leaving breakwater of Victoria Harbor.
- 4:50 P.M. Arrive Port Angeles. at Max's home.

May 21, 1989

Last night at Max's and left for Victoria, Canada this A.M. Arrived Victoria and stayed overnight at Huntington Hotel

May 23, 1989

Left Victoria to Sidney ferry terminal, leaving there at 1:09 P.M. for

Lopez. at Sidney ferry terminal glaucous-winged gull nest but no eggs on piling. Continued to Friday Harbor, thence Lopez Island.

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

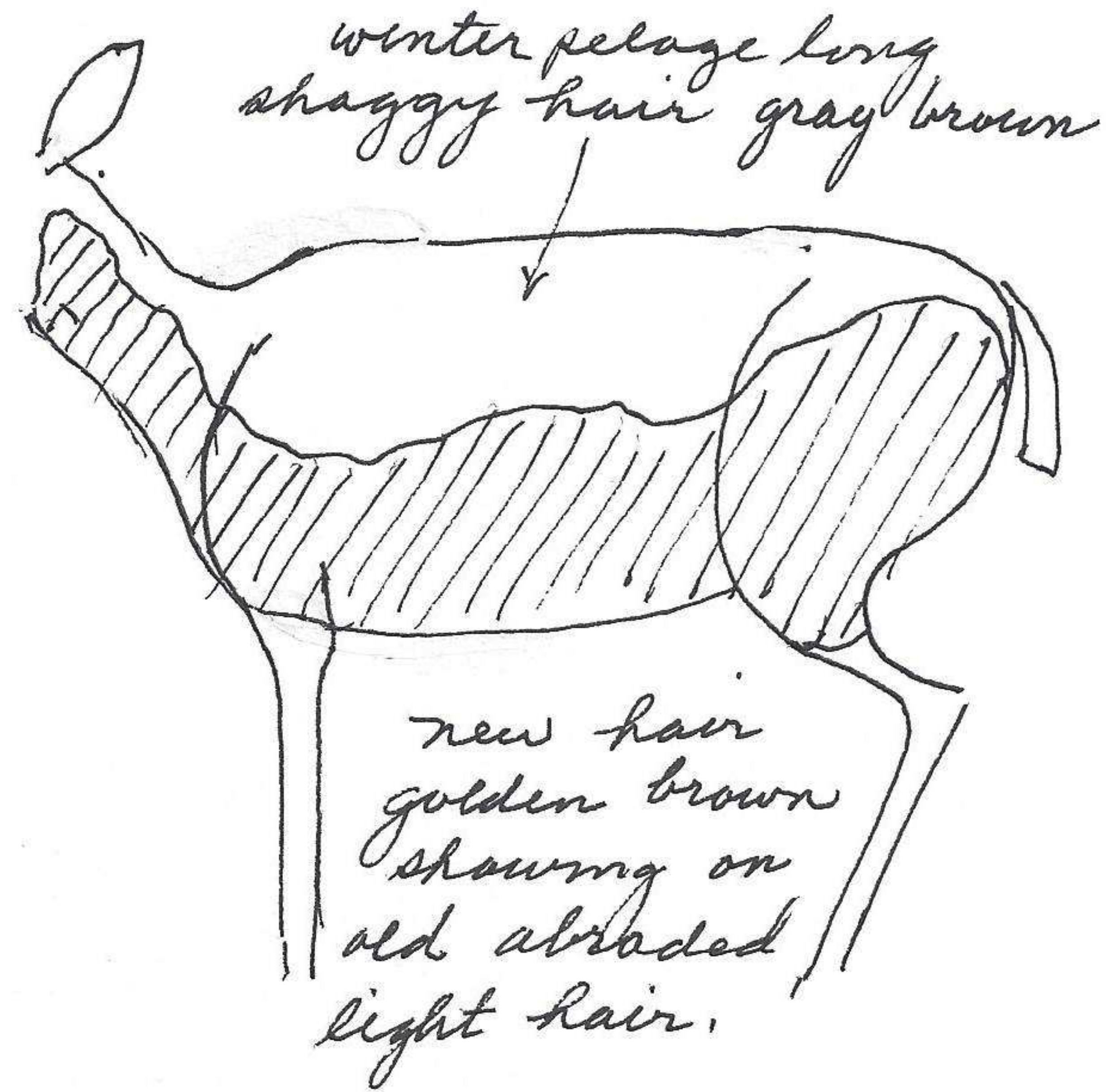
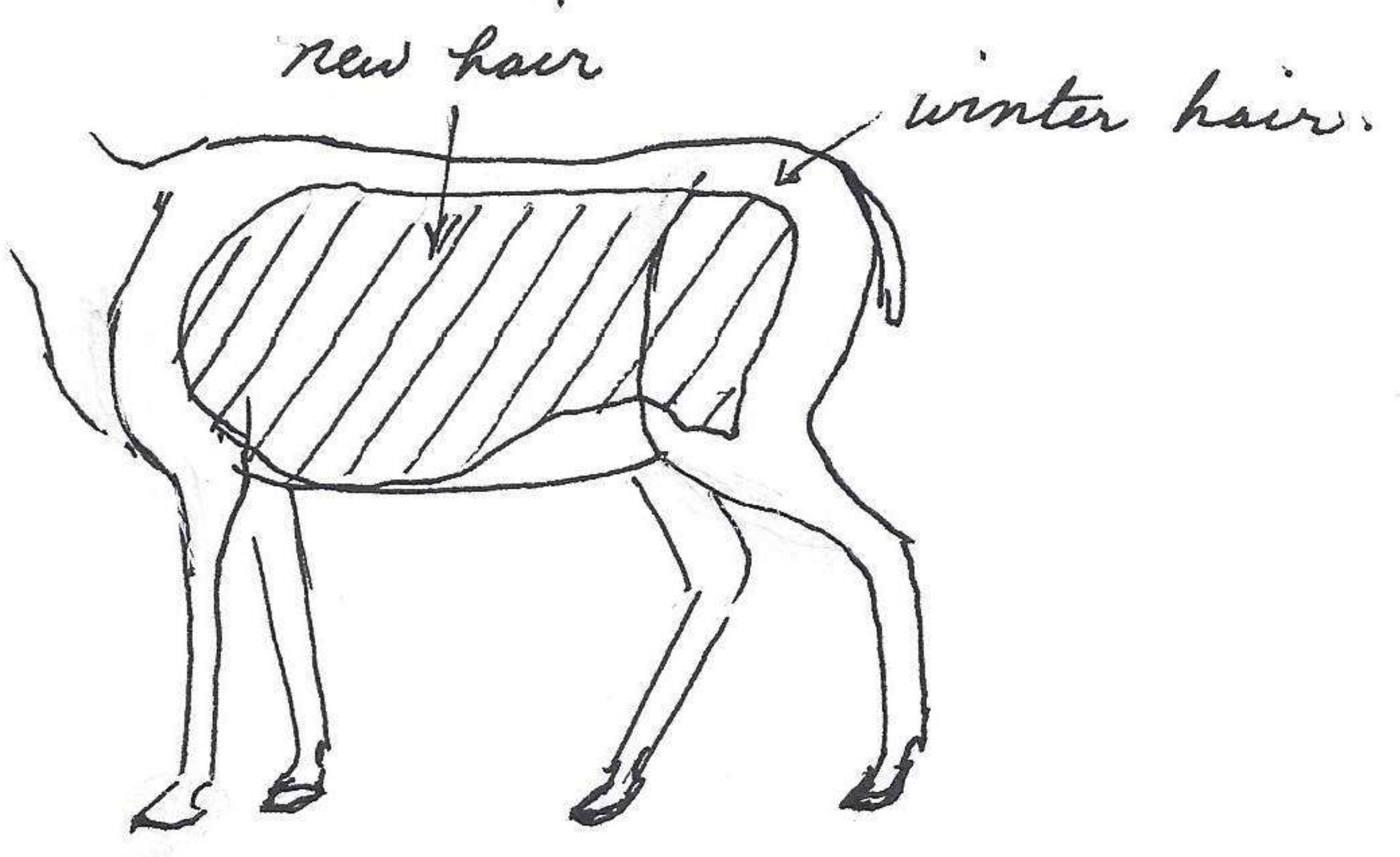
May 25, 1989

- 13 people in 5 cars arrived O'Searip house for weekend.
- Photo 890525-1 part of group of 5 investigating shoreline. <sup>spring</sup> Cool
- " 890525-2 moving boat from spring slope over logs to water
- " 890525-3 group 7 ready to haul boat over beach
- " 890525-4 ferrying to motor boat at Spring Cove.
- " 890525-5 loading boat for crab setting in bay.

Judge Colten, (S end of Baker View Road), reports a fawn barely able to stand, and one of the first instances of young of the year.

dark-eyed junco adult feeding young.

Female adult mule deer measured 28" at shoulder.



♀ mule deer, 28 1/2" high at shoulders.

May 27, 1989

Overcast, rain last night.

5:00 A.M North Lopez Sound absolutely quiet and trees of Blakely a perfect reflection. no activity of birds, fish or mammals.

5:45 A.M 1 harbor seal and 3 glaucous-winged gulls active.

6:00 A.M Glaucous-winged gulls increased to 7, no other kinds of birds.

7:00 A.M Last half hour water surfaced ruffled by slight breeze but bird numbers same.

♀ mule deer 28" high at shoulders, with new golden brown hair in irregular patches in areas of hair that had been plucked by the deer. This irregular shedding and replacement of hair has not be observed in previous 2 years. Only 2 out of 14 mule deer have new, complete summer pelage.

Eastern gray squirrel with ear cut across <sup>at</sup> feeder.

Dark-eyed junco adults (2), feeding 2 young.

First time this season (3) brown-headed Cowbirds at feeder

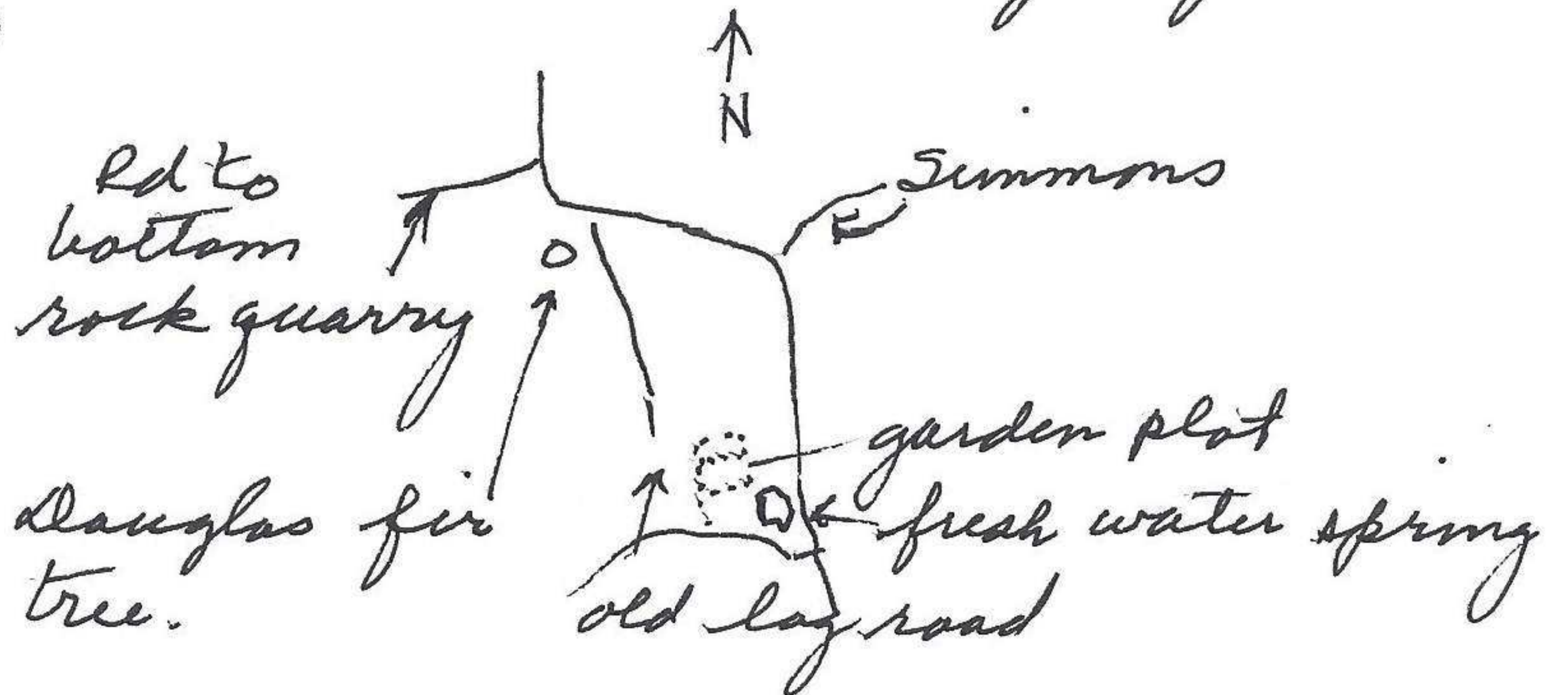
9:10 A.M. No harbor seals on Leo Reef, at least up to now.

made trip from marina to Bee House via log trail to road beyond Simmons and thence S to Bee House.

2 fresh deer beds on edge of bench <sup>E</sup> above Shoal Bay marina.

where old logging road meets road a Douglas fir cut recently (44" diameter)

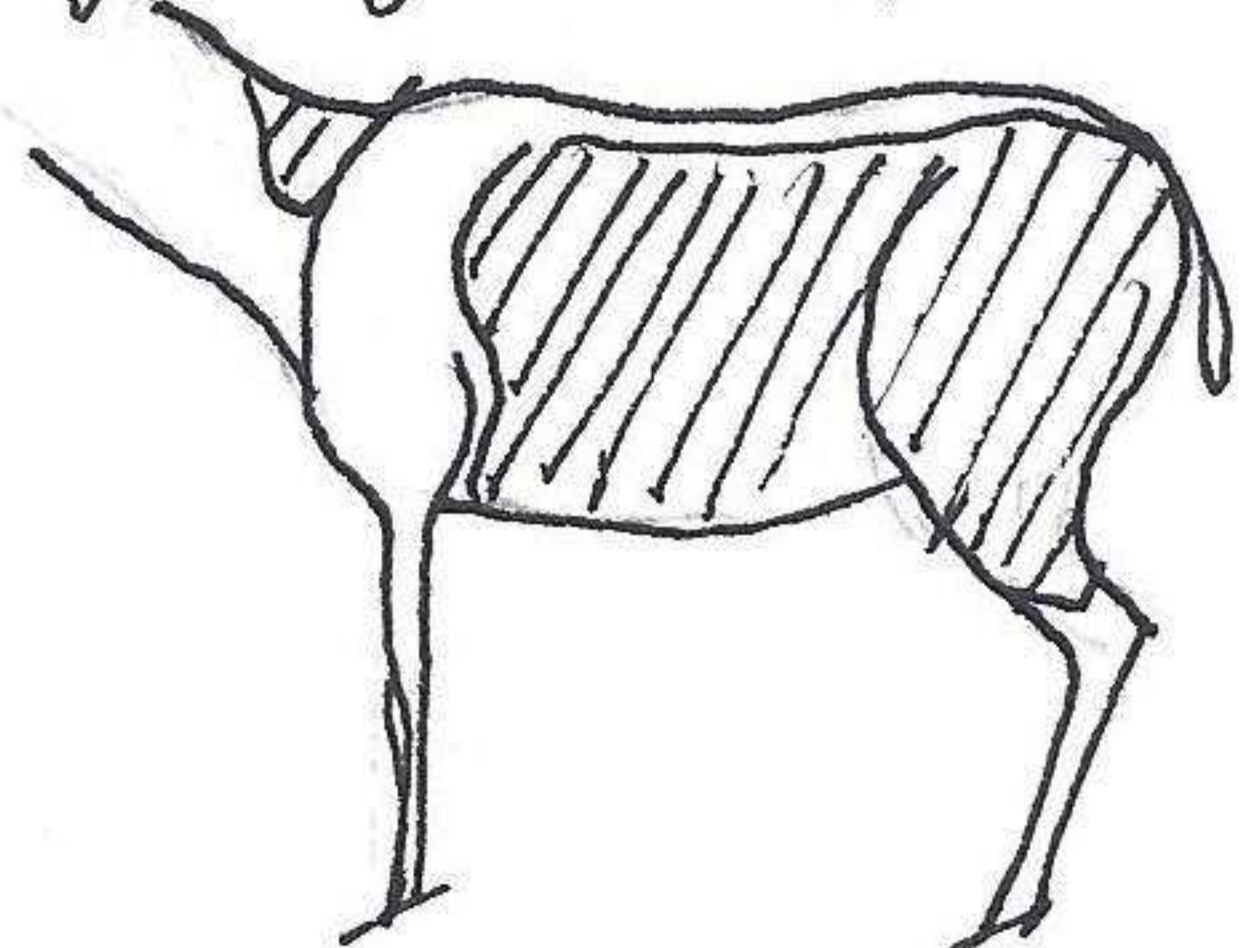
This tree could be dated as to when it was cut by inspection of annulae. The pileated woodpecker had worked on the



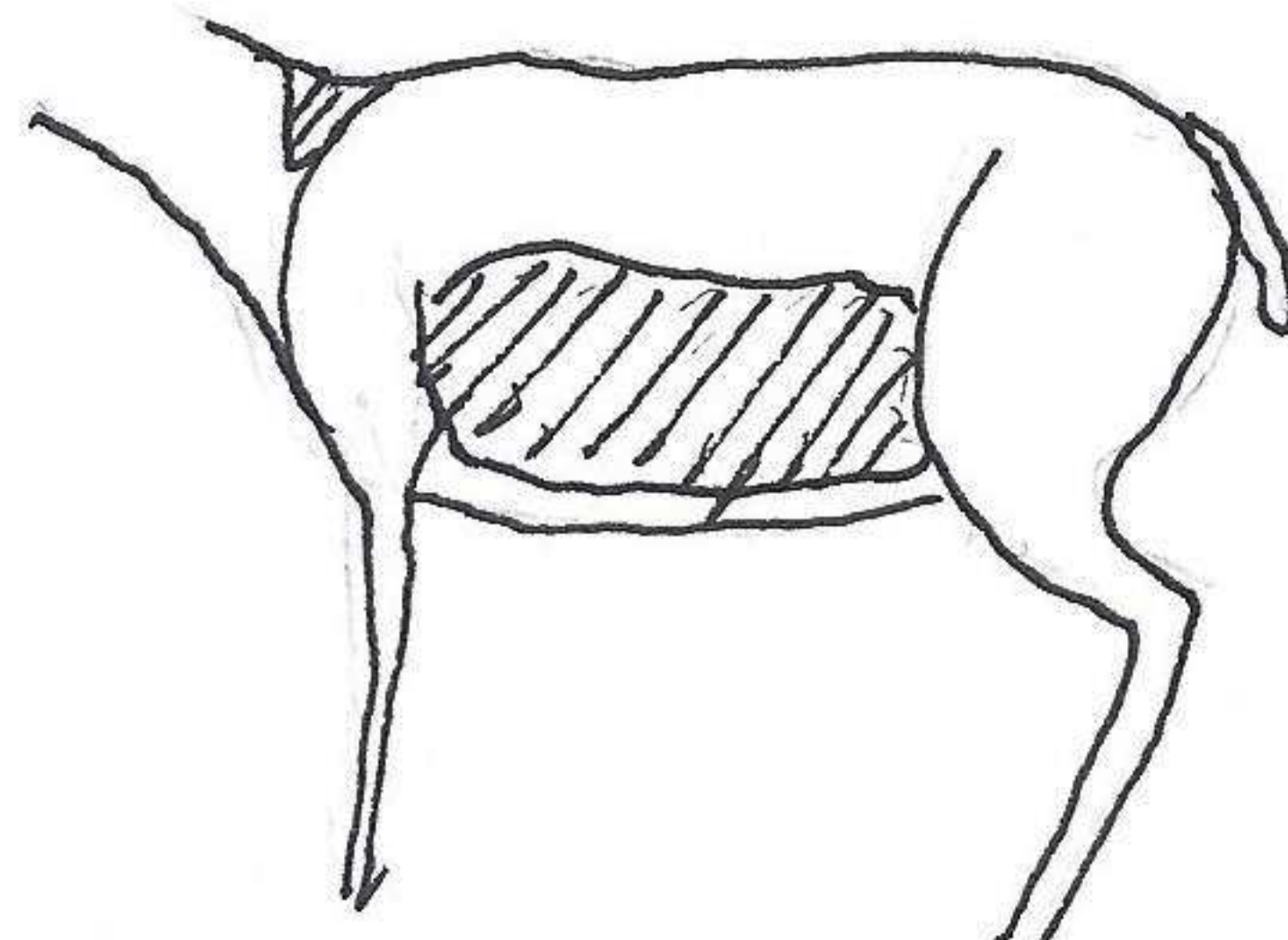
cut surface. An eastern gray squirrel was at the fresh water spring. This pond had been gutted recently. Green duckweed around edges of pond which measures approx 25'x50'.

single eye line, ♂ mule deer

♂ mule deer, antlers 6 1/2" high



33" high at shoulders



32 1/2" high at shoulders

Fog clouds over Spencer Lake on Blakely Island. Localized for most of the day.

To Lopez Village: Swifts Lagoon, 14 mallards, 6 blue-winged teal, 4 widgeons.

Two turkey vultures soaring above field SE of junction Baker View and Port Stanley Rds.

2 Canadian geese in field 2/10 mi N 1916 School House. Out 50' to E from road.

Causeway Fishermans Bay 2 <sup>American black</sup> oyster catchers and 11 glaucous-winged oystercatchers on W side of causeway along beach. The S end Fisherman Bay is at low tide and is a mud flat except channel in middle. The bay would make a good research bay, however temporary it might be in the short history of bay that have had the circulation of water cut off.

One adult Bald Eagle 1 mi. N Lopez Village, circling above.

May 28, 1989  
8:30 A.M. <sup>muledeer</sup> fawn, 14" high at the shoulders at feeder with mother. The mother refuses to nurse fawn. The fawn is curious of the feeder and continuously moves around. When we made our appearance the mother remained at feeder but the fawn immediately moved up trail 20' but then returned to mother.

8:35 A.M. a river otter swam S past Bee House and inspected boat moored in Spring Cove.

9:00 AM to 10:00 A.M. For an hour I monitored the activity of renters using the O'Leary house: 3 boys (ages 8-10 years) first arrived at Spring Cove beach at 7:45 A.M. they left for breakfast. At 9:00 A.M. they returned and played on Spring Cove beach and Spring Cove Point adjoining to S. They threw rocks from the beach into the water. The rocks were 2" (1"-5") diameter and on an average of 3 every four seconds or 45 rocks per minute.

9:15 A.M. - 9:30 A.M. The boys threw 14 pieces of wood into water and then threw rocks at the wood at the same rate as above or 45 rocks per minute.

9:30 - 9:40 Threw rocks into water so as to splash water against each other. The largest rock was 5" in diameter. Average number of rocks 45 rocks per minute.

9:40 - 9:58 Now the boys are throwing small rocks at each other 2 of the boys retreated to Spring Cove Point some 40' away. The one on the beach threw beach pebbles at the rate of 1 per 4 seconds.



The other 2 responded with rocks from bottom of small pools among the shoreline, at 1 per 6 seconds or 20 per minute.

9:58-10:08 All three now on Spring Cove Point and threw shoreline rocks at pieces of wood <sup>(4)</sup> in water. Total rocks and wood thrown into water per hour is 2,500 rocks and 18 pieces of wood.

At 11:00 A.M. 5 boys now throwing rocks into cove or 5040 in two hours. This same group of children continued to throw rocks and sticks into the water and alternated their activity by sliding down rock weeds of intertidal zone, pulling ocher sea stars off rocks and throwing them into the water and dislodging any other detachable organisms or plant. All the above activity without presence of parents or older individuals. In the last 4 days (May 25 - May 28<sup>th</sup>) the children and adult renters have completely covered the shoreline from Spring Cove to Lichen Point. Their boat has been moored in front of Bee House when not in use. Twice pulled to shore by S winds. Voices always present. Mule deer at Bee House reacted to people by standing and facing the O'Leary property for hours. They had no dogs.

In the same period as above, 4 individuals camped on Lichen Point property. They had 2 dogs that were allowed to run unattended between Lichen Point & Spring Cove and no doubt beyond. They ran most of the time at a time when the mule deer were giving birth to young.

The property S of O'Leary was used by its owner bringing the total of people using the shoreline to 19 people.


The wood thrown into the water finally lodged on the beach at high tides.

5:52 P.M. 11 harbor seal on Leo Reef.

9:35 P.M. 2 bald eagles flew past Bee House going N.

May 29, 1989

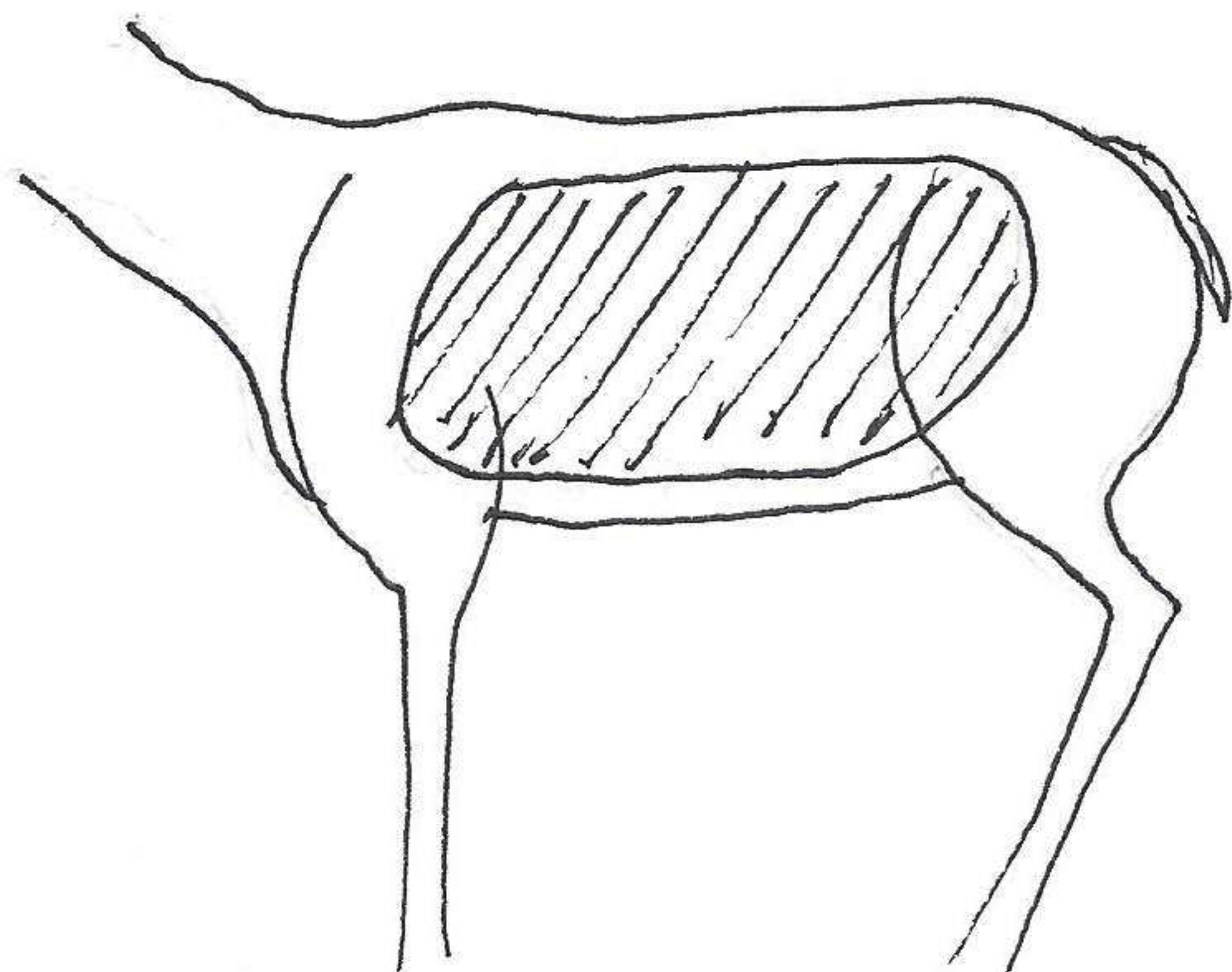
8:15 A.M. Small male mule deer with antler buds. (second year).

A Townsend chipmunk entered feeder  and each time a ♂ mule deer reflexively pulled head back out of feeder. As soon as the deer determined that the chipmunk was not menacing the deer continued to feed with the chipmunk 2" from the deer's nose.

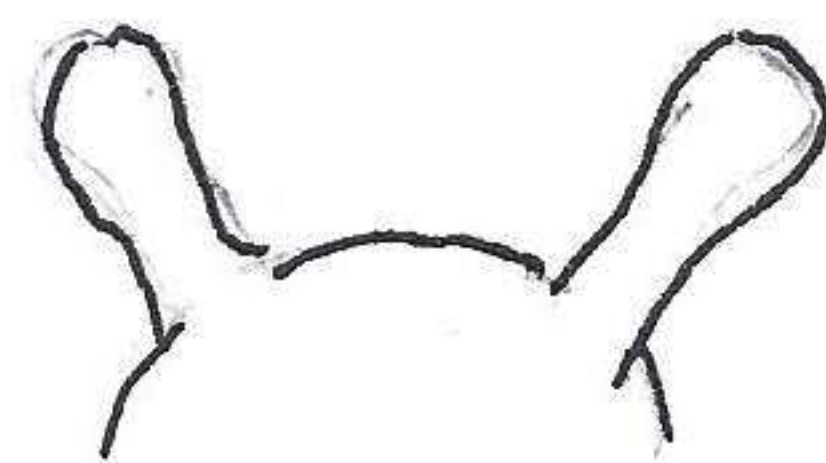
Common raven flew from Bee House E to Blakely Island.

6:00 P.M. No harbor seal on Leo Reef today. As today is Independence Day 8-10 boats past the reef every 10 minutes.

May 30, 1989

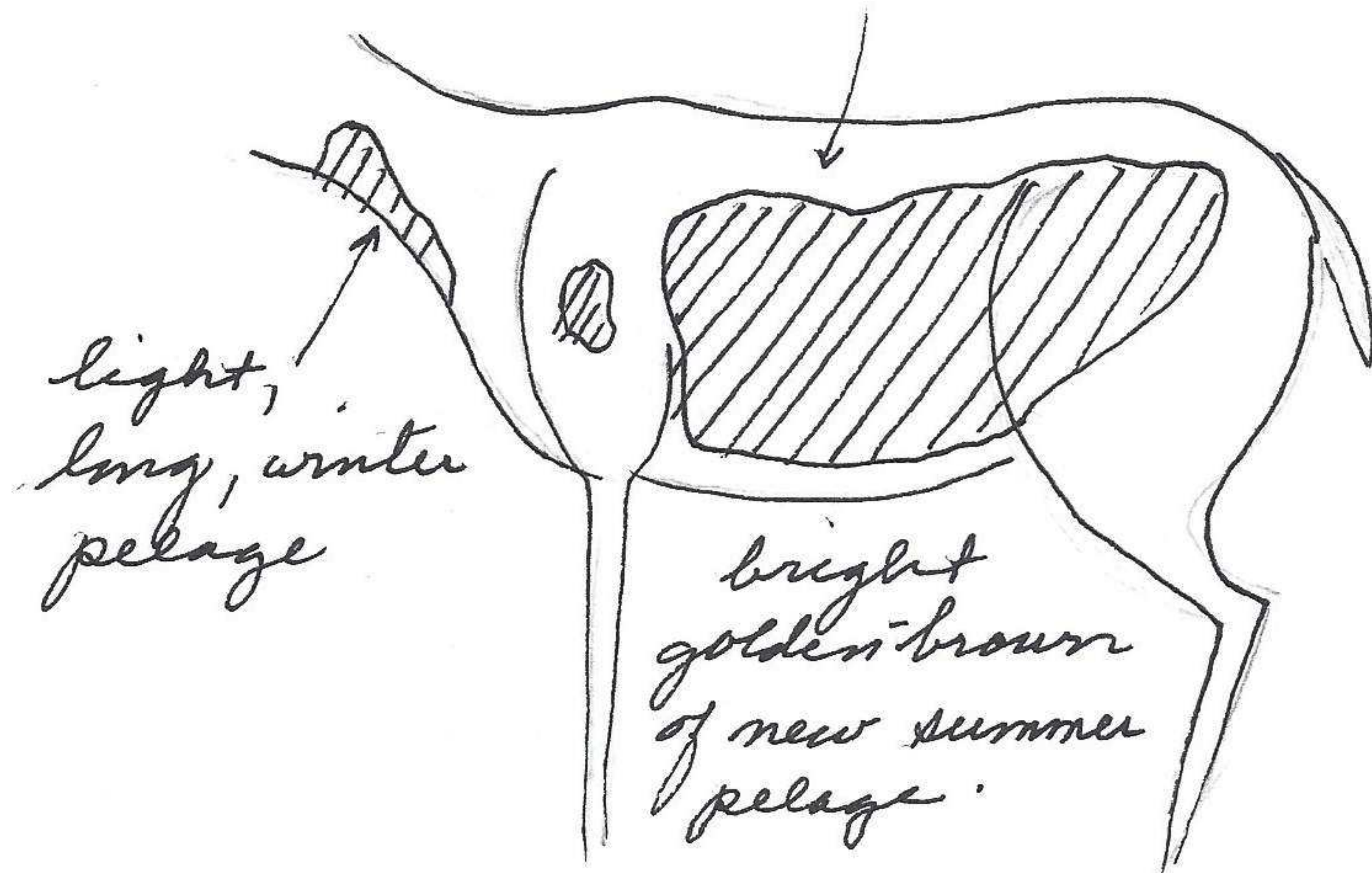


left antler larger  
than right  
antler



♂ mule deer 32" at shoulder.  
a fawn followed this ♂ to  
feeder. no ♀ in area.

medium new hair



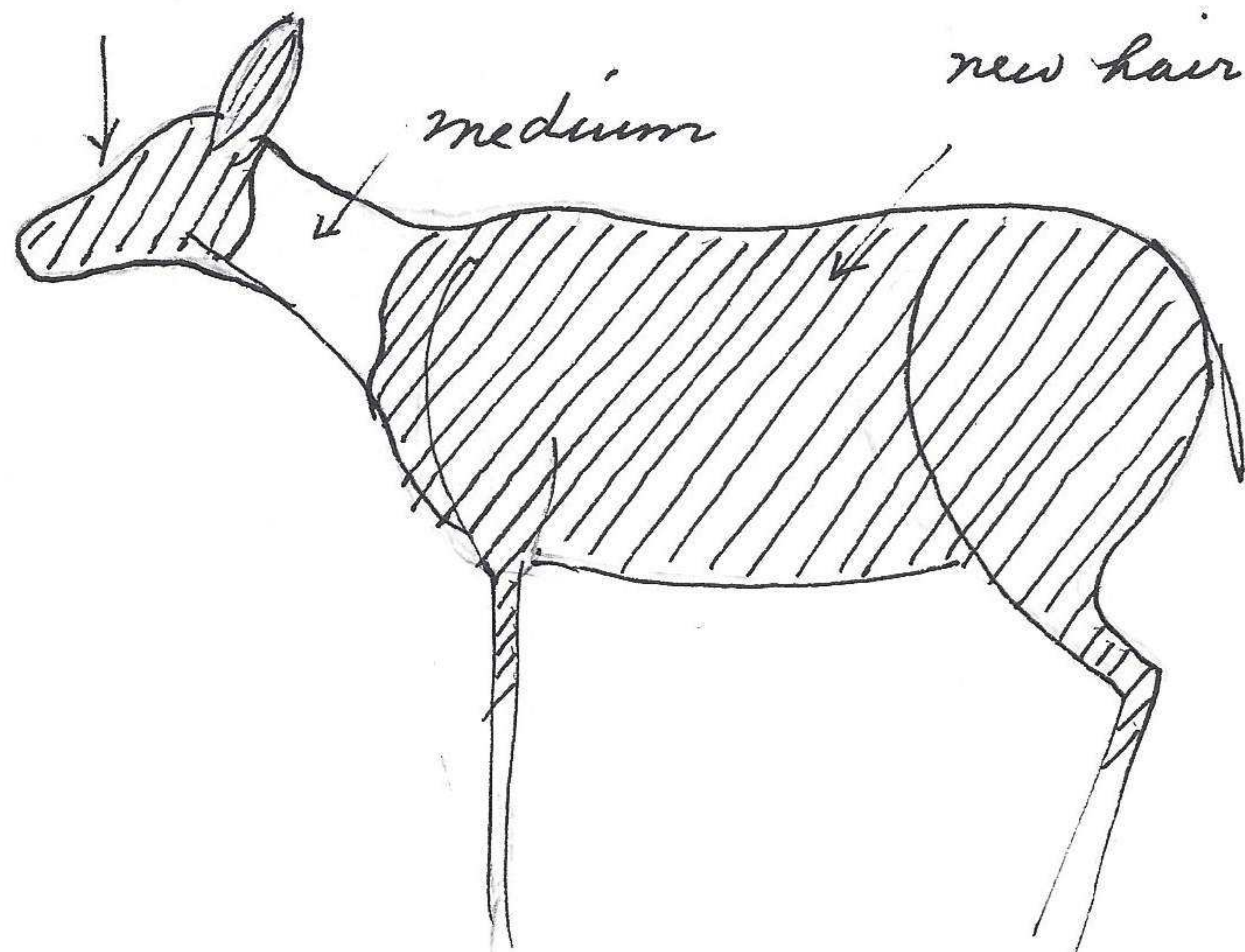
light,  
long, winter  
pelage

bright  
golden-brown  
of new summer  
pelage.

♀ mule deer 29" high at  
shoulders.

The ♀ excited, hungry  
and displaced ♂ above.

new hair



medium

new hair

Large ♀ mule deer named  
Buster. Displaced above  
♀ and fawn. This deer  
is the healthiest, best groom-  
ed and fittest of the local  
herd of deer.


9:45 P.M. 10 harbor seal on Leo Reef on rocks nos 2-6; 2 seal  
on rock no 10. as well as 3 double-crested cormorants.

On Little Flower Rock 11 harbor seal and 25 on north Flower Rock,  
or 48 total.

11:45 P.M. 10 harbor seal on nas 2-5 on Leo Reef, 3 on rock no 10 of Leo Reef; 6 on Little Flower Rock and 28 on north Flower Rock or 47 total for area. One of these seals was on a rock 3" submerged, another on a rock at water level.

On Flower Islands 53 glaucous-winged gulls, 12 of which were on nests. Also 3 American Crows.

1:10 P.M. Buster a ♀ mule deer and fawn 17" high at shoulders at Bee feeder. This fawn remained with Buster for 10" then walked up slope for 5 minutes above Bee House then on to Lower Parking where it was joined by a smaller fawn. The smaller fawn suckled from Buster for 8 min and Buster licked the young on several parts of the body. The 17" fawn remained with Buster & the smaller fawn but Buster refused. After 10 min. they all left to the N.

1:50 P.M. 15 band-tailed pigeons on feeder and 2 American crows remained at edge of feeder. The pigeons eat 4-5 pecks at the chicken scratch, then raise up and recurve their necks and  puff out feathers of neck

2:30 P.M. ♂ mule deer 24 1/2" high at shoulders with antler buds still covered with hair. Knob 1/2" high. Very spooked and tried 9 times to feed but in each case retreated, obviously not one of the local herd. Hair lighter over the bud.

Leo Reef 8 harbor seals on rocks 2-6. Little Flower Rock 4 harbor seals. North Flower Rock 1 harbor seal.

86 glaucous-winged gulls on Flower Island, 1 pair copulating.

The 17" fawn performed adult behaviorism by lifting head and flipping tail.

Between 8:15 P.M. - 8:45 P.M. an adult ♂ mule deer (antlers same length as ears) and base of antler about size of a 3rd year deer, stood in knee deep water (3" from belly) in Spring Cove. It alternately lifted hind leg to 4" above water. It concentrated on the tarsal and metatarsal glands, mainly the latter. It licked the salt water from the legs then turned forward and licked the nose and nostrils with its tongue. It never drank directly from the water in the Cove.

It wash each leg for an average of 20 seconds (10-28).

just before the deer left the cove it urinated in the water, then gain the beach, walked across the beach and up the Spring Cove drainage.

A single bat left Bee House roof, flew out 100' over water at 60' above and then returned. Usually they fly back and forth in front of the house.

9:30 P.M. 1 bald eagle flew n 60' above water and 40' out from Bee House.

May 31, 1989

Violet-green swallow bringing nesting material to nest-box on SE side of Bee House. It had difficulty getting a feather into the box

Angle worm averaged 1 per cubic foot of soil talus at base of cliffs on NW side of Bee House.

3:00 P.M. To Lopez Village:

Swift Lagoon; 23 mallards, 3 American widgeons, 6 godwits.

Spencer Spit Lagoon; 1 great blue heron, ate 3 minnows, 1 to 4 inches long in 3 minutes. no other birds in lagoon. From entrance of Spencer Spit State Park to headquarters is  $3/10$  mi

Turkey vulture  $1/2$  mi. SE Fisherman Bay (P.O).

Report of gray whale Eschrichtius gibbosus, dead in water at W end Thatcher Bay. It moved to Spencer Spit, thence back into north Lopez Sound. It was estimated as 48' long.

5:52 P.M. adult rufous-sided towhee fed young cracked corn which was accepted only 10% of the offers, especially larger pieces of corn. The tail of the young is noticeably smaller than the adults.

6:00<sup>P.M.</sup> young dark-eyed juncos fed on cracked corn when no other adult was in the area.

Glaucous-winged gulls with 2 primary feathers missing, a fishlike form, whitish and 2 feet + long chased groups of candlefish. It would surface in center of fish group with the candlefish dispersing thru the air as if spokes of a wheel. This performance last approx  $1/2$  hour and occurred at mouth of Spring Cove.

8:30 P.M. while fishing at Boundary Point, a river otter swam n and as it passed <sup>(10' away)</sup> it stopped and extended head, neck

and chest out of water as if standing upright. It is not call which they usually do if they are surprised at greater distances of 30-100 feet.

June 1, 1989

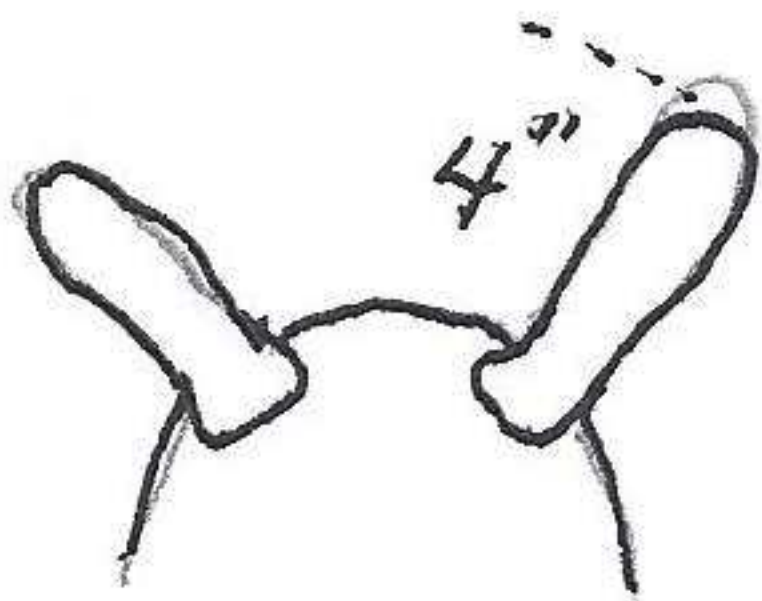
Water quiet and reflective. Sun up at 5:29 A.M. no birds on water. Fish active mainly midchannel of N Lopez Sound.

R. L.



♂ mule deer 32" high at shoulders.

R. L.



♂ mule deer 30" high at shoulders

diameter of base of antler same in both deer.

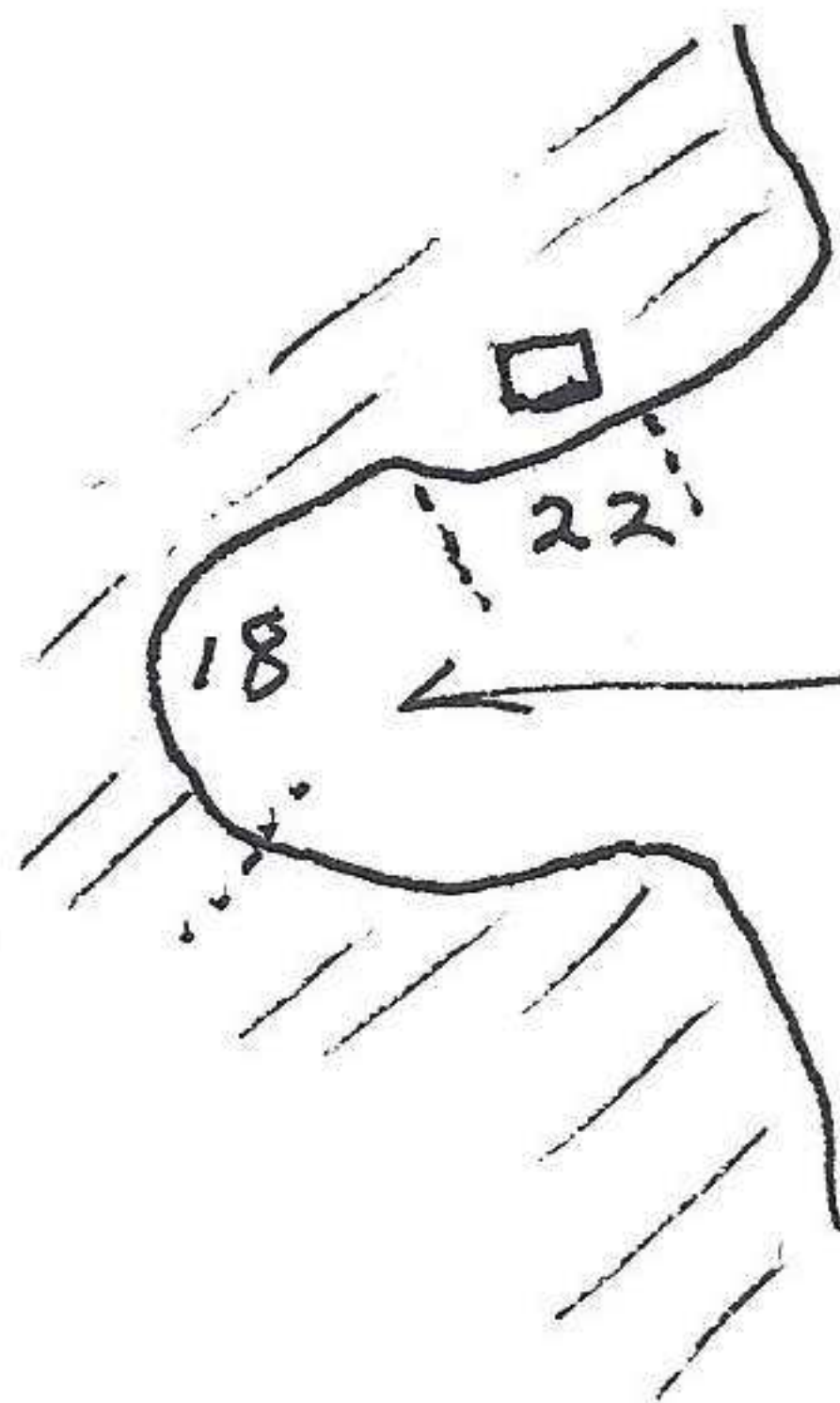
9:00 P.M. a harbor seal in same area as yesterday evening.

2 Common raven flew E from Boundary Point to Blakely Island. One of the raven was harassed by 5 American Crows both in the air and while the raven was perched in top of a tree.

9:30 P.M. at late twilight a bald eagle flew N past Bee House.

June 2, 1989

11:30 A.M. at low tide counted 22 Ochre sea stars between corner Bee House and beginning of Spring Cove beach and 18 from there (NE end beach) to SW end beach.



Spring Cove

Visit to Lopez Village:

Swift Bay, 8 mallards, 2 green-winged teal, 4 blue-winged teal, 6 gadwalls.

1916 School House. 2 Turkey vultures to SE, circling over open fields.

9:30 P.M. a bat, 6" wing spread, flew past Bee House in a straight line course.

9:34 P.M. Ad. bald eagle flew N past Bee House

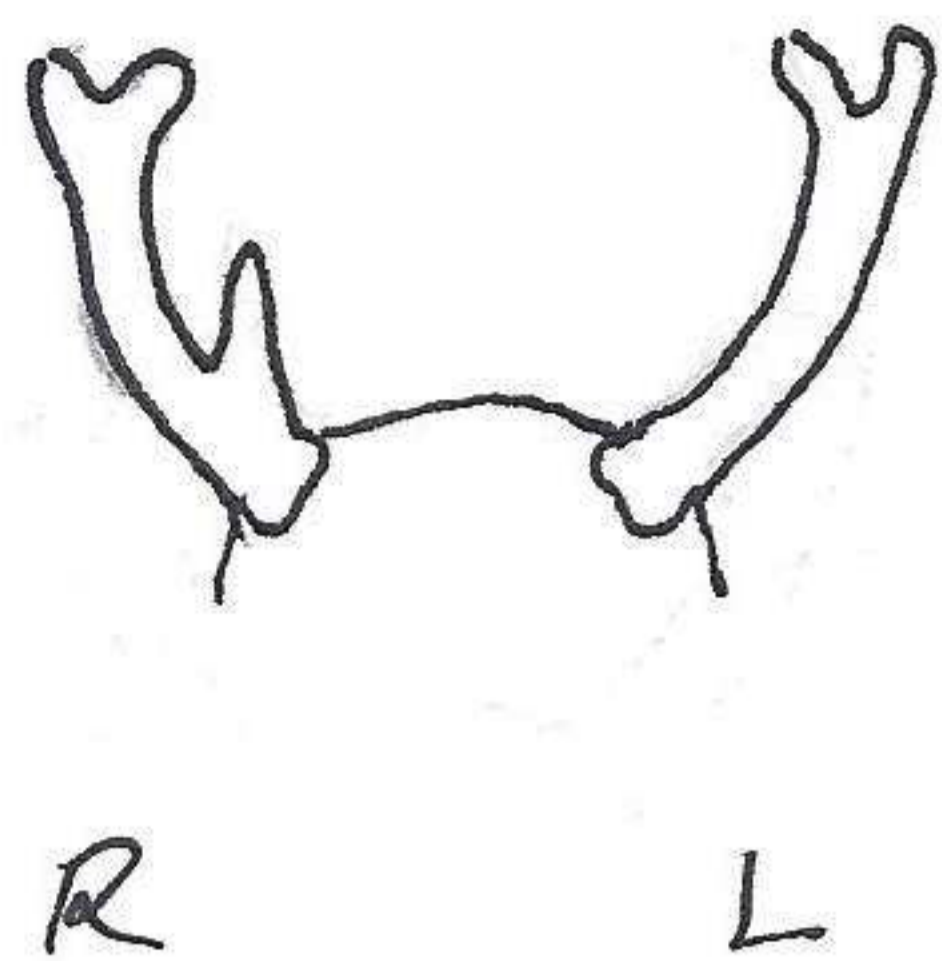
June 3, 1989

Collected a green woodbeetle from a Douglas fir in front of Bee House, no. 890603-1.

A single eye tine mule deer  
naw with bifurcation of main antler.

5 Eastern gray squirrels at  
feeder this afternoon.

a rufous-sided towhee fed  
on ground below feeder at Bee House.  
It was incapacitated and allowed  
me to approach to within 2 feet.



1:20 P.M. 9 river otter in one group passed E out 20'  
from Bee House. They were fishing enroute.

4 square feet of band-tailed pigeons on feeder. Some  
standing on backs of other pigeons.

♀ mule deer 29 1/2"

♂ single eye tine <sup>mule</sup> deer 30 inches high at shoulder.  
These two above deer were together before coming to  
feeder where there they were also compatible.

2:30 P.M. no harbor seal on Leo Reef or elsewhere.

4:40 P.M. at Fishermans Bay causeway, 12 glaucous-  
winged gulls only.

5:10 P.M. Barn and violet green swallows nesting and  
flying about 1916 School House. They both shared fence  
as resting places, some 3-4 inches apart.

5:20 P.M. Spencer Spit: 1 great blue heron, 2 American  
crows, 8 barn swallows, 10 violet-green swallows. 3  
sailboats anchored on S side spit.

June 4, 1989

Sun up 5:26 A.M. Sky clear and waters calm,  
♀ and fawn at feeder. ♀ 28" high at shoulders.

June 5, 1989

Virginia Nealy from Bellingham arrived for week end.

1:35 P.M. River otter swam by Bee House to S.

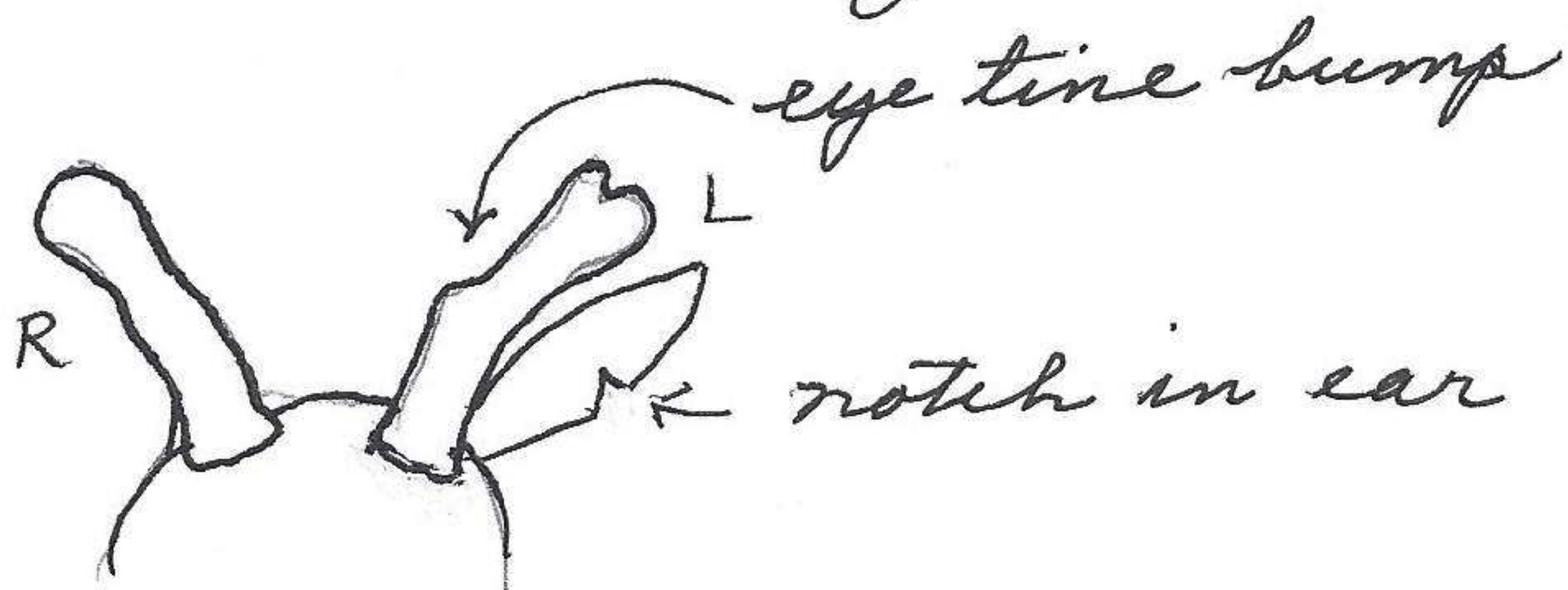
3:40 P.M. Immature bald eagle 1/10 mi. N 1916 School House.

Jan 6, 1989

10:08 A.M. 25 harbor seal on Leo Reef.

3:30 A.M. no harbor seal on Leo Reef or elsewhere.

June 7, 1989



♂ mule deer 31" high at shoulders.

3:00 P.M. 16 harbor seal on Leo Reef on rocks 2-6, 12 on rock no 10 and 2 on rock no 9. No seal on Flower Island.

8:30 P.M. Caught a spiny dogfish *Squalus acanthias* in Shoal Bay at boat moorage. It measured 38" standard length. A harbor seal hunted up to 3' of south shore of Shoal Bay.

June 8, 1989

Sister, a ♀ mule deer, measured 28" high at shoulder. At entrance to Fishermans Bay (west sand bar) 63 adult glaucous-winged gulls and 13 subadults. 90% of young of this year are light tan.

2:35 P.M. 53 harbor seal on rocks 1-6 of Leo Reef.

4:20 P.M. 39 harbor seal on Leo Reef, rocks 2-6. No other harbor seal in area.

June 9, 1989

11:18 at secondary bay at S end of Fishermans Bay are 8 great blue heron in one group + 3 singles. 9 glaucous-winged gulls, 3 american crow and 32 double-crested cormorants. On W side causeway 1 Harlequin duck 20' out from shore.

12:29 P.M. Single tine mule deer now 3 and 2 antlered bifurcation.



June 10, 1989

2:05 P.M. 32 harbor seal on north Flower Rock and none elsewhere.

June 11, 1989

To Richardson, no birds in bay to S or W.

Redtail hawk 2/10 mi. N 1916 School House on Port Stanley Road. Also one bald each SW of 1916 School House.

8:15 P.M. A band-tailed pigeon left Bee House feeder and flew to top of conifers receiving last rays of sunshine then flew E across N Lopez Sound to Blakely Island. A common raven made the crossing at the same time.

June 12, 1989

Young rufous-sided towhee now same size as adults. The young are more active now than when they were smaller.

8:50 A.M. Bald eagle flew N past Bee House.

A seal cause an upwell 5 feet from shore below Bee House as it searched for food.


A fawn mule deer ate dried leaves of madrona from ground.

3 dark-eyed juncos, adults, harassed violet-green swallow at the swallows bird house.

Violet-green swallow attempted to enter nesting box with a 4" long feather. It tried unsuccessfully 22 times and finally gave it up.

3 dark-eyed juncos (Oreg. sub.sp.) followed violet-green swallows out over water and also as swallow returned to nesting box. At other times one or all three juncos would chase the swallow as it left the nesting box.

Ocean spray greenish yellow but not yet all white.

Dead madrona leaves of winter freeze are now brownish around edges and solid yellow in center  yellow brownish

June 13, 1989

8:10 A.M. 14 harbor seal on North Flower Rock, none elsewhere. Left Lopez Island for Anacortes at 10:14 A.M. Eagle nest on N end Humphrey Head on Lopez Island completely gone.

16 harbor seal on N Flower Rock, none elsewhere. A gain of 2 since this AM at 8:10.

W Thatcher Pass. 2 glaucous-winged gulls. Heavy concentration of nesting gulls on Pomter Island.

SW Cypress Island. 19 white-winged scoters flying low and in single file, 2 glaucous-winged gulls, 6 marbled murrelets, 2 rhinoceros auklets in one local area, 2 glaucous-winged gulls. Arrive Anacortes 10:52 AM



One harbor seal surface 100' out from Boundary Point,

July 21, 1989

11:40 A.M. a young barn swallow rested on a branch of a red cedar, flew up to adult in air to take food and then returned to same resting branch.

On north side of Leo Reef are 25 harbor seal, on S side are 5. Those on S side can only be seen by boat or ferry. There were also 5 of rock no. 9 of Leo Reef. (see March 1, 1986 journal for designation of rocks of Leo Reef. Also other geographical names employed in <sup>my personal</sup> journals.)

33 glaucous-winged gulls and 8 double-crested cormorant on N Flower Island.

On a trip to Anacortes by ferry only 1 glaucous-winged gull observed (SW Cypress Island). This was the only bird.

July 22, 1989

Chris reported a coyote at Anderson Creek and Ellett Road, 8/10 mi. W Convergence Skykomish and Snoqualmie rivers.

Left Chris for Anacortes ferry terminal. Left on ferry at 6:00 P.M. for Lopez Island.

July 24, 1989

2 pigeon guillemot at white cliffs NW Humphrey Head. Observed by boat.

July 25, 1989.

An adult ♀ mule deer 28" high at shoulders licked right tumor <sup>of jaw</sup> of 21" high fawn (spotted) and elsewhere on body.

Buster, an adult ♀ mule deer has 2 fawn. 17 1/2" high at shoulder, one with tumor on radius of left jaw.

An adult female mule deer measuring 29 1/2" high at shoulder has a cut (1" long) on left cannon bone.

July 26, 1989

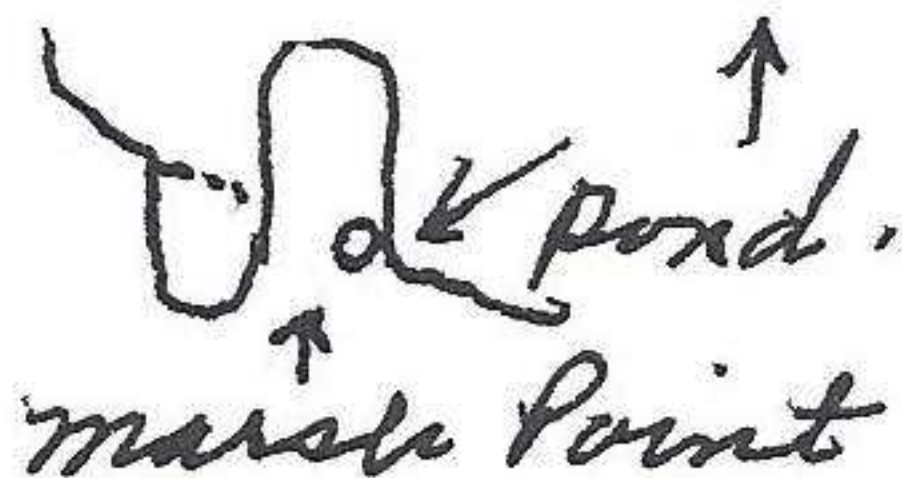
James R. Bee, son, and I climbed E wall Chadwick Hill from Watmough Bay. 1 ♀ mule deer S end marsh. Only birds and mammals observed on trip to top and return beside the deer were 1 winter wren and 1 Townsend Chipping sparrow. This area of Chadwick Hill, Watmough Bay, Watmough Head and Boulder Island should be made into a nature area of limited access.

June 15, 1989

Left Lopez Island for Chris' on Lost Lake.

Small birds enroute (river valley route) 10x more numerous than on Lopez Island.

6 great blue heron in pond SW corner at S end of bay E of March Point peninsula.

2 American Crows  
attached a bald eagle

approx 4/10 mi NW La Conner on Thousand Trails Reserves of Reservation Rd.


At Anacortes ferry terminal in bay to SW, 102 glaucous-winged gulls on piling, 26 of which subadults. All faced W toward sun and away from wind. also 4 pigeon guillemots, 4 American crows and 1 double-crested cormorant.

Left Anacortes 5:35 P.M. (ferry terminal). 1 marbled murrelet, usual concentration nesting glaucous-winged gulls on Painter Island. at Lawson Rocks 2 pigeon guillemots.

W. Thatcher Pass. willow Island. Arrive Lopez Island ferry terminal 6:13 P.M.

June 16, 1989

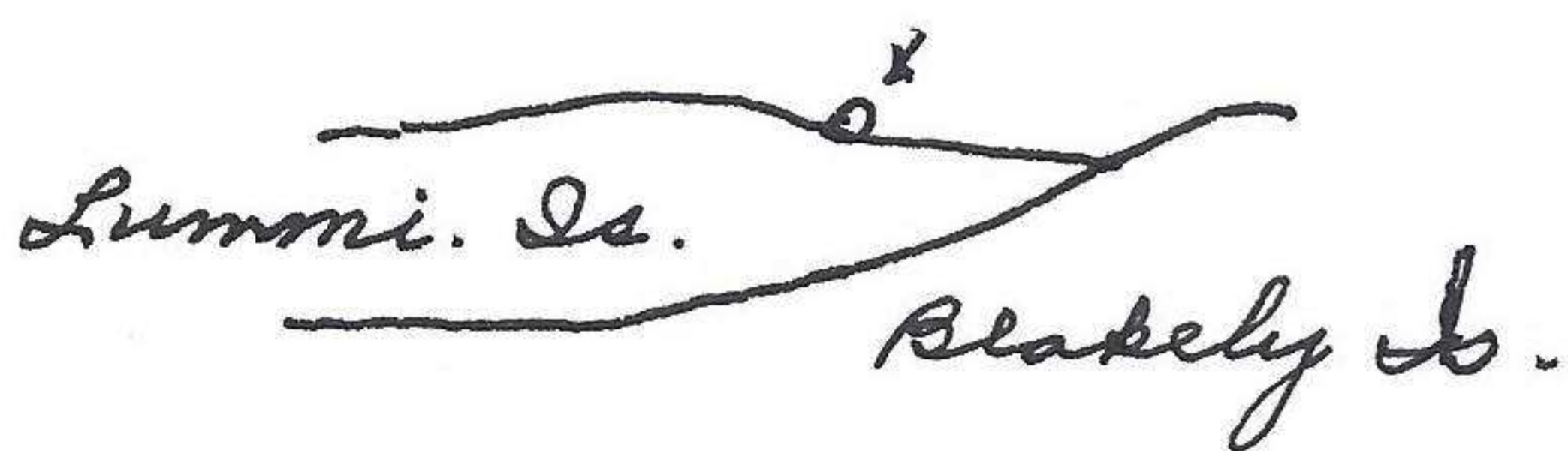
23 glaucous-winged gulls on dock at Galley Restaurant in Fishermans Bay. This type of aggregation at different points on Lopez Island is becoming more common at this date.

8:30 P.M. Examined a sunflower sea star caught on fish and line below Bee House. It measured 18" diameter. The bait and hook was in stomach of star thus  herring. This star is Pycnopodia helianthoides.

Single harbor seal fed approx. 200' from shore and under water on two consecutive dives for 2 minutes each. On the 3rd dive it swam toward me and fished from shore below Bee House and at 4' from me came to near surface but did break water but produced an upwelling. This occurred 3 times this evening. Did not observe more than 1 seal at a time so it could have been the same animal.

June 17, 1989

Sunrise 5:19 A.M.



5:25 Bald eagle flew N out 60' from Bee House and 50' above water. 5:30 Bald eagle flew S as above.

8:35 A.M. 8 harbor seal Leo Reef (rock no 10). 32 harbor seal on Big Flower Rock,

5 Eastern gray squirrels on feeder at Bee House.

Rufous hummingbirds at feeder, generally 2 but sometimes 3 at a time.

High wind today which blew yellow leaves of the Feb. 2 freeze. These leaves are generally distributed on level or open slopes but mainly beneath madrona trees. In catchment basins the leaves are several layers thick. Leaves of madrona also in windrows on beach and in circulating debris in water. <sup>mule</sup> deer, especially fawns eat these leaves.

June 18, 1989

11:14 A.M. 11 harbor seal on Leo Reef. 3 on n Flower Rock.

8:00 A.M. caught dogfish shark in S end Shoal Bay at boat moorage and measured 29" standard length.

8:10 A.M. Bald eagle flew n from Lichen Point to Boundary Point, thence NW to out of sight.

7:00 P.M. - 9:30 P.M. Fished Boundary Point and caught 2 dogfish sharks measuring respectively 28" and 31". Only birds and mammals were: 1 harbor seal, 1 adult bald eagle, 4 double-crested Cormorants which flew pass from S to N, 1 common roven, 1 American Crow and no gulls.

June 19, 1989

10:00 A.M. Ad. bald eagle and 33 harbor seal on Leo Reef.

12:00 A.M. 41 harbor seal Leo Reef, low tide, and only ones in area.

marine plant debris on water surface including 3 groups or masses of bull kelp, one 30' long and others entangled in masses of 6-7 bull kelp. Rock weed masses every 10' separation. Misc green masses out 15-20' from shore in 1/3 of shoreline out from Bee House to Lichen Point.

Estimate 6 ochre sea stars in 10'x10' plot in intertidal zone, low tide now, more in favorable areas below Bee House and Spring Cove.

Eastern gray squirrel with cut ears at feeder.

♀ mule deer with cut on left canon bone. at feeder.

3:15 P.M. no harbor seal on any pullant places in n Lopez Sound.

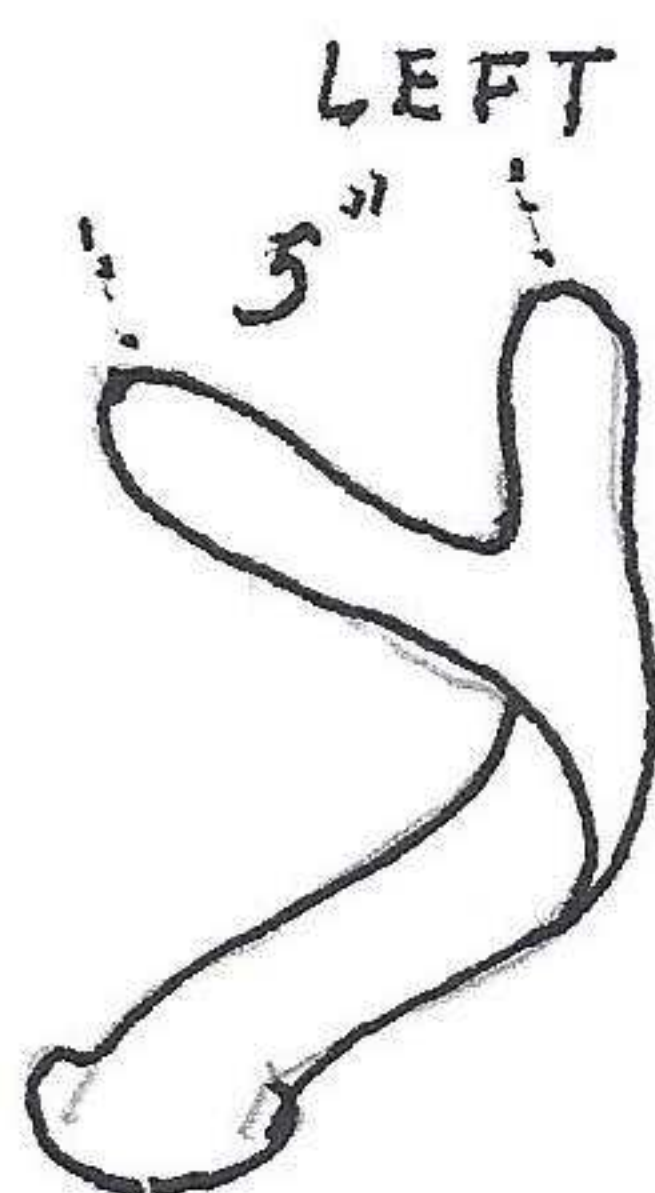
Collected approx 600 specimens of 4 species of limpets from shoreline on Bee Estate. Lot no 890619-1.

 flat, plate limpet, Tectura scutum

 smooth, masked limpet Tectura persona

 large, ribbed, shield limpet Lottia pelta

 small, ribbed, finger limpet Lottia digitalis



Single <sup>eye</sup> tine mule deer 33" high at shoulder.

June 20, 1989

7:45 A.M. 4 harbor seal on Leo Reef

9:20 A.M. 17 harbor seal on Leo Reef, rocks

2-5, 3 on rock 11. 18 on 77 Flower Rock.

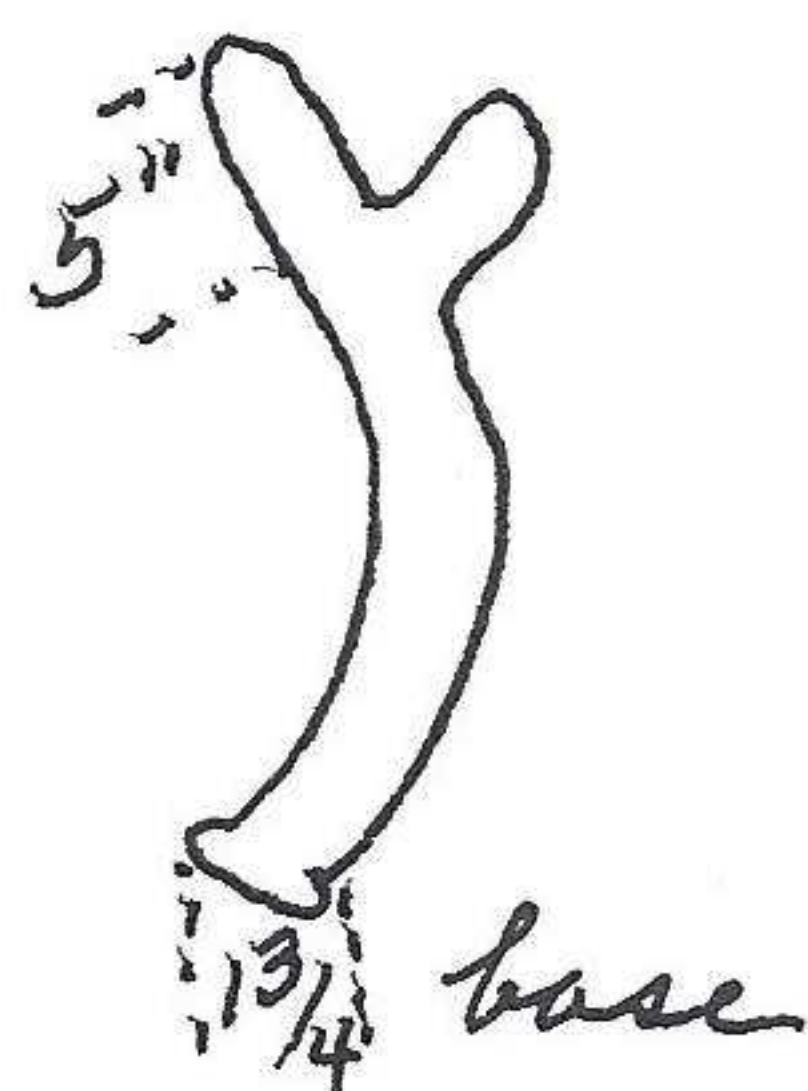
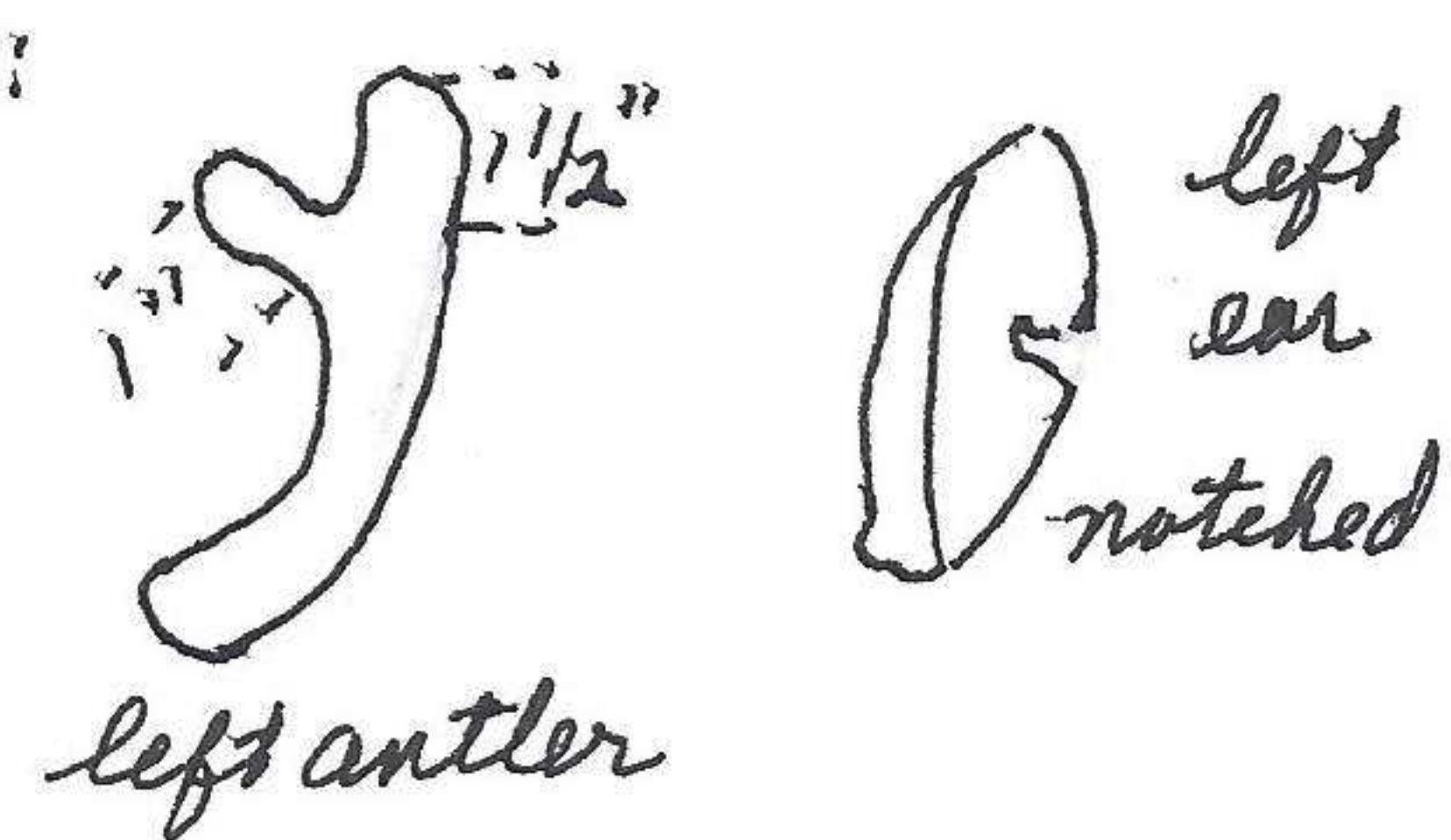
a mule deer ♂ measured 31" high at shoulder. Antlers, as in all mule deer this time of year thus: pelage complete and uniform in color.

11:30 To Bee Boat. min. temp 54 in last week.

1:20 P.M. 51 harbor seal on Leo Reef, rocks 1-7. 2 seal Little Flower Rock.

Low tide. all rocks on Leo Reef exposed except rock no. 8.

Photo 890620-1 male mule deer measured 33" high at shoulders.



Single eye tine mule deer measured 32 + " high at shoulders, base antler 1 1/2" diameter. These two deer are probably siblings

Common raven called for 1/2 hr from top of Humphrey Head W of Bee Estate.

June 22, 1989

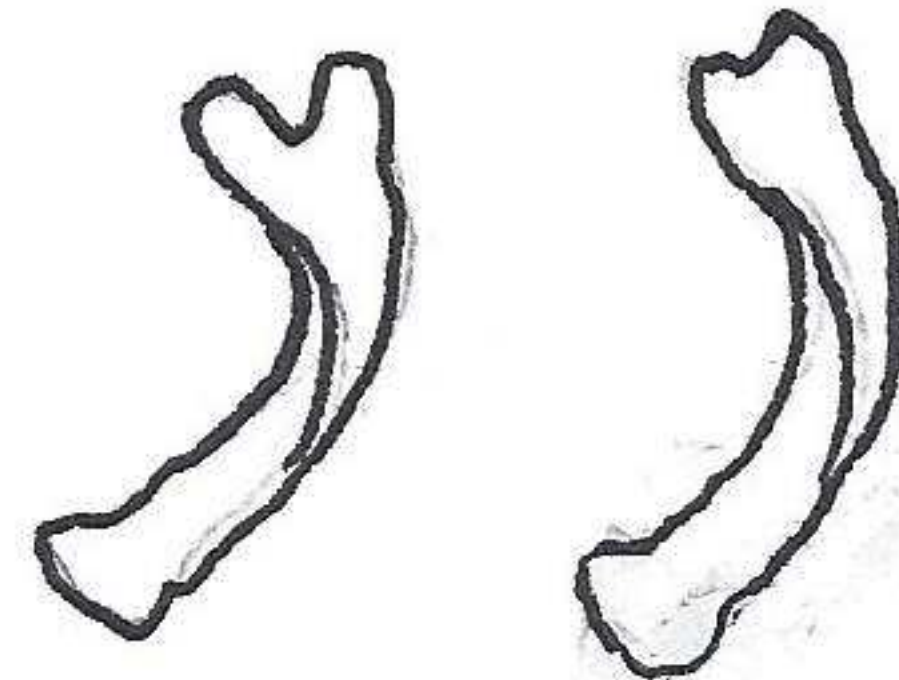
The eastern gray squirrel, Townsend Chipmunk and American crow have taken fresh water from the bird drinking pan.

Fawn of Buster, a mule deer, measured 20 1/2" high at shoulder. Second fawn measured 20" high at shoulders.

a mule deer measuring 32 1/2" high at shoulders had the following size and shape antlers.

8:35<sup>AM</sup> river otter pasted S in front Bee House.

LEFT RIGHT



5:30 - 6:00 P.M. at Bee Boat in Shoal Bay an asprey captured a 3" fish at S<sup>E</sup> end Shoal Bay. It flew E to Humphrey Head then N 2/10 mi. and alighted in a perching tree. I caught and released a dogfish 31" long (standard measurement).

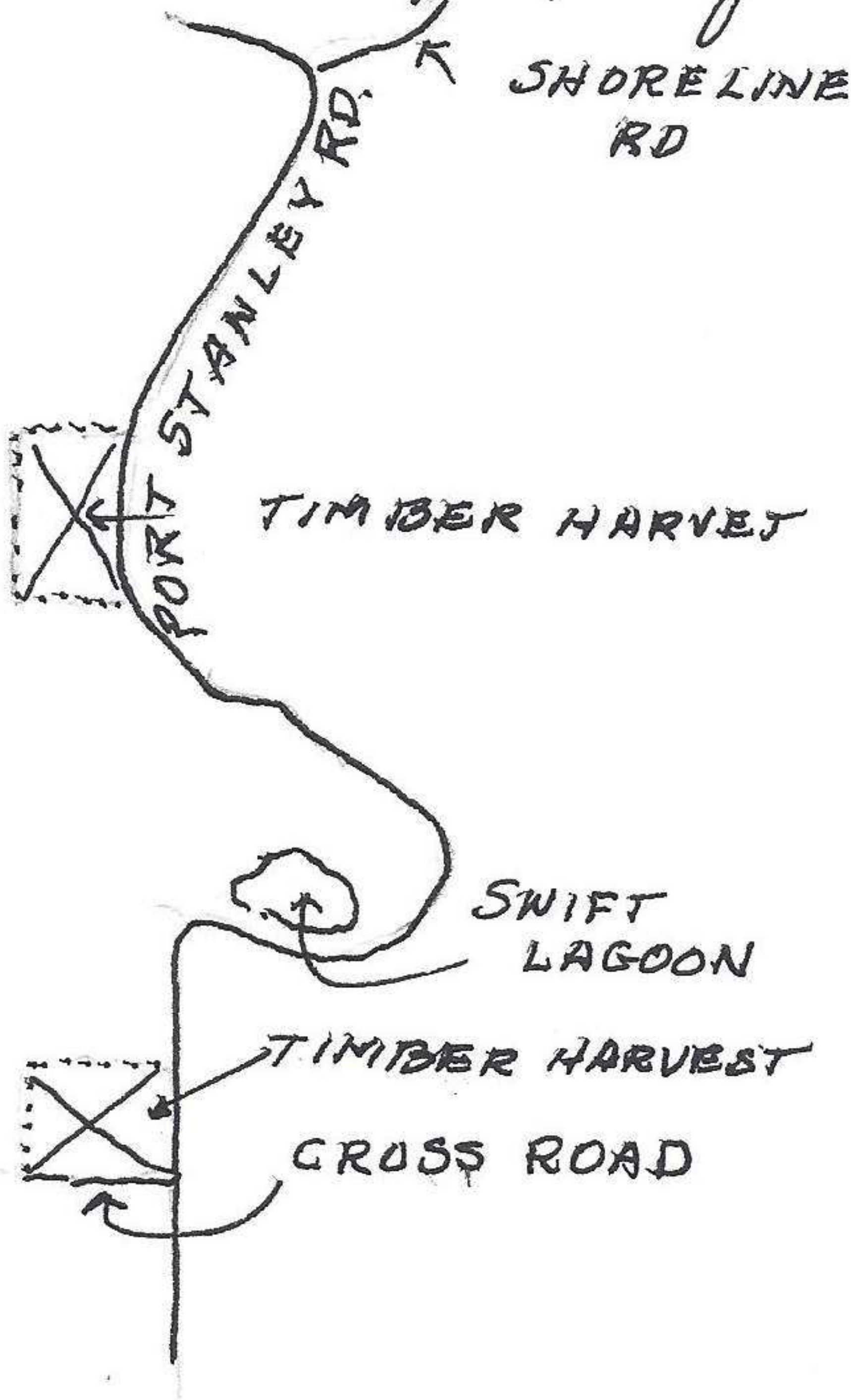
June 23, 1989

Young mule deer fawn with antler bud not yet exposed. Ocean spray turning yellowish white with round buds opening to full flower. Those in shade of Douglas fir are white, some buffy white.

June 24, 1989

a property owner adjacent to forest land to S reported that a timber company was ordered to clear <sup>5 acres</sup> forest of timber downed by the Feb 1 storm of this year. They failed to clear all fallen timber but took 22 truck loads (regular tree hauling truck) of mainly Douglas fir trees of the largest size. Each load equivalent to 125 chords of wood. The individual who was leasing this property was not notified by the owner of the arrangement with the timber company.

Another similar area harvested was land NW of junction of Port Stanley and Cross Rds. Checked both areas and it was a case of gutting instead of organized harvest.



Caught a white-spotted greenling Hexagrammos stelleri at Boundary Point on Bee Estate. It measured 270mm standard length.

The small Coast Guard boat makes 3x wake of ferry.

June 25, 1989

3 ♂ mule deer with same size and shape of antlers  
One ♂ with injured front left foot and walks on  
tip of toes.

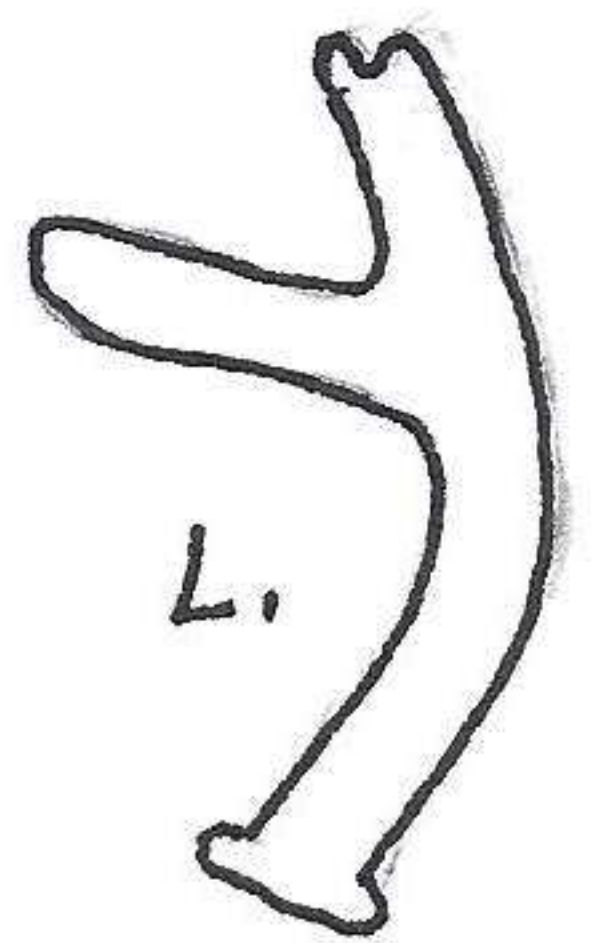
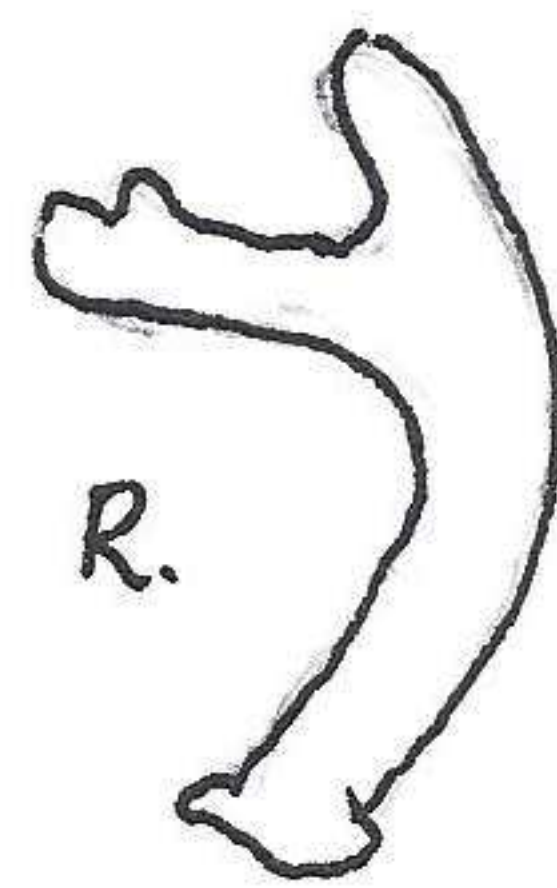


In the area of Bee House are 8 ♂, 8 ♀, 5 fawns.

Two adult ♀'s at feeder stood upright and boked with front  
feet and legs moving in a circular pattern.

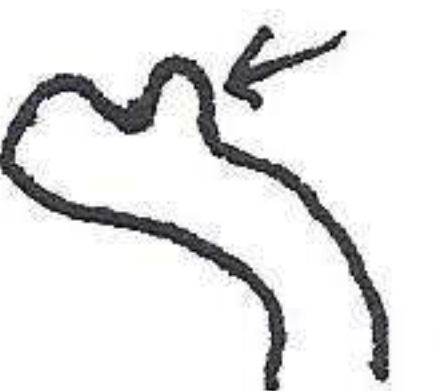
The crippled buck is taken advantage of by all other deer,  
males displace females, <sup>and other males</sup> females displace each other, however,  
at one time 3 ♂ & 3 ♀ amicably at the feeder. The fawn re-  
main 20' or so beyond feeder.

One buck measuring 34" high  
at shoulders had the following shape  
antlers.



June 28, 1989

One of the fawns of Buster measured 21" high at shoulders.  
The ♂ mule deer of June 25, 1989 34" high at shoulders is now  
only about 1/4" extension of second tine of right antler



June 29, 1989

10:00 A.M. 16 harbor seals on Leo Reef (rocks 2-5). 1 on  
rock no 10. On N Flower Rock 13, on Little Flower Rock  
9 or total of 39.

A junction Port Stanley and Center Road noted a redtail hawk  
250' NE in newly cut field of grass.

at Swift Bay Low Beach observed, 9 killdeer, 1 greater  
yellowlegs, 13 least sandpipers.

June 30, 1989

at Swift Lagoon 18 western sandpipers.

One turkey vulture 2 mi. SE Lopez Village (P.O.).

9 great blue heron at low tide on Swift Bay Low Beach.

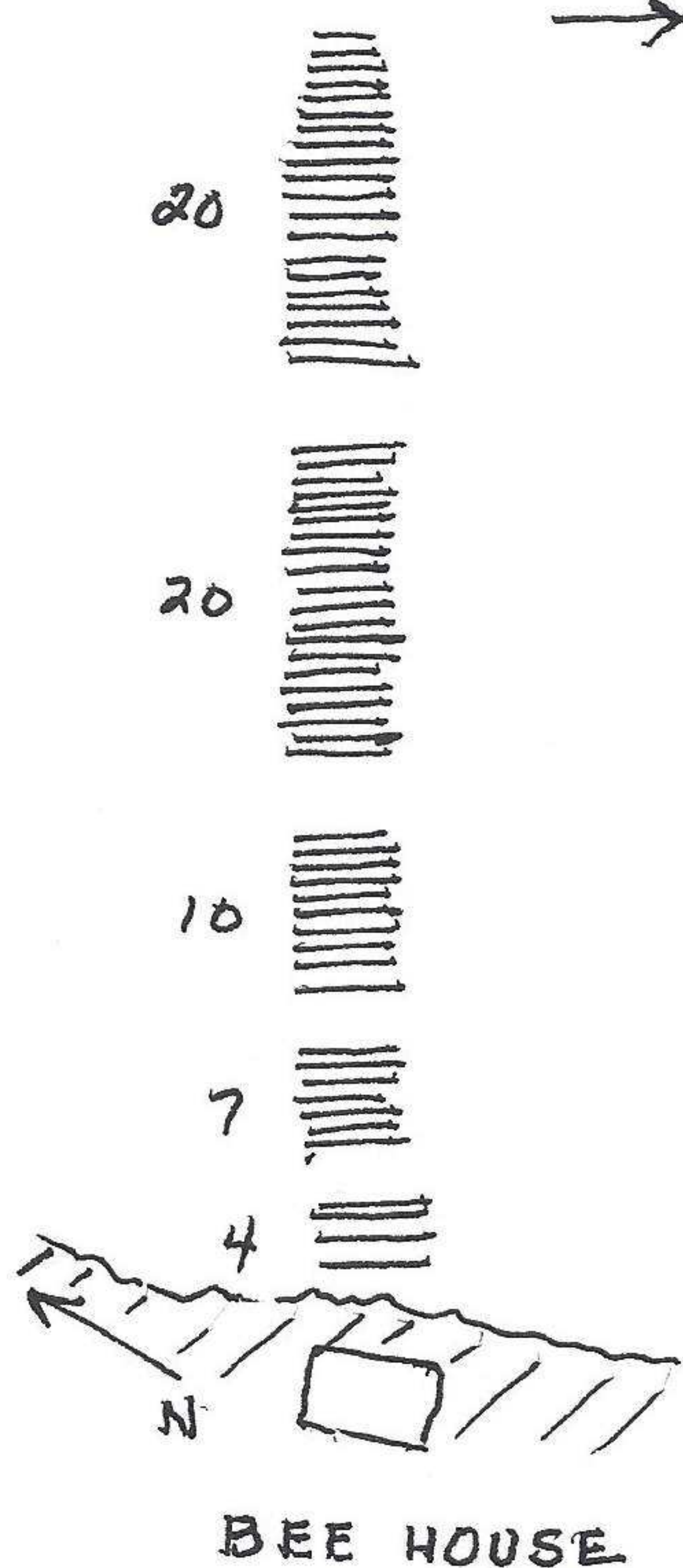
Bee Estate, Humphrey Head, Lopez Island, San Juan Co., Washington

July 1, 1989

9:10 A.M. 21 harbor seal on Leo Reef plus 5 on rock no 10.  
12 on Little Flower Rock, 29 on North Flower Rock or total 67 harbor  
seals.

Day cloudy, occasional rain, temp 55° F.  
 6:15 P.M. Violet-green swallow still active.  
 6:20 P.M. Ad. bald eagle SW corner Center and mud rds.  
 9:35 P.M. violet-green swallows still active.

FERRY BOAT DIRECTION July 2, 1989



In the early morning when waters of N Lopez Sound are absolutely quiet the wake of ferry boats cast a series of waves that eventually reach the shoreline in front of Bee House. There is a 5 part periodicity of wavelets, the first of greatest magnitude. The e. ly eastern lights reflect off each wavelet.

July 5, 1989

Left for Anacortes from Lopez Island at 9:10 A.M. 3 glaucous-winged gulls S of Pomter Island. There are more gulls on island than usual, 2 pigeon guillemots, glaucous-winged gull, 2 pigeon guillemots, glaucous-winged gull. Arrived Anacortes ferry terminal.

July 6, 1989

Return to Lopez Island from Anacortes. Left ferry terminal 8:49 P.M. Kingfisher at docks. Pigeon guillemot, 8 glaucous-winged gulls flew E, none going W, great blue heron, pigeon guillemot, 8 pigeon guillemot flying W, 8 pigeon guillemots flying SW, 1 guillemot flying N, 3 pigeon guillemots flying SW, glaucous-winged gull flying N, 4 pigeon guillemots flying SW. Light beacon SW Cypress Island. 5 pigeon guillemots flying SW, 3 pigeon guillemots flying SE, 1 pigeon guillemot flying SW glaucous-winged gull flying S, 2 pigeon guillemots flying S. 1 pigeon guillemot flying S. N of James Island. glaucous-winged

gull flying E, 3 pigeon guillemots flying S. S of Lawson Rocks. marbled murrelet on water, pigeon guillemot flying E, W Thatcher Pass, Willow Island. pigeon guillemot flying S, Leo Reef, glaucous-winged gull flying NE. Arrived Lopez Island ferry terminal. 261 glaucous-winged gulls on piling at docks. There has been an increase <sup>on piling</sup> of these gulls since last month.

July 7, 1989

Left Lopez Island for Friday Harbor 10:05 A.M. glaucous-winged gull, 3 pigeon guillemots, S end Corcoe Island. glaucous-winged gull, 4 glaucous-winged gulls. now W. 2 pigeon guillemots, 2 pigeon guillemots, Friday Harbor

Left Friday Harbor 2:25 P.M. and straight to Lopez Island. glaucous-winged gull, glaucous-winged gull. Turn Island E end. glaucous-winged gull, 2 glaucous-winged gulls. 130 glaucous-winged gulls Flat Point. pigeon guillemot, 65 glaucous-winged gulls out from Odlin Park (7/10 mi). Arrived Lopez Island. Thence to Bee House.

On Leo Reef are 51 glaucous-winged gulls and 13 harbor seal. One group 94 glaucous-winged gulls and 6 rhinoceros auklets. 4:13 river otter swim S past Bee House.

Informant says harbor seal pup was born in late June. nest of glaucous-winged gull and 3 eggs on piling at Corcoe Island. Terminal June 6 1989

9:45 P.M. violet-green swallow active at nesting box at Bee House.

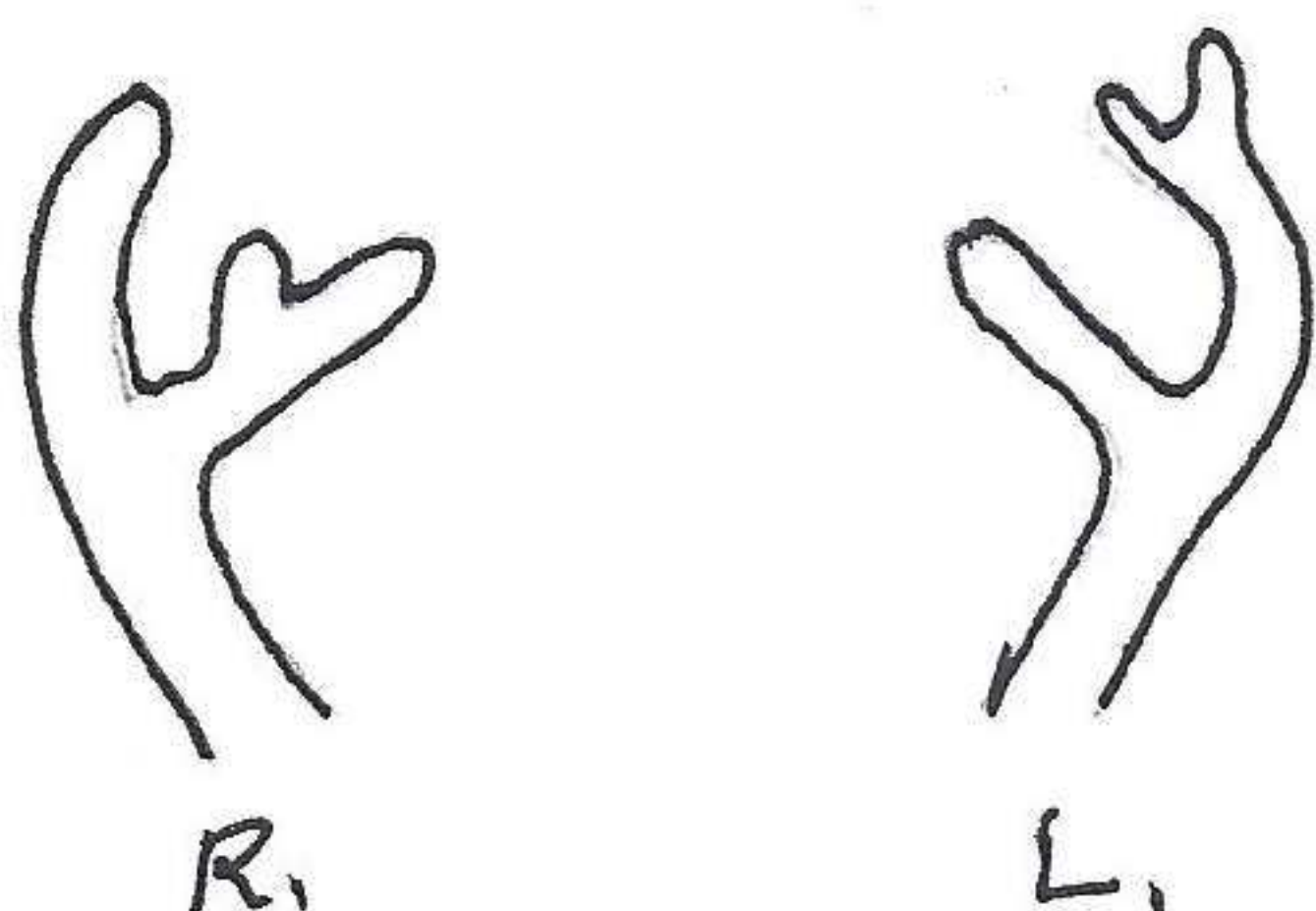
July 8, 1989

9:56 P.M. Bat active.

July 9, 1989

Collected 2 hornets from a paper wall nest at Bee House.  
890709-1 hornet, queen  
890709-2 " worker.

These hornets are subfamily Vespinae of superfamily Vespoidea



♂ mule deer 34" high at shoulder.

See June 25 and June 28, 1989 for comparison with same individual.



July 10, 1989

10:30 AM. 18 glaucous-winged gulls and 5 rhinoceros auklets feeding together 1/10 mi E Bee House in N Lopez Sound.

July 11, 1989

Turkey vulture junction Center and Cross rds,  
12:05 P.M. 8 glaucous-winged gulls and 2 rhinoceros auklets feeding 1/10 mi. E of Bee House in N Lopez Sound.

July 12, 1989

young violet-green swallows being fed at entrance of nesting box on Bee House.

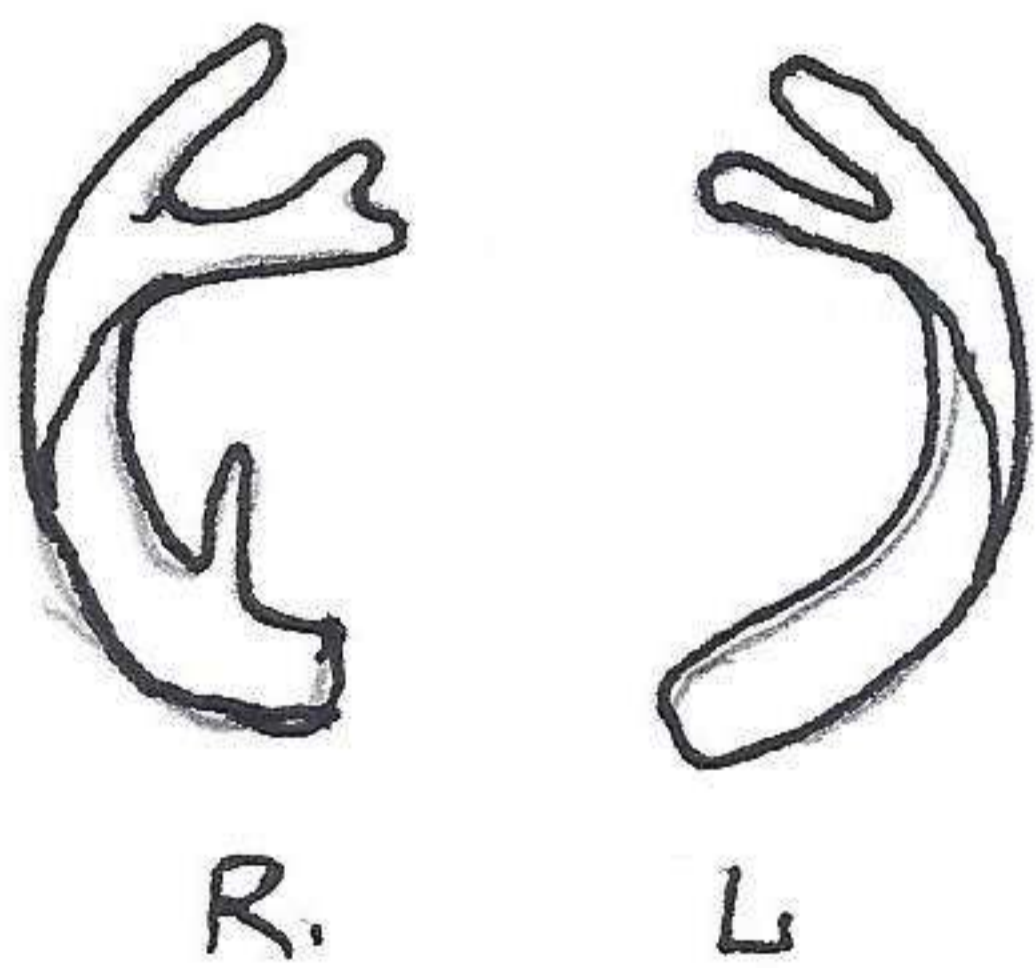
2:30 P.M. marbled murrelet 100' in front of Bee House.

Twin fawns at feeder at Bee House. One with tumor on posterior ramus. These fawn were see today at Grace Church area along side of road.

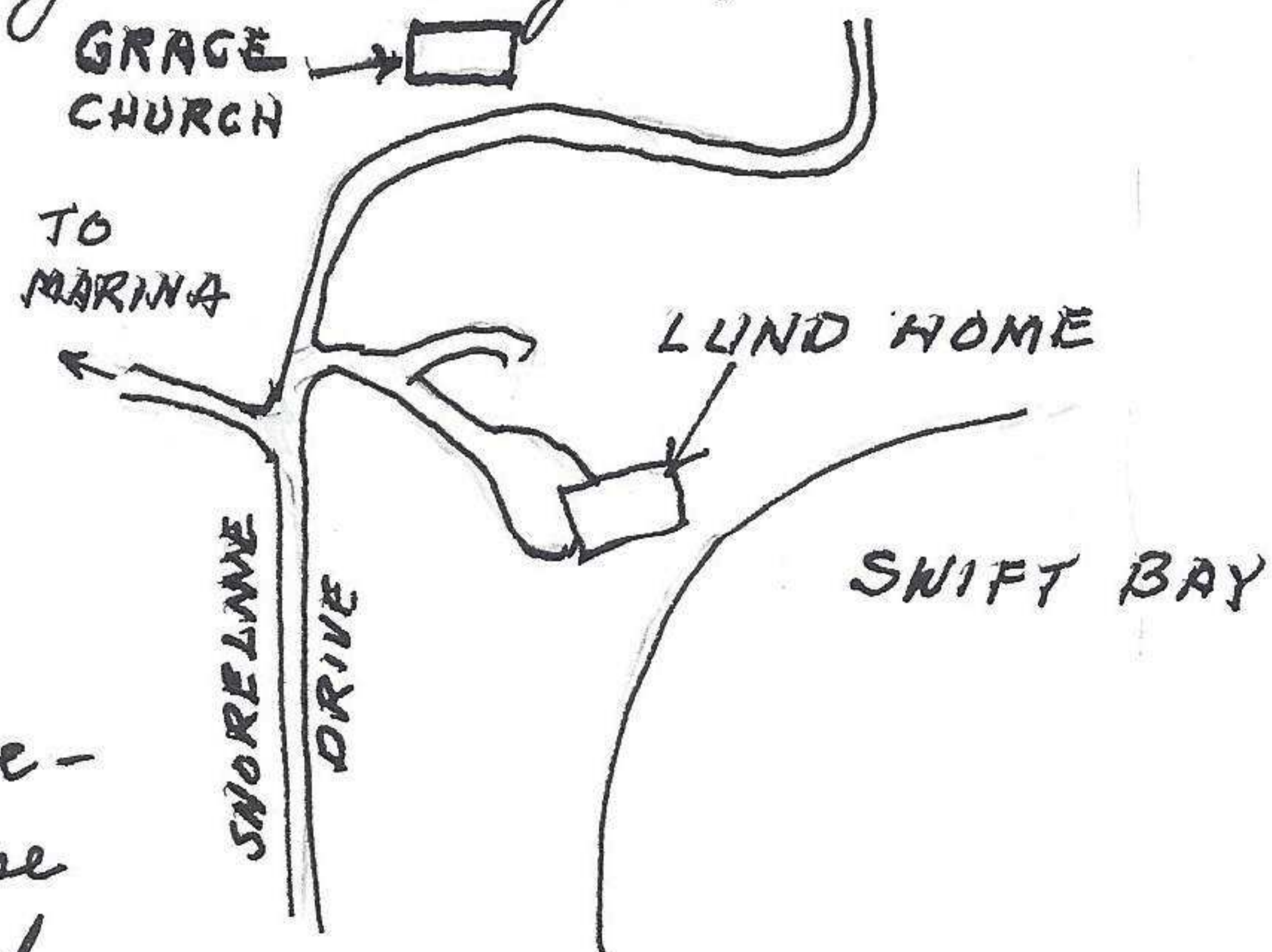
Hairy cat ear, Hypochaeris radicata in full blossom along roads on Lopez Island.

Took Bee Boat from Shoal Bay moorage to Bee House at Spring Cove and return. 11 pigeon guillemot at whitewash cliffs NW Humphrey Head. 3 closely arranged Consvities constitute the roosting nesting cliffs.

8:00 P.M. Single Eye Tine, a mule deer is now with antlers as shown:



norm and Joyce Lund of Humphrey Head reports a mule deer bedding in their yard all night.



Lund also reports a river otter came down their driveway and passed their house by 5 feet while they watched. It almost touched the nose of a ♂ deer as it passed along the upper bank. They also report twin fawns only a few days old. The fawn with tumor at residence (Bee) and observed at Grace Church, was also seen at the Lund residence.

July 16, 1989

10:20 P.M. to Harlequin ducks w side Fisherman Bay causeway. also on w side in San Juan Channel 5 dowitchers<sup>(sp.?)</sup> and one fishing group of: 83 rhinoceros auklets, 56 glaucous-winged gulls, 3 double crested cormorants, 1 Heermann gull and 9 Franklin gulls. On beach on w side causeway, 38 glaucous-winged gulls, 6 dowitchers<sup>(sp.?)</sup>, 8 Franklin gulls. On E side causeway: 28 glaucous-winged, 8 barn swallows feeding over marsh n end causeway, 12 barn swallows also resting on main macadamized road. also one savanna sparrow. Low tide.

At SE of Shoal Bay marina on ridge are 4 great blue herons in tops of Douglas firs. Both adult & young barn swallows flying around marina.

July 17, 1989

The beach of sand and gravel on w side causeway of Fisherman's Bay covered with the same kind of green vegetation that floated by Bee House this A.M.

Between 6:00 - 7:00 A.M. no birds active in N Lopy Sound n of Leo Reef to Bee House.

Bald eagle flew to n by Bee House at 7:20 A.M. at 6:00 A.M. 11 harbor seal on Leo Reef, also 18 glaucous-winged gulls. One harbor passed Bee House out 18 feet.

July 19, 1989

This A.M., the following harbor seal on Leo Reef: 34 seal on rocks 2-7, 5 on no rock 7, 6 on rock 10 and 1 on rock number 11. or Total of 46 seals. no seal elsewhere.

all sexes and ages of mule deer offer a cattlelike call, especially fawns of the year.

debris of sea lettuce, scumlike material and small vegetation in N Lopy Sound last 2 days, especially this A.M. It covers all beach and intertidal zone to high tide level.

An adult ♀ mule deer 28" high at shoulders and one of her fawns with tumor on jaw and a second fawn measured 21" and 20" respectively.

Buster, a ♀ mule deer measured 27½" high at shoulders and her twin fawns measured 19" high at shoulders, each.

7:10 P.M. 38 gulls (sp.?) flew S past Leo Reef, over Flower Island & S over Spencer Spit, sometimes single file.

July 28, 1989

11:47 A.M. To Anacortes. This A.M.: 2 glaucous-winged gulls, Thatcher Pass, 2 glaucous-winged gulls. Through Thatcher Pass approx 3000 Bonaparte gulls in roost length of Pass (to Point Fawcett) and generally spaced, 2 glaucous-winged gulls, 8 glaucous-winged gulls, 4 Bonaparte gulls in fishing formation. Arrived Anacortes ferry terminal.

Returned to Lopez Island, left 7:40 P.M.: 2 double-crested cormorant, 2 glaucous-winged gulls, 1 glaucous-winged gull, 2 glaucous-winged gull, 1 glaucous-winged gull. Arrived Lopez Island.

July 31, 1989

Early this A.M. took Bee Boat to N end Humphrey Head and return to moorage S end Shoal Bay. At white cliffs NW corner Humphrey Head, 2 adult glaucous-winged gulls left nest and 1 young and flew out to meet the boat approx 150' from cliffs and called then returned to nest. Young  $\frac{3}{4}$  size adult. The nest was 10' beyond upper N edge of white cliffs (used by cormorants & gullmots).

Left Lopez Island for Anacortes: In middle of Rosario Straits 13 Bonaparte gulls and 3 glaucous-winged gulls were in feeding aggregation. Also in this same group were 5 rhinoceros auklets, 4 marbled murrelets. Continued to Anacortes.

Left Anacortes for Lopez Island at 7:19 P.M.: 5 individual glaucous-winged gulls, 6 pigeon guillemots. Beacon SW Cypress Island. 2 separate glaucous-winged gulls, 6 pigeon guillemots. Middle Rosario Straits: 1050 pigeon guillemots, 600 glaucous-winged gulls, 40 Bonaparte gulls in three separate fishing groups (local areas of approx 50' x 150'). Red light beacon S end Blukely Island: 30 Bonaparte gulls.

Aug. 1, 1989

At 5:30 P.M. to Bee Boat for varnishing (varnish in full strength put on in late afternoon, turns blistered and whitish the next morning when strikes the varnish. Cure: dilute varnish so that it hardens before evening & night dew). From boat observed prey enter Shoal Bay from E, circled S end of bay and alighted in top conifer tree.

Aug 2, 1989

11:00 Les Reef: 39 harbor seal of rocks 2 to 6; 2 on no. 11 rock. Little Flower Rock 2 harbor seal; 77 Flower Rock, 29 harbor seal or total of 72 harbor seal.  
 a ♂ + ♀ rufous hummingbird at feeder for at least last 5 days.

Aug 3, 1989

♂ ♀ hummingbird (rufous) still in area.

4 ad. ♀, 2 ad ♂ and 4 faun at feeder.

Song sparrow struck window.

Dried algae, fragmented green material on all beaches.

Aug. 4, 1989

To Friday Harbor (car) for scheduling pullout of Bee Boat. While on San Juan Island made trip. No whales w side San Juan Island. At False Bay 120 glaucous-winged gulls in SE corner bay. Rhinoceros auklet and common murre there.

Return to Lopez Island. Left 5:39 P.M.: 3 Bonaparte gulls, 2 Bonaparte gulls, glaucous-winged gull, Bonaparte gull, 1 rhinoceros auklet, 3 rhinoceros auklet, 1 rhinoceros auklet, 2 rhinoceros auklet, glaucous-winged gull, groups of 3, 1, 2 rhinoceros auklets, mew gull, glaucous-winged gull, 3 rhinoceros auklets, 1 rhinoceros auklet, 2 rhinoceros auklet, mew gull, glaucous-winged gull, 27 glaucous-winged gulls, 4 Herrmanns gulls, 2 rhinoceros auklets, 3 rhinoceros auklets, glaucous-winged gull. 5:52 P.M. 2 rhinoceros auklets, 1 rhinoceros auklet, 5 rhinoceros auklets, 6 glaucous-winged gulls, 2 rhinoceros auklets, 7 glaucous-winged gulls, 2 rhinoceros auklets, 1 rhinoceros auklet, 2 rhinoceros auklets, 6:03 P.M. Flat Point, 2 separate glaucous-winged gulls, 15 glaucous-winged gulls, 2 rhinoceros auklets, 5 glaucous-winged gulls, 2 mew gulls 3 Bonaparte gulls, 2 Bonaparte gulls, 27 glaucous-winged gulls, 3 Bonaparte gulls. Arrive Lopez Island.

Early today in A.M 23 american crows arrived at Bee House and this evening another group of same number arrived from Surf Bay area. These flocking groups are first of summer season.

9:30 P.M 4"-5" wing spread bat flew by Bee House and has been observed every evening for the last seven days.

Two point ♂ mule deer investigated the axillary area of front legs of each other. They pulled material out from the hair.

Smallest of pair of fawns 20" high at shoulders.  
♂ mule deer has 3 1/2" knobs as antlers. Visits feeding area every 2-3 weeks.

Aug 5, 1989

Dark-eyed juncos (Oregon subspecies) fed young Cowbird.  
2 ♂ mule deer ate 1/2 gal. Cracked corn in 5 minutes. Noses on corn at all times and moved systematically over corn.

Boat traffic heaviest this year. 80% coming to islands. 20% leaving.

Watched an adult bald eagle fly 5 past roosting white cliffs NW Humphrey Head passing over nest of glaucous-winged gull on cliffs. The gull chased the bald eagle and harassed it the full length of Humphrey Head to beyond Shoal Bay marina, then returned to nest.

9:10 P.M. a bat flew by Bee House several times in an erratic flight. Other bats have a fast straight flight.

Aug 6, 1989

Left Shoal Bay moorage at 10:00 A.M. in Bee Boat for Jensen marina at Friday Harbor. Traveled thru Harney Channel, Wasp Passage, San Juan Channel.

Return to Lopez Island as walkon via ferry. Glaucous-winged gull, pigeon guillemot, Bonaparte and rhinoceros auklets. Not a complete census.

Aug 7, 1989

To Fri. Harbor to check Bee Boat at Jensen's. Left 10:00 A.M. Enroute observed: Harbor seal off S end Shaw Island, rhinoceros auklet, glaucous-winged gull, Bonaparte gull, double-crested cormorant, mew gull. Took trip to False Bay. 2 groups glaucous-winged gull, one 240 another 210 on E shore-line. 1 great blue heron. Returned Friday Harbor thence to Lopez Island. No census.

Aug 8, 1989

Trip Watmough Bay. At Swift Lagoon, 140 western sandpipers,

8 long-billed dowitchers, 6 marbled godwit, 9 greater yellowlegs, 24 mallards.

On Swift Bay on beach 80 Bonaparte gulls.  
at Watmough Bay <sup>3:00 P.M.</sup> only had a belted kingfisher. water crystal clear. E of Watmough Head 8 surf scoters. One mule deer along trail at head of marsh to W.

Alan Past of Lopez Island caught 62 sockeyes, 3 pink salmon. Sockeyes do not bite. Fished off S end Lopez Island.

Aug. 9, 1989

9:11 A.M. left Lopez Island via ferry for Anacortes and Univ. Wash. Med. Center. Enroute on ferry observed: 2 Bonaparte gulls, 18 harbor seal on Leo Reef, 4 Bonaparte gulls, 2 Bonaparte gulls. W Thatcher Pass, glaucous-winged gull, 4 Bonaparte gulls, Bonaparte gull, pigeon guillemot, glaucous-winged gull, 2 separate Bonaparte gulls. E Thatcher Pass (Point Fauntleroy) 2 separate Bonaparte gulls, glaucous-winged gull, 2 Bonaparte gulls, 3 Bonaparte gulls, 1 Bonaparte gull. minimum waves & currents in Rosario Straits. Rhinoceros auklet, glaucous-winged gull, rhinoceros auklet, 3 separate glaucous-winged gulls, pigeon guillemot, double-crested cormorant, pigeon guillemot, glaucous-wing gull. Arrive Anacortes 9:52 A.M.

Stopped off at Chris home at Lost Lake, Snohomish Co. <sup>mule</sup> deer track at Chris place was 81 mm long. Deer had been eating leaves of raspberry bushes, not stems. and had consumed 12 leaves.

Aug. 10, 1989

Left Chris at Lost Lake for Univ. Kansas Med. Center thence to Anacortes. Left 5:20 P.M. on ferry. Birds on piling in SW end bay were 23 glaucous-winged gulls, 85 mew gulls and 4 Bonaparte gulls, all on piling. Enroute to Lopez Island: 3 Bonaparte gulls, 1 rhinoceros auklet, 3 groups of 4-3-2 glaucous-winged gulls. E Thatcher Pass, 2 separate Bonaparte gulls. W. Thatcher Pass. 2 pigeon guillemots, pigeon guillemot, 2 Bonaparte gulls, 3 Bonaparte gulls. Willow Island. Bonaparte gull, 11 pigeon guillemots, 3 separate groups of Bonaparte gulls. Arrive Lopez Island.

Aug 11, 1989

Harbor seal observed this AM 9:35:

6 on rocks 2-6 Leo Reef.  
 4 " " " " "  
 3 on Little Flower Rock.  
 23 " north " "  
 36 total.

13 glaucous-winged gulls on Flower Island.  
 a ♀ deer of last year now 27" high at shoulders (short legged)  
 Bat active at Bee House 8:45 P.M.

Aug. 12, 1989

6:23 A.M. ad. bald eagle flew S past Bee House at 55' and 50' out from house.

An American crow arrived Bee House 6:25 A.M. Crow wing beat 2x rate eagle. no other birds in Lichen Point, Leo Reef, Bee House quadrants.

10:00 A.M. ♀ mule deer 30" high at shoulders. Her young measured 24" and 26". Another ♀ mule deer at feeder at same time measured 30" high at shoulders. A female mule deer 29" high at shoulders and young 22" high.

4:30 P.M. At Swift Bay:

8 marbled godwit  
 96 western sandpipers  
 1 killdeer  
 13 mallards  
 16 greater yellowlegs.

Aug. 13, 1989

1:20 P.M. rufous humming bud ♀, at Bee House feeder.

8:35 P.M. 6" wing-spread bat flew 100 high over water out 30' from Bee House. It flew past 3 times. Then a small bat joined larger bat.

Aug. 14, 1989

Intermittent rain last night.

9:45 A.M. Harbor seal:

11 on Leo Reef, rocks 2-6.  
 6 " " " " 9  
 2 Little Flower Rock  
 39 n Flower Rock  
 58 Total.

18 glaucous-winged gulls on Flower Island, generally distributed.

Aug 15, 1989

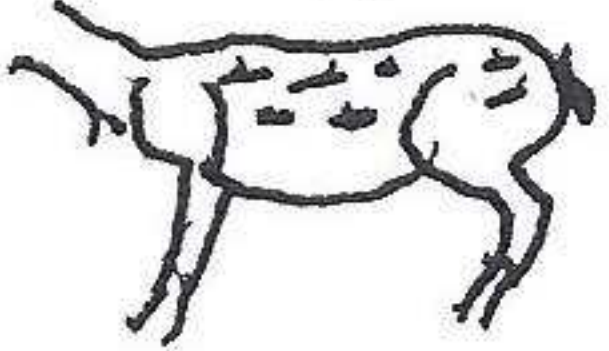
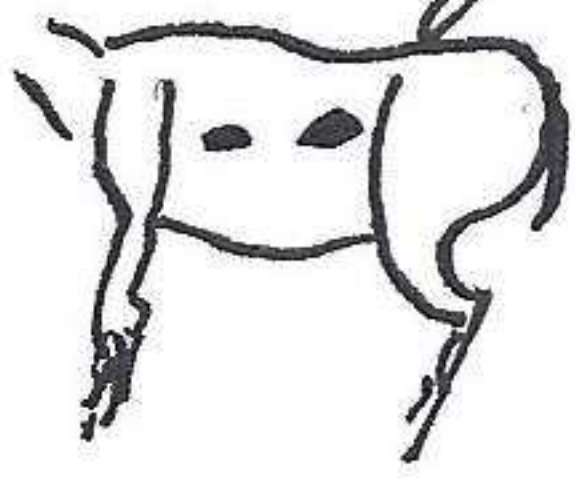
Harbor seal: (8:30 A.M.)

17 Leo Reef, rocks 2-6.

16 Little Flower Rock

46 N. Flower Rock

79 total.

8:25 A.M. ♂ mule deer with notched ear is dominant among local deer herd. Starting gray winter pelage   
 ♀ 29" high at shoulders starting winter pelage.  Winter pelage shades gray among golden brown of summer pelage.

11 mule deer feed all at one moment in a feeder approx. 10" x 12". including 2 ♂ (2 pointers), 1 ♂ 29" high at shoulders (knobs and 1/4" antler exposed), 4 adult ♀ and 4 fawns, ♂ adult mule deer feed together at feeder but not when grain is on the ground.

9 band-tailed pigeon at feeder, usually 1 or 2.

10:00 A.M.  
 Left Lopez Island for Friday Harbor to pick up Bee Boat at Jensen's marina and to return the boat to Shoal Bay moorage. Birds observed from ferry enroute to Jensen. 6 pigeon guillemots, mew gull, 2 pigeon guillemots, glaucous-winged gull, rhinoceros auklet, 5 of Shaw Island (SE). 18 rhinoceros auklets, 2 glaucous-winged gulls, glaucous-winged gull. Arrived Friday Harbor, thence Jensen's marina trip to Shoal Bay via upright channel 2 1/2 hrs at 11 RPM. Selective bird observations. Rhinoceros auklets singles to groups of 15, approx. 38 all told, mainly San Juan Channel. Pigeon guillemots 6 and generally distributed. Northern phalaropes 200 E of Shaw Island, about middle shoreline N-S. Bonaparte gulls approx. 20 and glaucous-winged gulls 6. a sea lion sp? with 20" salmon 100' off E mid shoreline of E side of Shaw Island. 2 harbor seal enroute. 4 double-crested cormorant on white walls NW corner Humphrey Head.

Aug 16, 1989

Ad. ♀ mule deer with cut on left cannon bone 30" high at shoulder.



♀ mule deer with young 90% spots gone.

♂ with notched left ear with antlers now clean of velvet and bone reddish.

Bald eagle past Bee House flying 5. Sighting average 1 bald eagle every other day.

10:15 A.M. Harbor seal:

21	on	Leo Reef,	rocks	2-5.
2	"	"	"	10
49	north	Flower Rock		
<u>1</u>	Little	Flower Rock		
71	total.			

Bee Estate, Humphrey Head, Lopez Island, San Juan Co., Wa.  
Aug. 17, 1989

Total eclipse of moon last night, and when moon shining perfect reflection on water.

♀ mule deer and 2 fawns 29 $\frac{1}{2}$ , 22, 24 inch high at shoulders respectively. Fawn 24" high losing spots and new midline (back) hair.

Second 2 point ♂ mule deer still with velvet on antlers.

At 8:30 A.M. observed harbor seal:

18	on	Leo Reef,	rocks	2-6.
9	"	"	"	9
1	"	"	"	11
<u>24</u>	n	Flower Rock		
52	total.			

10 glaucous-winged gulls Leo Reef.

30 " " " and 7 double-crested cormorants on Flower Island.

Adult dark eyed juncos (sub sp. Oregon) feeding young.

8 purple finch.

Aug 18, 1989

Boat trip to Watmough Bay via Lopez Sound, Lopez Pass. Left moorage S end Shoal Bay at 11:46 A.M. at 2648.5 kv. meter. Will keep complete census enroute: 11:30 A.M. great blue heron, 11:33 A.M. white wall NW Humphrey Head, 7 pigeon guillemots 100' out from white wall and 4 double-crested cormorants. 11:35 A.M. N end Humphrey Head, glaucous-winged gull. 11:46 A.M. Passing Bee House. 11:49 Leo Reef 22 harbor seal on rocks 2-6, 1 on rock 10, 18 on N. Flower Rock, Bonaparte, glaucous-winged gull, pigeon

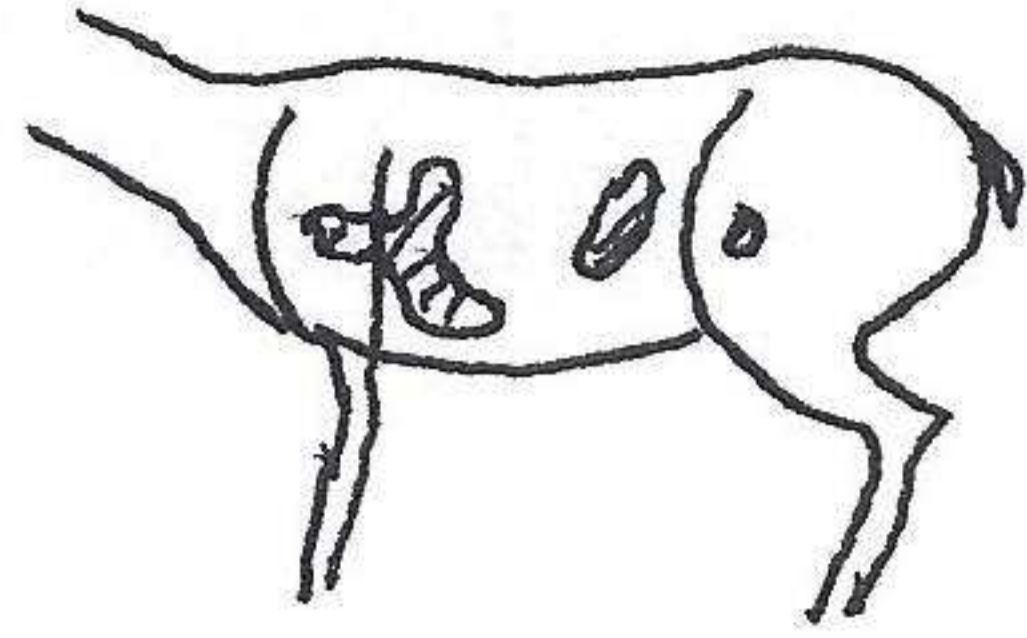
guillemot, Bonaparte gull. 11:57 AM Flower Island, 7 pigeon guillemot, 12:07 P.M. Spencer Spit (E end), 2 marbled murrelet, Bonaparte gull, Bonaparte gull, pigeon guillemot. 12:17 harbor seal, pigeon guillemot. 12:26 Trump Island Channel at N end, glaucous-winged gull, great blue heron. 12:33 S end Trump Island, glaucous-winged gull, 2 Bonaparte gulls, 1 Bonaparte gull, 6 Bonaparte gulls. 12:39 NW end Center Island. 12:45 P.M. SW Center Island, 2 pigeon guillemots, 2 marbled murrelets. 12:57 Radar Reflector, Red no 4, passed to port side, now SW Rams Island, marbled murrelet, 1:06 E end Lopez Pass. 1:16 P.M. 2 American Crows. One group of 7 Heermann gulls, 24 glaucous-winged gulls, 6 Bonaparte gulls, 2 marbled murrelets and 4 pigeon guillemots. As far as I can see to S are groups of 5-20 nesters, those near by are surf nesters. I would estimate 275. Pigeon guillemot, 2 pigeon guillemots, 2 marbled murrelets, pigeon guillemot, 2 glaucous-winged gulls, 2 pigeon guillemots, 2 marbled murrelets, group 28 glaucous-winged gulls, 11 Heermann gulls, 6 double-crested cormorant, and 1 pigeon guillemot. 1:46 P.M. Cape <sup>St.</sup> Mary. 103 Heermann gulls, 87 glaucous-winged gulls, 2 great blue heron, on shore at point. Glaucous-winged gull, pigeon guillemot, marbled murrelet, 6 pigeon guillemot, 2 Bonaparte gulls, 2 marbled murrelets, 2 marbled murrelets. 1:57 P.M. Watmough Bay. Travel time from Shoal Bay 3 hrs, 11 min. One turkey vulture circling top Chadwick Hill. This is one of the choice scenic areas of Lopez Island.

Left Watmough Bay 2:06 P.M. and returned via James Island, Thatcher Pass, just S of James Island 80 glaucous-winged gulls resting on water for local action. also another group of 25 rhinoceros auklets. and another of 18. One fishing area of 120 glaucous-winged gulls and no other kind of birds. In James Island Channel 8 rhinoceros auklets, and 1 harbor seal. 23 Bonaparte gulls generally distributed W side Humphrey Head. Arrived Shoal Bay moorage at S end at 4:47 or 2 hrs 41 min on return trip compared to 3 hrs 11 min via Lopez Sound, Lopez Pass route.

Aug 19, 1989

at Bee House a 2 point ♂ mule deer calls like fawns but louder and higher pitched groan.

♀ mule deer 28" high at shoulders:  
winter pelage showing on summer  
golden-brown pelage.



Aug. 20, 1989

Harbor seal:

Leo Reef, rocks 3-6 are 16 seal

Little Flower Rock is 1 seal

North Flower Rock are 9 seal

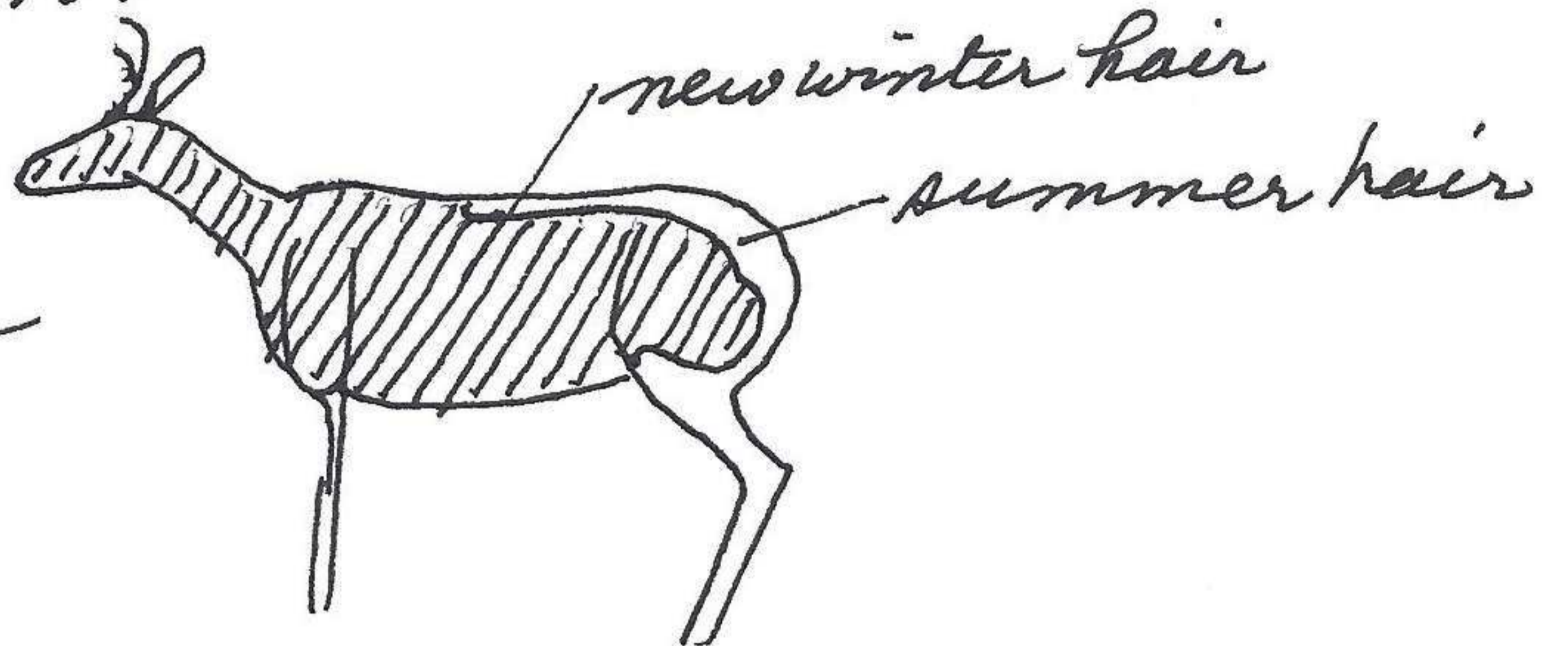
Total 26

10:05 A.M. To Bee Boat moored in S end Shoal Bay. Rain last night. Belted kingfisher on top mast, flew to mainland. From boat caught a Leptocestus armatus, Pacific stag-horn sculpin. It measured 230 mm standard length and weighed 255 grams.

Aug. 21, 1989

95% fog and overcast.

♂ mule deer, 2 points, <sup>no</sup> velvet and dominant ♂. Some summer pelage still between ears and antlers.



♀ mule deer first to molt and is the most active and unconfiding of ♀'s.

♂ molted, antlers clean of velvet.

♂ unmolted, 33" at shoulders and antlers free of velvet.

♂ " and velvet still on antlers. Above 3 at feeder at same time. Molt starts from head, <sup>and</sup> moves posteriorly to ears and antler areas of head.

Photo 890821-1 of wind sailing in Spring Cove. One of O'Leary's renters.

2 bats started evening flight at 8:24 P.M. and continued to dark at least.

Aug. 22, 1989

Buster, a ♀ mule deer had 2 fawns, 1 23" high at shoulders ♂ with antler buds under the skin. The second one 22" high at shoulders. Both have a new dark dorsal median line of new pelage but both with spots in pelage.

♂ mule deer with notched left ear is in complete gray winter pelage.

2:23 P.M. Swift. Lagoon. 2 greater yellow-legs only.  
Turkey vulture soaring above.

Aug 23, 1989

mule deer call with a high muffled nasal whine or cry with mouth open

Aug. 24, 1989

8:00 A.M. first fall flock of band-tailed pigeon, 15 of them.

Aug 26, 1989

9:46 A.M. Harbor seal in area:

Leo Reef, rocks 1-6,	10 seal
" " " 9	6 "
" " " 11	2 "
Little Flower Rock.	7 "
north Flower Rock	13
Total	38

22 glaucous-winged gull Flawn Island

Purchased 3 sockeye salmon from Ran Post of Lopez.

We caught them near Cobville Island S end Lopez. They measured: ♂ 22 1/4" standard length, ♀ 21 1/2" S.L., ♀ 22 1/2" S.L.

Ordinarily while eating dinner on porch of Bee House, there are generally 2 to 9 yellow jackets but today at noon, there were from 1-4. Ran Post reports yellow jackets numerous on upland Lopez Island. The yellow jackets arrive at porch in groups of 2-3, rarely singles.

Aug. 27, 1989

2 ♂ 2 point deer I called 6 times at 7:34 A.M.

Harbor seal in area:

10 seal on Leo Reef rocks 1-6
6 " " " " " 9
2 " " " " " 11
23 seal on N Flower Rock
14 " on Little Flower Rock
2 " on Beg Flower Rock.
<u>57</u> Total

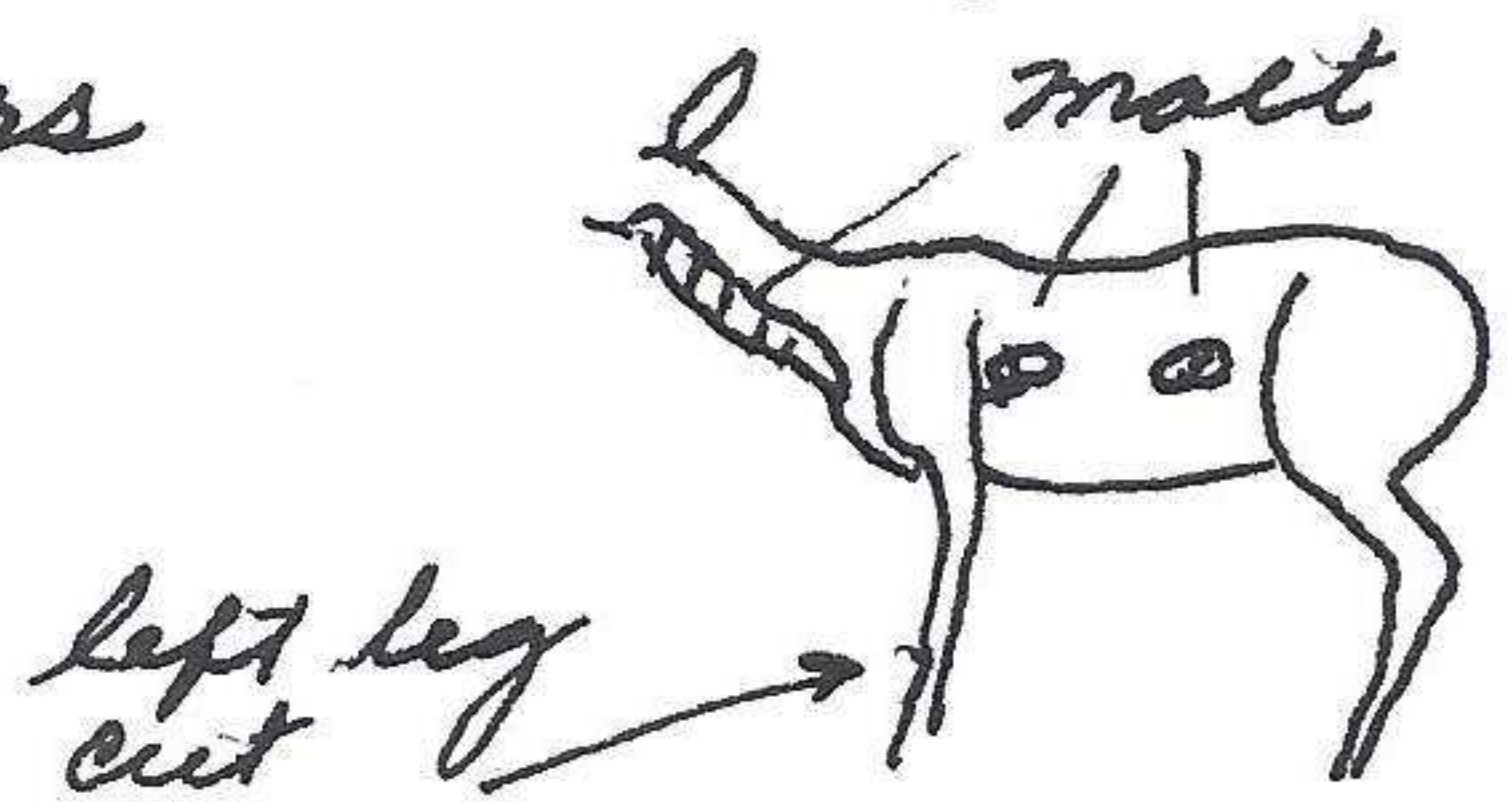
Aug. 29, 1989

890829-1 insect, horn tail, Family Sircidae. From Bee Estate, Humphrey Head, Lopez Island, San Juan Co., Washington.

♀ mule deer 29" high at shoulders  
molt changes same on both right  
and left side.

Other ♀'s no change in <sup>winter</sup> molt.

In SW Shoal Bay are 41 crab  
traps.

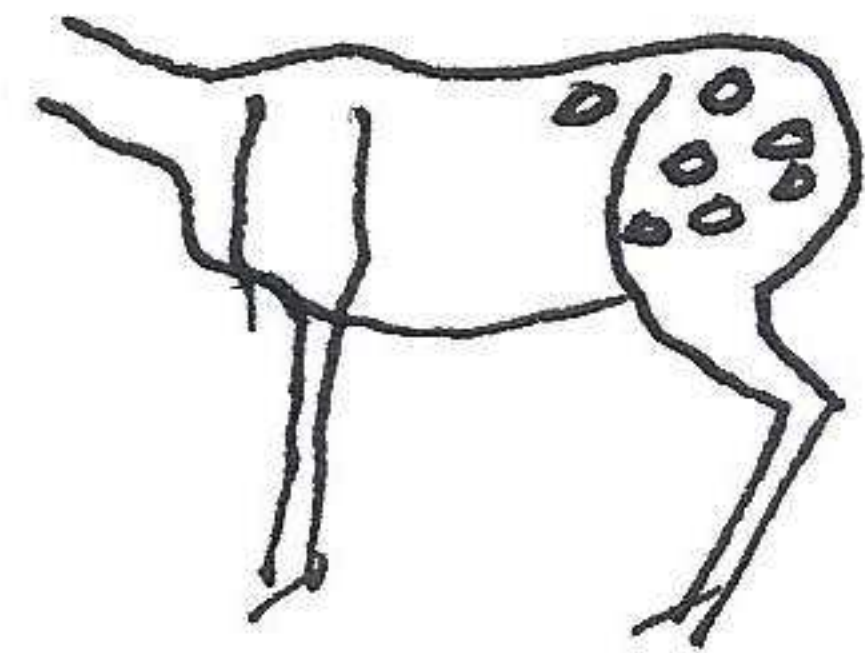


Aug 30, 1989

7:30 AM 2 young ♂ mule deer with 2 points ♂ were sparring with each other, pushing back 2 feet or more at times. The dominant ♂ mule deer, in winter pelage, approached the 2 sparring deer and they stopped. Later the dominant male sparred with one of the 2, 2-point ♂'s, while the second 2-point deer rested on the ground 15 feet away.

a fawn ♂ mule deer with antler buds with spots reduced to headquarters.

To Anacortes and then Bellingham. Left Lopez Island ferry at 9:20 A.M.



glaucous-winged gull. Willow Island. 2 glaucous-winged gulls, Bonaparte gull, SW Blakely at beacon, <sup>ON</sup> Pointer Island. approx 210 glaucous-winged gulls, 65 double-crested cormorant, 18 harbor seal. middle Rosario Straits, glaucous-winged gull, Heermann's gull. Arrive Anacortes ferry terminal. Flock approx. 60 starling alight in blackberry bushes and ate berries. Took Anacortes ferry to Lopez Island.

Sept. 1, 1989

♀ mule deer 28" high at shoulders and her 2 fawns, ♂, antler knobs, and 22" high at shoulders, sister fawn also 22".

♀ ad. mule deer 29 1/2" high at shoulders and fawn 19 1/2 smallest fawn in local herd. Spots and pelage still fresh and distinct.

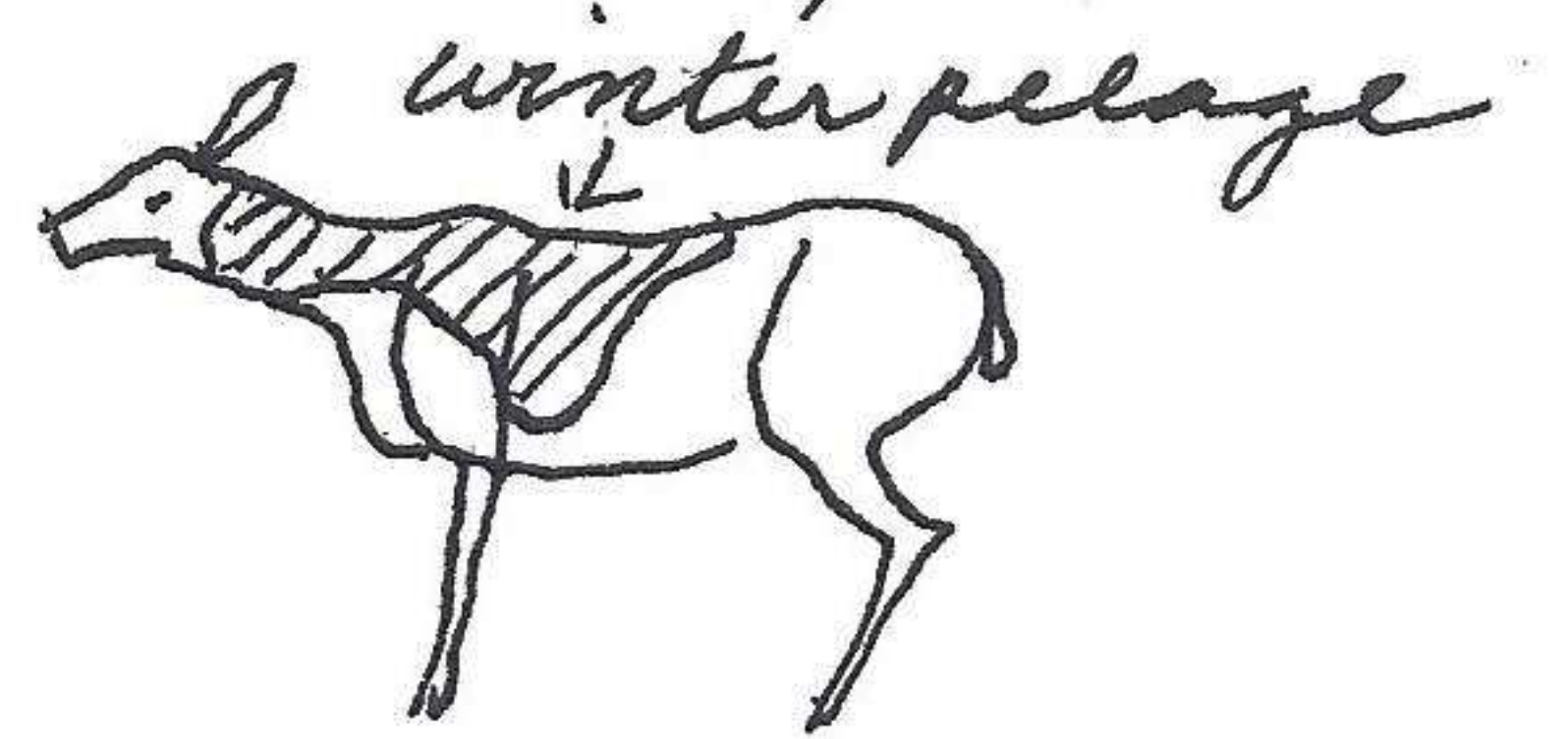
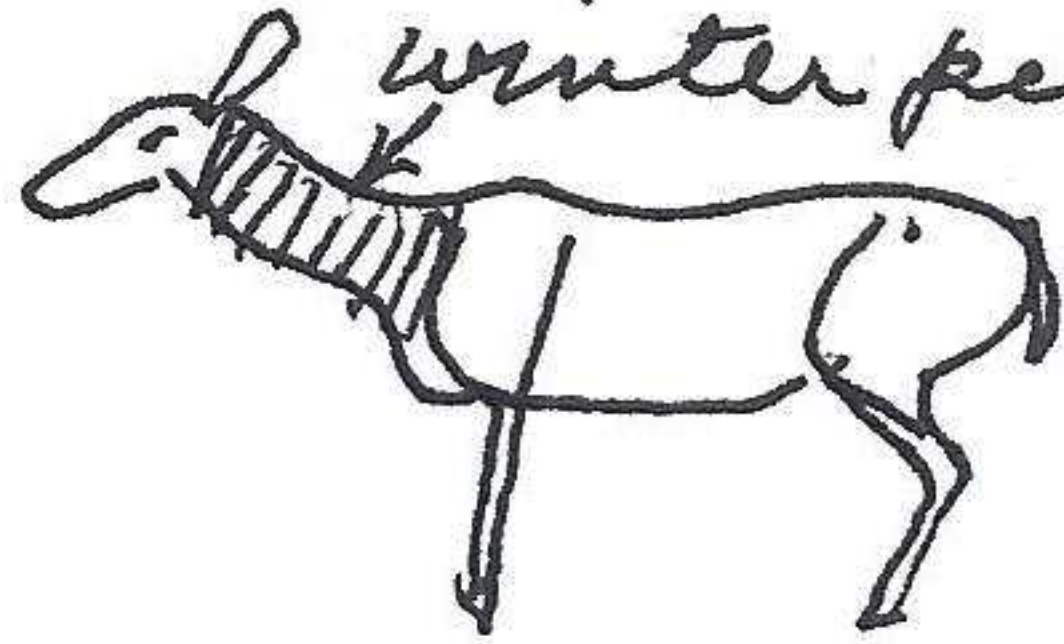
From noon to 6:00 P.M. 2 belted kingfishers flew around Bee House with house center of activity. They were not fishing.

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

Sept. 2, 1989

4 river otter swam n past Bee House at 7:45 A.M. See journal for last time observed.

of the 3, ♂ mule deer in local group, just one completed molt and now in winter pelage, 2nd ♂  
3rd ♂



Sept. 3, 1989

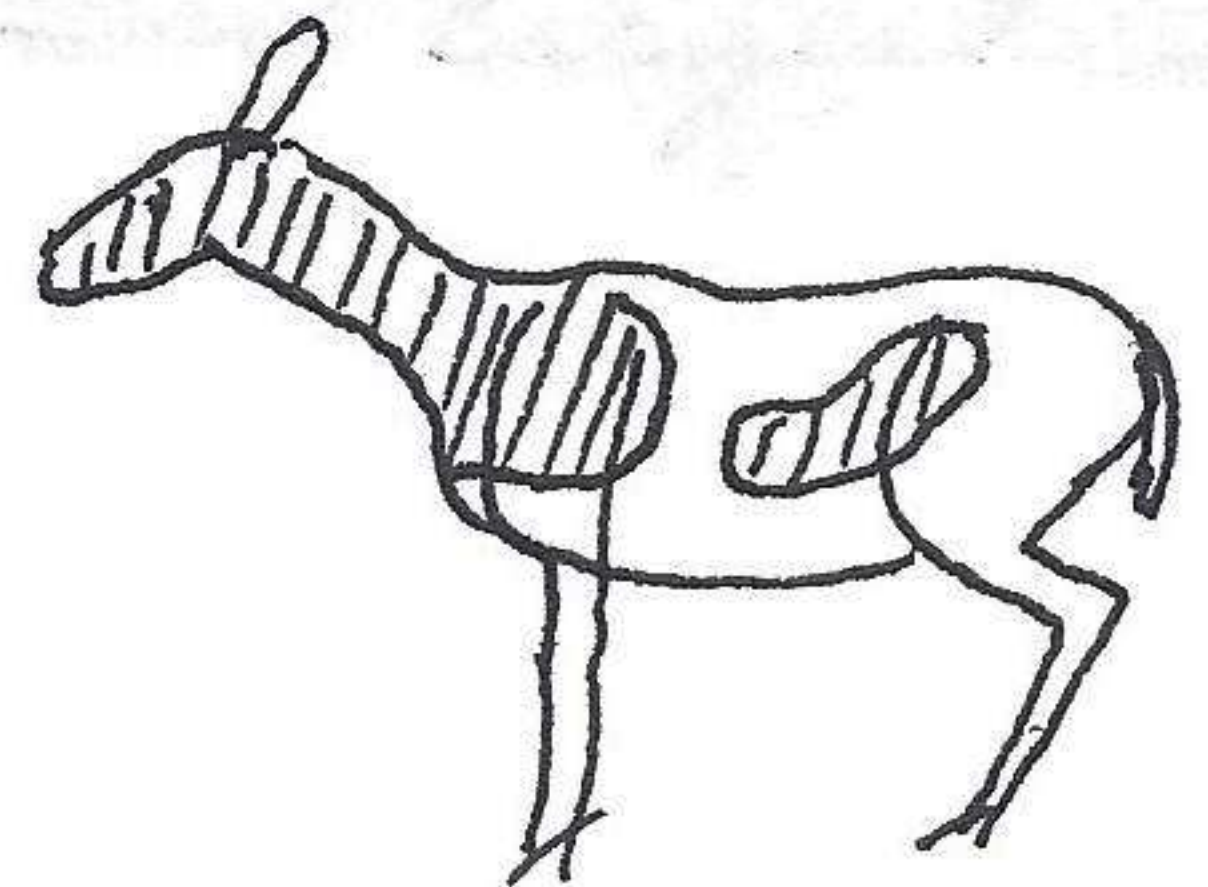
890903-1 insect, horntail, Family Soricidae, Bee Estate.

Sept. 4, 1989

A male mule deer 33" high at shoulders

2 ♂ mule deer, 2 points each, call frequently with a squeaky nasal call, sound something like a door hinge.

After vibrant leaves, antlers, female mule deer show greater respect for ♂



Sept. 6, 1989

In Shoal Bay water brown from algae bloom.

Captured 2 yellow jackets from Bee Boat at moorage in Shoal Bay some 200' from shore. These are:

890906-1 yellow jacket

890906-2 " "

At least 7 of these kinds of insects came to boat during 4 hours in the afternoon. One common tern flew by.

Sept 7, 1989

To Anacortes, Left Lopez Island 10:10 A.M. 8 harbor seals on Leo Reef, all north side. Bonaparte gull. Willow Island. Glaucous-winged gull. In Thatcher Pass approx 550 mew gulls generally distributed. Lawson Rocks; 10 double-crested cormorant, 250 mew gulls on bull kelp of Lawson Rocks, Glaucous-winged gulls generally distributed on Pointe Island. In middle Rosario Strait. 50 Bonaparte gulls, 2 rhinoceros auklets, 2 rhinoceros auklets, glaucous-winged gulls, marbled

murrelet, 2 glaucous-winged gulls, 5 glaucous-winged gulls feeding 2 feet from harbor seal, 2 glaucous-winged gulls, 5 rhinoceros auklets, glaucous-winged gulls. Arrived Anacortes. Left Anacortes ferry terminal for Lopez Island. At Willow Island, 90% of white <sup>bird</sup> excrement on SW cliffs has been washed off rocks.

Sept. 8, 1989

Clouds of brown algae at Shoal Bay marina, less so at Bee Boat anchorage at S end bay.

At Bee Boat caught 2 dogfish 17", 18" respectively. The first one caught 1:10 P.M., the second one at 5:15 P.M.

Sept. 10, 1989

To Bee Boat in Shoal Bay. In 5 hrs no sharks caught. Two belted knifefishers, adult and juvenile following each other. One, the adult would dive into water and the second one followed. No minnows were captured.

890910-1 Bee fly, diptera from boat on Shoal Bay, S. end.

At Bee House caught following insects:

- 890910-2 large black diptera
- 890910-3 small diptera
- 890910-4 " "
- 890910-5 " "
- 890910-6 yellow jacket.

Sept. 11, 1989

To Bee Boat, S end Shoal Bay at 450' n and 600' w mouth Humphrey Lagoon. (Bee Boat moorage). <sup>2 group</sup> Approx 200 and 120 mew gulls on beach at exit Humphrey Lagoon. At boat caught 3 dogfish sharks: 27" standard length at 11:30 AM, 29" standard length at 1:28 P.M. and 32" S.L. at 5:46 P.M.

yellow jackets average 1 (1-3) per one at any particular moment.

at Bee House have not observed a rufous-sided towhee in last month. Chestnut-backed chickadee first since last recorded in journal.

Current composition of mule deer at Bee House:

3 2 point ♂

1 ♀ and 2 fawns one of which is a ♂

1 ♀ " " "

1 ♀ " " "

1 ♀ and 1 fawn (♀).

1 ♀ without a fawn or total of 15 deer.

The visitation to the feeder at Bee House is generally in morning and again in evening. One ♀ and fawns regularly visit at around noon. Some remain in area all day resting within 100' of house & feeder, others leave Bee House & Estate. Trails are more numerous and more heavily used than in last 2 years. Areas immediately around house are being trampled.

Sept. 12, 1989

Left Lopez ferry terminal 10:20 A.M. for Anacortes. Water calm. Willow Island, double-crested cormorant. Roft of small green debris along route. Glaucous-winged gull, marbled murrelet, W Thatcher Pass, Pointer Island & harbor seal on n end island. Glaucous-winged gulls generally distributed on island. Also 13 double-crested cormorants. In middle Rosario Straits, 1 harbor seal, 2 rhinoceros auklets, 1 glaucous-winged gull. Light beacon SW Cypress Island, 3 double-crested cormorant and 1 rhinoceros auklet. Arrive Anacortes 11:10 A.M.

On return to Lopez Island left Anacortes via ferry at 5:20 P.M. In bay SW Anacortes ferry terminal, 123 gulls including 22 glaucous-winged gulls, 18, ring-billed gulls 83 mew gulls. Also 1 great blue heron, 8 double-crested cormorants. Observations made either port or starboard sides and <sup>up to</sup> 300 out from boat. Today on starboard side and usual 2 seat aft on main deck. Glaucous-winged gull, glaucous-winged gull, double-crested cormorant. Light Beacon SW Cypress Island. 8 Common murre, 13 mew gulls in close feeding group, 1 double-crested cormorant, 8 glaucous-winged gulls. Lawson Lock. W Thatcher Pass. 3 marbled murrelet, Willow Island. Arrive Lopez Island ferry terminal,

Sept. 13, 1989

To Bee Boat in Shoal Bay. At 3:30 P.M. caught dogfish shark 29" standard length. None from 11:00 A.M. when I arrived at boat.

890913-1 Bee fly from boat at 450' N and 600' W mouth Humphrey Lagoon.

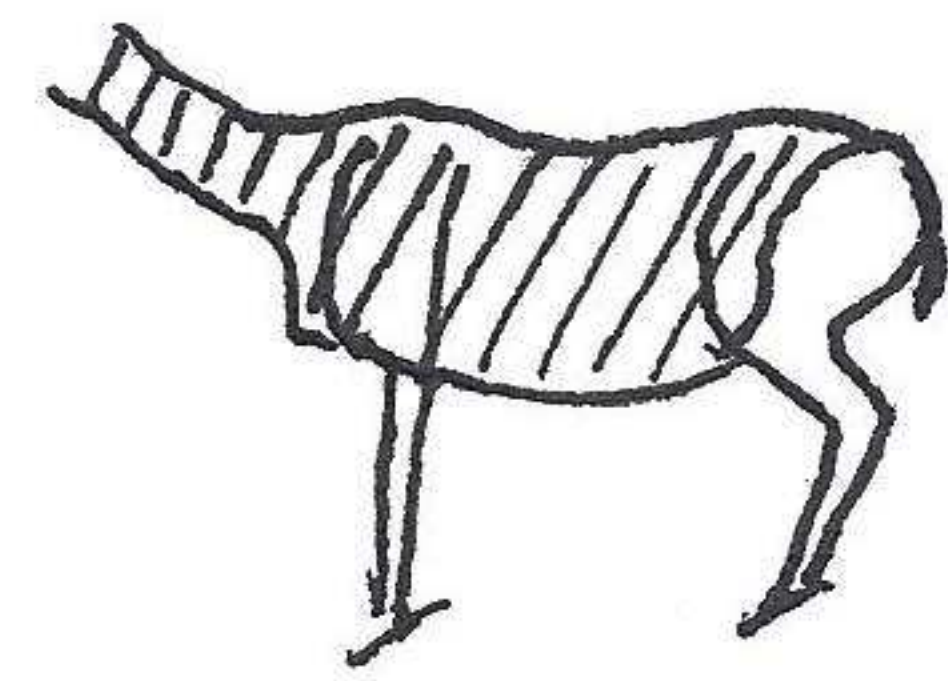


890913-2 yellow jacket. From same locality as above.

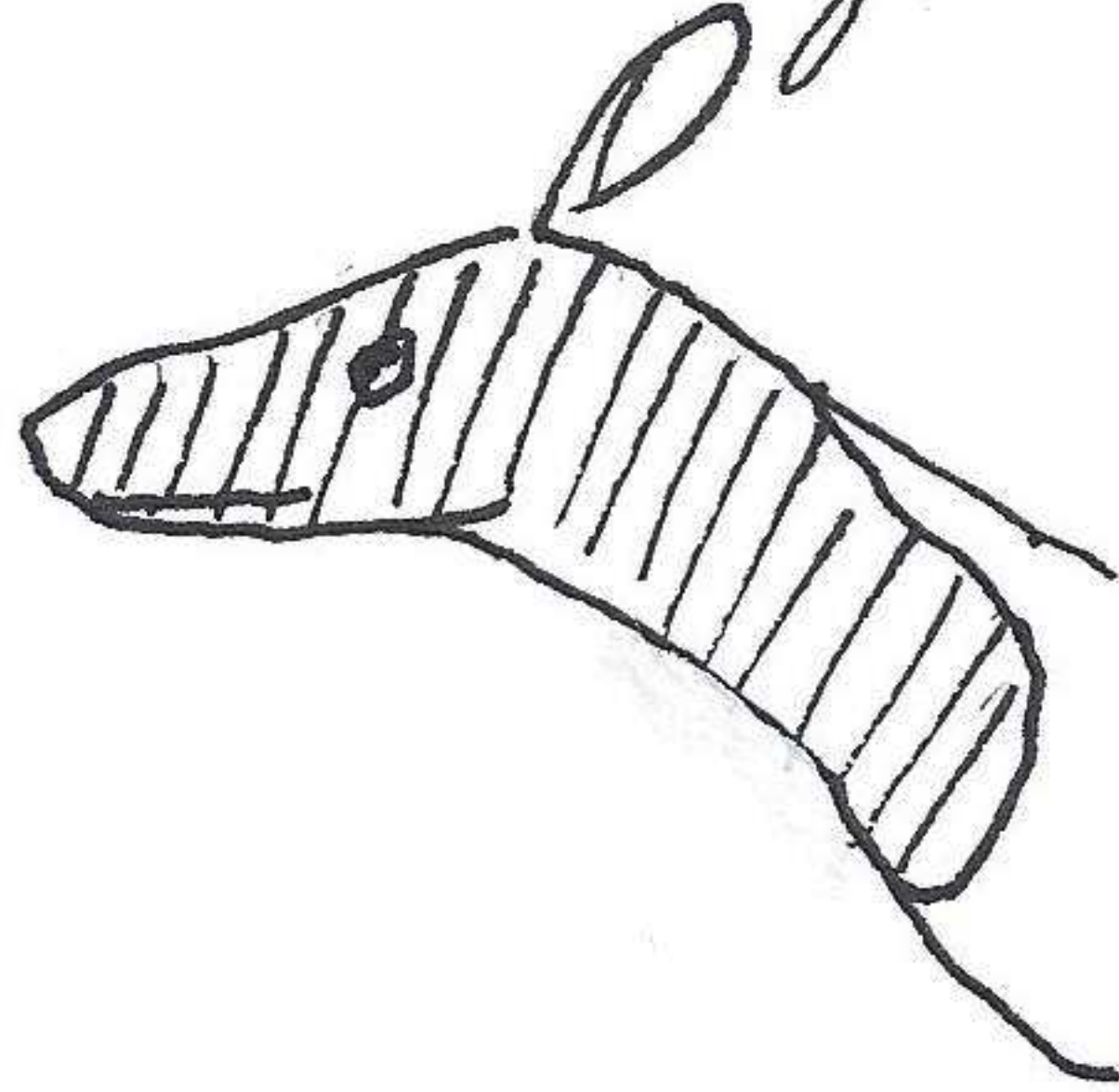
At Bee House collected a spider 890913-3 from tube.

Sept. 14, 1989

At 8:00 A.M. an adult ♀ mule deer at Bee House measured 29" high at shoulders. Its pelage is: She has a fawn 24" high at shoulders.



Another ad. ♀ only has new pelage on neck



To Bee Boat at anchorage in S end Shoal Bay. Caught three dogfish shark:

12:46 P.M.	♀	27"	S.L.
3:21 P.M.	♀	26"	S.L.
5:25 P.M.	♂	27½"	S.L.

Sept. 15, 1989

To Bee Boat in S end Shoal Bay moorage. At 4:30 P.M. caught dogfish shark 29" S.L. No other sharks from 10:00 A.M. to 6:30 P.M. except above.


Sept. 16, 1989

Bee House. notes on mule deer at feeder:

Buster, a ♀ mule deer 28½" high at shoulders  
 a ♂ 2 pointer mule deer 31" high at shoulders.  
 a ♀ mule deer 29" high at shoulders.  
 a ♀ mule deer 29" high at shoulders.

The total composition of mule deer at feeder are:

5 ♀, 3 2 point ♂, 9 young (3 of which are ♂), or total of 17.

Two of the smallest deer have clear spots, old young have lost spots and molted into gray of winter pelage, except one that still has spots on upper hind quarters. all fawns have rows of spots on either side of medial line.  This is all the mule deer that regularly come to feeder. There have been transient. The 4 large 4 point ♂ have not been

seen since last recorded in journal.

Sept. 17, 1989

To Bee Boat in Shoal Bay. a raven called 3 hours from 11:00 A.M. to 2:00 P.M. from SW end of Shoal Bay.

Sept. 18, 1989

at 8:00 A.M. a common raven flew N over Bee House at 80' high. It called as it passed and continued N.

Left for Anacortes at 10:05 A.M. via ferry boat, 2 mew gulls. Leo Reef with 10 harbor seal. 8 glaucous-winged gulls, glaucous-winged gull, 2 mew gulls, 1 glaucous-winged gull, W Thatcher Pass. 180 mew gulls generally distributed in pass, 2 glaucous-winged gulls. E Thatcher Pass. 4 Bonaparte gulls, 2 rhinoceros auklets. SW Cypress Island at light beacon. 2 mew gulls. 2 double-crested cormorant, 3 glaucous-winged gulls, 1 common murre, 2 glaucous-winged gulls, 9 common murre, 1 glaucous-winged gull. Arrive Anacortes ferry terminal.

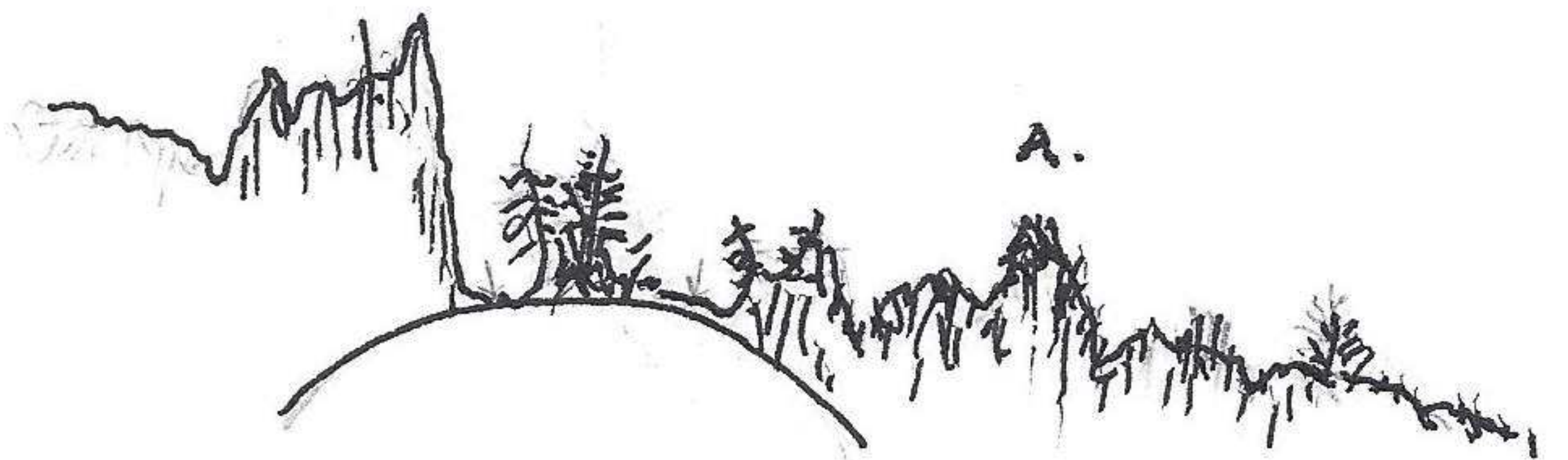
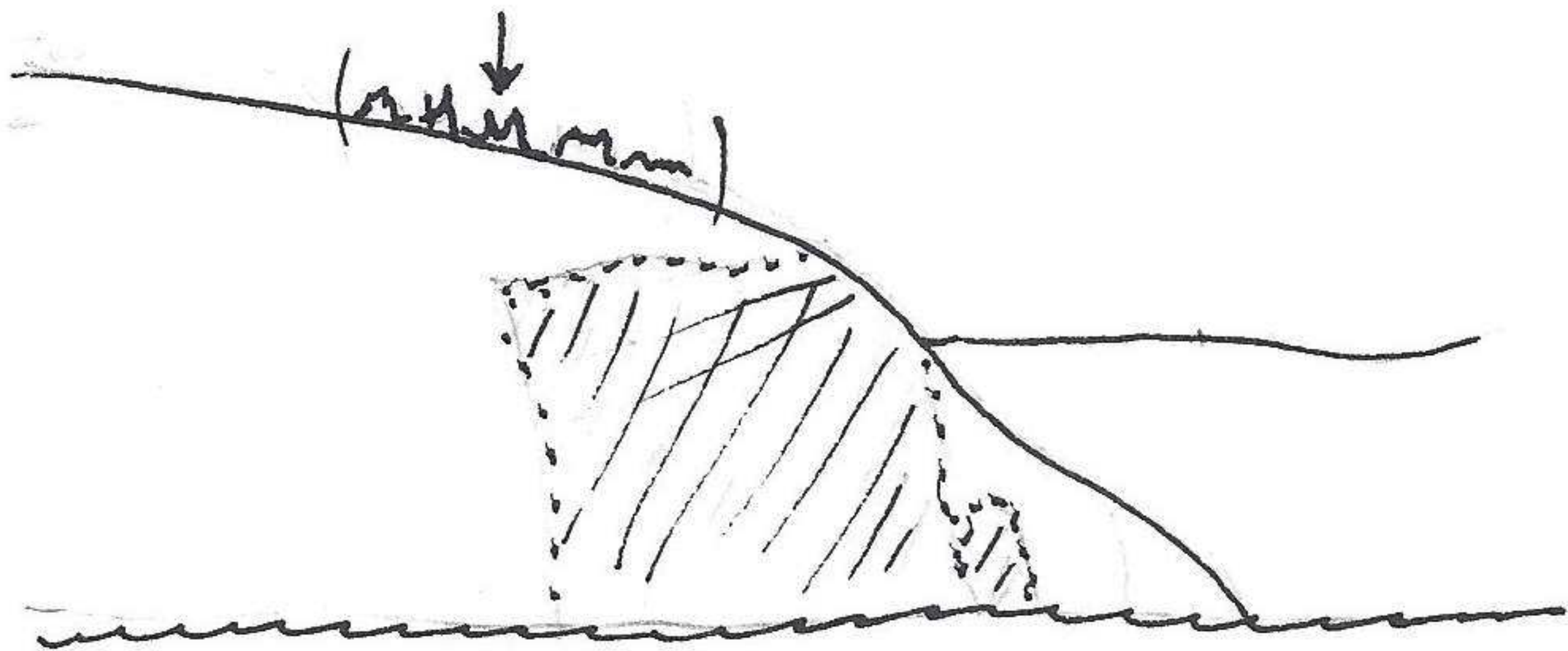
Continued to mt. Vernon, then returned to Anacortes. Redtail hawk of junction 20 and Reservation Rd.

Left Anacortes <sup>ferry terminal</sup> for Lopez Island at 5:30 P.M. 3 mew gulls, 9 common murre, 7 rhinoceros auklets, 6 glaucous-winged gulls, 7 common murre. SW Cypress light beacon. 2 glaucous-winged gulls, 2 individual glaucous-winged gulls. W. Thatcher Pass. 2 individual double-crested cormorants, 2 individual glaucous-winged gulls. Arrived Lopez Island ferry terminal.

Sept. 20, 1989

Sunrise 7'17" 20 sec. A.M. on top of Bald Bluff on Blakely Is-  
no. min sec.

land with viewpoint at Bee House on Lopez Island.



10:00 AM To Bee Boat to take oil aft platform.

James Robert Bee, son, arrived from Lawrence, Kansas  
5:00 P.M. Rabbit (domestic introduced) road kill 1/10 mi. N  
junction Hummel Lake and Center roads. 2 turkey vultures  
circling N end Humphrey Head.

Sept. 21, 1989

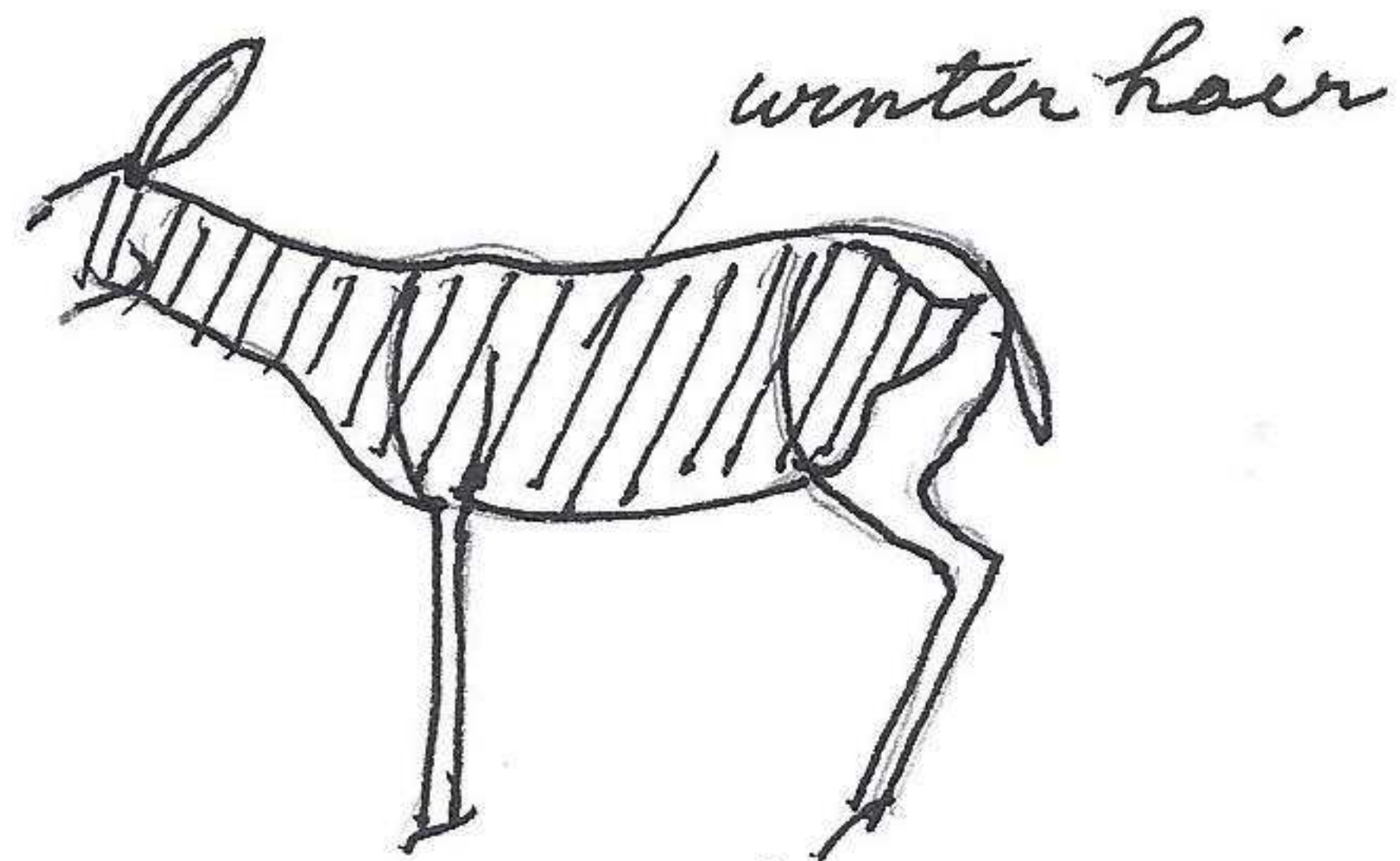
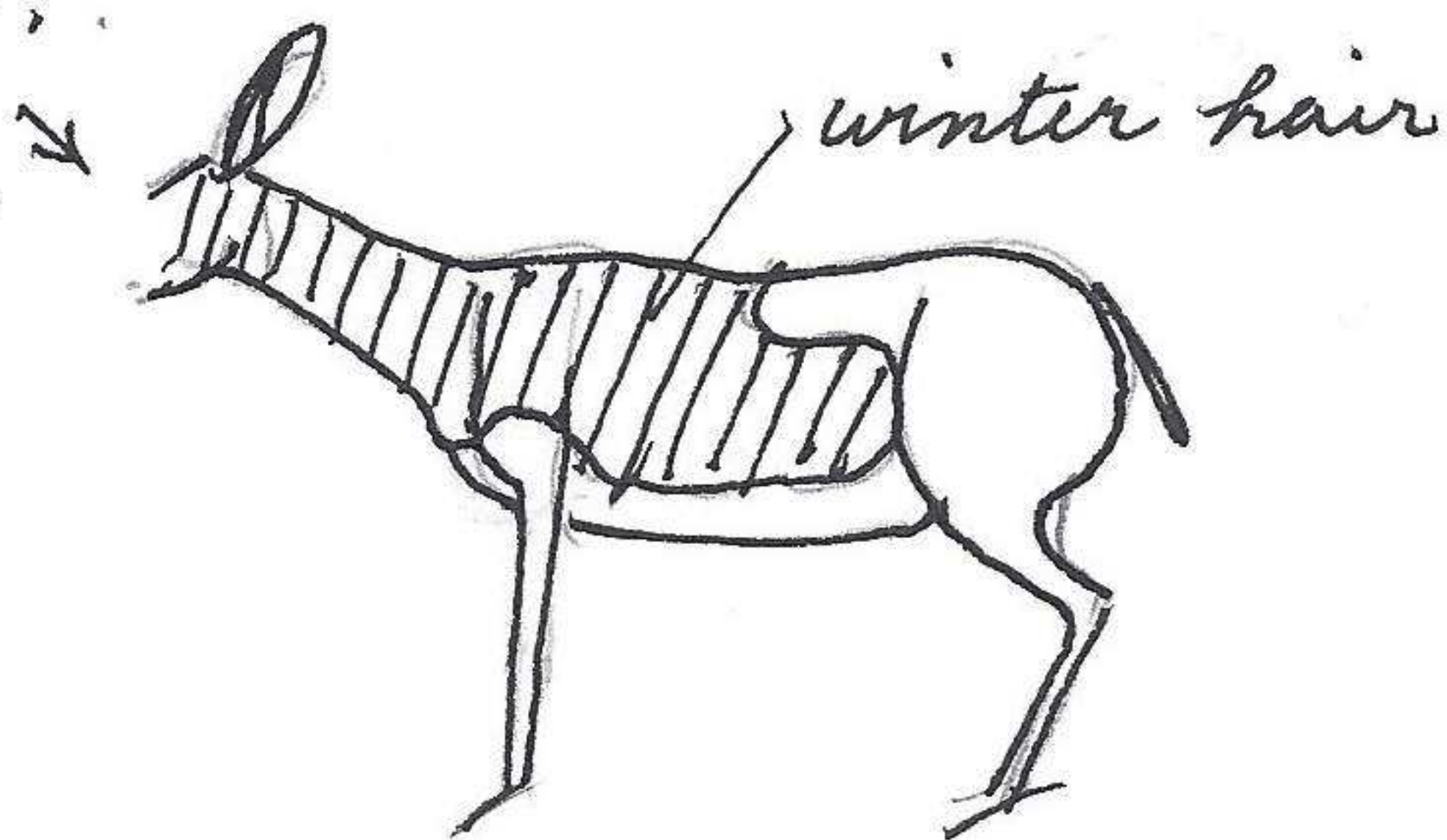
Boat trip (Bee Boat) to Olga, Obstruction Pass, Pearvine  
Pass and return to Shoal Bay on Lopez Island.

Enroute to Olga, 7 common murrelets, 2 marbled murrelets,  
at E end Obstruction Pass estimated 800-1000 Bonaparte gulls.  
4 double-crested cormorant. At white wall, NW Lopez Island,  
42 double-crested cormorants on wall.

Sept. 22, 1989

8:00 A.M. an ad. ♀ mule deer (not Buster) 29 1/2" high at  
shoulders and her two fawns. One fawn 21" high at shoulders  
with bright spots on hind-quarters but faded elsewhere,  
The fawn 22" high had faded spots over entire body.

An adult ♀ mule deer 28" high at shoulders with molt  
thus:

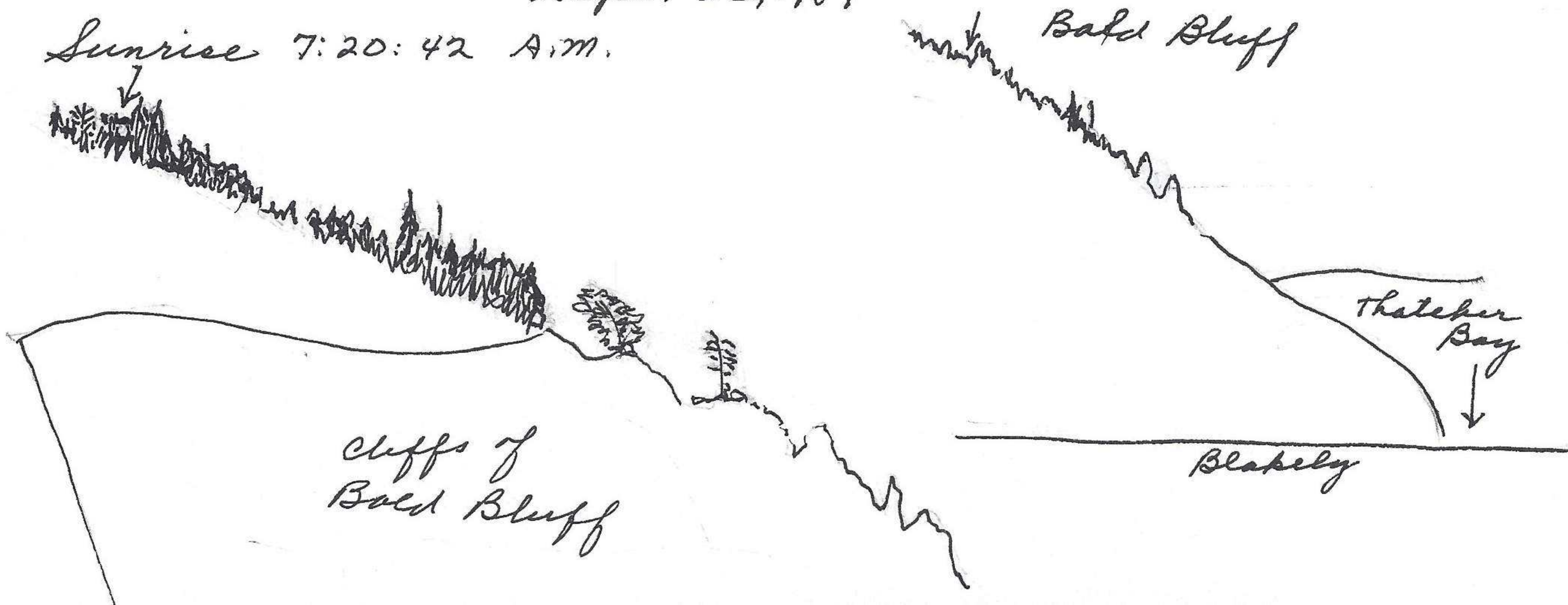


An adult ♀ mule deer 28" high  
at shoulders.

Today is first time I have observed adult male sniff the  
air with head up and lips curling,

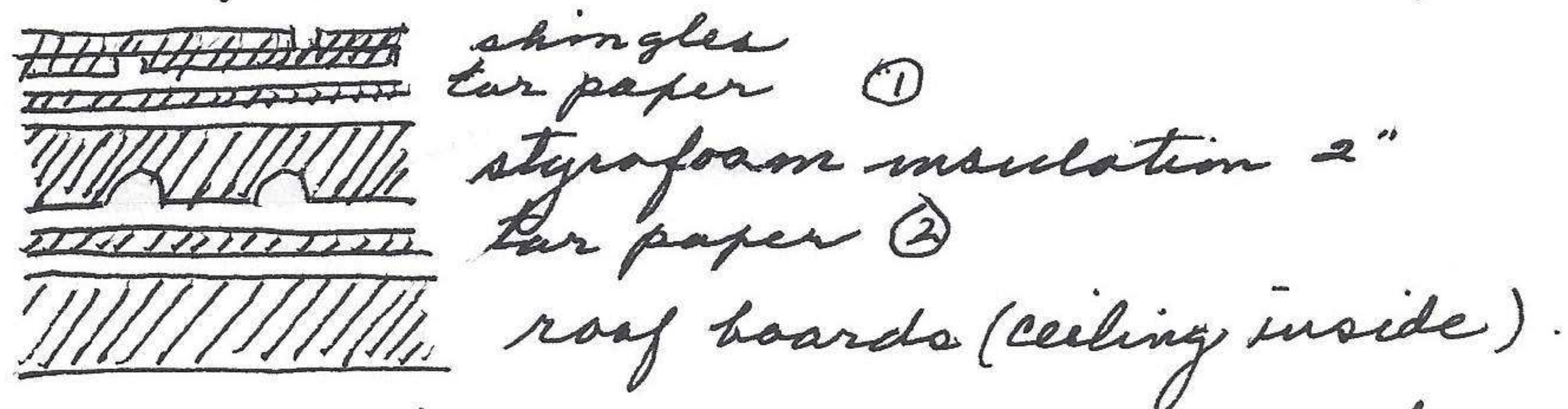
Sept. 23, 1989

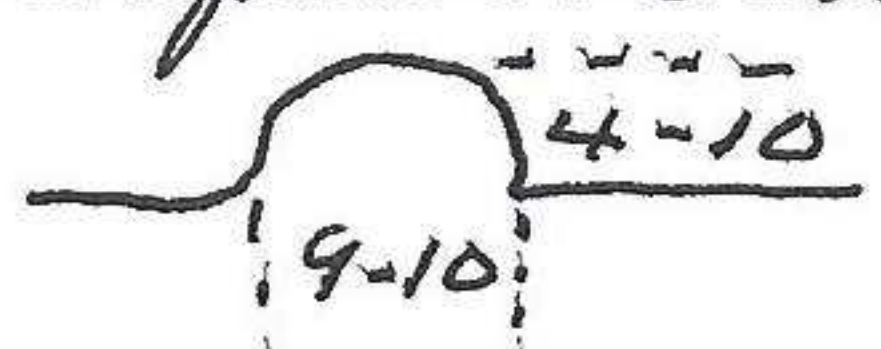
Sunrise 7:20:42 A.M.



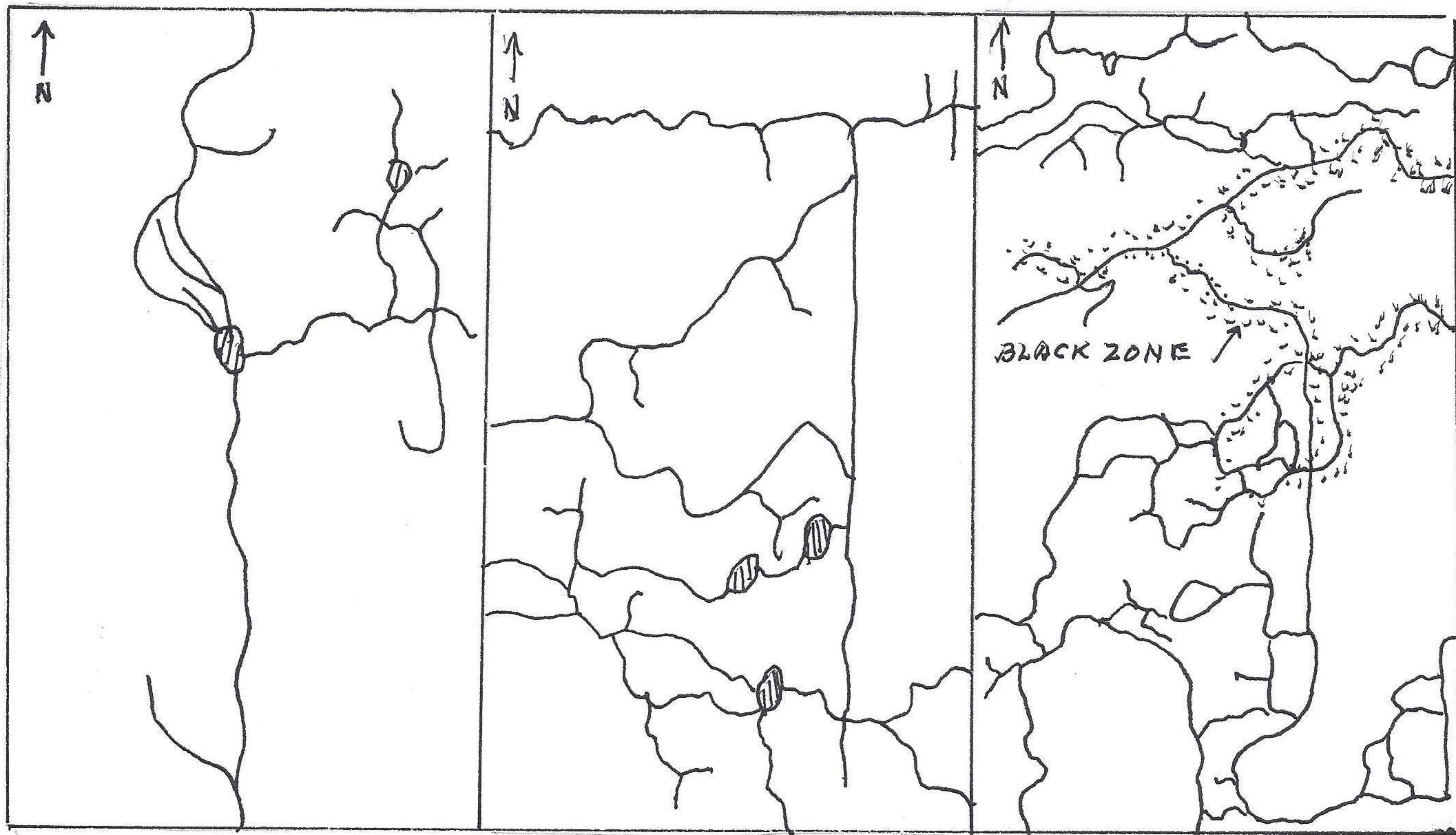
Sept. 24, 1989

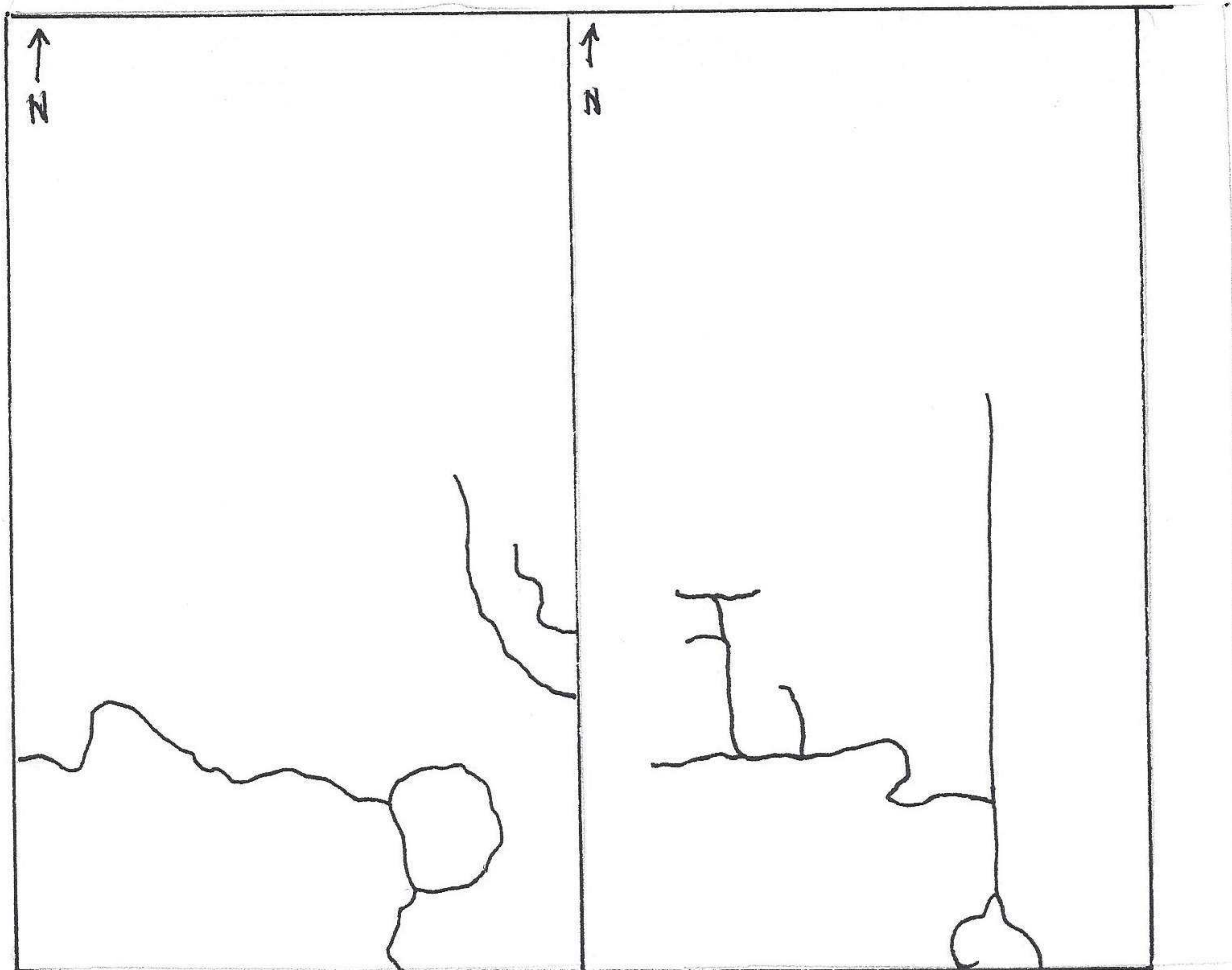
Removed cedar shingles from Bee House and observed activity of large black ants: Profile of roof:



main ant nests between roof boards and styrofoam. The largest nest at NW corner of roof under shade of Douglas fir tree and consisted of approx 1000 workers & 10 winged ants (Carpenter ants?). Extensive trail system radiated in all directions. yellow-jackets robbed the eggs and larvae being carried by ants to new places on the roof. paper wasps had mud chambers full of living paralyzed spiders which (the spiders) were all the same species. Corridors of ants had fir needles, fragments of styrofoam and other debris. After ants left area, the wasps also left area. One termite observed but not associated with ants. The corridors of the Carpenter ants measured on the average of 4-10 mm deep  and 9-10 wide in styrofoam.

Recorded pattern of corridors of 5 of the 9 sheet (4x8 feet) of styrofoam from the main nest NW corner of roof:





Sept 25, 1989

To Bee Boat in Shoal Bay, S end. Caught 4 sharks:

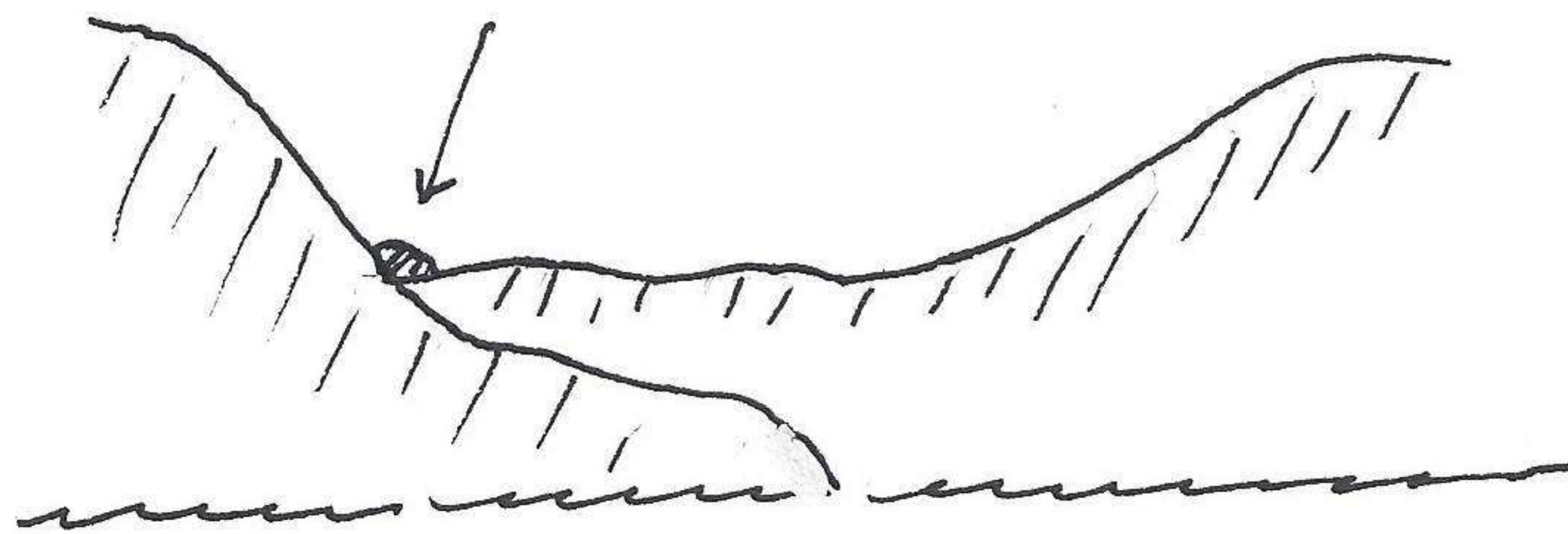
10:30 A.M. ♂ 21" S.L.  
 12:00 P.M. ♀ 27" S.L.  
 1:40 P.M. ♂ 31" S.L.  
 3:15 P.M. ♀ 23" S.L.

Sept. 27, 1989

Left Lopez Island 7:30 A.M. by ferry for Anacortes.  
 15 harbor seal all on side Leo Reef. W. Thatcher Pass. mew  
 gull, E Thatcher Pass, Rhinoceros auklet, glaucous-winged  
 gull, glaucous-winged gull, 6 Bonaparte gulls, 8 glaucous-  
 winged gulls, 2 rhinoceros auklets, rhinoceros auklet, 1  
 double-crested cormorant. Arrived Anacortes. Returned  
 to Lopez Island.

Sept. 28, 1989

Sunrise 7:21 A.M. at contact Bold Bluff and horizontal ridge  
 beyond Spencer Lake.



Left Shoal Bay <sup>2:30 P.M.</sup> in Bee Boat for Jones Island. Annette, James L and myself in crew. Itinerary: Orcas ferry terminal for diesel oil, thence Deer Harbor, thence circumnavigate <sup>coast</sup> Jones Island, thence between Yellow & Crane islands to Wasp Passage, thence E to Lopez Island, returning at sunset. Some selective observations en-route: 4 Pacific loons 1/10 mi NW Jones Island, 8 common murrelets n Jones Island, 63 rhinoceros auklets outer Shoal Bay (evening). 18 double-crested cormorants in Wasp Passage. Other birds and approx. numbers: glaucous-winged gull, 35; Bonaparte gull, 8; mew gull, 10; great blue heron, 3; marbled murrelet, 4; pelagic cormorant, 9; common murre, 14.

Sept 29, 1989

9:35 A.M. at Bee House feeder: ad ♀ 30 1/2" high at shoulders and her two young of the year ♀ 26" and ♂ 25"

ad ♀ with scar on left cannon bone. She measured: 29 1/2" high at shoulder, her lone young ♀ 23"

Trip by car to Watmough Bay. Collected three yellow-jackets from along beach:

890929-1 yellow-jacket  
890929-2 " "  
890929-3 " "

Birds in bay 5 western grebes, 6 double-crested cormorants, and 6 rhinoceros auklets (out part of bay).

Sept. 30, 1989

7:25:08 sunrise.

8:20 A.M. Pelagic cormorant dove 5 times for approx. 30 seconds each dive. A glaucous-winged gull followed and alighted on back of cormorant twice on consecutive dives.

9:19 A.M. Bee Boat at S end Shoal Bay for varnishing.

5:00 P.M. 7 river otter swam n by Bee House and approx 10' out from shore. These are the first I have observed in about a month (see journal for last entry of occurrence).

Oct 2, 1989

Sunrise 7:26 A.M.

Oct. 5, 1989

ad. ♀ mule deer, 30 1/2" high at feeder with her 2 young of the year.

1 Turkey vulture 200' S Hummet and Port Stanley rds.  
 1 red-tailed hawk. 150' N Cross and Port Stanley rds. at  
 Swift Lagoon 1 greater yellowlegs.

measured imprint raccoon at Bee House as: hind foot 80  
 mm long, 32 mm wide; front foot 28 mm wide 40 mm long.

Oct 7, 1989

1:05 P.M. 1 river otter swam N past Bee House, fishing at it  
 past by.

Lynn Wilson and Andy Ragle left for Lawrence, Kansas today.  
 Left in Bee Boat for W Sound, Orcas at 2:04 P.M. 81  
 double-crested cormorant on roosting wall NW Humphrey Head  
 wall whiter than previously. 1 western grebe, 1 common  
 loon, 6 surf scoters, 1 double-crested cormorant, surf scoter,  
 8 glaucous-winged gulls, 2 mew gulls. Big-leaf maples  
 green, yellow to brown. A Coho salmon jumped 6 times  
 in a forward movement at E side channel N of Point Hudson.  
 2:41 N of Hudson Bay, 3 glaucous-winged gulls. 2:46 Islandlike  
 peninsula N side of Harney Channel. 2 yellow-jackets have  
 come aboard the Bee Boat since we left Shoal Bay. 2:54 P.M. Orcas  
 2 marbled murrelets. Pt. W Orcas ferry terminal; marbled murre-  
 let, glaucous-winged gull, double-crested cormorant, marbled  
 murrelet. Oak Island 3:07 P.M., double-crested cormorant, mew  
 gull, 2 Bonaparte gulls, Bonaparte gulls, 2 marbled murrelets,  
 Bonaparte gull, Bonaparte gull, Bonaparte gull, 2 marbled murrelets,  
 2 marbled murrelets. West Sound marina. Time from Shoal  
 Bay (S end) 1 hr, 30 min.

Return trip to Shoal Bay same route as above: 18 glaucous-  
 gulls, 46 mew gulls, 13 double-crested cormorant all in groups.  
 On return trip selective census only. W grebe, common loon,  
 marbled murrelet, 2 common loon. 4:30 P.M. Orcas Landing.  
 5:28 Lopez ferry terminal, thence S end Shoal Bay. 3 harbor  
 seal observed on return trip.

Oct. 8, 1989

To Bee Boat for varnishing. At bend in marina road on bare  
 slope did not see the solitary wasps that extensively dig holes in  
 the face of the bank.

Always find at least one great blue heron in conifers SE of marina  
 (Shoal Bay). Sometimes 2 and occasionally more than 2. In  
 spring of this year it was not uncommon to see up to 12 heron in

the tree tops.

Oct. 9, 1989

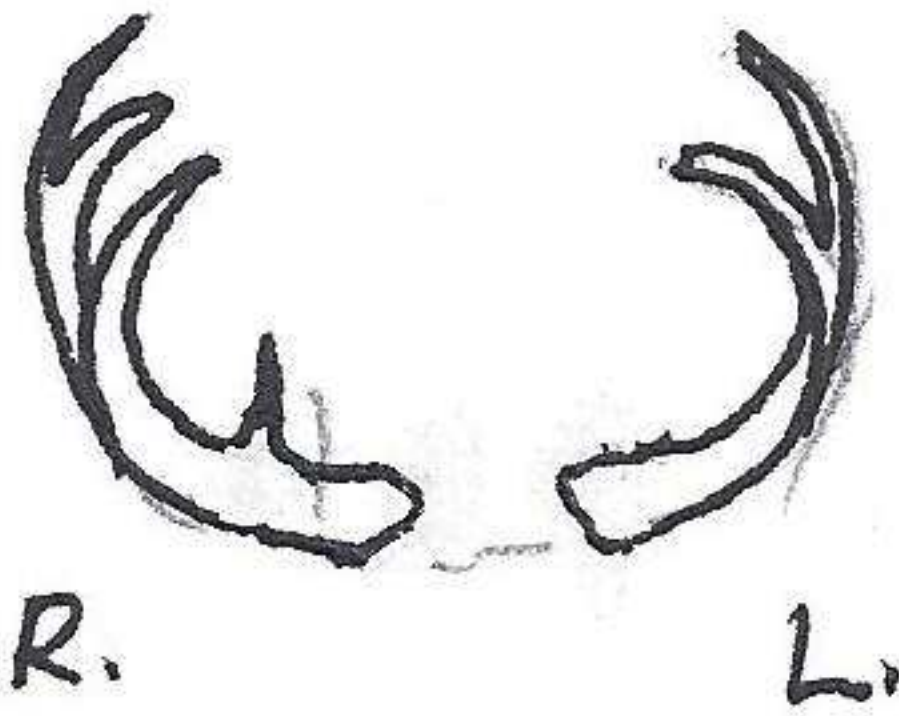
To Bee Boat 11:00 A.M. at 11:45<sup>AM</sup> caught dogfish <sup>♀</sup> measuring 25" standard length. at 2:08 P.M. caught dogfish 35" SL ♂.

Oct. 10, 1989

8:40 A.M. 5 harbor seal on Leo Reef; 5 on Little Flower Rock and 4 on North Flower Rock.

9:20 A.M. 2 ♀ mule deer, one 29" high at shoulders, stood upright and sparred for 6 seconds.

Single Pine mule deer, ♂, 33" high at shoulders.



R.

L.

Oct. 10, 1989

Trip to Cultus Lake <sup>Canada</sup> via highway 9 <sup>starting</sup> from Thorne on Lopez Island, thence across Canada to Hope via Highway 3, thence S on highway 3 thru Manning Provincial to Princeton, thence to Cowston, night hawk in U.S., Loomis, Tonasket at highway 97, thence boat trip upper Chelan Lake, thence Wenatchee to Leavenworth, Thousand Trail Preserve, west on highway 2 to non. and Chris' at Lost Lake and thence back to Lopez Island. mileage at start of trip 65763. Left Lopez 3:50 P.M. First night at Mt. Vernon Thousand Trail Preserve.

Mt. Vernon Thousand Trails Preserve, Washington

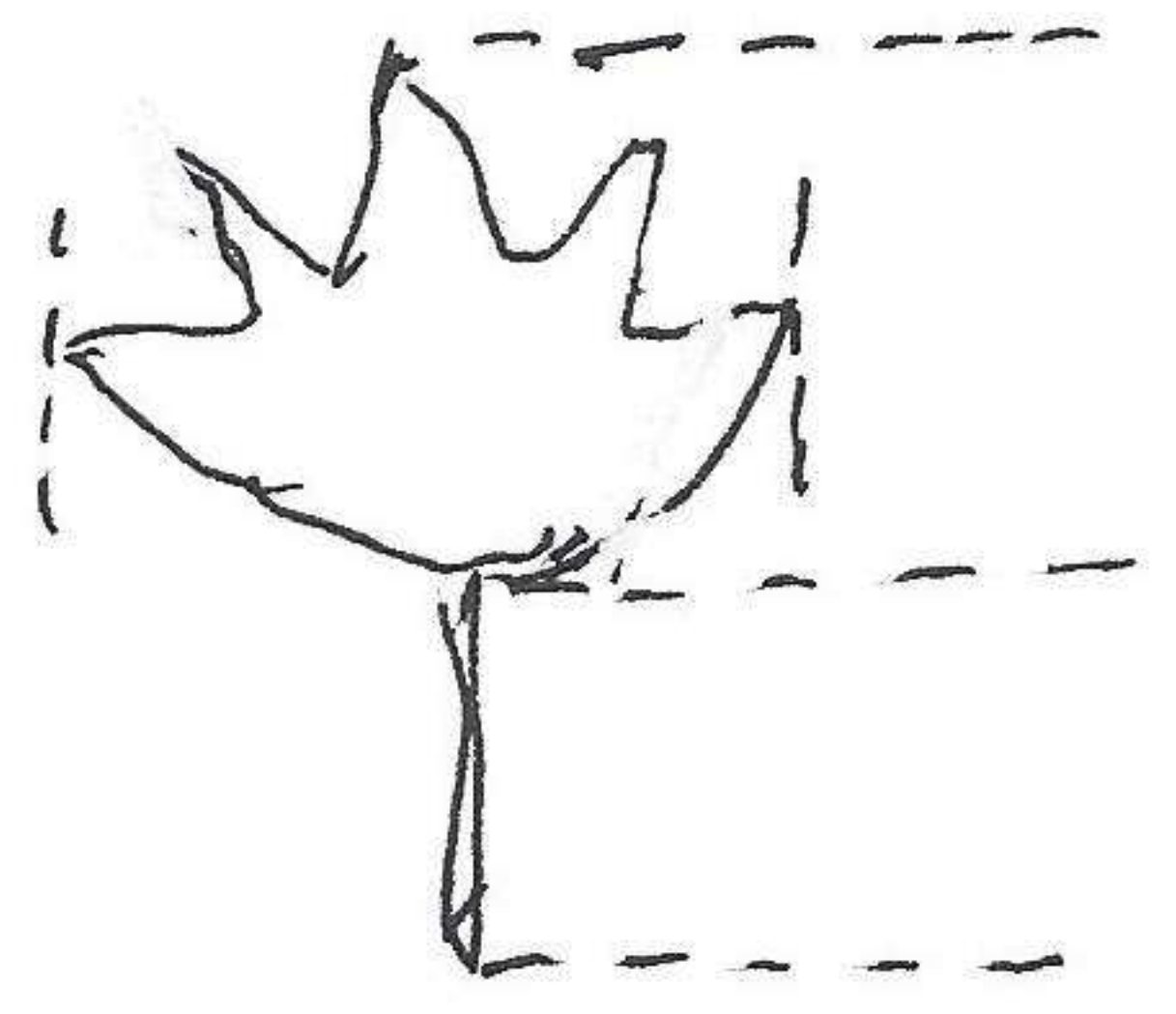
Oct 12, 1989

Left 10:40 A.M. mileage 65827. 5 Lake Whitefish & American coot. along highway 9 observed: crow, Townsend chipmunk, starling, 2 flocks American crows of approx. 25 per flock and only 2 singles, mileage 873.8 Sumas, wa. now into Canada. First great blue along route so far, arrive Thousand Trails Preserve at Cultus Lake, Canada at mileage 65900. At Camp 3 dark-eyed junco (Oreg. sp.) and white-crown sparrow only birds observed. The stream that runs thru camp to N. is brownish from rains of last night but at 6:00 P. Two hours later the stream is clear.



measured the largest leaves of several species of trees;

	height	petiole	width
large-leafed maple	2 1/2	1 1/2	18
Thimbleberry	9 3/4	6 1/4	12 1/2
red alder	9 3/4	1 1/4	5 3/4
cottonwood, black	8 1/2	1 1/2	5 3/4
" "	7 1/2	2 1/4	3 3/4
" "	6	3 3/4	6 1/4



The above, except the thimbleberry, are yellow. The thimbleberries are green.

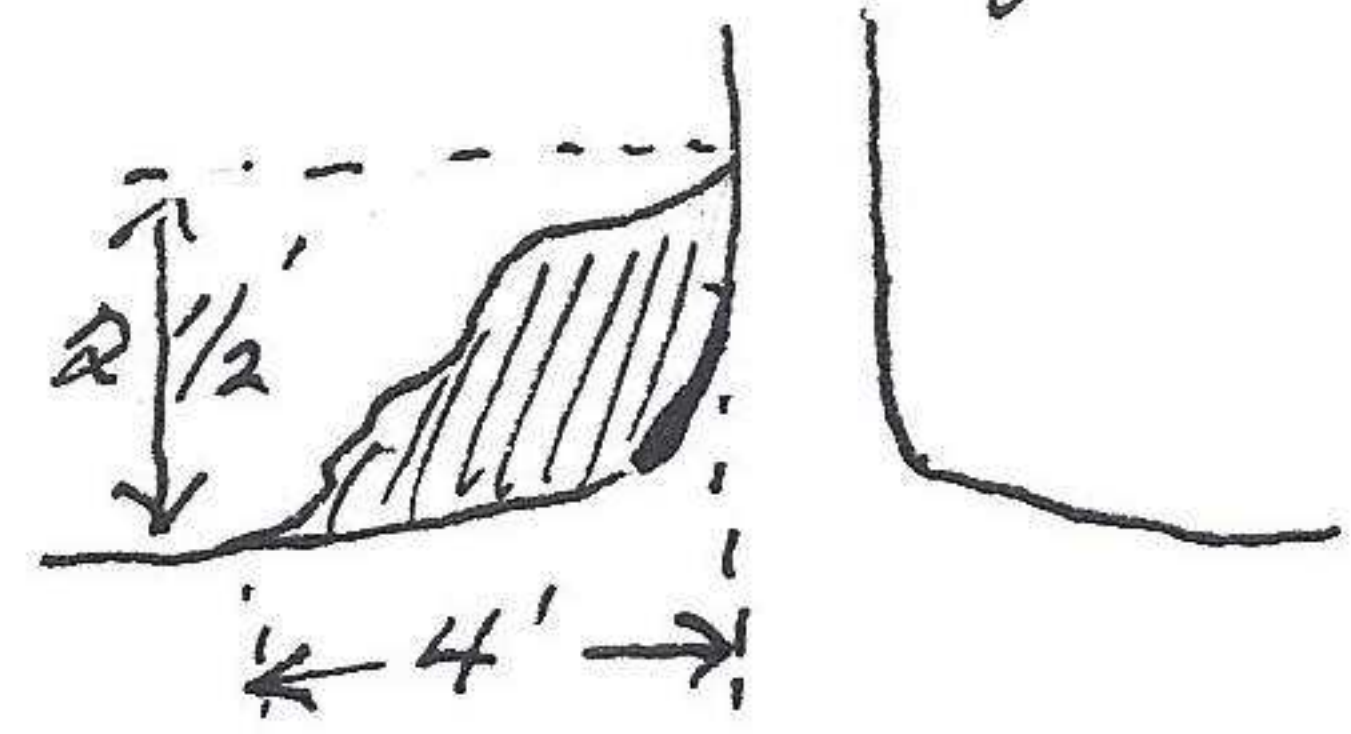
Cultus Lake, Thousand Trails, Canada.

Oct. 13, 1989

Rain last night but Frost Creek clear. Waterouzel observed near where creek enters Cultus Lake. Examined the accumulation of chips and debris at base of tree extensively excavated by the pileated woodpecker.

Left camp 10:34 A.M.

955.5 Hope Slide on Princeton highway.



12:15 P.M. Cottonwood is predominately yellow and unusually bright against the green conifers.

Pass on highway in spruce zone and fewer cottonwoods.

Alison Pass is headwaters of Skagit River that enters sound near La Conner.

mule deer Campgrounds, Manning Provincial Park, Canada

Oct. 14, 1989

At 7:06 A.M. Temp. 30°F. and started to snow in large flakes.

8:30 A.M. snow now covering tables but melting continuously.

Collected 3 conglomerate rocks from river bed:

891014-1 Conglomerate rock

891014-2 " "

891014-3 " "

Red cedar, Douglas fir, lodgepole pine, black cottonwood and others in area.

Rove in camp.

9:30 A.M. Increase snow of large flakes and now covers ground, Waterouzel and dark-eyed juncos in camp.

Left Mule Deer Camp 10:10 A.M. at mileage 65995.2. First aspen at E end Manning Park.

Ponderosa pine at mileage 66000.0 now down in  
 artemisia, 6 novens. Arrived Princeton 66031 at 11:20 A.M.  
 Country open valley, ponderosa and artemisia. Between  
 Hedley and Kereneas cottonwood from full to 90% green.  
 Northern flicker. 66086 first black-billed magpie. 66090.0  
 Off highway 3 to secondary road leading to night hawk, U.S.  
 45 highway 66092.0, blue bird, 66148 Omak, black-billed  
 magpie, pheasant (ringed-necked) at 66176.8 at bridge where  
 Okanogan enters Columbia River, 4:25 P.M. Arrived Alta Lake  
 State Park at mileage 66193.0. Ranger said rock squirrels  
 are absent in summer but in autumn they come into the  
 park from rocky hillsides above the park. Ponderosa pine  
 are dying from a fungus and while some recover, most of them  
 die completely or the tops only. As all buds have been record-  
 ed, it is interesting to note that no ducks were observed in Canada  
 and none in U.S. up to point where Okanogan enters Columbia River.

Alta Lake State Park, Okanogan Co., Washington  
 Oct. 15, 1989

Temp. 32°F this A.M.

Birds and mammals in park: Rock squirrel, 4 mallards,  
 1 Steller's Jay, Calif. gull?, 1 Eutamias minimus, 1 ring-billed  
 gull, black-billed magpie.

measured fresh deer tracks on sidehill (200' up slope)

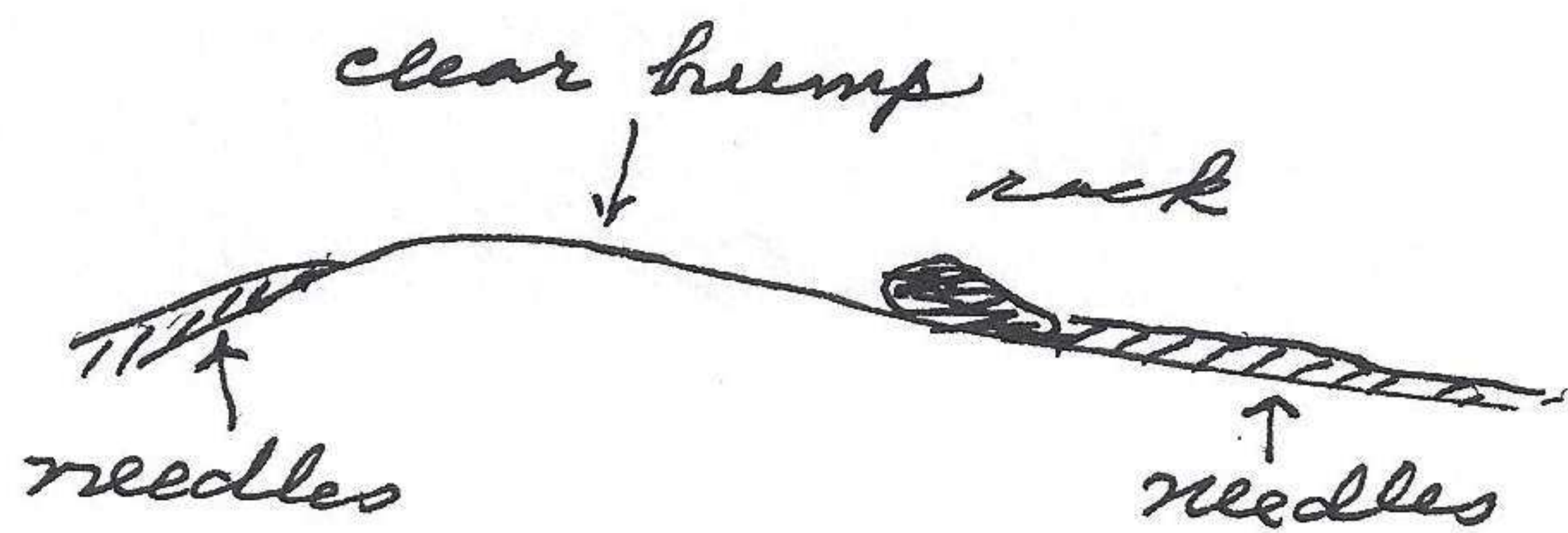
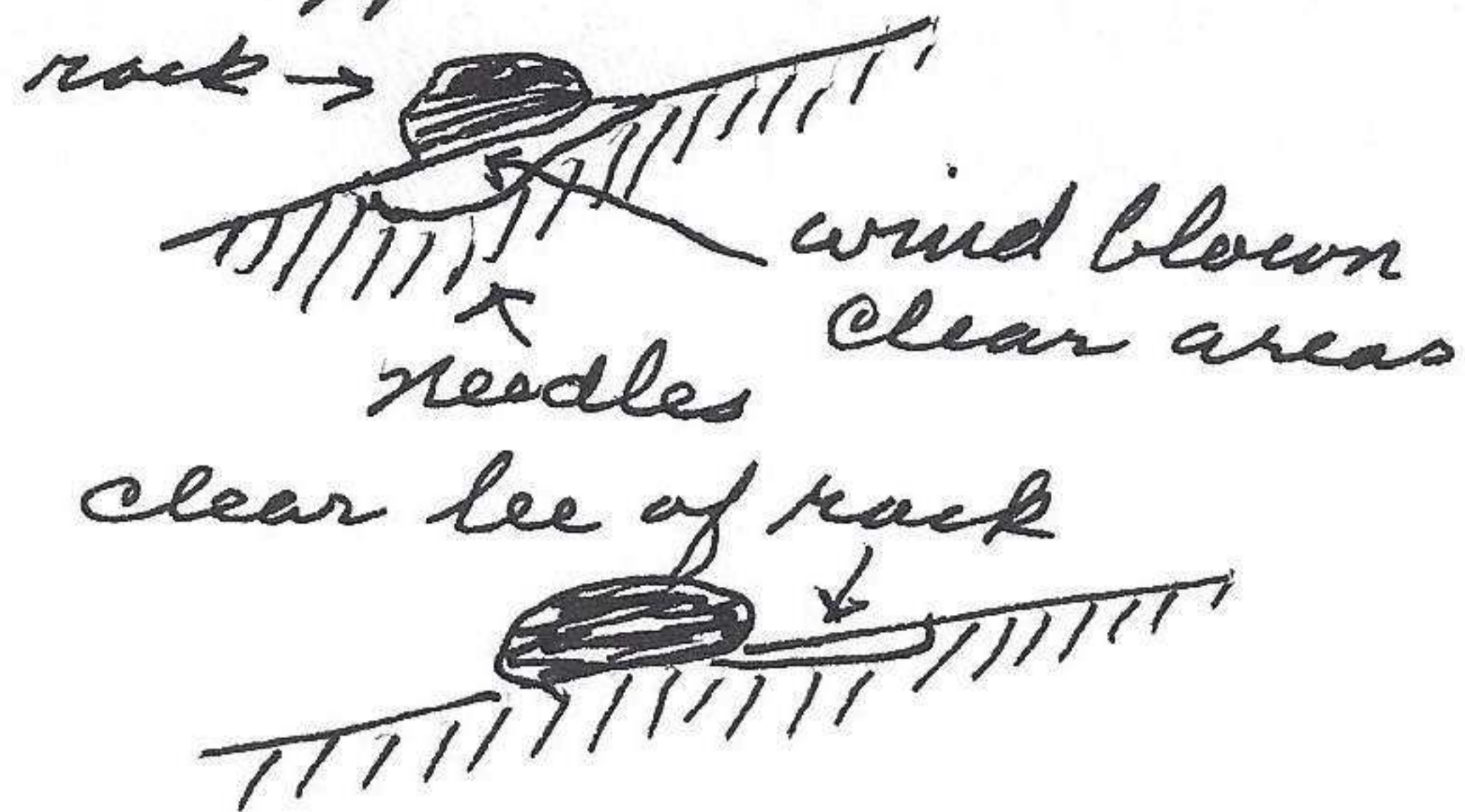
from park:	track	length
4	sets	54 mm
2	"	58
2	"	60
5	"	69
4	"	73
5	"	75
2	"	78

also coyote tracks associated  
 with deer tracks.

10 ponderosa trees dead and  
 associated with camp grounds.  
 Old dead trees, cut down, through-  
 out camp. Ponderosa trees can  
 be either completely dead or just  
 tops dead. The ranger manage-  
 ment is to cut them down as  
 they die and plant new ones.  
 my idea is to leave dead trees  
 as they stand and do not replant,  
 destruction of understory, especially  
 around bases of mature trees and

complete ground disturbance by sites and roads has caused the  
 dying of trees. The needles of conifers, practically (95%) are  
 ponderosa. The wind blowing off of lake has produced  
 a redistribution of these needles because of bare ground  
 surfaced caused by camp sites and daily use of the park,

The effects are:



Left State Park at 10:35 A.M. for S side Columbia River (lake now). At 12:00 P.M. at 203.0 mileage recorded the birds along

the river on S side: 5,000 ducks of several species, 42 w. grebe, 3500 American coot, 2000 American widgeon, 4 eared grebes, 8 ring-billed gulls, 30 redheads, 12 ring-necked duck, 1 mallard, 1 common loon, 1 bufflehead, 1 horned grebe, 4 gadwall, 1 black-billed magpie. Coot chased American widgeon in feeding area.

mileage 205.6 Chelan Co. 205.9 View Point at Wells continued SW, thence highway 2 to Leavenworth, thence N to Leavenworth Thousand Trails Preserve, via highway 2 west out of Leavenworth, thence 209 to Wenatchee Lake, thence E to Thousand Trails arriving at 66303.0 mileage at 4:00 P.M.

8 1/10 mi. E, 2 1/10 mi. N. Plain, Thousand Trails Preserve, Leavenworth Co., Washington.

Oct. 16, 1989

At S end preserve 3 young Douglas squirrel or chickaree, Tamiasciurus douglasii, left and entered a hole in the ground at 3 feet from base of Douglas fir. I watched at 8' away. I approach to 5' before they left their ground feeding and entered the hole. They called softly. Two yellow-pine chipmunks, Eutamias amoenus in area.

Oct 16, 1989

At Thousand Trails Preserve, aspen greenish-yellow. Both the yellow-pine and Douglas squirrel (Chickaree) in camp. Hiked to top of ridge E of preserve, no birds. Trees ponderosa, grand-fir and Douglas fir. Spent 2 hrs. on ridge. Mule deer tracks present.

Left preserve for Leavenworth at mileage 66<sup>3</sup>04.0 at 1:00 P.M. via route 207. 2 common ravens. Returned 207 to Wenatchee Lake State Park on N side lake and also State Park on S side. 2 more common ravens. Also 2 yellow-pine chipmunks, Douglas squirrel, 3 varied thrush. Returned T.T. Preserve.

Thousand Trails Preserve, 4 mi. E of the E end Wenatchee Lake,  
Chelan Co., Washington.

Oct. 17, 1989

Left at 10:49 A.M. 64363.0 mileage at Leavenworth.  
 Will record complete census of birds and mammals. 364.7  
 Steller jay. 370.3 red squirrel, Tamiasciurus douglasii on  
 high<sup>to</sup> 207 highway 209, TO Wenatchee Lake and return  
 to highway; at 373.5. 377.3 now on highway 2.  
 288.4 2 photos. of broadleaf maples along Wenatchee River,  
 nos 891017-1 and 891017-2, on highway 2 in narrow  
 part of canyon. 389.0 on highway 2 4 photos of big  
 leafed maple and 2 of vine maple.  
 891017-3 bigleaf maple Best colors of trees in  
 891017-4 " " " canyons rather than on  
 891017-5 vine maple flats.  
 891017-6 " " "  
 891017-7 to 891017-10 bigleaf maple  
 392.7 Leavenworth (middle town) "

Enroute to Chelan ducks on Columbia River (lake)  
 localized and estimate 10,000. They were on W side  
 river among debris windrow some 100 ft out from  
 shore. Also moggie but no other birds. See notes  
 on trip down from Chelan on previous day for kinds and  
 numbers of water fowl. Continued to Chelan. no  
 access to dam. Camped in City Park camp grounds N of  
 town.

Chelan, Chelan Co., Washington.

Oct. 18, 1989

Left Chelan at 8:33 A.M. for boat trip up to N end Chelan  
 Lake. Will keep complete list of birds and mammals  
 enroute. (Lady of the Lake ferry.)

At Chelan, 16 Canada geese in lake at Chelan City Park  
 The ferry travels at 17 miles per hour.

Least grebe, 2 mallards, ring-billed gull.  
 Knapps Coulee 8:46 A.M. Grasslands changing<sup>to</sup> slopes covered with  
 mountain mahogany (Cercocarpus ?), sage and ponderosa pine.

Wapato Point (to E). First Creek (to W). Granite Falls (to west),  
 ringed-billed gull.

Yellow foliage appearing as we approach the narrows. leafed  
 yellows of big leaf maple and cottonwood on shoreline, yellow<sub>1</sub> maple  
 above and big-leaf maples increasing on upper slopes.

9:31 A.M. Field Point Landing. Slope below road on W side  
 in kind an quantity of vegetation  
 Lake different than slope above road.

No boats so far.

at water line, rocks immediately below road above are black stained and brown below water line.

25 mi Creek. Aspens? now on upper slopes

5 Box Canyon. On W side lake approx. 4 places on shoreline are eroded, all other areas on shoreline stable.

Box Canyon

Still Creek

Little Big Creek, ring-billed gull.

Big Creek. Prince Creek to E.

Point between Turn Harbor and Bear Creek.

Bear Creek.

Donke Cr. Increase numbers of cottonwoods and some extending up west slope. Douglas fir equals ponderosa pine.

Lucerne 12:35 P.M. No fishermen or boats so far. Larch on timberline in upper parts of drainage.

1 mi S Moore Point. Stopped. 1/2 cottonwoods in color (yellow).

Fish Creek. Stopped for packers (deer hunters). Six Eutamias minimus at dock. The captain of ferry prefers running bow of boat onto boulder beach at side of dock to discharge hunters or passenger via lowered gang plank. Chimney on W slope lined with green-yellow and 10% red. Color becoming generally distributed on slope.

Castle Rock Peak. ? supports a cross of snow.

12:25 P.M. arrived Stehekin. disembarked and then return to ferry for return trip. One way trip 3 hrs. 52 min.

On trip back made selective observations only.

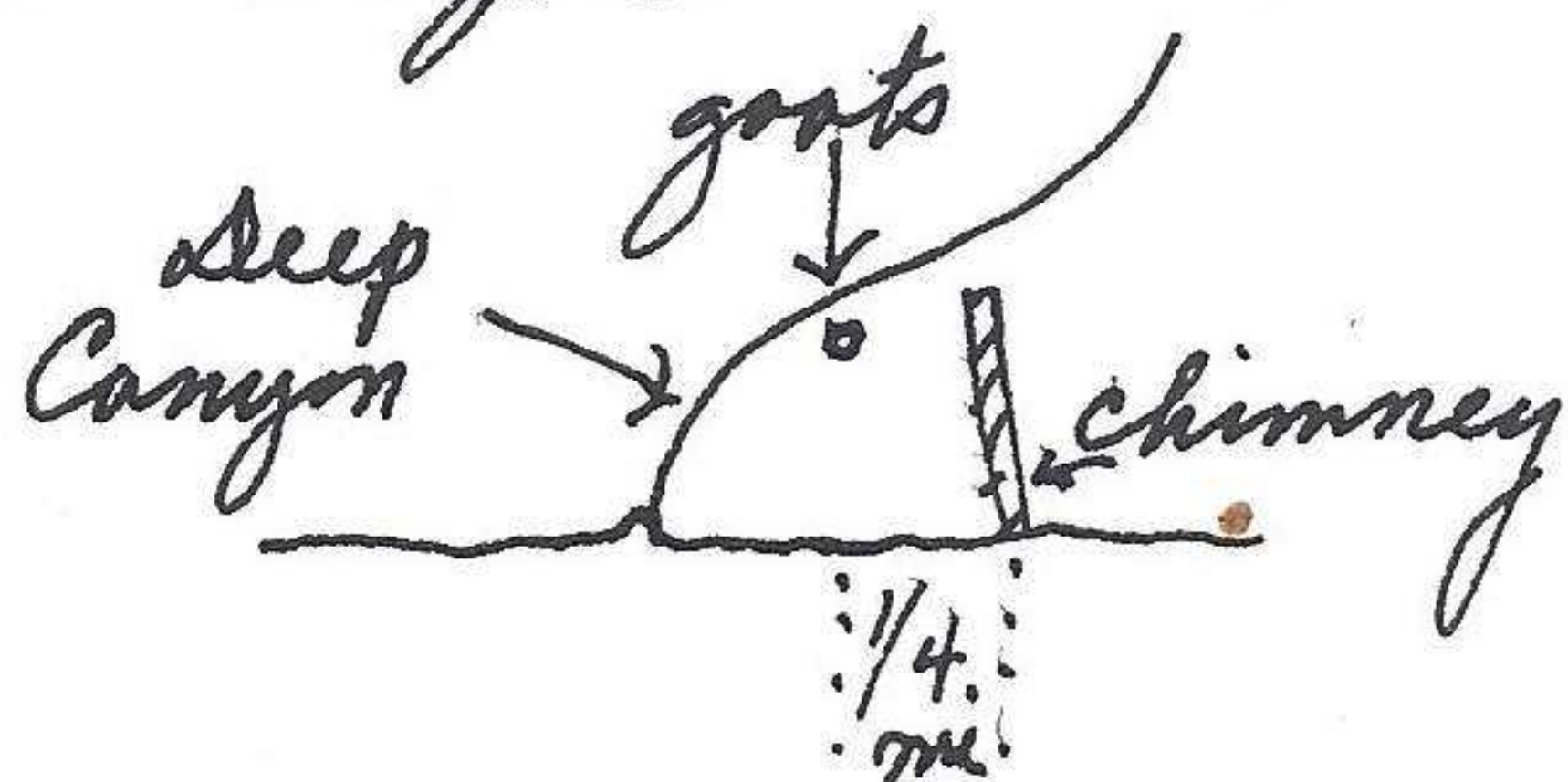
At Fish Creek, 3 deer hunters reported no bears but they are in the area. Bobcats in area and observed cougar tracks.

They shot: 1-4 pointer, 1-3 pointer, 1-2 pointer, 1-spike

Lucerne. 1 ring-billed gull

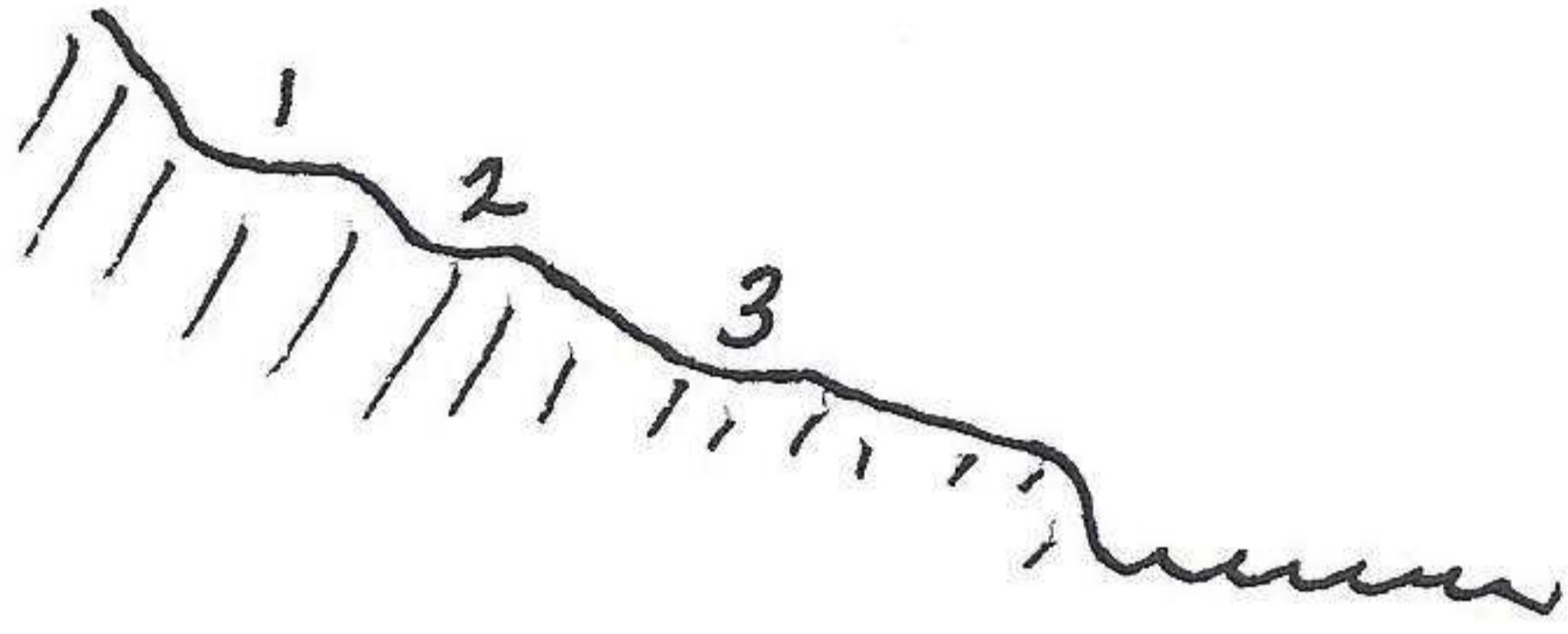
Deep Canyon

2 mt. goats on slope of Deep Canyon approx 1/4 mi. N of chimney



now fewer trees and more grass on slopes. Trees ponderosa. water at Falls Creek. This creek goes thru benchland or is a hanging valley.

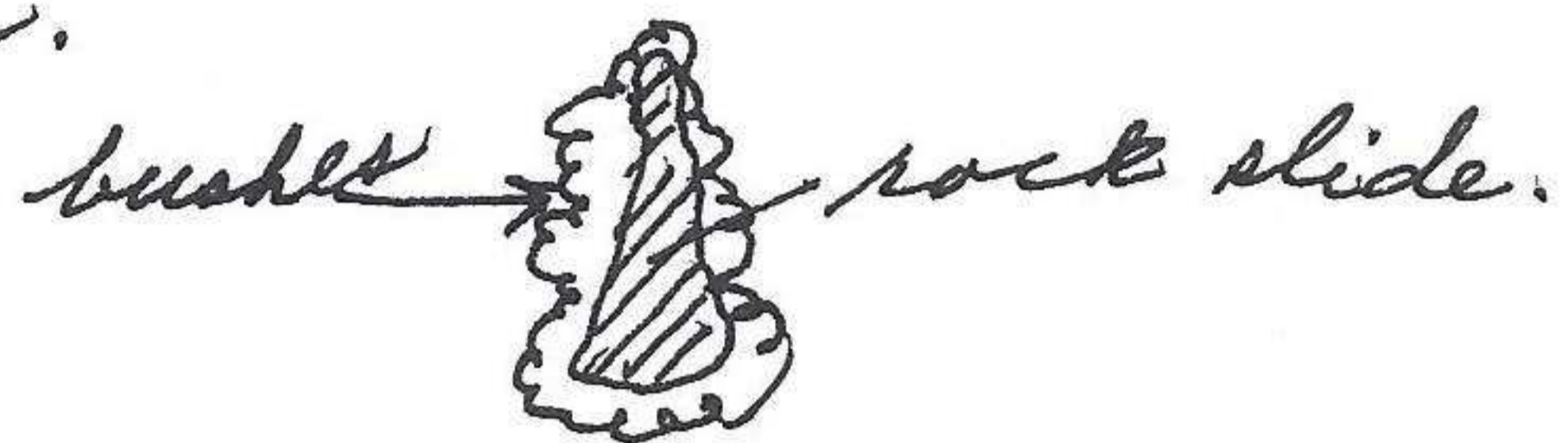
Box Canyon? W side. 3 mt goats 2/3 up mt. On E side of Chelan Lake benchlands of former lakes thus:



Now 25 mile Canyon. E slope good terraces from former impounded lake of Pleistocene. Sand blown slopes. A small

bushlike plant follows linear (perpendicular) pattern on slope. Red bush surrounds rock slides.

Reports of black bear above Field Point that raiders garbage dumps and occasionally observed crossing slopes.



narrows. 1 ring-billed gull.

Arrived Chelan at ferry dock. 3 Eared grebes in bay at docks. also a ring-billed gull.

Lake Chelan, Chelan, Chelan Co., Washington.

Oct. 19, 1989 at 482.4 mileage (City Park)

Left Chelan 9:30 A.M. for Leavenworth. Complete census. Followed 51 highway on S side Columbia River. 484.4 raven. 485.3 ring-billed gull. 487.1 Douglas Co. line at E end of bridge crossing Columbia River at 9:52 A.M. 489.5 approx 150 Canada geese. 490.5 black-billed magpie, 2 ring-billed gulls. 492.5 2 black-billed magpies. 492.8 approx 60 ducks out 200' or so from shore. 494.4 approx. 80 Canada geese. 495.8 50 ducks along shoreline out approx 50'. 498.7 cultivated poplars and cottonwood 50% in color (yellow). 502.5 approx 4,000 ducks in river. (see kinds on previous trip in journal), generally distributed along shoreline. also 63 Canada geese. 8 ring-billed gulls. 509.2 3 black-billed magpies on a roadkill. 513.3 154 Canada geese feeding in open field bordering river. 514.4 ring-billed gull and 50 ducks. I would estimate that along river so far covered there are 8,000 ducks including both sides of the river. 515.1 another 300 ducks. 515.6 84 Canada geese on lawn of private home. 518.9 now at boat "putin" at Lincoln Rock Dam. (St. Park). 18 Canada geese and 4 ring-billed gulls out from dock. 522.6 black-billed magpie. <sup>526.4</sup> ~~523~~ now W on highway 2

at northern part of Wenatchee. 526.4 At junction Decker Rd and highway 2, Cooper's hawk chased small bird unsuccessfully. Also a raven <sup>and crow</sup> flew by. Grasshoppers active (red wings about inch long). 565.6 now on highway 207. 568.8 raven. 573.7 first of the Fish Lake on Fish Lake Rd. From Porters "put-in" 32 ring-billed gulls, 31 coot, 7 mallards, 1 common loon. 576.1 *Eutamias minimus* 576.1 now on main paved road, that joins meadow Creek Rd. now going S. 576.3 *Eutamias* <sup>at Higden Creek</sup> *minimus*. 579.7 now on 207. 590.6 Turned around on 207 and now returning to Wenatchee Lake. Along lower road along lake noted 8 varied thrushes and 5 Clark crows. This road is entirely of residential homes. Also one *Tamiasciurus douglasii*. 602.5 To Park, E end Lake Wenatchee, S of river outlet, thence W to State Park on Lake. 605.1 Wenatchee River Bridge, at 4:04 P.M. 605.8 now leaving 207 and entering Lake Wenatchee St. Park. Three photos of Emerald Island, nos. 891019-1, 891019-2 and 891019-3. 606.8 now at water edge of Lake Wenatchee in State Park. 4:52 P.M. Now return to Thousand Trails. 607.7 207 N and to 209 E to Plain. 608.0 Understory along this route is manzanetta and ponderosa pine and a few Douglas fir. 609.8 *Tamiasciurus douglasii* road kill. 616.2 Thousand Trails via Plains and Chiwawa River Rd. 5:15 P.M.

Thousand Trails Preserve, Chelan Co., Washington

Oct. 20, 1989

Left 616.5 at 9:14 A.M. Sopers in lawns and grazing on cultivated fields. *Eutamias amoenus*, yellow pine chipmunk in ponderosa trees. It is bright colored in contrast to the Townsend chipmunk. Bracken fern brown and some yellowish brown. 628.2 now on highway 2 going W, at 9:24 A.M. 630.1 13 crows along side of road. 631.1 redtail hawk. Cottonwoods all the way and at least 60% in color. 664.7 first good stand of aspen all in yellow. Cottonwoods getting more yellow than green. <sup>Big leaf</sup> Maple trees about same percentage of color. Vine maples brilliant red. 638.6 The higher in the canyon the brighter the colors both linear and perpendicularly. 642.7 Forest Service <sup>Rd.</sup> 6962. 644.5 Forest Service <sup>Rd.</sup> 6700. Now in Engelmann spruce. 645.6 Photo 891020-1 to N showing fall colors in avalanche slopes. 648.5 Steven's Pass. 4061 ft. 649.3 Photo 891020-2 to W down canyon. shows reds of avalanche tracks and white rock talus slopes.

650.0 Photo 891020-3 to n of avalanche tracks, principally in reds, American crow. There are more big-leafed maples on this side of pass than on E side of pass. 663.9 5 Fork Skynomish River. 664.8 Skyhornish. 673.0 Skyhornish Co. line at 11:25 A.M. 683.3 Cottonwoods green and <sup>of which</sup> 40% are yellow. The colors are not as bright as the colors on the E side of Stevens Pass. 685.3 Goldbar. 11:43 P.M. The lower down valley toward Monroe the more color and brilliance than higher in the canyon. Some trees are at their maximum color and as outstanding as we have seen on entire trip. 699.1 Monroe. at 12:30 P.M. 701.9 14 American crows in field. Color in valley of Monroe at maximum tree color at least 50% and are brilliant. 704.5 bridge across Snaugualmie River to High Bridge Rd. arrived Chris' 710.3 at 3:37 P.M. at Last Lake.

Residence Chris Bee Kenagy, 21231 E Last Lake Rd, Snohomish Co., Washington.

Oct. 23, 1989

Left 10:35 AM 710.3 mileage, rain. 710.6 2 American crows. Big-leafed maple all the way from green to full brilliant yellow. Maples on W side of Cascade mts. are more generally distributed among the conifers than they are on the E side of mts. Maple yellows are golden on W side Cascades and yellow on E side. 720.4 Snohomish River at Snohomish housing followed Welch and Elliot Rds. Some fields flooded. 722.5 American crow. 723.1 Am. Crow. 740.9 Darrington. 762.2 S Branch Skagit River beyond Conway. River route from Silvana. 757.3 77 Fork Skagit River, full. 770.1 first gulls (2) on road to La Conner. 771.1 approx 80 mew gulls in field. 773.1 Pioneer Park in La Conner, 12:26 P.M. 777.1 2 Common raven following Res. Road 3 mi. beyond La Conner. Sword fern green, bracken fern brown. 781.2 now highway 20. 786.8 Anacortes at Middle Town. 790.4 Ferry terminal. Ferry left 3:46 P.M. clouds breaking up with some half way down Cypress. Glaucous-winged gull and double-crested cormorant. All island tops are covered with clouds. Glaucous-winged gull. 6 single glaucous wing gulls south of Pointer Island. First time ferry has gone between Armitage Island and Lawson Rocks. 2 Bonaparte gulls. 4 Bonaparte gulls. at West Thatcher Pass. Double-crested cormorant.



Willow Island. Glaucous-winged gull. 2 Bonaparte gulls. Lopez at 4:26 P.M.

Plants collected at Leavenworth Thousand Trails Preserve for identification only are: grand fir, Douglas fir, aspen, Oregon grape, thimbleberry, bigleaf maple, elderberry, filbert, larch, manzanita, yarrow, willow, black cottonwood oceanspray, red-osier dogwood.

Shilshole Marina, King Co., Washington  
Oct 24, 1989

81 Snow geese flew S overhead. Reported by Steve Kenagy.

Bee Estate, Humphrey Head, Lopez Island, San Juan Co., Washington.  
Oct 24, 1989

Seven river otter swam N approx. 20' from shore in front of Bee House. One came rocks and finished eating a small 6" fish. As it left it pushed itself into water with hind feet.

An imm. bald eagle lit in top Douglas fir 6' from front porch. (to N.) This is the second time an eagle alighted in this tree.

A Bee House Oct 25, 1989

9:30 A.M. 1 ad. ♀ mule deer 29 1/2" high at shoulders with <sup>her</sup> 2 young of the year 19" and 22" respectively. The above not Buster.

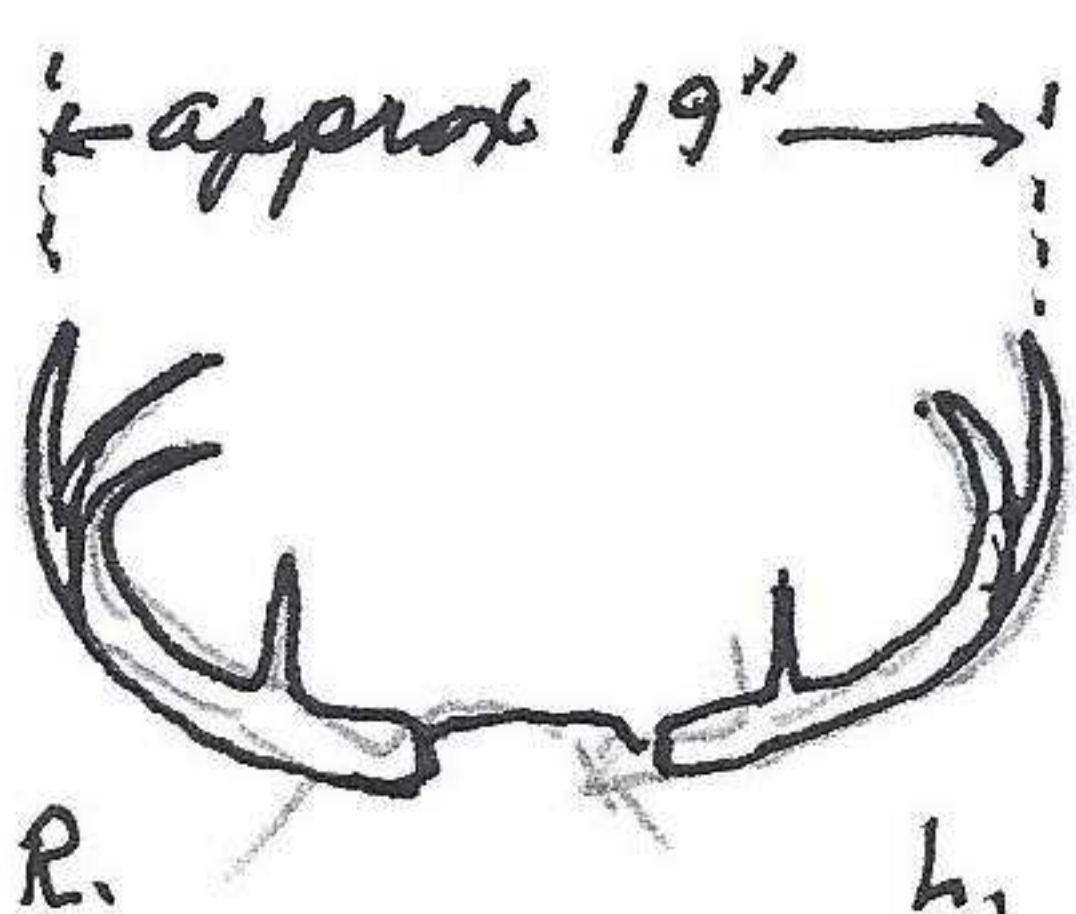
A small young of the year, no spots, measured 21" high at shoulders.

The young of the year with abscess on side of face in <sup>rear</sup> mandible region now with a scar of hairy skin.

Both Townsend chipmunk and eastern gray squirrel at feeder at Bee House.

There are more common raven in area in winter than in summer.

Observed bald eagle on an average of 3 times a week flying N or S pass Bee House at approx. 50' and 80' from shore.

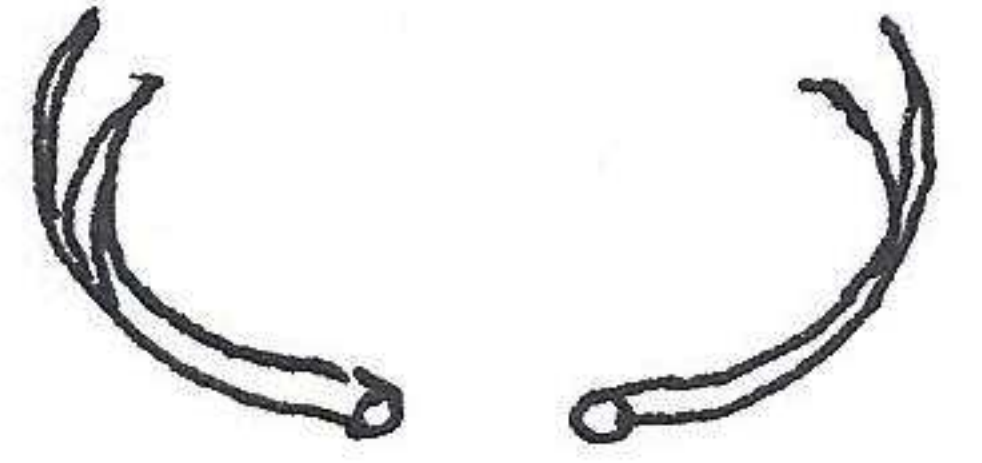


♂ mule deer  
35" high at  
shoulders

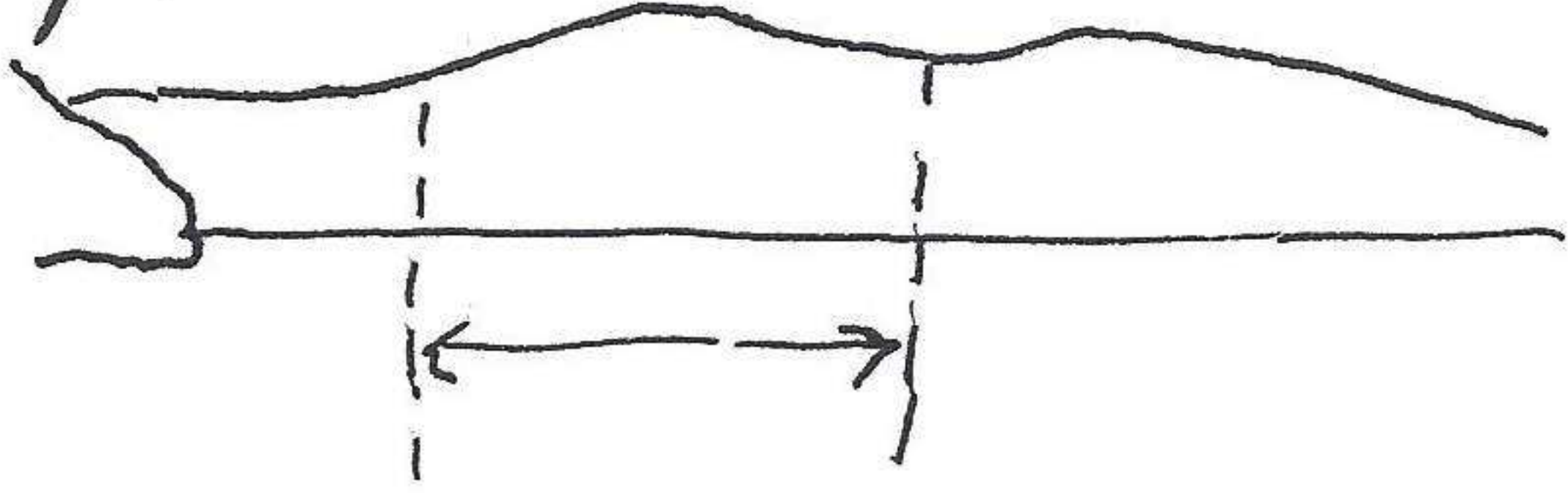
Buster, a mule deer ♀ 30" high at shoulders, has a young knobbed ♂ 25" high at shoulders and a ♀ young. All are in gray winter pelage.

a ♀ mule deer with injured left leg 30" high at shoulders.

♂ mule deer 33" high at shoulders, no eye tines.  
1:30 P.M. 5 eastern gray squirrels at feeder  
at Bee House.

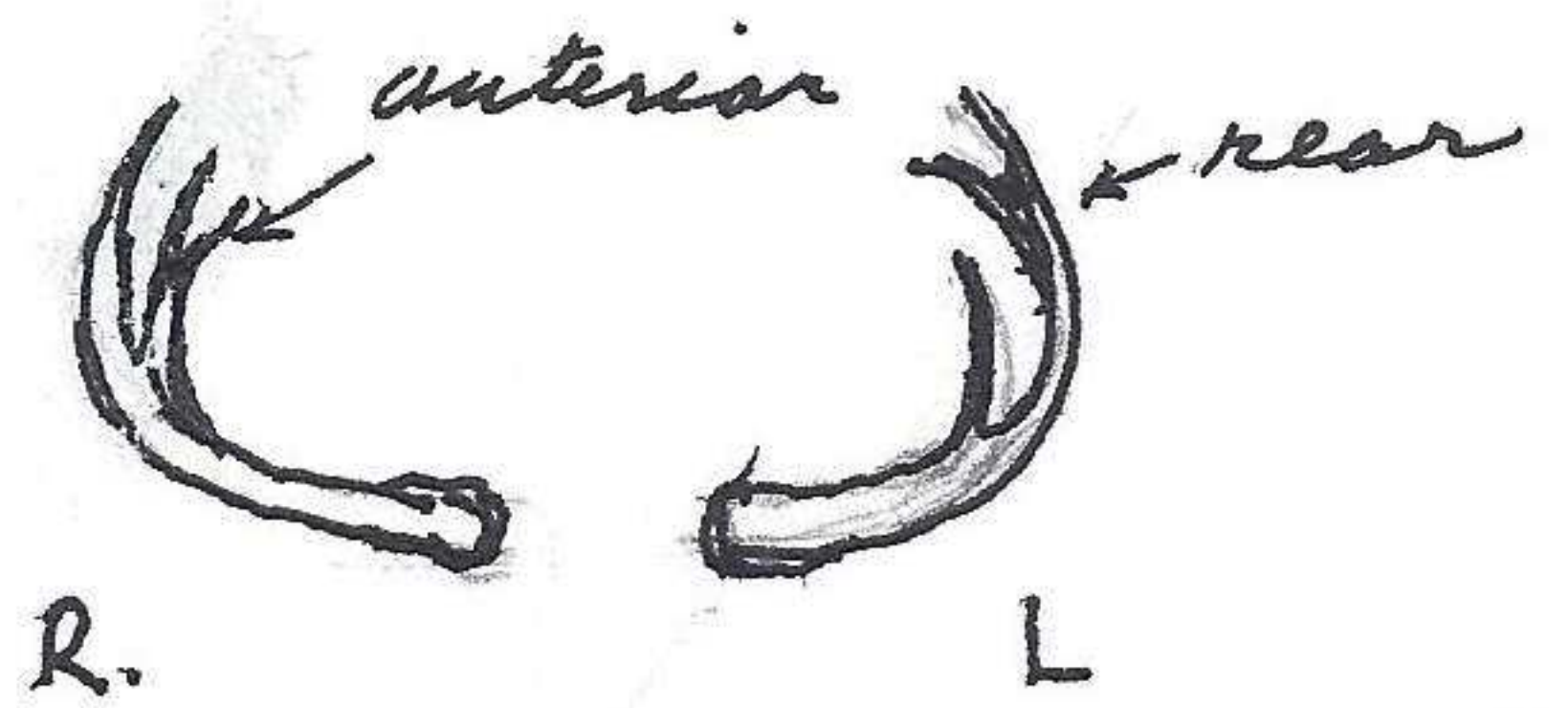


Beg-leafed maple at maximum color on  
Blakely and 13 on Bold Bluff Ridge, exclusive of area on N end  
Blakely associated with building area. 22 yellow trees or groups  
of trees between Thatcher and divide S of north Thatcher Peak.



Oct. 27, 1989

10:20 A.M. ad. ♂ mule deer, 33 1/2" high  
at shoulders, no eye tines. This  
is Bimbam and feeds from  
hand.



7 ♀, (2 ad and 5 young of year  
were displaced by ♂ mule deer,  
Bimbam, except 1 ♂ knobbed  
♂ that amicably fed with  
buck.

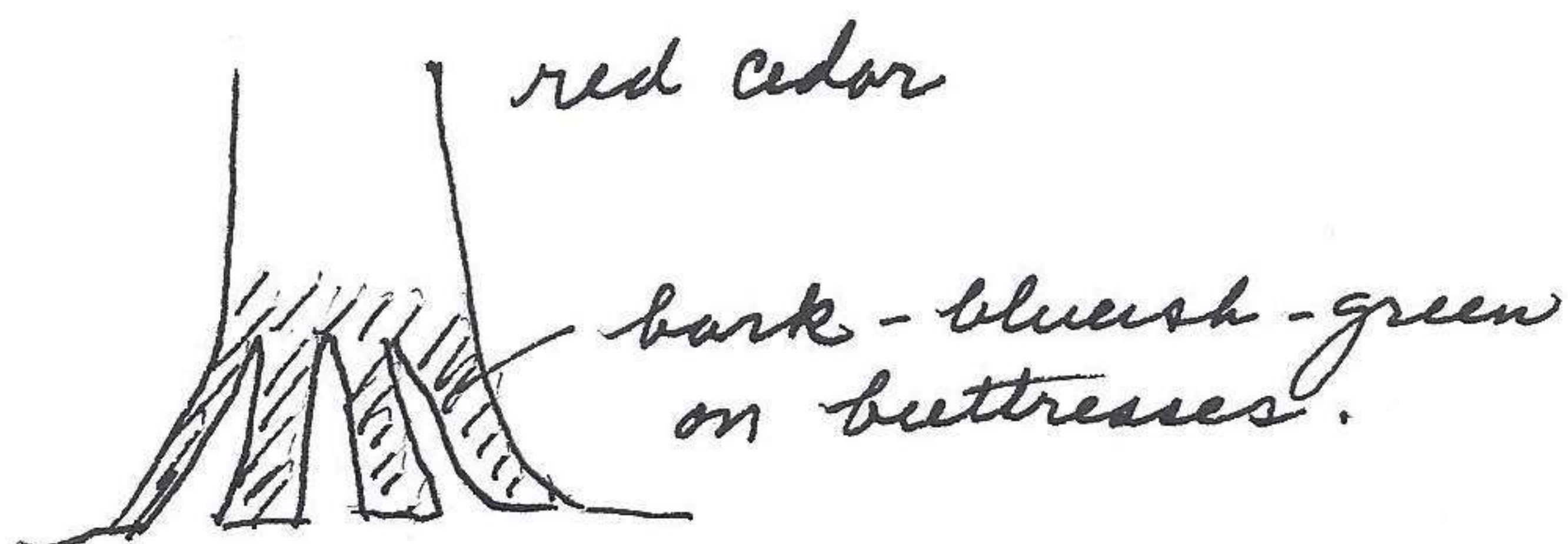
In all cases R or left is oriented  
according to animal's right or  
left.

Photos 891027-1 clouds above Leo Reef.  
" 891027-2 " " " " (disc.)  
" 891027-3 young mule deer of the year.

12:40 P.M. A feeding group of 24 glaucous-winged gulls,  
8 mewgulls and 11 Bonaparte gulls, 12 pelagic Cormorant, 1  
rhinoceros auklet and 6 western grebes was observed approx. 200'  
N of Leo Reef.

Trip from Bee House on Humphrey Head to logtrail W side, to  
rock quarry and return. a young red cedar 6" diameter had  
been used by mule deer to remove velvet from antlers. Starting  
10" above ground and for 3 feet the bark had been eroded to bare  
wood. Along side of bare wood were deep furrows into wood  
caused by the antlers.

Photo 891027-4 above marina to SW.  
" 891027-5 beyond to N. (disc.)

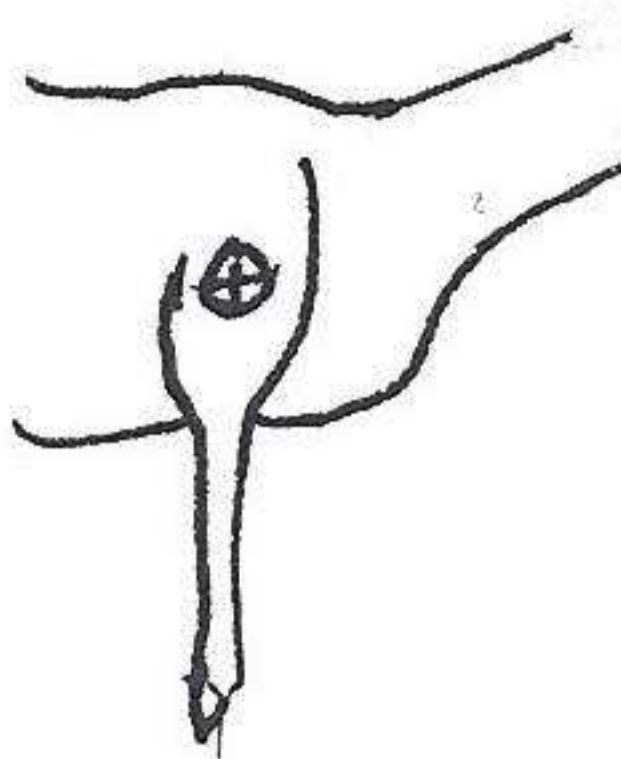


From top of rock quarry, NW side Humphrey Head took 2 photos. 891027-6 N side quarry. Returned to Bee House. 891027-7 madrone top quarry.

Trip to Causeway on Fishermans Bay, S end. Birds observed: both sides  
5 surf scoters, 3 white-winged scoters, 4 great blue heron, 16 black-billed plovers (2 groups 7 and 9), 2 western sandpipers, 4 American crows, 3 double-crested cormorants, 3 pelagic cormorants, 2 glaucous-winged gulls, 21 horned grebes in groups of 2, 3, 4, 3, 5, 4, 27 mallards, flock approx 250 starling.

Oct 28, 1989

10:05 Single <sup>Eye</sup> Tine, a mule ♂ deer passed by <sup>Bee House</sup> in pursuit of a ♀ mule deer. There was blood from wound on right shoulder approx. 80 pine siskins passed N in front Bee House.



a ♀ mule deer of this year is 26" high at shoulder.

10:20 A.M. 28 harbor seal <sup>on</sup> Leo Reef.

Townsend chipmunk active today.

Book to order: Sudworth, G.B. 1908.

The forest trees of the Pacific Slope. USDA Forest Service, Dover Publ. Co., 441 pp. (Reprinted but already sold out.)

Oct. 29, 1989

To Friday Harbor, San Juan Island. Left 11:30 A.M. in Bee Boat at hour gauge at 2670.8. via Upright Channel and San Juan channel. at moorage S end Shoal Bay, C. loon, at white wall cliffs NW end Humphrey Head, 43 pelagic cormorants. Pelagic cormorant, 5 pelagic cormorants, 22 surf scoters, 11 surf scoters, pelagic cormorant, glaucous-winged gulls, red-necked grebe. 11:52 A.M. passing Lopez Island ferry terminal. Bonaparte gull, western grebe. 11:53 Upright Point. Bonaparte gull, w. grebe, Bonaparte gull, 14 surf scoters, glaucous-winged gull, 2 separate mew gulls, Bonaparte gull, marbled murrelet, bumped along water 3 times before getting airborne, Bonaparte gull, w. grebe, rhinoceros auklet, Bonaparte gull, 3 separate Bonaparte gulls, horned grebe, 2 marbled murrelet, western grebe, Bonaparte gull, glaucous-winged gull, pelagic cormorant, Bonaparte gull, Bonaparte gull, double-crested cormorant, Bonaparte gull, 3 western grebes, Bonaparte gull, 12:31 P.M. most southern tip of Shaw. 18 Bonaparte gulls, marbled

murrelet in kelp beds (bull) west of point on Shaw. 2 separate Bonaparte gulls, House on Univ. Wash property with trees that have dull golden color. Cottonwoods leafless. No big-leaf maples. 2 separate Bonaparte gulls, glaucous-winged gull. 12:53 P.M. Reid Lock, glaucous-winged gull, Bonaparte gull; 1:02 P.M. Univ. Wash. marine tide gauge. 5 Bonaparte gulls. 1:10 P.M. Friday Harbor, Cruising time 1 hr and 40 minutes or 7.3 nautical miles per hour at 11 RPM.

Kingfisher at Friday Harbor alighted on wire and adeptly walked sideways for 1 foot and a half.

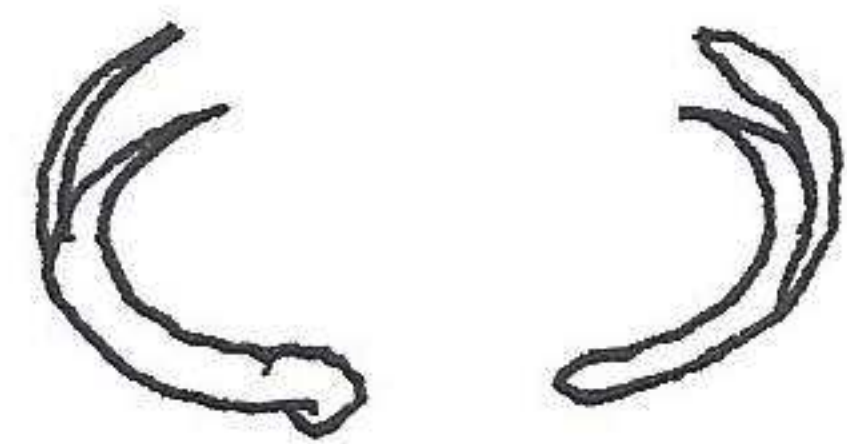
Left Friday Harbor at 3:05 P.M. In Friday Harbor Bay 2 great blue heron, 8 Bonaparte gulls, 4 Bonaparte gulls, 1 Bonaparte gull. Univ. Wash. tide gate, 2 horned grebes and 12 Bonaparte gulls in fishing formation. Common merganser, glaucous-winged gull, Bonaparte gull, 9 surf Scoters (5 ♀ 4 ♂). Waves 8" high with some white caps, more big-leafed maple (yellow) on the W side of Shaw than on E or S side. 2 separate Bonaparte gulls, mew gulls, 5 Gate Peninsula 1:39 P.M. 12 Bonaparte gulls, 3 double-crested cormorants, Light beacon no. 3 at Cliff Island. Bonaparte gull, 2 pigeon guillemots (winter pelage), 5 Bonaparte gulls, 2 western grebes. Big-leafed maple on Shaw arranged from least to most numbers: E-S-W-N. Bonaparte gull, great blue heron, 8 Bonaparte gulls, 3 pigeon guillemots, double-crested cormorant, adult bald eagle. No. 5 green beacon "C" at 4:03, 13 double-crested cormorant on beacon. 21 Bonaparte gulls, 8 mew gulls, 2 double-crested cormorants, 1 great blue heron, Bonaparte gull. Broken Point. <sup>4:07 P.M.</sup> 13 ♂ and 38 ♀ surf Scoters, 35 ♀ and 14 ♂ surf Scoters. Ad. bald eagle alighted on top dead Douglas fir tree. 7 Bonaparte gulls, 1 mew gull, 1 double-crested cormorant, 3 pigeon guillemots, 3 pelagic cormorants, 3 Bonaparte gulls, 16 double-crested cormorants riding on floating log. Maples (big-leafed) rarely observed on mainland E of Orcas ferry terminal. 4:26 P.M. N of Shaw ferry Terminal. Bonaparte gull, mew gull, Bonaparte gull, 3 separate Bonaparte gulls, double-crested cormorants, Western grebe. Spanish moss on lower limbs of conifers and bushes up to 50' above shore on Shaw Island. Western grebe, 2 pelagic cormorants. NE point of Shaw Island at 4:40 P.M. Mew gulls, 3 separate glaucous-winged gulls. The Star Fire boat, used by divers and vacation tourists past us going E and 28 glaucous-winged gulls followed the boat past Upright Head and to the east. The gulls were conditioned to follow the boat for handouts, even though at the time no one was offering food. 4:53 P.M. Passing Lopez

Island. 12 glaucous-winged gulls on piling at terminal.  
 2 western grebes, 2 groups of 2 each surf scoters, 8 surf scoters  
 (6♂ 2♀), 104 double-crested cormorants on white cliffs NW  
 Humphrey Head. 15 surf scoters, 1 western grebe, surf scoters use  
 10 water paddle contacts before becoming airborne. 2 surf scoter.  
 Arrive S end Shoal Bay moorage at 5:08 P.M. or 2 hrs and 5 min,  
 travelling time. Speed 10.4 nautical miles at 1200 RPM.  
 Summation of speed. 11000 RPM = 4 1/2 nautical miles per hour.  
 12000 RPM = 5 nautical miles per hour.

Oct 30, 1989

2:20 P.M. 7♀ and 3♂ common mergansers fished from Lichen  
 Point to Spring Cove on Humphrey Head. Following these  
 mergansers and pirating fish from the mergansers as they  
 emerged were 14 Bonaparte gulls, 1 glaucous-winged gull and  
 2 mew gulls. A great blue heron arrived and followed along  
 shoreline as close as it could get to the mergansers. 1 in 10  
 gulls were able to snatch a minnow from the bill of the mergansers.

2:30 P.M. ♂ mule deer, 2 points, no eye lines.  
 This male pursued a ♀ mule deer with quick  
 body movements. The breath of the ♂ was  
 clearly visible but not from the ♀ he was pursuing.



Bonaparte gulls hunted over water in front of Bee Harbor.  
 They dived, turned under water at a depth of 1 foot and then sur-  
 face beyond.

2 golden-crowned kinglets and 3 chestnut-backed chickadees  
 fed together in tree E of Bee House.

A young male mule deer called loudly with a definite higher  
 pitch than usually given.

Oct. 31, 1989

an bald eagle circled twice over water S of Boundary Point and  
 then alighted in top of large Douglasfir tree on the point.

3:30 P.M. at Swift Lagoon, 28 northern pintail, 2 green-winged teal  
 at Swift Bay counted 41 buffleheads generally distributed out  
 from shore.

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

mule deer Nov. 1, 1989

a ♂ 2 point, without eye lines in area of feeder at Bee House,

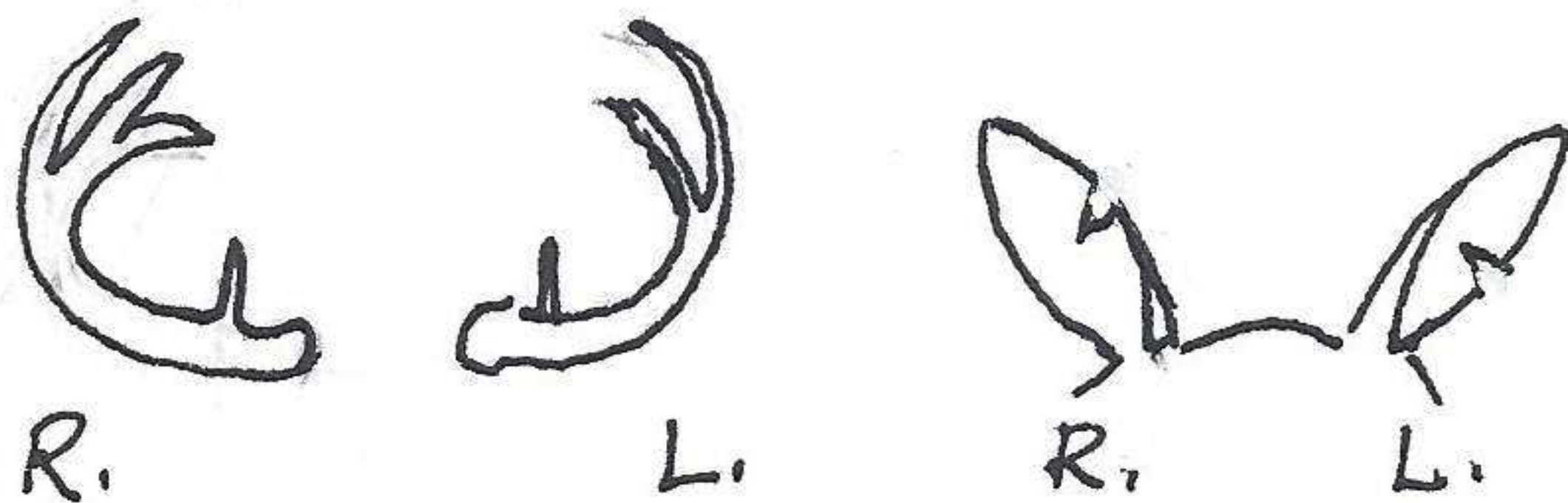
from 10:00 A.M. to 12:30 P.M. Fed with ♀ and alternately pursued her with curled lips, head up and 10' dashes. When a young of the year with  $1\frac{1}{2}$ " exposed knob as antlers and only observed about once a month, and started to follow female, the 2 point ♂ chased it away. At one time the young ♂ and 2 point ♂, in that order, chased the female for 300 ft. in 3 charges. At 300' the 2 point buck took command and followed the ♀ with the young ♂ following the 2 point deer.

1:55 P.M. 5 river otter swam S past Bee House, 10' out from shore. The distance from shore varies from on shore out to 40-60 feet, average 10'.

The Bonaparte gulls have been flying back and forth in front of Bee House with 7-10 always in view.

2:00 P.M. ♂ mule deer  $34\frac{1}{2}$ "

Large body size and weight of male mule deer is adaptation to endurance in pursuing females.



Nov. 2, 1989

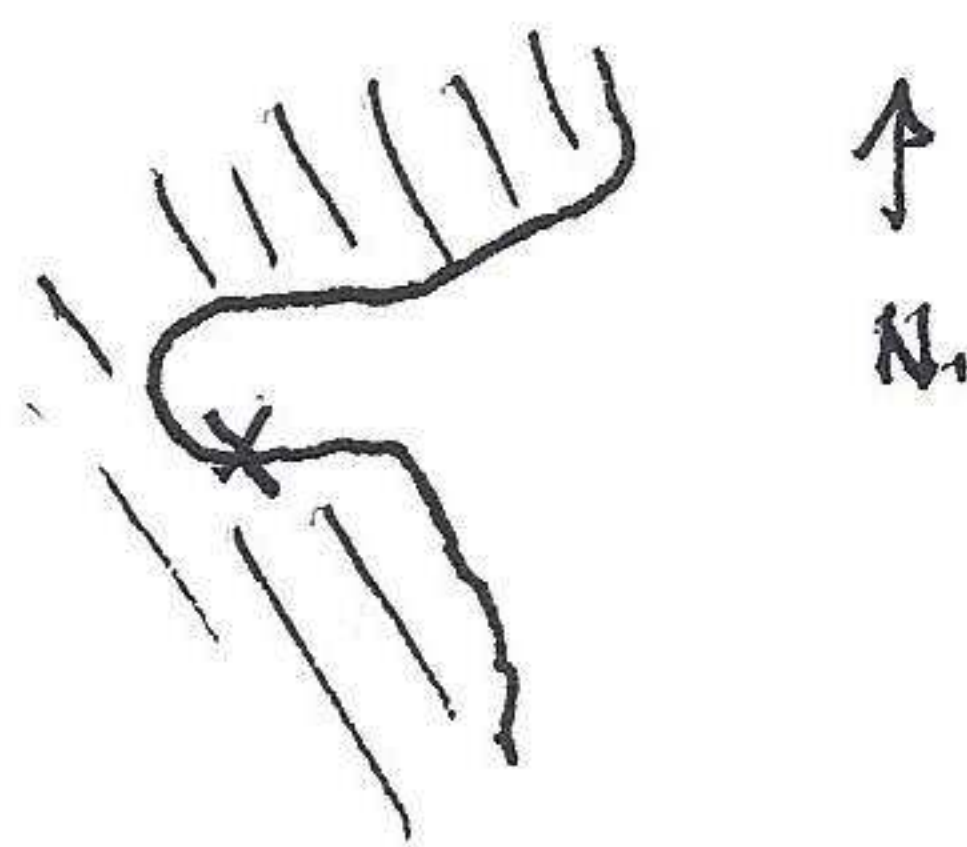
yellow of big-leaved maple on Blakely Island is still brilliant.

10:30 A.M. Common tern flew S then return in front Bee House. It flies faster in forward motion and dives more reflexively than the Bonaparte gull and generally higher above the water. Townsend chipmunk still active.

Nov. 3, 1989

8:00 A.M. to 10:30 A.M. a great blue heron remained in SW corner of Spring Cove for  $2\frac{1}{2}$  hours.

11 Common mergansers circled twice and alighted 30' out from shore below Bee House.



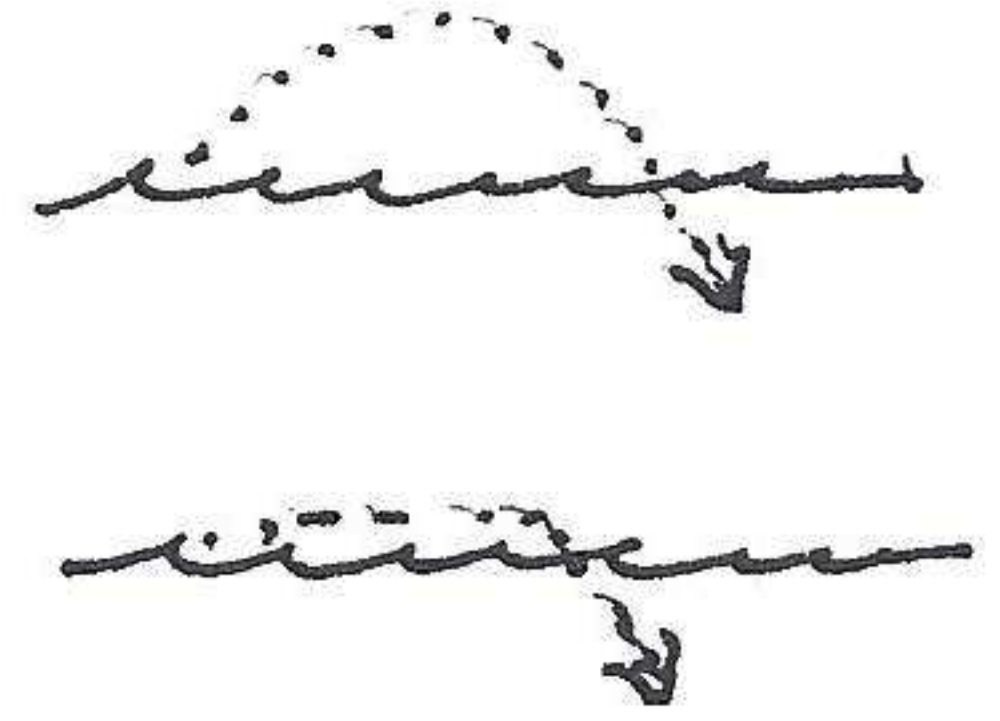
An informant said 200,000 board feet of timber, mainly Douglas fir were removed by truck from Moran State Park or 3,000-5,000 individual trees that blew over during the Feb 2 storm of 1989

Nov. 4, 1989

Harbor seal on Leo Reef with high tide almost inundating rocks. 5 seal on rock no. 2; 11 seal on rock no 3; 5 seal <sup>on</sup> rock no 4.

10:00 A.M. 11 double-crested cormorant, 1 pelagic cormorant, 7 common merganser and one harbor seal fed out 100' from Bee House.

Pelagic cormorant clears water when diving  
double-crested cormorant dives from level  
of water. Both use crest of wave



Townsend chipmunk still active.

Wing beat of common merganser faster than surf scoter,  
at Humphrey Lagoon 8 ♂, 8 ♀ bufflehead ducks and 3 ♂ &  
9 ♀ red-breasted mergansers.

Swift Lagoon: 24 northern pintails and 18 mallards.  
The marshy wetlands on Lopez Island are brown in standing  
water and green on surrounding area.

Nov. 5, 1989

8:35 A.M. 7 river otter swam N in Bee House area along  
shoreline. Their movement was deliberate and shoreline  
examined at several places. First observed rounding Tichen  
Point. At Flat Rock they left water and gain swale at upper  
right side where they traditionally (1986-1987) used as a  
put-out stop for rolling in the grass swale, <sup>in the dirt and over themselves.</sup> and playing  
among the logs & rocks. Three winated in the same place  
each with forceful up and down movement of the hind  
quarters. They left and put-out at head of Spring Cove  
to check logs, beach and wet soils beyond the beach on the  
brushy slope. They spent considerable time there and then  
swam to in front of Bee House, climbed up Rocky Shoreline,  
moved across windy slope to E and then entered water and con-  
tinued N. A ♀ mule feeding on Windy Slope intently  
watched the otter as they moved across the open slope, moving  
slightly right or left to gain a better view.

Pelage of mule deer turning a darker color and more  
shiny than first stage of winter pelage change.  
<sup>appetite and</sup> Trip to Olga on Orcas Island by Bee Boat. Left Shoal Bay at 11:30 A.M. Pigeon guillemot, 8 double-crested  
cormorants, rhinoceros auklet, 3 marbled murrelet, 2 double-  
crested cormorant, red-throated loon, double-crested cormorant,  
glaucous-winged gull, mew gull, 2 marbled murrelets. Arrive  
Olga. No dock except high walk. The dock has been delivered  
to Shoal <sup>Bay</sup> Marina where I pay \$33.00 per month for <sup>on Olga's docks</sup> moorage. High  
winds would destroy docks at Olga in winter but are protected on our

sheltered Shoal Bay marina. Continued N to Rosario Resort. 5 Bonaparte gulls, 8 glaucous-winged gulls, 2 common mergansers, 3 Bonaparte gulls, 1 mew gull. Beg-leafed maple brilliant yellow on the lower slopes of the two peaks of Entrance Mountain N of Olga. 3 glaucous-winged gulls, 1 Bonaparte gull, 2 common murrelets, 2 Bonaparte gulls, Bonaparte gull, glaucous-winged gull, Bonaparte gull, marbled murrelet. Arrived Rosario Resort 1:30 P.M. or approx. 2 hr trip from Shoal Bay marina. 2 river otter swam E along shoreline S of marina at Rosario Resort. Left resort and returned to Lopez Island at Shoal Bay marina via marker Island and Diamond Point on Oress. 2 harbor seal, glaucous-winged gull, mew gull, 2 western grebes, red-throated loon. 13 glaucous-winged gulls followed crab trap boat and were feeding on undersize crabs rejected from the traps. These crabs returned to water should be released under water so the gull would be unable to capture them. 46 min to marker Island. 3 western grebes, glaucous-winged gull, Diamond Point at 1 hr. 8 min. 8 common mergansers flying single file just above water, glaucous-winged gull. 1 foot wave <sup>(width)</sup> and sun shining for first time in clear sky. 4:15 P.M. 8 surf scoters, 9 double-crested cormorants, mew gull, 3 separate glaucous-winged gulls, 8 Bonaparte gulls, 2 separate Bonaparte gulls, 2 double-crested cormorants, 9 double-crested cormorant, 3 separate Bonaparte gulls, 3 double-crested cormorants. 4:36 white wall cliffs NW Humphrey Head at 1 hr. 38 minutes from Rosario Resort. 45 double-crested cormorants on white cliffs mentioned above and pelagic cormorants. Continued to moorage at S end Shoal Bay.

Nov. 6, 1989

7:30 A.M. Ad. bald eagle flying S past Bee House. 20' from shore and 50' above water.

Townsend chipmunk still active.

Beg-leafed maple still brilliant and at maximum.

3:30 P.M. To Lopez Village. At Swift Lagoon 51 mallards and approx equal ♂ & ♀. 9 godwits, 21 northern pintails.

Causeway at S end Fisherman Bay on Lopez Island. All birds on E or lee side causeway, high waves W side. Apparently S currents are encountering N blowing winds. (winds blowing northward) and wave action in San Juan channel is confusing and reacting in several different directions. Navigation by boat would be difficult and hazardous.



In Fisherman Bay (the secondary bay at SW end) are:  
 68 buffleheads in 6 different groups; 9 black-bellied plovers,  
 6 western sandpipers, 2 great blue heron, 6 glaucous-winged  
 gulls. Returned to Bee House on Humphrey Head where an  
 adult bald eagle dove 3 times out 100' from Bee House and  
 then flew 5 around Lichen Point.

12:40 P.M. Two pointer ♂ mule deer 33" in height at shoulder  
 and a fawn of the year 23" high fed amicably. The above  
 ♂ followed a ♀ 28" high at shoulder. The ♀ came to feeder and  
 ♂ followed and at the feeder they both fed amicably. At the feeder  
 the ♂ at one time licked the head of the ♀ without protest from  
 the ♀. At another time the ♀ attempted to place her head near  
 the ♂'s head and neck but in each case the ♂ rejected the approach  
 with quick jerks of his head and neck. The behaviorism occurred  
 4 times.

1:30 P.M. Observed two adult bald eagles chase and capture  
 a glaucous-winged gull at Hummel Lake on Lopez Island. One  
 eagle dove <sup>4 times</sup> at the gull at the N end of the lake by  
 getting higher than the gull and then diving down at the gull  
 at a greater speed than the gull. On the 4<sup>th</sup> trial it contacted  
 gull and was able to carry it 15' before dropping it in water.  
 The second eagle immediately dove at the gull and contacted the  
 gull and carry it 50' at 2' above water and then <sup>was</sup> forced to release  
 the gull. The other eagle followed 15' above the eagle carrying  
 the gull and at the moment the eagle released the gull, the  
 accompanying eagle immediately dropped down, picked up the  
 gull and carried it to a low lake bordering tree where it was  
 consumed. The behaviorism was cooperative and demonstrated  
 superior maneuverability and speed. I judged the speed of the  
 eagle was 2x that of the gull.

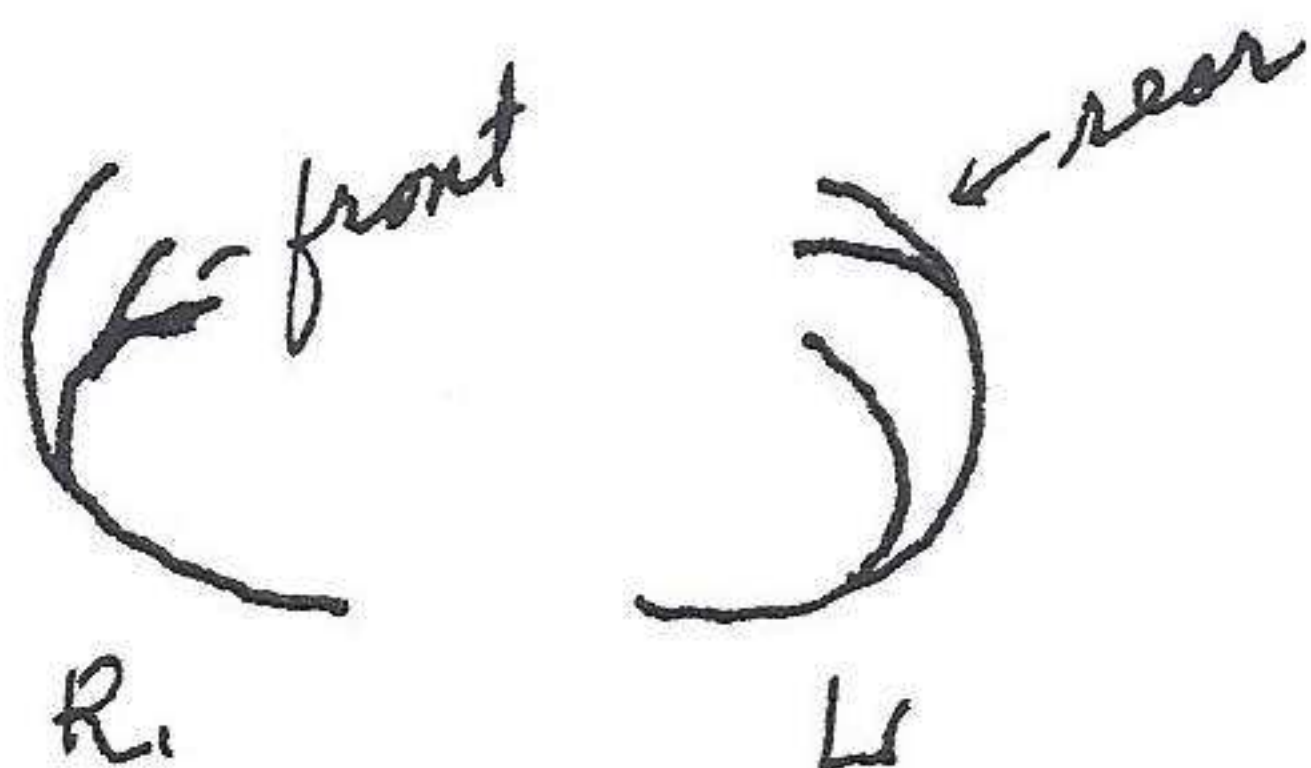
Nov. 7, 1989

7:00 A.M. 13 mule deer at Bee House feeder, including:

2 ♂ fawn

1 ♂ adult.

10 ♀ adults and fawns (young of the year).



a ♂ mule deer, 33" high at shoulder  
 joined the above as did a ♂ deer of  
 the year with antler knobs.

Nov. 11, 1989

Red-tailed hawk flew past Bee House twice this A.M.  
 Mary Pauline Bee and Steve Kaufman left for California today at 9:35 A.M. They reported 4 river otter in Humphrey Logann. They were eating small minnows 3"-5" long.

Nov. 12, 1989

at Bee House 12 golden-crowned Kinglets in company with 3 chestnut-backed chickadee. They were travelling madrona and conifers.

Nov. 13, 1989

To Anacortes 9:45 A.M. 1 foot high waves, whitecaps, wind 5 glaucous-winged gull. Willow Island, no birds in roosting cliffs. Common loon, W Thatcher Pass. 9 double-crested cormorant, 1 Bonaparte gull, 14 double-crested cormorant, 8 Bonaparte gulls. No gulls on Pointer Island. 2 marbled murrelet, double-crested cormorant, glaucous-winged gulls, marbled murrelets, double-crested cormorant, glaucous-winged gulls, 1 double-crested cormorants, 8 Bonaparte gulls, 1 mew gull. Arrived Anacortes ferry terminal. Continued to Chris' home on Lost Lake. From her property collected a Douglas squirrel:

891113-1 Tamiasciurus douglasii.

From: 21231 E Lost Lake Road, Lost Lake, Snohomish Co., Washington

Enroute to Lost Lake noted approx. 500 glaucous-winged gulls 1 mi. S of Stanwood and 400 1 mi. N Silvana. Both groups in fields that had flooded bodies of water. Most flooding in Skagit Valley and N of Lost Lake area along Elliott Road in Snohomish River Valley. In river valley N Elliott <sup>Road</sup> valley flooding provided favorable places for dunlins of which 2 groups, one 1500 and a second one 2000 dunlins were observed. No ducks in flooded valley. 3 red-tailed hawk between Anacortes and Lost Lake, all three in Skagit Valley.

Nov. 15, 1989

at Oklaw, 2 mi. NW <sup>on</sup> Elliott Road, 522 and 180 of 2 groups of ring-billed gulls and 40 glaucous-winged gulls in field by pond.

Left Lost Lake for Lopez Island. Red-tailed hawk at Maryville at turnoff 9 highway. 3 red-tailed hawks between Best Road on highway 20 and high bridge (on highway 20) over Snohomish Canal between mainland and Fidalgo Island.

Arrived Anacortes ferry terminal. No census to Lopez Island. 2 point mule deer crossed Port Stanley Rd at S end Humphrey Logann.

Nov. 16, 1989

7:45 A.M. adult bald eagle flew S past Bee House at 110' high and out 50' from shoreline.

at Swift Lagoon, 28 mallards.

at Bee House, mule deer eating yellow peach-leaved willow that were on the ground.

The rufous-sided towhee has been observed approx. once every 3 days for the last 2 months.

Townsend chipmunk still active.

5 eastern gray squirrels at feeder

8 mule deer in Bee House area and when a dark barked on road W Bee Estate 300 from deer, the deer all instantly left area at full speed. One stood on hill, a male, and last to leave. It slowly raised its left front foot and forcefully thrust its foot onto the ground. It performed this act 3 times and then as did the other deer, ran from the area.

Have not observed bats since new roof on house.

at Shoal Bay Marina, measured a Mopalia lignosa at 41 mm long and weighed 7 grams.

2 bald eagles flew S past Bee House at approx 50' high shortly after daybreak.

1:35 P.M., 2 adult bald eagles left Lechen Point and sailed in a low angle descent to NE Frost Island where a group of glaucous-winged gulls were concentrated on fishing. As the eagle were practically over the gulls they (the eagles) angles abruptly upward and circle, then flew to Leo Reef and alighted on the light beacon stand.

Nov. 22, 1989

12:45 P.M. In front of Bee House some 150' from shore 2 mew gulls started to dive for candlefish in an area of 4 sq. feet. In 12 seconds 5 glaucous-winged gulls arrived, then followed by 3 double-crested cormorants, the 2 Bonaparte gulls, then 4 pelagic cormorants. In four minutes the group consisted of 18 glaucous-winged gulls, 6 Bonaparte gulls, 12 mew gulls, 2 common murrelets, 4 western grebes, 2 red-throated loon and 5 horned grebes.

Nov. 24, 1989

11:35 A.M. Swift Bay: 130 bufflehead ducks, 18 surf scoters, 1 glaucous-winged gull, 30 common goldeneye. Overcast, cool and wind from SW.

Swift Lagoon: 29 mallards, 18 pintails, 15 northern shovellers, 6 American

widgeons, 2 greater yellowlegs. Peach-leaved willow leaves now golden and some trees have already dropped their leaves.

Hummel Lake. 1 bald eagle, 26 glaucous-winged gulls, 13 mew gulls circling just above eagle, 12 common mergansers, 7 buffleheads.

Causeway SW Fisherman Bay, Lopez Island. On E side 35 buffleheads, 3 mallards, 4 glaucous-winged gulls. On W side in San Juan Channel: 2 horned grebes, 13 american crows, 1 common loon.

On spit W side entrance Fishermans Bay 106 Thayers gulls, 4 glaucous-winged gulls and 12 mew gulls.

Nov. 25, 1989

Took Tom Montgomery & wife on the Bee Boat to Spencer Spit, E of Trump Island, E of Center Island, Lopez Pass, N E side Alcatraz thru Thatcher Pass back to Shoal Bay. Kinds of birds enroute: 3 adult bald eagles (one N end Frost Island, 1 S end Frost Island and 1 NE Alcatraz Island), pelagic cormorant, common murre, pigeon guillemot, hooded merganser, common merganser, surf scoter, Bonaparte gull, glaucous-winged gull, mew gull, kingfisher, 4 harbor seal, western grebe, marbled murrelet, horned grebe, common loon, red-throated loon. Yellow leaves of big-leafed maple on blakely now gone, and maybe as long as 3 weeks ago.

On Lopez Island the willow leaves are at their maximum color.

Nov. 28, 1989

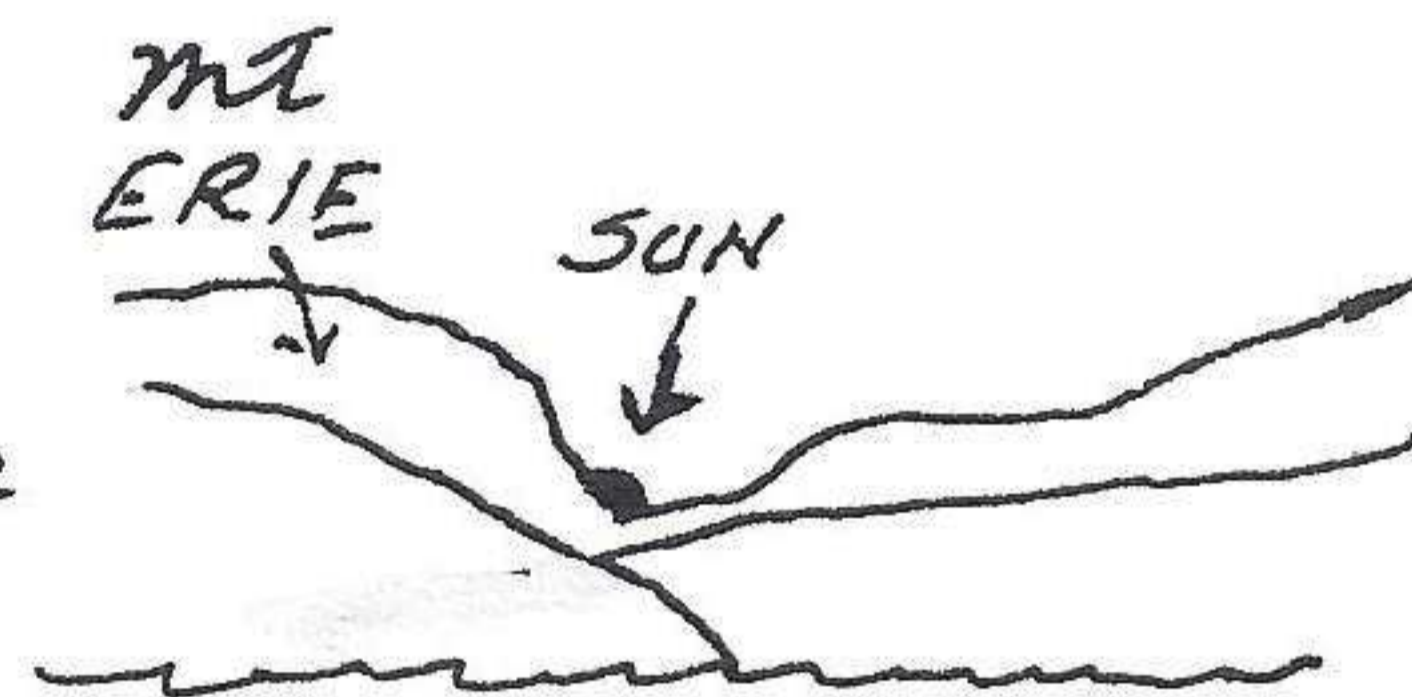
Sunrise approx. 7:25 A.M. just left of <sup>S</sup> base MT Erie

9:15 A.M. a female mule deer and her two fawns at feeder. Smallest 23 1/2" high at shoulders, the other 25". Another fawn measured 26 and antlered knob. Another adult ♂ with antlers measured 28" high at shoulders.

12:25 P.M. 2 adult bald eagles on Leo Reef. 1/10 mi. N of Leo Reef are: 15 western grebes, 9 pelagic cormorant, 12 double-crested cormorant, 3 common murre, 9 Bonaparte gulls, 4 glaucous-winged gulls, 1 common merganser.

12:46 P.M. One of the adult eagles left Leo Reef, picked up a scrap from water and flew to Lichen Point and alighted in lowest Douglas fir, where it consumed it.

3:30 P.M. Took Bee Boat to middle channel N upright Head where Coast Guard from Coos Bay checked the boat for marine regulations. Diane Meller & Gary friend from Seattle on boat. Birds in area:



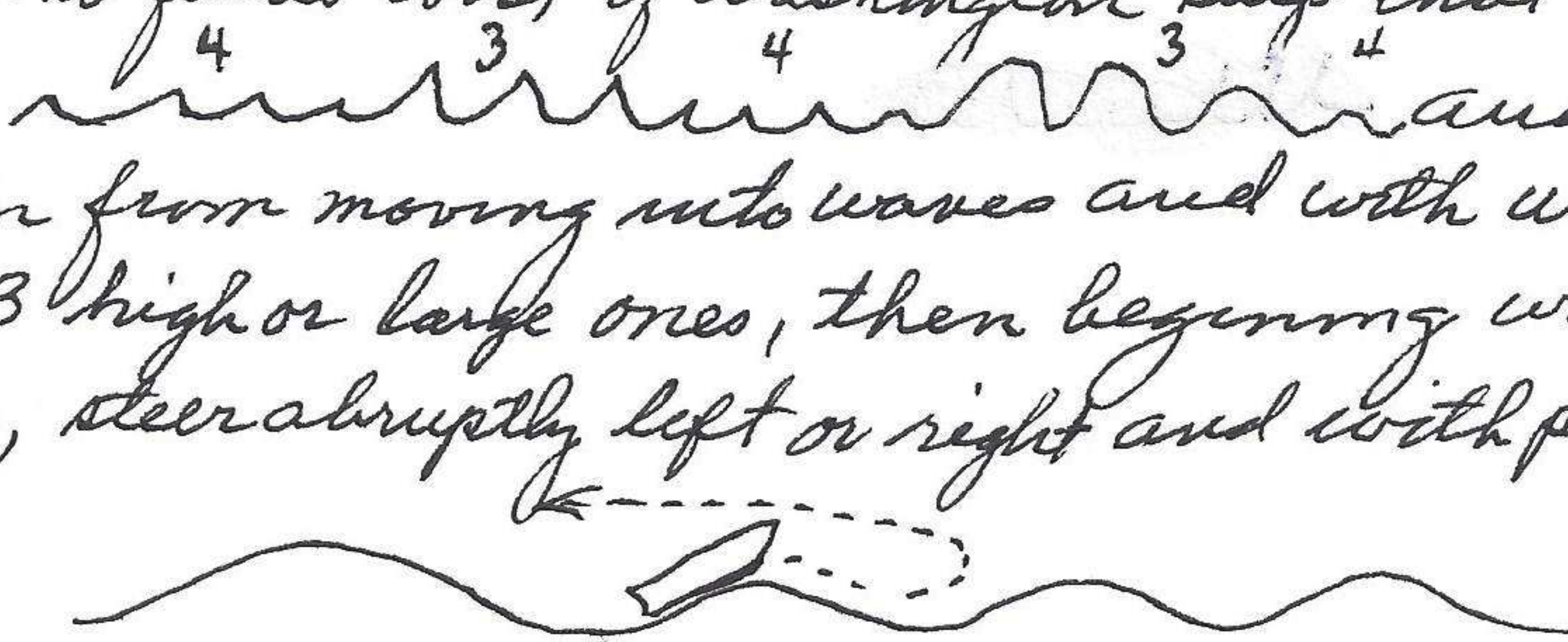
double-crested cormorant, common murre, pigeon guillemot, Bonaparte gull, surf scoter, common loon, western grebe, glaucous-winged gull, common merganser,

Nov. 29, 1989

9:10 A.M. Family of mule deer at feeder: ad. ♀ 28 1/2" high at shoulders, ♀ fawn of year and smallest of herd in area 21" high at shoulders, ♀ " " " 23" high at shoulders.

at Swift Logoon (A.M.): 28 mallards, 27 northern pintails, 3 green-winged teal, 8 gadwalls, 11 American widgeons,

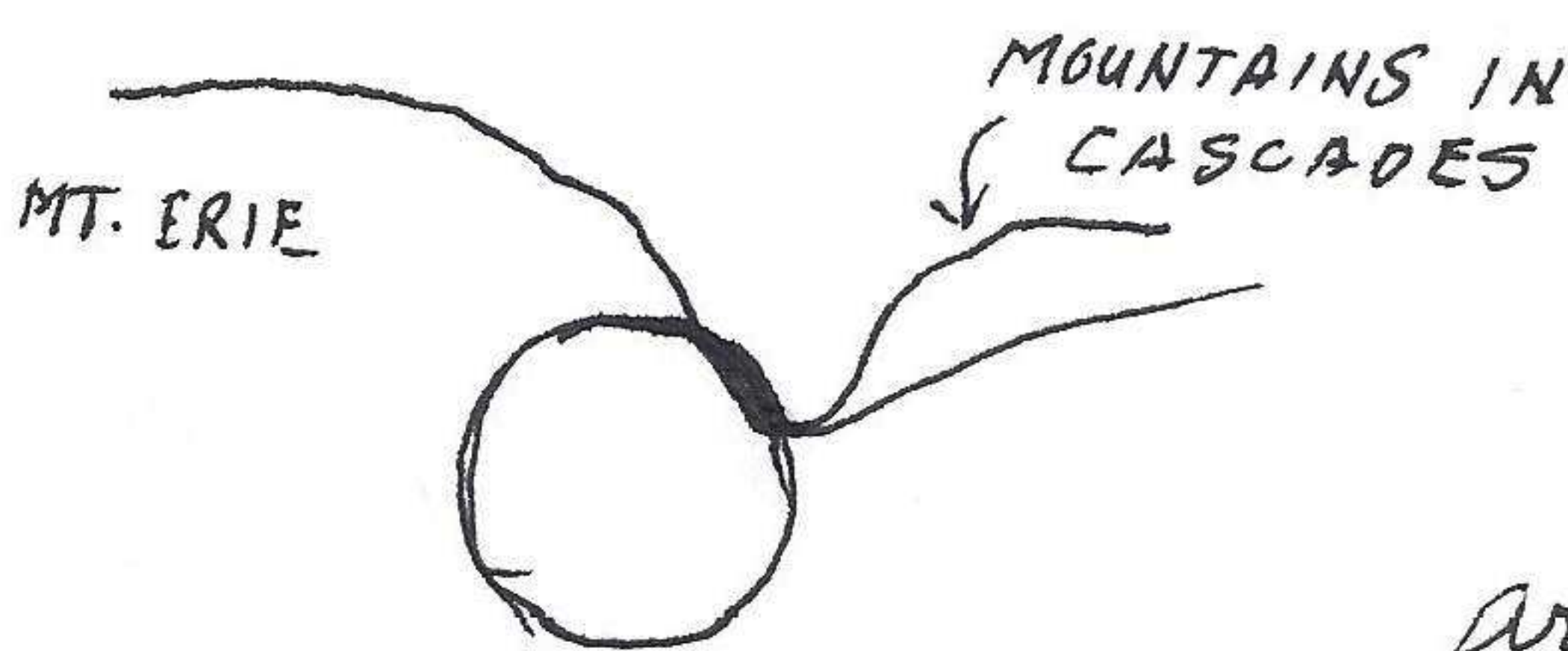
Put-in at NE corner Mackaye Harbor: 9 common goldeneye, 7 horned grebes, 5 common mergansers, 4 buffleheads, 4 hooded mergansers.

A local fisherman who fishes coast of Washington says that waves occur in 3 and 4 series  and that to reverse one's direction from moving into waves and with waves one should count the 3 high or large ones, then beginning with the first of the 4 small ones, steer abruptly left or right and with power turn boat around on first small wave.

He said that storms occur between Dec. and first of April.

Nov. 30, 1989

Sunrise 7:45:13



1:30 P.M. This is the first time I had witnessed such an aggregation of mew gulls in the sound area (N Lopez Sound). Approx. 3500

Bonaparte gulls (90% of gull species in area) appeared in N Lopez Sound from at least outer Swift Bay to Willow Island to N end Humphrey Head. There were generally distributed on the water, 95% on water, 5% in air, and in no case were they congregated in groups.

Bee Estate, Humphrey Head, Lopez Island, San Juan Co., Washington.  
Dec 1, 1989

8:10 A.M. 2 adult bald eagles flew directly S, circled Leo Reef, then return and flew directly over Bee House.

3:45 at Mackaye Harbor: 2 glaucous-winged gulls, 10 ♂ and 4 ♀ buffleheads, 7 common goldeneye ducks, 4 common mergansers, 1 great blue heron, 1 kingfisher, one common roven, 2 double-crested, cormorant,

another group 9 ♀ goldeneye.

Rafts of bull kelp are tangled at the base or holdfast end of the plant,

5" herringlike fish jumped out of the water.

Dec. 4, 1989

2 adult bald eagles flew past Bee House on 2 separate occasions both <sup>groups</sup> in same direction

Dec. 5, 1989

Two adult bald eagles at parking (boarding lanes) zone of Lopez ferry terminal, both flew S, on or E side and on W side. The one on E side turned head 90° toward eagle on W side,

when common raven fly overhead (50'-100'), there is an audible wing sound that is not present in American Crows.

8:39 A.M. An eagle flew N and alighted in a Douglas fir tree E of the loading lane of Lopez Island ferry terminal.

Left Lopez Island ferry terminal 9:47 A.M. for Anacortes; 13 pelagic cormorants, 3 glaucous-winged gulls, 2 common mergansers, 6 pelagic cormorants, 1 mew gull, 1 mew gull, Bonaparte gull, 4 pelagic cormorants, 3 Bonaparte gulls, pelagic gull, mew gull, pelagic cormorant, 3 separate mew gulls, Willow Island. Nine log so far 2'-8 ft. long. 80% white excrement washed off cliffs SW corner Willow Island. 4 mew gulls, 1 double-crested cormorant, 5 mew gulls, Red light beam SW corner Blakely. 53 mew gulls, 6 common mergansers, 4 pelagic cormorant, 2 double-crested cormorant, above 4 species in fishing group, 2 separate mew gulls, 3 double-crested cormorants, 1 common murre, 4 double-crested cormorant. 5 pelagic cormorants on Lawson Rock. 2 double-crested cormorants, 3 mew gulls. most (80%) cormorants on floating logs carried by currents, no glaucous-winged gulls or other kinds of gulls on Pointer Island. Log average 1 per 100' in Rosario Straits as boat pass by. Light beam SW Cypress Island. 2 double-crested cormorants. (Do not count gulls following boat), 8 pigeon guillemot, 1 mew gull. Arrived Anacortes ferry terminal.

To Chris at Lost Lake via Lalouner, Conway then river road S to Selvana then E to 9 & S. Low area N Selvana before bridge with water crossing, also just W bridge 2-3 mi. N Selvana. Also in Snohomish Valley on Elliot Road.

It is 82 miles from Lopez Island not including ferry travel, to Lost Lake.

Dec. 6, 1989

Return to Lopez Island from Last Lake, Took 8:50 A.M. ferry to Lopez Island.

Dec. 8, 1987

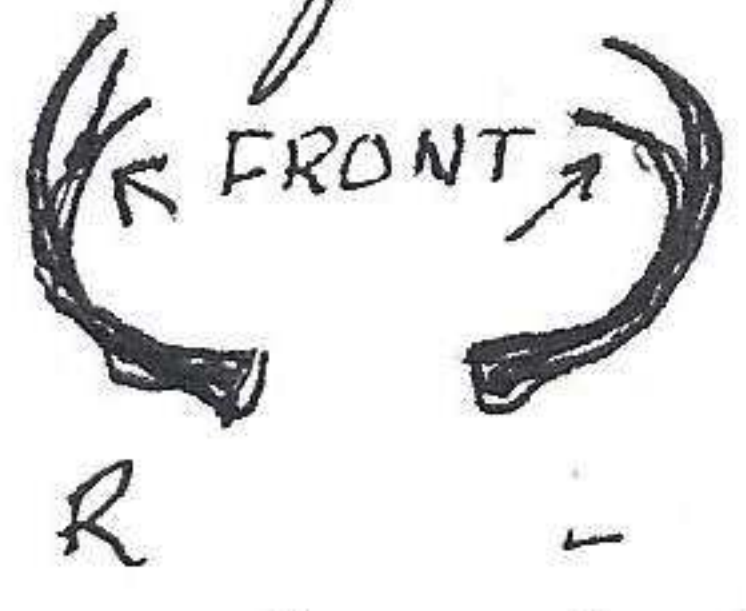
To Friday Harbor by ferry. Left 11:38 A.M. Pelagic cormorant, glaucous-winged gull, 4 double-crested cormorant, mew gull, 3 Bonaparte gull, common murre, common loon. NE Shaw Island. Double-crested cormorant, harbor seal, 3 double-crested cormorant, 5 mew gulls, 2 Bonaparte gulls, 8 pelagic cormorant, 2 double-crested cormorant, 3 old squaw, 4 ♂, 2 ♀ hooded mergansers. Shaw Island. 2 American crows, common loon, 3 pelagic cormorant, Bonaparte gull, Orcas Island 8 glaucous winged gulls, 4 mew gulls, 1 common loon, 4 pelagic cormorants, 6 pelagic cormorants, glaucous-winged gull, 3 Bonaparte gulls, pelagic cormorant. Begin Crane Passage. 5 pigeon guillemots, 2 pelagic cormorants, glaucous-winged gull, 2 pelagic cormorants, Bonaparte gull, 18 double-crested cormorants, 4 pelagic cormorants, 6 glaucous-winged gulls, common merganser, double-crested cormorant, 3 double-crested cormorant, 2 pelagic cormorant. End Crane Passage. 2 sandpiper sp., 8 pigeon guillemots, 4 glaucous-winged gulls. No boats in San Juan Channel. 8 pelagic cormorant in zone of debris. Double-crested and pelagic cormorants most frequently alight on water at edge of floating log then climb aboard. 65 pelagic cormorants, 6 pelagic cormorants, mew gull, 2 horned grebes, 6 pelagic cormorants. Univ. Wash. tide gauge. 10 common mergansers, 12 pelagic cormorants on a <sup>floating</sup> log, 2 pelagic cormorants, 2 common mergansers, 3 common mergansers, common merganser, 2 pelagic cormorant, 28 common mergansers, six of which are ♂. Arrive Friday Harbor 12:35 P.M. At Friday Harbor one harbor seal surfaced twice, 20' from effluent storm sewer water of Friday Harbor. One flock of 49 common mergansers across bay toward Brown Island, of this group 6 were ♂ & 43 ♀. Belted kniffisher at marina using tops of mast and other upward projections for resting places or vantage point for fishing. Left Friday Harbor by ferry at 2:45 P.M. for Lopez Island. 180 pelagic cormorant in outer bay just beyond Univ. Wash. tide gauge. 47 common mergansers, 2 common murre, mew gull, glaucous-winged gull, Bonaparte gull and common loon. From this point on selective observation. At W Crane Passage 1 great blue heron flew across from Crane Island to Shaw Island. 140 cormorants in one loose group, 60% double-crested, 40 pelagic, 13 glaucous-winged gulls, 4 common murre, common murre, marbled murrelet, 1 common murre. Arrived

Oreas Island. One group of close order flight of *Bonaparte gulls*?, acting like shorebirds. Arrived Lopez Island.

On front of Bee House on shore were 3 black turnstones, always keeping within a foot of water.

Dec. 9, 1989

1:45 P.M. A river otter swam S in front of Bee House.

2:00 P.M. An adult ♂ mule deer  clawed top of the 50 gal metal drum where we keep deer and bird food. It finally which was immediately replaced. On the third attempt, it removed the lid and tipped the drum over. The ♂ deer tried to reach the corn of which only about a gallon was left, but could not get antlers and head into the drum. After several tries it left and 2 fawns of the year successfully removed most of the corn by forcing their head & bodies to the back of the drum, an adaptation where small size is favored over large size of animal. At 8:20 AM another ♂ mule deer, a 2 pointer, and by turning head and antlers sideways was able to reach most of the corn.

Dec. 10, 1989.

Buck and Shirley Plummer have a relative from Alaska that brought Chatchalot barge down to Shoal Bay marina for rebuilding of diesel motors, who has second hand knowledge of the Wakefield family (Mil Wakefield Culbertson's, my aunt) family that lived on Shaw Island. He said that Mil's brothers (2) were the first to harvest King Crab of Alaska. There was not much demand for King Crab at that time. The Wakefield brothers had offices in Anacortes and Seattle. One of their boats named Sercana (Anacortes spelled backward) but was not an army transport ship as I had described it.

made trip to Lopez Village (4.2 miles from Bee House, via Center Rd. Bird at Causeway, NW end Fishermans Bay. On W side of causeway 1 surf scoter and 8 glaucous-winged gulls along beach. On E side 9 northern pintails, 4 mallards, 18 buffleheads, 4 great blue herons, 43 American crows, 6 glaucous-winged gulls.

at Swift Dagon: 9 northern pintails, 8 mallards, 2 buffleheads.


at Swift Bay: 72 American widgeons, 21 northern pintails, 8 mallards, 17 buffleheads.

Dec. 13, 1989

9:10 A.M. 2 point ♂ mule deer, 32 1/2" high at shoulders; a member of  
no eyelines



the local family group.

3:15 P.M. a small otter, sub-adult, swam S past Bee House in a fast, non-fishing attitude   
Longer period underwater than on top of water.

2:20 P.M. 23 Common mergansers feeding 25'-100' off Round Point, S of Spring Cove, Humphrey Head. The birds exceed pelagic cormorant in speed in which they cover great distances swimming <sup>and fishing</sup> on water.

at outer or exit of Fishermans Bay on Lopez Island, 23 common goldeneye ducks in one group.

Dec. 15, 1989

11:20 A.M. counted birds between Bee House and Leek Reef on a 1/10 mi corridor: 3 common loon, 2 red-throated loon, 12 pelagic cormorant, 5 Bonaparte gulls, 3 glaucous-winged gulls, 4 pigeon guillemots, 7 marbled murrelets.

On north side Spencer Spit, Lopez Island 42 surf scoters, 6 common goldeneyes.

Good characters for common murre: large head and black to tail, no wing white, big bill.

marbled murrelet: small bill, 2 white patches on side, one scapulars & <sup>white</sup> one tail coverts.

Result of a recent salmon derby: 48 salmon in 100 boats.

Dec. 16, 1989

To Anacortes via ferry: Left 9:20 A.M. 2 pelagic cormorants, 1 common merganser, 1 pelagic cormorant, glaucous-winged gull, mew gull, double-crested cormorant, common merganser, pelagic cormorant, double-crested cormorant, glaucous-winged gull, mew gull. W. Thatcher Pass. glaucous-winged gull, double-crested cormorant. Ten sportsman fishing boats for salmon, between S<sup>W</sup> end Bleahely and Black Island. Double-crested cormorant, glaucous-winged gull, common murre, glaucous-winged gull, common murre, marbled murrelet, double-crested cormorant. Arrive Anacortes ferry terminal, row to Chris' at Last Lake.

Dec. 18, 1989

Return to Lopez Island from Chris. arrive Lopez Island. Dan Post of Lopez Island reports that all commercial salmon fishing ended until July. The sockeye and chum salmon move thru a particular seigning area in a day or less. Fishing for salmon this year around Lopez Island is poor and only can get worse. Current salmon supplied by state hatcheries.

Dec 19, 1989

a family of mule deer at feeder at Bee House;

ad. ♀ 29" high at shoulder

♂ of the year 26" high at the shoulders

♀ " " " 25 1/2" high at shoulders. This one with puffy face.

The above adult ♀ fought another adult ♀ also 29" at shoulders and displaced the intruder.

Dec 20, 1989

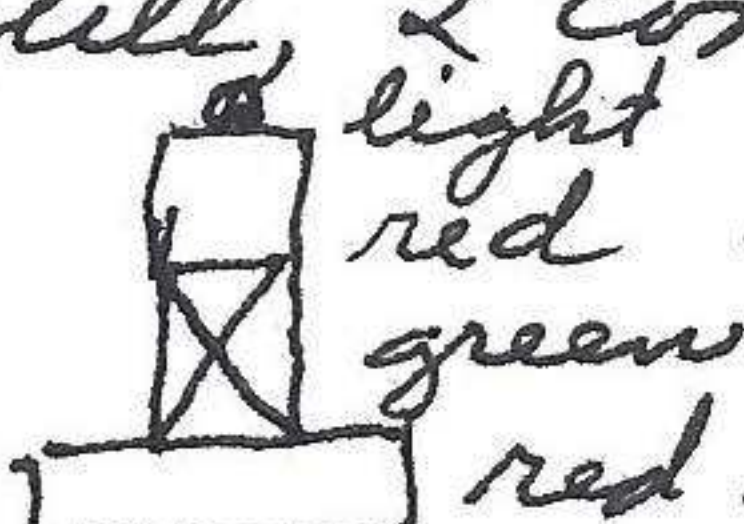
An adult bald eagle left lower Douglas fir tree on Lichen Point, sailed E at low angle to group of glaucous-winged gulls, and at about same place as gulls angled up and flew back to Lichen Point.

11:25 A.M. 5 river otter swam by Bee House and gazing N.

From below Bee House caught by line and hook a spider crab - Pugettia producta. If line touches bottom or side of cliff under water, the crabs take the bait.

3:35 P.M. a double-crested cormorant dove 20' from my fishing line on shoreline below Bee House. The cormorant contacted the full 6" herring bait twice before returning to surface.

Dec 21, 1989

Left this A.M. for Anacortes, Fidalgo Island: red-throated loon, 3 double-crested cormorants, mew gull, 2 common murre, common murre, marbled murrelet, mew gull, 6 double-crested cormorant, 1 common murre, glaucous-winged gull, 3 common murre, 2 common mergansers, pelagic cormorant, 3 mew gulls, Willow Island. Lichen mainly N end Willow Island. white cliffs almost 95% clear of white element from rain. Ancient murrelet, 4 sportsman fishing boat at Scud Blahely for salmon, double-crested cormorant, 5 pelagic cormorant, 2 common murre, 2 glaucous-winged gulls, 4 common murre, 1 common murre, marbled guillemot, marbled guillemot, 2 separate double-crested cormorants, 1 pelagic cormorant. Lawson Rock. marbled murrelet, 6 common murre, 3 marbled murrelets, mew gull, 2 common murre, 2 common murre, Light beacon SW Cypress base of beacon. Common  8 pelagic cormorants on loon, 2 glaucous-winged gulls, mew gull, 3 separate seal and glaucous-winged gull. Arrived Anacortes 10:27 A.M. 90 mew gulls and 11 glaucous-winged gulls on piling SW bay from ferry terminal. Also 15 pelagic cormorant and 8 double-crested cormorants on piling at ferry dock were 11 pelagic cormorants, and 2 glaucous-winged gulls,

Dec. 26, 1989 mule deer

at Bee House as two point buck, without eye lines measured 33" high at shoulders.

Dec 27, 1989

Annette and I to Island Hospital in Anacortes, Dr. Michael Sible.

at Washington Park at W end of peninsula observed: 21 horned grebes in on group, 2 red-necked grebes, 8 common goldeneye, 6 surf scoters, 3 horned grebes, 4 common mergansers, 1 mew gull, 4 glaucous-winged gulls, 2 pelagic cormorants, 9 common goldeneye, 2 glaucous-winged gulls, 4 mew gulls.

Dec. 28, 1989

To Anacortes by ferry. Left Lopez Island 2:40 P.M. Census from starboard side <sup>zone</sup> 300' out from boat. 8 pelagic cormorants, 2 mew gulls, 7 pelagic cormorants, 4 double-crested cormorants, 4 mew gulls, 4 common murre, 2 glaucous-winged gulls, 2 common murre. 3 double-crested cormorants. Leo Reef: 4 common murre, 2 common murre, common merganser, 6 pelagic cormorants, 8 horned grebe, 7 rhinoceros auklets, 2 common mergansers, 6 pelagic cormorants, 6 pelagic cormorants, 5 rhinoceros auklets, w Thatcher Pass. glaucous-winged gull, 3 pelagic cormorants, 4 pelagic cormorants, 13 pelagic cormorants, 1 glaucous-winged gull, 3 pelagic cormorants, 4 pelagic cormorants, 13 pelagic cormorants, 1 glaucous-winged gull, Fountleroy Point, 10 pelagic cormorants, 2 marbled murrelets, 9 common murre, 6 common murre, 4 common murre, 28 common murre, glaucous-winged gull, pelagic cormorant, pelagic cormorant, 5 pelagic cormorants. Light Beam SW Cypress Island. The following groups of common murre, 8-2-42-3-15-14-2. Arrived Anacortes.