

of the nests ⁴⁰⁰⁵⁰⁹⁻⁷⁸ intercepted, not merely a partial edge of a nest. Then by estimating the area covered by the entire gull colony calculated the population of the island. The greatest error will of course be in the estimation of the total area used by the gulls; however their congregation was a close aggregate and fell in two general colonies on the west half of the island. The rectangular quadrat revealed the following:

$$40' \times 70' = 2800 \text{ sq feet.}$$
$$162 \text{ (number of nests in quadrat)}$$
$$2800 \div 162 = \underline{17.2} \text{ sq feet per nest in quadrat.}$$

The linear quadrat revealed:

$$700' \times 6' = 4200 \text{ sq feet}$$
$$204 \text{ (number of nests in quadrat)}$$
$$4200 \div 204 = \underline{20.5} \text{ sq. feet per nest in quadrat}$$
$$20.5 + 17.2 \div 2 = \underline{18.8} \text{ sq feet per nest on the average}$$

$$700 \times 700 = 490,000 \text{ sq feet in area no 1. used by gulls}$$
$$350 \times 250 = 87,000 \text{ sq feet in area no 2 used by gulls}$$

$$490,000 + 87,000 = 577,000 \text{ sq feet used by the gulls in the entire composite nesting colony on island.}$$

$$577,000 \div 18.8 = 30,686 \text{ nests, on island}$$

$$30,686 \times 2 \text{ (pair of birds)} = \underline{\underline{61,372}}$$

Individuals of paired birds

In one area of 15 nests, 45 birds were found or 33% non-breeders. This is probably in excess although many birds were on shore line & water on our approach which would indicate non-breeders. Noticed that nearly every nest had a female & male protector. This excess number of gulls not nesting would have a tendency to raise the total number of birds inhabiting the island. One nest was 23 inches to its neighbor, that is distance between the eggs themselves. In one area of 3' x 13' was found 9 nests or 4.3 sq feet per nest, as compared to the 18.8 average. These nests were placed around a mass of *Salsola pestifer*. Killdeer, Canadian Goose, *Bufo woodhousii*, jack rabbits (and domesticated black), colony of about 30 Caspian tern, 1 cormorant, willow, Tamarix, *populus angustifolia*, rabbit brush present. Gull eggs being eaten in Caspian tern colony when tern not present. 5 dead gulls, seven ^(of gulls) nests of young & eggs.