



## 1957 REPORT OF THE WATERFOWL PROGRAM

## IN SELAWIK AREA

BY: Vernon D. Berns

Introduction

The second half of the current waterfowl program began on July 1, 1957, using Selawik as a base camp. Banding began July 8, on the Koojack River with banding activities and brood counts continuing until August 14, when operations were finished for the season.

Personnel

Peter Shepherd conducted this year's program until July when he was transferred to the Copper River Swan Project. On July 15, the writer was flown to Selawik to continue the work initiated by Shepherd and to begin banding activities. Two Eskimos, Lloyd Davis, who has worked for the past two years on this waterfowl project and William Sheldon, Jr., who began on July 5, of this year were hired as field assistants.

Equipment

The 18 foot skiff powered by a 25-horse Evinrude motor proved very satisfactory for carrying equipment on long distances, making brood counts, and outmaneuvering young and molted ducks while banding. A 10-horse power Johnson was carried in the

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boat as spare motor. The latter was very useful in some of the shallow upriver streams and lakes. It was used solely the last week when the 25-horse broke down and was sent back to Fairbanks for repairs.

Two kayaks were used for portaging into lakes not accessible to the 18 foot skiff. They were also used for setting up the duck trap in water too deep to wade, and in sloughs where short quick turns were necessary to catch the ducklings for banding whenever a brood was encountered.

Although a 4 x 4 x 8 foot duck trap with 100 foot wings made of small mesh gill nets was carried in the boat, it was only used on three sets due to the small numbers of birds found on any one lake. The two most useful pieces of equipment for catching birds this season were two long handled aluminum dip nets. Using these, it was a matter of getting the boat in position and close enough to catch the bird as it dived.

#### Weather

This spring and summer, Selawik and its surrounding areas had a long dry period which lasted until the first week of August. Winds blowing from 15-20 mph and often up to 30 mph came in from the ocean daily from July to August with the exception of three or four calm days. Because of these winds, advantage was taken of the midnight sun and much of the work was carried

out at night after the wind had died down.

One area was used for a comparison study to determine the difference in broods seen on windy days and on calm days. Three counts were made which brought the following results:

Clear calm day-----8 broods  
Cold cloudy & very windy--1 brood  
Clear and windy-----3 broods

In the first week of August light showers began to occur and in the following week it rained quite steadily.

### Fires

Due to the dry spring and summer, fires were numerous in the tundra areas adjacent to Selawik. One of the first fires started in the last part of June and burned along a 30 mile strip to the south and east of Selawik from early July to the second week of August when rains and firefighters were able to subdue it.

Across Twenty Mile Lake from the village of Selawik smoke appeared like a dense fog laying over the lakes and sloughs. On calm days it blanketed the sky so completely that on a few occasions the sun faded entirely. Reports from two of the bush pilots, John Cross and Nelson Walker, stated that a few of the potholes and small lakes still supported a brood or two of either old squaw or scoter after the fire had passed. The only big game seen near the fire lines by Eskimos was a black bear.

### Brood Counts

Brood counts were started on the 25 square mile study area on July 19 and completed July 25. Strong winds confined most of the work to the evenings and early mornings when the wind was at a minimum.

Broods were recorded whenever seen in the study area and all the surrounding areas. This data has been summarized in Table 1, 2 and 3.

TABLE 1  
BROOD COUNTS OF TWENTY-FIVE MILE STUDY AREA AT SELAWIK  
FROM JULY 16 to AUGUST 13, 1957

|                        | PINTAIL      | GW-TEAL      | BALDPATE     | OLD<br>SQUAW | SCAUP        | SHOVELLER | AM. SCOTER |
|------------------------|--------------|--------------|--------------|--------------|--------------|-----------|------------|
| Class 1a<br>Ave. size  | 0<br>7.0     | 2(14)<br>7.0 | 2(10)<br>5.0 | 0<br>5.0     | 5(37)<br>7.4 | 0         | 0          |
| Class 1b<br>Ave. size  | 3(14)<br>4.7 | 1(4)<br>4.0  | 2(14)<br>7.0 | 1(5)<br>5.0  | 5(37)<br>7.4 | 0         | 0          |
| Class 1c<br>Ave. size  | 0<br>10      | 0            | 1(2)<br>2.0  | 0            | 1(10)<br>10  | 0         | 0          |
| Class 2a<br>Ave. size  | 3(11)<br>3.7 | 0            | 2(11)<br>5.5 | 0            | 9(59)<br>6.6 | 0         | 0          |
| Class 2b<br>Ave. size  | 4(15)<br>3.7 | 3(13)<br>4.3 | 5(22)<br>4.4 | 0            | 5(20)<br>4.0 | 0         | 0          |
| Class 2c<br>Ave. size  | 2(11)<br>5.5 | 1(2)<br>2.0  | 0            | 0            | 0            | 0         | 0          |
| Class III<br>Ave. size | 2(6)<br>3.0  | 0            | 1(4)<br>4.0  | 0            | 0            | 0         | 0          |
| Tot. broods            | 14           | 7            | 13           | 1            | 25           | 0         | 0          |
| % Comp.                | 23.3         | 11.7         | 21.6         | 1.7          | 41.6         | 0         | 0          |
| Broods/Sq mi.          | .56          | .28          | .52          | .04          | 1.0          |           |            |

TABLE 2

## BROOD COUNTS BEYOND TWENTY-FIVE MILE STUDY AREA AT

SELAWIK FROM JULY 16 TO AUGUST 13, 1957

|             | PINTAIL | GW-TEAL | BALDPATE | OLD<br>SQUAW | SCAUP  | SHOVELLER | AM.<br>SCOTER | SURF<br>SCOTER |
|-------------|---------|---------|----------|--------------|--------|-----------|---------------|----------------|
| Class 1a    | 1(5)    | 2(18)   | 3(14)    | 0            | 10(55) | 0         | 0             | 1(8)           |
| Ave. size   | 5.0     | 9.0     | 4.7      |              | 5.5    |           |               | 8.0            |
| Class 1b    | 4(16)   | 0       | 6(33)    | 2(10)        | 3(19)  | 0         | 1(5)          | 0              |
| Ave. Size   | 4.0     |         | 5.5      | 5.0          | 6.3    |           | 5.0           |                |
| Class 1c    | 0       | 1(8)    | 0        | 0            | 2(10)  | 0         | 1(8)          | 0              |
| Ave. size   |         | 8.0     |          |              | 5.0    |           | 8.0           |                |
| Class 2a    | 3(7)    | 1(3)    | 5(18)    | 0            | 5(25)  | 0         | 2(11)         | 0              |
| Ave. size   | 2.3     | 3.0     | 3.5      |              | 5.0    |           | 5.5           |                |
| Class 2b    | 5(18)   | 1(5)    | 4(18)    | 0            | 8(49)  | 0         | 0             | 0              |
| Ave. size   | 3.5     | 5.0     | 4.5      |              | 6.1    |           |               |                |
| Class 2c    | 2(6)    | 1(7)    | 2(10)    | 0            | 0      | 0         | 0             | 0              |
| Ave. size   | 3.0     | 7.0     | 5.0      |              |        |           |               |                |
| Class III   | 1(3)    | 0       | 0        | 0            | 0      | 2(9)      | 0             | 0              |
| Ave. size   | 3.0     |         |          |              |        | 4.5       |               |                |
| Tot. broods | 16      | 6       | 20       | 3            | 28     | 2         | 4             | 1              |
| % comp.     | 20.0    | 7.5     | 25.0     | 3.7          | 35.0   | 2.5       | 5.0           | 1.3            |

TABLE 3

TOTAL NO. OF BROODS SEEN AT SELAWIK FROM JULY 16 TO AUGUST 13, 1957

|             | PINTAIL | GW-TEAL | BALDPATE | OLD<br>SQUAW | SCAUP  | SHOVELLER | AM.<br>SCOTER | SURF<br>SCOTER |
|-------------|---------|---------|----------|--------------|--------|-----------|---------------|----------------|
| Class 1a    | 1(5)    | 4(32)   | 5(24)    | 0            | 15(92) | 0         | 0             | 1(8)           |
| Ave. size   | 5.0     | 8.0     | 4.8      |              | 6.1    |           |               | 8.0            |
| Class 1b    | 7(30)   | 1(4)    | 8(47)    | 3(15)        | 8(56)  | 0         | 1(5)          | 0              |
| Ave. size   | 4.3     | 4.0     | 5.9      | 5.0          | 7.0    |           | 5.0           |                |
| Class 1c    | 0       | 1(8)    | 1(2)     | 0            | 3(20)  | 0         | 1(3)          | 0              |
| Ave. size   |         | 8.0     | 2.0      |              | 6.7    |           | 8.0           |                |
| Class 2a    | 6(18)   | 1(3)    | 7(29)    | 0            | 14(84) | 0         | 2(11)         | 0              |
| Ave. size   | 3.0     | 3.0     | 3.3      |              | 6.0    |           | 5.5           |                |
| Class 2b    | 9(33)   | 4(18)   | 9(40)    | 1(6)         | 13(69) | 0         | 0             | 0              |
| Ave. size.  | 3.7     | 4.5     | 4.4      | 6.0          | 5.3    |           |               |                |
| Class 2c    | 4(17)   | 2(9)    | 2(10)    | 0            | 0      | 0         | 0             | 0              |
| Ave. size   | 4.3     | 4.5     | 5.0      |              |        |           |               |                |
| Class III   | 3(9)    | 0       | 1(4)     | 0            | 0      | 2(9)      | 0             | 0              |
| Ave. size   | 3.0     | 0       | 4.0      | 0            | 0      | 4.5       | 0             | 0              |
| Tot. broods | 30      | 13      | 33       | 4            | 53     | 2         | 4             | 1              |
| % Comp.     | 21.4    | 9.3     | 23.6     | 2.9          | 37.9   | 1.4       | 2.9           | 0.7            |

### Banding

A total of 196 birds were banded this year; 54 white front geese, 48 lesser Canada geese, 2 green-winged teal, 3 American scoter, 14 baldpate, 46 scaup, 23 pintail, and 6 shovellers. Goose banding began July 8, and continued until July 25. Dabblers were banded whenever the opportunity arose throughout the season. The banding of divers, principally scaup, started July 28, and remained our main interest until August 13. Due to the small number of broods the duck trap was used only on one flock of molting scaup and one overnight set. In both cases the traps proved to be unsatisfactory. The number of waterfowl banded, six, and average weights are presented in Table 4.



TABLE 4  
BIRDS BANDED, SEX AND WEIGHT AT SELAWIK  
FROM JULY 16 TO AUGUST 13, 1957

| SPECIES                | ADULT         |             |             | Class | LOCAL         |             |             |
|------------------------|---------------|-------------|-------------|-------|---------------|-------------|-------------|
|                        | # of<br>Birds | Max.<br>Wt. | Min.<br>Wt. |       | # of<br>Birds | Max.<br>Wt. | Min.<br>Wt. |
| White Fronted<br>Goose | 20 F          | 80          | 72          | 1c    | 2 F           | 38          | 32          |
|                        | 17 M          | 88          | 72          |       | 1 M           | 40          | 40          |
|                        |               |             |             | 2a    | 2 F           | 40          | 36          |
|                        |               |             |             |       | 0             | 0           | 0           |
|                        |               |             |             | 2b    | 3 F           | 52          | 40          |
|                        |               |             |             |       | 6 M           | 56          | 44          |
|                        |               |             |             | 2c    | 1 F           | 48          | 48          |
|                        |               |             |             |       | 2 M           | 48          | 48          |
|                        |               |             |             |       |               |             |             |
|                        |               |             |             |       |               |             |             |
| Lesser Canada<br>Goose | 5 F           | No Wts.     |             | 1c    | ---           |             |             |
|                        | 2 M           |             |             |       | 2 M           | 28          | 28          |
|                        |               |             |             | 2a    | 7 F           | 46          | 34          |
|                        |               |             |             |       | 6 M           | 40          | 32          |
|                        |               |             |             | 2b    | 7 F           | 56          | 39          |
|                        |               |             |             |       | 19 M          | 56          | 37          |
| Pintail                | 0             |             |             | 2a    | 0             | --          | --          |
|                        | 13 M          | 32          | 29          |       | 1 M           | --          | --          |
|                        |               |             |             | 2b    | 3 F           | 14          | 13          |
|                        |               |             |             |       | 3 M           | 15          | 12          |
|                        |               |             |             | 2c    | 1 F           | 24          | 24          |
|                        |               |             |             |       | 0             |             |             |
|                        |               |             |             | III   | 2 F           | 16          | 16          |
|                        |               |             |             |       | 0             |             |             |
| Green-winged<br>Teal   | 0             |             |             | 2b    | 1 F           | 4           | 4           |
|                        |               |             |             |       | 0             |             |             |
|                        |               |             |             | 2c    | 0             |             |             |
|                        |               |             |             |       | 1 M           | 8           | 8           |
| Baldpate               | 0             |             |             | 1b    | 2 F           | 7           | 7           |
|                        |               |             |             |       | 5 M           | 7           | 6           |
|                        |               |             |             | 2b    | 1 F           | 15          | 15          |
|                        |               |             |             |       | 2 M           | 8           | 12          |
|                        |               |             |             | 2c    | 3 F           | 16          | 22          |
|                        |               |             |             |       | 1 M           | 20          | 20          |

Table 4, Continued -

| SPECIES    | # of<br>Birds | Max.<br>Wt. | Min.<br>Wt. | Class | # of<br>Birds | Max.<br>Wt. | Min.<br>Wt. |
|------------|---------------|-------------|-------------|-------|---------------|-------------|-------------|
| Scaup      | 2 F           | 32          | 22          | 1c    | 8 F           | 12          | 8           |
|            | 0             |             |             |       | 4 M           | 12          | 7           |
|            |               |             |             | 2a    | 1 F           | 16          | 16          |
|            |               |             |             |       | 9 M           | 15          | 8           |
|            |               |             |             | 2b    | 10 F          | 21          | 16          |
|            |               |             |             |       | 12 M          | 21          | 15          |
| Shoveler   | 2 F           | 26          | 26          | III   | 3 F           | 16          | 16          |
|            | 0             |             |             |       | 1 M           | 16          | 16          |
| Am. Scoter | 0             |             |             | 1c    | 1 F           | 8           | 8           |
|            |               |             |             |       | 2 M           | 8           | 8           |
| TOTAL      | 61            |             |             |       | 135           |             |             |

(Weights taken in ounces.)

Decimating Factors

Predation appeared to be light and varied in the areas covered this summer. One baldpate abandoned her nest with eight eggs near the village because of constant harassing from the native children. In one instance a mink was observed in the same immediate area that contained a brood of scaup. Probably the most serious problem is the longtailed jaeger. Two jaegers were watched on one occasion driving a molted pintail over the niggerheads. Other pairs of jaegers were seen flying near broods of ducks at various times, but the extent of this type of avian predation can only be assumed.

### Band returns

Only one bird banded in a previous season was recovered this year. This was an adult female, white-front goose, band number 508-59250, captured July 8, on the Koojack River.

### Discussion

Drought, smoke and fire, and perhaps, the lack of adult birds, are all possible factors or combinations of them which contributed to the low waterfowl population in the Selawik Area this year. The observer's accuracy may have been influenced somewhat adversely by the prevailing strong summer winds as well as by smoke and poor general visibility. Although no quantitative data were obtained it was the general impression of the writer that dry weather and smoke affected waterfowl production adversely this season. Local natives all stated that they believed there were very few ducks compared to previous years.

