

1955 SELAWIK PRODUCTIVITY REPORT

by
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: 1955 Selawik Productivity Report

The 1955 nesting and brood season delayed considerably, with breakup occurring on June 1 (May 18, 1954). Cold westerly gales until the middle of June allowed little growth of vegetation and ice remained on some lakes past June 10. No new vegetation was available for nest and brood cover until the last week in June.

Water levels dropped steadily from June 1, this decrease in water continued for nearly the entire month, then fairly heavy rainfall the first week in July sustained the water at its present level (about three feet lower than on June 1).

Breeding pair censuses the first two weeks of June indicated a substantial breeding population; however, later counts in favorable nesting areas showed only 12 to 13 pairs per sq. mile. Pintail, Greater Scaup, and baldpate composed the major breeding species in early composition counts, but this order was changed later when the scaup population became stabilized and surpassed

the pintail population. These three species formed over 80% of the breeding population on the lower Selawik flats. Green wing Teal, American and surf scoters, Mallard, shoveller, oldsquaw, Canada geese, and white fronted geese composed the remaining percentages. A July banding^{trip} revealed a large population of geese (largely white fronts) existed on the upper reaches of the Selawik River. Goose broods were observed more frequently than duck broods in this locality.

Flocking of dabblers became intense the third week in June. These early flocks of pintail and baldpate were predominately drakes, but as the nesting season progressed hens were seen frequently. Counts of small deserter groups and flocks of moulters (not in eclipse plumage) indicated a 69% nest success for pintail and a 88% nesting success for baldpate. Though scaup flocks were numerous the unbalanced sex ratio of this species would tend to give a false impression of nest success; therefore, no counts were taken. Female scaup in deserter flocks were seen frequently from July 7 until the third week in July.

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The first brood observation was a pintail brood ~~seen~~ June 28. At this time emergent growth was barely sufficient to provide brood cover, leaving young ducks open to harassment by avian and other predators. During the remainder of June and the first week in July brood observations were few. It was not until the second week in July that broods were seen in numbers. Table I, gives brood size, age, and date of observation for all species. Brood data from the upper selawik and lower selawik are indicated by an asterisk, as the upper selawik experiences an earlier spring, which would, it is surmised, tend to distort a hatching curve and thus should probably be treated separately. Table II, shows the total number of broods seen, the number and percent in each age class, the average brood size in each age class, and brood species composition percentages.

A brood census was conducted from July 22 to 26 over a 20 sq. miles of a 25 sq. mile study area on the lower selawik flats. Broods were counted on foot and by canoe. Lake shore and pothole areas were searched thoroughly and surrounding grassy regions beaten for possible broods. Most ducks showed a preference for

drained or partially drained, grassy lakes. Preferred cover was generally manna grass (Glyceria sp.), horsetail (Equisetum sp.), and bluejoint (Calamagrostis canadensis).

A compilation of brood data gave a mean average of 5.5 broods per sq. mile; however, a glance at the age classes of most species shows most broods are still in class I categories. As the hatch peak is not over in some species, a higher density of broods may show up in the final census.

The maximum number of broods in any area was a concentration of 26 broods per sq. mile. The minimum was two broods per sq. mile.

Greater scaup lead in brood composition with 32%, Pintail followed with 30%, baldpate 22%, Greenwing teal 9%, and the remaining percentages were Scoter, oldsquaw, mallard, and shoveller. Geese were not included in these counts.

The peak of the scaup hatch took place during the census period and it is assumed the majority of broods were counted. Other divers especially the scoters have just begun to hatch; therefore, this species was not well represented in the census counts.

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Most divers will not be flying before September 1, 1955 (assuming at least a 45 day flightless period for young scaup and longer for scoters) and many dabblers, notably baldpate, will barely attain flight before this date.

Table III gives the total number of broods seen of each species during the census period, the number in each age class, and the average brood size (Though this is not conclusive in most species, because a paucity of data no doubt has influenced the averages).

The 1955 water-fowl productivity at Selawik appears low, especially pintail production. Brood observations seem to bear this out, as they are infrequent and some good habitat is virtually deserted. The reason for this scarcity is unknown; however, an initial breeding population was present, but failed to remain. Whether this population was merely a transient group, or actually turned away by the late spring is another factor yet undetermined. Lastly, scaup and baldpate production seems good, which might be a result of their later nesting.

Summary

1. The 1955 breeding and nesting season at Selawik was delayed considerably.
2. An initial breeding population was present at Selawik, but failed to remain.
3. Final breeding pair counts indicated a population of 12-13 prs. per sq. mile.
4. Pintail, scaup, and baldpate were the leading species in composition counts. After the breeding population became stabilized the greater scaup replaced pintails in breeding pair abundance.
5. Counts of deserter flocks and moulting adults, indicate a 69% nest success for pintail and a 88% nest success for baldpate.
6. A brood census was conducted between July 22 and 26. A mean av. of 5.5 broods per sq. mile was realized. A mean av. of 5.2 young per brood was also determined.
7. Most broods were in class I categories during ^{the} census period.
8. Composition of broods (except geese) showed scaup at 32%, Pintail 30%, baldpate 22%, Greenwing teal 9%, and the remaining 7%, mallard, shoveller, scoters, and oldsquaw.
9. Most divers will not be flying before Sept. 1, 1955. Some dabblers, notably baldpate will barely attain flight before this date.
10. Pintail production appears low. Greater scaup and baldpate production seems good, which might be a result of their later nesting.

Table I

Broods of Pintail

Date of Observation	Age		Ib	Ic	IIa	IIb	IIc
	Class	no. broods					
June 28	Ia	2					
		size					
		$\begin{Bmatrix} 4 \\ 8 \end{Bmatrix}$					
July 7				1-1			
" 10				1-5			
" 13*					2	$\begin{Bmatrix} 8 \\ 4 \end{Bmatrix}$	
" 15				1-4			
" 16	2	$\begin{Bmatrix} 7 \\ 9 \end{Bmatrix}$	1-6	1-8			
" 17	2	$\begin{Bmatrix} 8 \\ 3 \end{Bmatrix}$		2 $\begin{Bmatrix} 3 \\ 7 \end{Bmatrix}$	4 $\begin{Bmatrix} 3, 1 \\ 5, 4 \end{Bmatrix}$	3 $\begin{Bmatrix} 6, 6 \\ 5 \end{Bmatrix}$	
" 20						1-6+	
" 21			1-4				
" 22**	2	$\begin{Bmatrix} 3 \\ 1 \end{Bmatrix}$					
" 23	1-2			3 $\begin{Bmatrix} 8, 1 \\ 6 \end{Bmatrix}$	1-6	1-4	
" 24				2 $\begin{Bmatrix} 1 \\ 4 \end{Bmatrix}$	1-2	2 $\begin{Bmatrix} 1 \\ 5 \end{Bmatrix}$	
" 25			1-4		1-1		
" 26							1-6

* indicates counts on upper Selawik - July 13 - 21

** " census period - July 22 - 26

Table I - cont. Broods of Bald pate

Dates of Observations	Age Class	Ia	Ib	Ic	IIa	IIb	IIc
	no. Broods	size					
July 6	2	{5 7				none	none
" 7	1-9						
" 10	1-7						
" 13*			1-7				
" 14	1-11						
" 17	1-7						
" 18			1-9	1-6			
" 21			4 {9, 4 6, 7				
" 22**			1-8				
" 23	1-7			1-5			
" 24	3 {5 4	2 {4 6	2 {7 9	1-4			
" 25	2 {9 4	4 {6, 7 4, 2					
" 26	1-9						

* Indicates counts on upper selawik River - July 13-21

** " census - July 22 - 26



Table I cont. Broods of Scaup

Dates of Observations	Age Class	Ia	Ib	Ic	IIa	IIb	IIc
	no.			none	none	none	none
July 22	broods	5 { 7, 6, 9 4, 7					
Il 23	6	{ 8, 7, 9, 1-4					
" 24	12	{ 7, 11, 8 4, 11, 12, 8, 8, 4	1-8				
" 25	10	{ 9, 9, 7, 7, 8, 5 8, 9, 6, 7, 3		2- { 3 9			
" 26	4	{ 8, 9, 3, 10, 8 6, 5 8, 8	1-6				

Broods of Green wing Teal

	Ia	Ib	Ic	IIa	IIb	IIc
July 7	1-8					
" 14				2 { 8 3		
" 16		1-9				
" 18				2 { 10 8		
" 23			3 { 9, 1 3	1-8		
" 26				1-6		

Broods of White fronted Geese

	Ia	Ib	Ic	IIa	IIb	IIc
July 12				2 { 5 4		
" 16			1-4	1-5		

Broods of Mallard

	Ia	Ib	Ic	IIa	IIb	IIc
July 12			1-3			
" 25				1-5		

Table I

Date of Observations	Broods of Canada Geese					
	Age					
	Class Ia	Ib	Ic	IIa	IIb	IIc
	no. broods	size				
June 28	1-3					
July 9		3	{ ^{4,5} ₆			
" 15				← 2	{ ³ ₅	
" 18				1-3		
" 20					1-4	

Broods of American Scoter	
Ia	
July 23	1-6

Broods of Old Squaw			
	Ia	Ib	Ic
July 18	1-2		
July 24		1-5	
" 25		1-5	

Broods of Shoveller					
	Ia	Ib	Ic	IIa	
July 25				1-1+	plus one brood undetermined

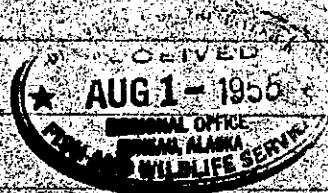


Table II

Species	Total broods*	no. in age class	percent	Av. brood size in age class	percent brood sp. composition
Greater Scaup	49	Age I class 42	100%	6.9	32%
		II 0	0%	none	
Pintail	46	I 23	57.5%	4.3	30%
		II 17	42.5%	4.3	
Baldpate	35	I 30	96.7%	6.8	22%
		II 1	3.3%		
Green wing Teal	14	I 5	45.5%	7.2	9%
		II 6	54.5%	7.1	
Old Squaw	3	I 3			
Shoveller	2	I 1			
		II 2			
Mallard	2	I 1			
		II 1			
American Scoter		I 1			

Remaining 7%

* Total broods includes those of which no counts were made. Over-

Canada Goose	8 broods	Class		
		I	7	87.5 62.5% 4.1
		II	1	12.5 37.5% 4.

White fronted Goose	4	I	1	25% *
		II	3	75%

The geese were not included in composition counts as they are not from the study area.

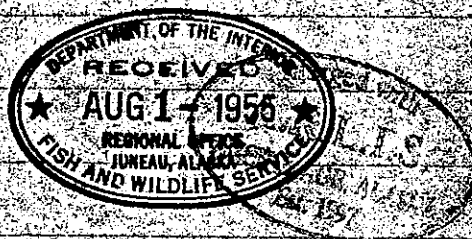


Table III

Results of July 22-26 Census

Species	no. broods	Age class I	%	Age class II	%	+3 broods not counted
Greater Scaup	49	42	100	0		
		Av. size of broods	6.9			
Pintail	22	9	56%	7	44%	+6 broods not counted
		Av. brood size	3.3		3.5	
Baldpate	24	19	95%	1	5%	+4 broods not counted
			5.5		4.	
Green Wing Teal	8	3	60%	2	40%	+3 broods not counted
Old Squaw	3	3	100%			
Shoveller	2			2		
American Scoter	1			1		
Mallard	1			1		

Total 110 broods

Broods per sq. mile 5.5

Av. brood size all species 5.2



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