

International Commission for



the Northwest Atlantic Fisheries

Serial No. 5302

ICNAF Res. Doc. 78/XI/86¹

SPECIAL MEETING OF STACRES - NOVEMBER 1978

Results of Tagging and Branding of Hooded Seals, 1972-1978

by

D. E. Sergeant

Arctic Biological Station
Fisheries and Marine Service
Department of Fisheries and the Environment
Ste. Anne de Bellevue, Quebec H9X 3L6

Abstract

About 70 young and adult hooded seals can be marked annually in the Gulf of St. Lawrence with reasonable marking effort using helicopters. With no local catching there are no immediate recaptures. Overall recaptures to date from 346 animals marked since 1972 are 9, of which 8 out of 282 or 2.8% are from animals tagged uniformly with rototags. Recoveries in summer range as far as the Angmagssalik area of east Greenland for animals aged up to 3½ years. There are also summer recoveries for both the Gulf of St. Lawrence and Front areas. Winter recoveries from the Strait of Belle Isle and northern Newfoundland accord with the age distribution of small age samples from net fisheries in this area, being a by-catch from netting of harp seals.

Marking

Table 1 shows numbers of animals tagged or branded, all in the Gulf of St. Lawrence, an area where a closure of hunting for hooded seals makes marking profitable. The number marked annually in 5 experiments has varied from 63 to 80 with a mean of 69. It seems clear that the limited number of animals whelping in concentrated groups in the Gulf limits the number that can be marked with reasonable effort. Marking has been carried out between 10 and 21 March with greatest numbers between 17 and 21 March.

¹ Originally presented as CAFSAC Res. Doc. 78/36 to the Canadian Atlantic Fisheries Scientific Advisory Committee.

Recoveries

Branding with an explosive branding device in 1972 gave one recovery out of 64 animals branded. This recovery was reported in Sergeant (1974). Tagging since 1975 has to date given 8 recoveries out of 282 animals tagged (all but 11 of them young animals), or 2.8% recoveries.

The 8 recoveries reported here can be added to 6 previously reported (Sergeant, 1974), comprising 5 tagged by Norwegian investigators and one branded by Canada. Ten recoveries in Greenland refer to animals aged up to 5 years, all except one $3\frac{1}{2}$ years or less. Months of recoveries were March (2), April (2), May (2), June (2), July (1) and August (1). There is a distinct progression of recoveries eastward with time, all those taken from March to May and one in June coming from southwest or west Greenland, and another in June and those in July and August coming from southeast Greenland in the region of Angmagssalik. This progression and the localities and dates of the late recaptures, all of $1\frac{1}{2}$ or $2\frac{1}{2}$ year old animals make it very likely that such animals move to the Denmark Strait moulting ice fields.

At the same time as these summer recoveries were made of animals moving to Greenland with the main moulting herds, there were 2 recent recoveries of animals summering in eastern Canadian waters. One was a $2\frac{1}{2}$ year old animal (No. 345) taken in a nylon cod gill net at 190 fa off Cape Bonavista on 9 September 1977; the other an animal aged 5 months taken in the St. Lawrence River at Sorel, Quebec on 29 August 1978, probably killed by a ship's propeller. A second, untagged juvenile was taken by seal hunters at Bon Désir on the north shore of the St. Lawrence estuary near the mouth of the Saguenay River, on 29 July 1978. The head was sent to the Arctic Biological Station by the hunters, who did not know the identity of the species. These data support the view of Sergeant (1974) that hooded seals summering in eastern Canadian waters are rather common yet aberrant animals.

There are two winter records from the northern Gulf and Newfoundland regions. One was taken in the net fishery for harp seals at La Tabatière, Québec, aged nearly 2 years on 10 January 1978; one between Cape St. John and the Grey Is., White Bay, Newfoundland in February 1977, presumably in the shooting catch for mainly immature harp seals. These recoveries accord with the information obtained from a small age sample of hooded

seals obtained over a number of years from the net fishery in White Bay, Newfoundland (Sergeant MS 1977, Table 4), which shows mainly immature but also some adult hooded seals present. This catch has long been known in northern Newfoundland and southern Labrador. With absence of netting northward, one cannot tell how far north the wintering of these animals extends.

Discussion

Of the 14 recoveries here analysed, all were 3½ years old or less, and one a male, aged 5 years. Since very few females are mature at 3 years, and very few males at 5 years, we are probably dealing so far with recoveries of immature animals only. There would seem to be value in maintaining the tagging effort on hooded seals in the Gulf of St. Lawrence, in order to increase the total number of recoveries, and eventually to obtain information on the locality of whelping adults from young (or adults) tagged in the Gulf of St. Lawrence. Comparable data can be expected to accrue from long continued Norwegian tagging of small numbers of hooded seals at the Front ice, as well as from Norwegian tagging at Denmark Strait and presumably the West Ice. This leaves only the recently discovered whelping herds of hooded seals in Davis Strait inaccessible, as yet, to tagging.

References

- Sergeant, D. E. 1974. A rediscovered whelping population of hooded seals Cystophora cristata Erxleben and its possible relationship with other populations. *Polarforschung* 44(1): 1-7.
- MS 1977. Research on hooded seals in the western North Atlantic in 1977. ICNAF Res. Doc. 77/XI/57, Serial No. 5132, 8 p.

Table 1. Hooded seal tagging and recoveries as of 23/X/78. All animals tagged as young in Gulf of St. Lawrence with Dalton Rototags unless otherwise stated.

Tagged			Recovered		
Year (colour)	Date	Number	No.	Date	Locality
1975 (red)	18-20 Mar	75	932	9 Sep 1977	30 miles NE C. Bonavista in nylon cod gill net set at 190 fa
			976	29 Mar 1976	Qegetarssuit, Julianehaab dist., Greenland 60°37'N, 45°55'W
1976 (yellow)	10, 18-20 Mar	80	474	7 Aug 1978	Isortuk, E. Greenland 65°30'N, 39°W
			475	11 May 1977	Sydprøven, Greenland 60°17'N, 45°28'W 166 cm, Male
			937	Feb 1977	Between C. St. John & Grey Is., White Bay, Newfoundland
			940	10 Jun 1977	Ikaleq, Greenland 65°38'N, 37°58'W 180 cm, 150 kg
			941	10 Jan 1978	La Tabatière, P.Q., in shoal net
					No recoveries to date
1977 (green)	12-13, 20-21 Mar	64			
1978 (pink)	17, 19 Mar	11 ad	14959	29 Aug 1978	Sorel, P.Q. Probably killed by boat propeller
		<u>52</u> yg			
		<u>63</u>			
Total tagged		282			
Total recovered		8			
Percent recovered		2.8			
1972 (Explosive brands)	March	18 ad, 19 yg	"N"	11 Jun 1973	Greenland, 46°10'W
	17-"L" 19-"N"				
		<u>64</u>			
Total tagged or branded		346			
Total recovered		9			