

AMERICAN LOBSTERS TAGGED BY MAINE COMMERCIAL FISHERMEN, 1957-59

In 1957 at the suggestion of C. Owen Smith, then editor of the "Maine Coast Fisherman," several commercial lobster fishermen volunteered to tag illegal American lobster, *Homarus americanus*, with tags furnished by the Maine Department of Sea and Shore Fisheries. The purpose of the tagging was to obtain additional information on the migratory behavior of lobsters.

Between April 1957 when the first lobster was tagged and October 1959 when the last of the recaptures was reported, 162 lobsters ranging from 78 to 200 mm in carapace length (CL) were tagged and released under this cooperative program. No legal lobsters were tagged. The lobsters consisted of four illegal classifications: 1) those with extruded eggs, 2) those less than the legal minimum size, 3) those larger than the legal maximum size, and 4) those which had had a V-shaped notch cut into the telson to signify successful motherhood. Seventy-three were tagged in Penobscot Bay (72 in 1957 and 1 in 1958) and 89 in Sheepscoot Bay (all in 1958).

The small number of lobsters involved does not permit definitive conclusions regarding their behavior. The evidence furnished by the results does not agree with tagging reports before and since (Harriman 1952,¹ Cooper 1970) of an area which apparently is more isolated and the lobster population more static.

Of the lobsters tagged, 75 or 46% were 127 mm or larger in carapace length. Only 23 or 14% of the total tagged were recaptured (2 were recaptured twice), 14 were recaptured after more than 1 mo of freedom, and the remaining 9 were recaptured within 1 mo. Although only 18 or 24% of large lobsters (127-200 mm) were recaptured, they represented 78% of all lobsters recovered (Table 1). Four or 22% of large lobsters recaptured, all from Penobscot Bay, traveled 75 or more nautical miles from the point of release to the place of recovery (Table 2, Figure 1). In addition, one V-notched female of 111 mm CL tagged near Tom Rock, Sheepscoot Bay, was re-

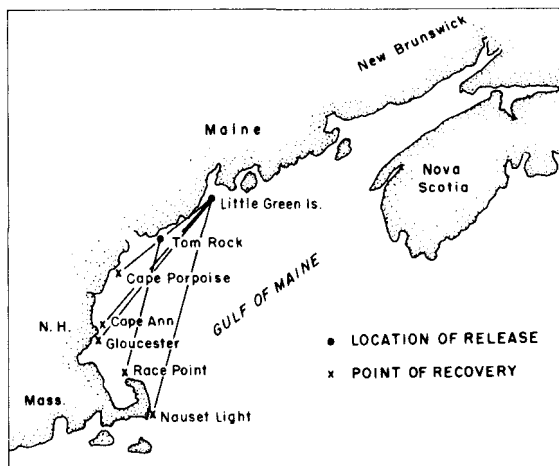


FIGURE 1.—Location of release and point of recovery of the five major wandering lobsters.

captured 7 mo later near Race Point Light off Provincetown, Mass.

The four from Penobscot Bay included a large female tagged near Little Green Island and recaptured near Timber Island, Cape Porpoise, 2 mo later; another large, sexually unidentified lobster also tagged near Little Green Island in April 1957 and recaptured near Gloucester, Mass., 14 mo later; and a 133-mm CL male tagged 12 September 1957, near Little Green Island and recaptured 19 March 1959, near Cape Ann Light, Mass. The longest migration was from Penobscot Bay to Nauset Light, Mass., an estimated straight-line distance of 138 nautical miles (250 km) made in 13 mo by a lobster greater than 127 mm CL and of unidentified sex.

Of the five major wandering lobsters, four exceeded the Maine maximum legal size of 127 mm, suggesting that large mature lobsters are more prone to major migration than are smaller lobsters.

Before they were recaptured, 6% of the 68 Penobscot Bay tagged lobsters between 127 and 151 mm CL traveled between 75 and 138 nautical miles from the release area. This compares with an average 7% recovery of all sizes reported by Cooper and Uzmann (1971) of their tagging from April 1968 to June 1969.

One 79-mm CL female, the smallest lobster recaptured, traveled less than 6 nautical miles (10.9 km) in 9 mo. All other recaptures were lobsters 90 mm or larger. One of these traveled

¹Harriman, D. M. 1952. Progress report on Monhegan tagging—1951-1952. Maine Dep. Sea Shore Fish., Augusta. (Unpubl. Rep.)

TABLE 1.—Tagging and recovery data.¹

Carapace Length (mm)	Tagged lobsters						Recovered lobsters					
	Penobscot Bay			Sheepscot Bay			Total	Penobscot Bay			Sheepscot Bay	
	M	F	Unk	M	F	Unk		M	F	Unk	F	Total
178-200	1	3					4	1				1
127-151	40	25	3	3			71	10	5	2		17
102-126		1			14		15				2	2
78-101				31	39	2	72				3	3
Total	41	29	3	34	53	2	162	11	5	2	5	23

¹M = male, F = female, Unk = not determined.

TABLE 2.—Information on the five major wandering lobsters.

Tagging site	Sex ¹	Carapace length (mm)	Tagging date	Recapture site	Recapture date	Elapsed time (mo)	Approximate distance traveled	
							Nautical miles	km
Little Green Isl. Penobscot Bay, Me.	Unk	>127	4/57	Nauset Light, Mass.	5/26/58	13	138	250
Little Green Isl.	F	>127	5/10/57	Cape Porpoise Maine	7/16/57	2	75	136
Little Green Isl.	Unk	>127	4/57	Gloucester Mass.	6/5/58	14	113	205
Little Green Isl.	M	133	9/12/57	Cape Ann Mass.	3/19/59	18	113	205
Tom Rock Sheepscot Bay, Me.	F	111	11/4/58	Race Point Light, Mass.	6/5/59	7	113	205

¹Unk = not determined, F = female, M = male.

8 nautical miles (14.5 km); the remainder less than 4 nautical miles (7.3 km). Movements appeared to be random in contrast to the south-westerly trend of the major migrants.

Preliminary conclusions resulting from this study are supported by the frequent comments of Massachusetts lobster fishermen who profess appreciation for Maine's maximum size limit which permits lobsters, telson V notched in Maine, to migrate to Massachusetts where they are legal.

Literature Cited

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