

The following table shows the main facts with regard to the launches and guns employed, the localities visited, and the birds and eggs destroyed :—

	Number of Guns.	Places visited.	Number of Shags		Number of Young destroyed.	Number of Eggs destroyed.
			Killed.	Brought back.		
Launch No. 1 ..	3	Hargreaves' Creek, Simpson's Creek, and two other unnamed creeks	About 120	38	About 50	52
Launch No. 2 ..	2	Bishops Creek .. .. .	42	42	12	29
Launch No. 3 ..	2	Old Man's Nose, Boon Creek, Tauhoa Creek, Stoney Creek	3	3	0	0
Launch No. 4 ..	2	Swan Island .. .. .	50	9	8	0
Launch No. 5 ..	2	Rauranga Creek, Makarau Point .. ..	39	0	0	0
Launch No. 6 ..	1	Gregory's Creek .. .. .	10	6	0	0
Launch No. 7 ..	1	Glorit Creek, South Creek .. .. .	29	0	0	0
Totals	..	.. .. .	About 293	98	About 70	81

When possible shags were shot on their fishing-grounds, but only a very small number were thus accounted for, as they had become exceedingly suspicious owing to their having been previously fired upon from fishing-launches. The greatest numbers were shot at the shag "rookeries" visited. Here again the shooters were handicapped by the fact that such rookeries were located at considerable distances from the navigable channels, miles up remote creeks, and could only be approached at high tide. All the nests seen were built in mangrove trees on the muddy banks of the creek. In the case of the one rookery visited by the launch on which I was present, most of the shags were shot at dawn before they had begun their day's fishing. This accounted for the large proportion of empty stomachs recorded, and reduced the value of the biological observations. The fishermen were anxious to kill as many birds as possible, and it was not without difficulty that they were prevailed upon to see our point of view—namely, that the number of birds examined, not the number of birds killed, was the main consideration.

When possible, the examination of a shag's alimentary tract was made and recorded as soon as it was recovered, but bad weather and other working conditions made it necessary to defer the majority of the food observations until the return to Helensville.

The birds so examined consisted of ninety adult large pied shags and fourteen nestlings, eight of which were fledged birds and six unfledged. Four small pied shags, five white-throated shags (the two varieties of *Microcarbo brevirostris*) and one small black shag which is the yearling form of this species, were also obtained. A few large black shags were seen, but they succeeded in keeping well out of range.

The large pied shags and small pied shags were both nesting; in some cases nests of the two species (identified by the size of the egg) were found in the same tree. The nesting season of the black shag is apparently later than that of the other two species.

The following is a summary of the results of the examination of the stomachs of ninety large pied shags (adult) :—

	Per Cent.
Number with empty stomachs .. .. .	29 32
Number with fish in stomachs .. .. .	59 66
Number with crustacea in stomach .. .. .	3 3
Number with mollusca in stomach .. .. .	4 4

It is extremely probable, as mentioned above, that a considerable number of the birds shot at the rookery were empty, either because they had regurgitated their fish for the feeding of the young or because they were shot at daybreak before their departure to the fishing-grounds.

With regard to the actual kinds of food ingested, the following summarizes the results of our examinations :—

Large pied shag (adults) : Contents of alimentary tract—Empty, 29; containing fish only, 54; fish and mollusca, 3; fish and shrimps, 1; fish, crustacea, and a young bird, 1; mollusca alone, 1; crustacea (small crabs) only, 1: total, 90.

With regard to the kinds of fish ingested, there were fish remains (unidentified) in 29 stomachs; mullet only in 9; flounder only in 7; mullet and flounder in 3; mullet, flounder, and kahawai in 1; mullet and other fish (unidentified) in 3; flounder and other fish (unidentified) in 1; flounder and herring in 1; piper in 2; perch (*Perca fluviatilis*) in 1; sand-eel (*Gonorhynchus*) in 1; horse-mackerel (*Caranx*) in 1.

Large pied-shag nestlings : Of eight fledged birds examined, six contained fish or fish remains (flounder being the only identified species); one contained eel-grass (*Zostera*) only. This grass was found together with fish in two other stomachs. One was quite empty.

Of six unfledged nestlings examined, all contained fish, flounder being identified in one case and mullet in two. One also contained isopod crustacea (recorded as "sea-lice").

The stomach contents of the ten specimens of *Microcarbo brevirostris* examined may be given in detail as recorded.

Small pied shags : (1) Fish remains; (2) shrimps; (3) dragon-fly larvæ and small bones (of bird or young rabbit); (4) flounders (densely packed) and shrimps.