

THE SPOTTED SHAG

(*Phalacrocorax punctatus*)

By R. A. Falla.

AMONG the many shags or cormorants of different appearance and habits found in the coastal or inland waters of New Zealand, none is more interesting than the Spotted Shag. It may be distinguished, first of all, by the fact that its distribution is entirely coastal and that it is found frequenting rocky headlands or steep islets adjacent to deep water. Within such range the bird is sedentary and individuals seldom ever stray more than a mile or two from the nesting area.

A glance at the cover illustration will indicate some of the peculiarities of structure which distinguishes this bird from other shags and have, indeed, caused it to be classified as a distinct sub-genus.

It is of extremely slender and delicate build, this being especially true of the bill. The fact that this organ has no hook at its tip and that the throat is relatively small and not distensible, should be sufficient indication to a careful observer that the feeding habits of the Spotted Shag must surely differ from those with which shags and cormorants are in general credited. Stories of the swallowing of large fish, such as trout weighing up to one pound, could not apply to a bird with a beak and throat structure like this one. The fact is that the diet of the Spotted Shag is not only confined exclusively to marine organisms but also to such easily captured and abundant kinds as free-swimming crustacea and the swarming larvae of small fish.

Whatever research would eventually indicate regarding the feeding habits of other shags, they are of definitely no economic import in the case of the Spotted Shag. Recognition of this fact was slow, and for many years the species suffered constant persecution in common with all other species. If anything, it suffered more, for its habits are such that it showed no ability to move from an area of persecution and establish itself elsewhere. It is regrettable that in a few places where Spotted Shags inhabited regions of sheltered water a most interesting and handsome bird has been almost wiped out. The

progressive extermination of this species in the Hauraki Gulf has been rapid during the last few years, and the legal protection now afforded by an Order-in-Council, published in the New Zealand Gazette of 9th January, 1931, has come none too soon.

In 1910 nesting colonies occupied permanent stations in suitable headlands of the islands Tiritiri, the Noises, Rakino, Waiheke Shag Rock, and islets off Coromandel. More than half of these were deserted by 1920, and others have dwindled rapidly. One has been observed by the writer at intervals since 1923, in which year 100 birds were seen there. In 1925 only 40 remained, in 1928 only 25, and in 1931 none at all. The only colony left on the western side of the Gulf at the present time is in a narrow tunnel that pierces a small islet, and from which the birds rarely emerge. On the west coast of the North Island at Te Henga and Oaia islet are inaccessible colonies of Spotted Shags.

The habits of Spotted Shags are the same everywhere. They are comparatively early nesters and, in the Auckland district, assume their handsome nuptial plumages as early as April or May preparatory to nesting in the following month. Nests are precariously placed on narrow ledges, and it is a striking sight to see hundreds of the gaily plumaged birds crowded in against the cliffs with scarcely foothold for each.

Usually three, sometimes four, eggs are laid and the young birds when hatched, like all other shags, are naked and ugly. There are two successive coats of down which finally give place to the first plumage. This is almost uniformly silvery-grey, slightly darker on the upper surfaces of the body. With the assuming of the adult plumage, dark oil-green feathers invade the flanks and fore-neck and, lastly, there comes the conspicuous white neck-stripe. The deeper crest and the filoplumes are of short seasonal occurrence only, and are worn by both males and females for a few short weeks at most.