

ART. XXVII.—*On the Habits of Ocydromus australis.*

By W. W. SMITH.

Communicated by Dr. Buller, C.M.G., F.R.S.

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IN offering some observations on the South Island Weka, I desire to lay before the Society some account of the habits of this interesting and useful species, as it exists at present in the more settled districts. It is undeniable, and certainly to be deplored, that in some localities this valuable bird is rapidly disappearing; not, however, from natural causes, as want of food or shelter, but from the manner it is assailed and destroyed by man, impelled by an ignorant and mistaken prejudice. Too much cannot be said in favour of the Weka, and all prejudice would soon be overcome, as anyone who would give a little attention to its habits could soon observe. The mere destruction of a few eggs in or near the poultry yard, or disturbing a few pheasants in reserves, may be overlooked, compared to the inestimable services they render in destroying vermin.

The Weka's "struggle for existence" is greater than any other native bird. Thousands perish annually in the fires which sweep over large areas of tussock lands. It is mercilessly destroyed with dog and gun, while numbers fall victims to poisoned meats, laid for hawks; but the most deadly enemies it will now have to contend with are the recently-introduced stoats and weasels; and if these voracious and nimble little mammals flourish in our country, not many generations will elapse before the "last of the Wekas" shall be recorded.

In cultivated districts they are more wary and more nocturnal in their habits, generally remaining concealed during the day in gorse hedges, patches of scrub, or swamp, or in plantations of English trees. In the evening they leave these haunts and roam over the fields, feeding chiefly on worms, which they draw from their burrows and consume in large numbers. They are of great service to the squatters and farmers in consuming the larvæ of *Odontria*, which devastate lawns and English grass paddocks. The larvæ live beneath the surface of the soil, subsisting on the roots of grasses. The roots are eaten close to the surface, leaving the plant to shrivel and die, or to be blown away by the wind. In the morning large patches may be seen fresh turned over during the night, by the Weka digging out and consuming them. When a brood is hatched near paddocks infested with these grubs, the parent birds lead them there, and dig vigorously over the ground, rooting them out with their powerful bill to feed their young. If encouraged about homesteads, they are heard during the night tapping on the walls of dwelling and

out-houses, picking off the spiders and insects secreted there; when bags or sheepskins are found lying on the ground, they drag away or turn them over, to procure the worms, beetles, or woodlice hidden beneath. Occasionally, during their nocturnal rambles, they discover the carcass of a sheep; they commence pulling off the wool until they effect an opening in the flesh; here they fare sumptuously for weeks, often secreting themselves in the nearest cover, and returning night after night to feed on the carcass, or the maggots, which in their turn devour it. They are also expert destroyers of rats and mice, and assist materially in destroying the numbers of young rabbits in infected districts.

The omnivorous habits of the Weka favour it more than any other native species to withstand the change produced by cultivation. It would survive when all other known species of Rail would soon become extinct. It is equally at home among cultivated gardens and fields, as well as in its native tussock, swamp, or bush.

The call is an excellent barometer; but the call which indicates rain is readily distinguishable from its ordinary answering call—it is more incessant, and repeated at shorter intervals. The ordinary call, or cry, is invariably led off by the female, and is answered in all directions by both sexes. This, however, is only peculiar to paired birds before or after meeting, as the male or female is often heard, solitary, answering others in the distance, while its mate is on the nest. The preparation of the ground, gathering of the tussock grass, and building of the nest is performed by both birds alike. They are fastidious in their choice of a site, going over the same spot many times before it is selected. The nest is placed under a tussock (*Poa*) or niggerhead (*Carex virgata*); it is found in clumps of *Discaria toumatou* and *Pteris aquilina*, and I have seen it twice placed under a bare rock, but the gorse hedge is preferred, as affording better protection from the attacks of dogs. One I observed last year, made by a half-tame pair, was completed in two days. The grass is placed in a loose heap on the spot selected; the nest is shaped by the bird squatting on the material, and turning round until a hollow is made; it then draws the grass around its body with the under surface of the lower mandible until it is completed. After the completion of the nest alluded to, one day elapsed before laying; one egg was then laid each successive morning; when it contained four, they began to hatch, the female generally remaining a little longer on the eggs than the male. At this season they have a muttering or suppressed call; if the sound is carefully imitated, it is an easy matter to find a weka's nest, provided it is approached cautiously, or unperceived by the birds. When a nest is found, the finder may rest assured there is not another near for a considerable

distance. The young make their appearance on the twentieth day, and remain in the nest three or four days before the mother ventures out with them; the chicks are shy and wary, and hide on the slightest alarm given by the parent birds. The male is untiring in its efforts to procure food, and often rambles far from the brood; when a suitable morsel is found it runs hurriedly back to them. The morsel, whatever it may be, is usually seized by the female while in its mate's bill. Often enough food for days is strewn around the brood, so persistent is the male in its efforts to procure food. Both parents are furious in defence of their young; if a chick is caught, and caused to make a distressing cry, both birds rush around with open beak, and utter a barking discordant noise. I have often seized both birds with my hands by this means.

The young attain maturity in the fifth and sixth month; they are deserted by the parent birds about the fourth month, the latter generally laying again and rearing a second brood; if the nest is robbed, or the young removed from them, they will lay three and four times. Eggs and young can be obtained in this district (Oamaru) all the year round. The Weka's age can be determined by the colour of the eye, the legs, or plumage. The bright scarlet iris is acquired the second year; the silvery plumage of males, or the bright red legs of females, is an unmistakable sign of good age in both. Once paired, they will remain permanently so.

When enclosed in small yards they become tamer than domestic fowls, thrusting their heads through the meshes of the wire and feeding from the hand. For two seasons I have confined female wekas with domestic game-cocks, for the purpose, if possible, of procuring hybrids between the two species, to endeavour to settle the question of alleged crossing, but thus far without success; although they lay freely, the eggs have been unfruitful. If the eggs are removed immediately after laying, they lay four and five times during the year, producing fifteen or twenty eggs.* The wing-spurs appear to have been acquired for defensive purposes alone, as I am unable to detect any other purpose they serve in the bird's economy. The females do not use the spurs much, one or other generally running away, hotly pursued by its assailant. The chase is often kept up till both are exhausted. The males are more pugnacious, and do not run so readily. When fighting, and facing each other, the wings are elevated or arched over the back, the neck is drawn in under cover of the wings, while the spurs are

* This season, three young females, reared in confinement, have laid seven dozen and two eggs, one bird laying three dozen and two of this number; the latter from the first week in September to the present time, December 7. The two others laid two dozen and three from August 25th, and one dozen and nine from August 28th, respectively.

pointed forwards. During a combat they injure most the back of the head. If examined after it, they are found to be wounded only on the head and neck. Along with the bruises produced by the hard bill are punctures caused by the wing-spurs. The latter are always more numerous at the base of the bill, and about the eyes, rarely extending down the neck. For a few days after the battle the head is swollen and hard, the neck is stiff and carried forward, but when near abundance of cold water they soon recover.

I know several authentic instances of the wekas' thievish tricks; one will suffice to show how dearly it pays at times for some inquisitive freaks of its nature. Six years ago a weka entered a bushman's hut in Peel Forest, during his absence. After springing on to the table it tasted the meat, the butter, and bread, and ungratefully tumbled the remainder on to the floor, endeavouring no doubt to carry them off. Failing this, it took with it, as the bushman asserted, "one of a new pair of Sunday boots." Although the loss of food, or injury to the carpet or crockery was small, and the new Sunday boot left only a few paces from the door, the bushman was avenged. In less than a month after the occurrence, he informed me, with his dog and gun he had killed forty wekas.

It is melancholy to notice the species disappearing from districts where only a few years ago it existed plentifully. Its presence is a boon to agriculture, and I trust the good qualities I have mentioned will commend the weka to the protection of the colonists.

ART XXVIII.—*Description of Hybrid Ducks, bred from Common Duck (A. boschus) ♀ and Grey Duck (A. superciliosa) ♂.*
By TAYLOR WHITE, Glengarrie, Napier.

[Read before the Hawke's Bay Philosophical Institute, 1885.]

ABOUT nine years ago the grey drake (*A. superciliosa*) was trapped in the Wakatip Lake District, and readily became tame, but was very shy with strangers. In the third spring it paired with a domestic duck (*A. boschus*). A brood of six hybrids were reared.

No. 1. These mainly partook in type of the domestic duck, but were smaller, more plump in shape; colour, a creamy brown with darker markings, inclining to white on lower part of breast, throat, and cheek; a dark line passing through the eye, as in *A. superciliosa*; beak, brownish yellow; legs, dull yellow; speculum blue, outer black, margined with white, as in domestic duck. The drakes very similar to English wild duck (*A. boschus*), and having the curled tail-feathers; speculum, blue. Could fly fairly well, but with reluctance.