



Ferrets (pictured above), along with wild cats, are a menace to the waterfowl of the lakes, particularly the endangered species such as the crested grebe. Photo: Donald Geddes

Left: The Australian coot is a member of the rail family which was first confirmed as breeding in New Zealand in 1958. Photo: Donald Geddes

Adams and Jim Ackerley were awarded Conservation Citations was for their efforts to politely educate windsurfers and yachties as to the needs of the lake birds and the special charms of the crested grebe. They have found a ready acceptance of their views but their effectiveness depends on them being present and continued goodwill. They look forward to the formal protection of the lakes — their water, their wetlands and their wildlife.

birds including other grebes. There is a definite boundary to their territory and all trespassers are attacked and driven away. I saw a black-backed gull alight on the water intent on eating some garbage it had scavenged. The male grebe immediately submerged, swam underwater and came up under the unsuspecting gull. Its reaction was swift: the startled bird shot into the air, dropped its food in the panic and rapidly disappeared while the victorious grebe quietly paddled back to its nest.

The grebe's courtship is complex. The birds come together with their ruffs extended, heads held high and beaks touching. They will hold this position for some time; then vary the procedure by solemnly presenting each other with a beakful of weed — a reminder to start nest building perhaps. At times they lift themselves up in the water, breast to breast, feet beating the water to a foam as they move back and forward. It is an intimate and touching scene. Nesting, which usually starts in December, is a serious and busy time. Both birds work very hard diving and carrying weed into the tree to build their nest, which is a large, dome-shaped structure raised above the water and securely anchored in place. They usually lay four chalky white-coloured eggs, which quickly become discoloured as the grebes always cover them with weed when they leave the nest. Incubation is shared by both birds and takes between three and four weeks. At change over at the nest, the grebe will approach below the surface and rise with enough force to slide onto the nest. To do this they must have a depth of water at the approach.

It is a vulnerable time for the grebes. They are at the mercy of stoats and ferrets, and other grebes may raid their nest when they are absent.

## Young at Home in Water

The young grebes, coloured white with black markings, are at once at home in the water and start diving very quickly. They spend long rest periods on one parent's back, tucked under the feathers with only their heads protruding. While one parent is taking care of the family in this way, the other is working very hard diving for food which it feeds to the hungry infants on its mate's back. At times they change roles: the carrying bird gently shrugs the chicks off while the other lowers its body well down into the water and the youngsters scramble aboard. It is hard, relentless work for both adults until the chicks are big enough to fend for themselves. The family stays together until the young are fully grown. How often they breed is unknown.

I find it incredible that this bird which is so anti-social allows families of scaup or black teal to share the tree with them and raise their young in company of the young grebes. The grebes lead a quiet life but the scaup maintain large noisy groups of up to 20 adults and plenty of young that they are perpetually producing. They are the clowns of the waterfowl world and play as no other birds seem to do. The grebes tolerate their behaviour up to a point but if the scaup transgress beyond this they are punished for their sins and retreat, complaining loudly. I have not seen any pattern of behaviour approaching this in any other lake or even anywhere else on Clearwater.

The grebes most probably tolerate scaup because of the security offered by the extra number of birds present at any one time. Small grebes are very tempting targets for predatory gulls and hawks who are constantly on the lookout for an opportunity to seize one. In close proximity to the tree will be a good number of young scaup together with the young grebes, the parents of both in close attendance. If a predator flies over,

an alarm is given and the young ones scurry into the shelter of the tree until it is safe to emerge. Sometimes a hawk or gull is too fast and dives and takes a chick. Usually the large number of adults provides a warning system as they are constantly looking for danger in the sky. I have seen two adult scaup lure a hawk away from the area by simulating distress until they were well away from the others.

## A Wet and Wiser Hawk

One hawk that dived on a solitary chick badly timed its flight and plunged into the lake. Unable to take off, it drifted helplessly, supported by its outstretched wings until it reached the bank some distance away. It crawled out and spent a long time drying out before it flew away — a wiser hawk no doubt.

The key to the grebes survival lies in its habitat. The availability of suitable nesting sites is crucial to their existence. The nest must be in water and securely anchored, it must be protected from strong winds and have good and safe access. Fluctuating water levels are fatal to their future as the nest is either drowned or too high to reach. Suitable nesting sites in Lake Clearwater are few but we have managed to create a suitable place which was used last year — with no breeding success yet. Lake Emma and Lake Heron have good nesting sites in willows and raupo beds and there has been some successful rearing in the last three years.

The number of grebes in any one lake varies from time to time as the birds move around the whole lake system. On a recent count we had a total of 75 grebes identified. Hopefully we can maintain these numbers and improve on them in the future before they join the growing list of creatures that have been sacrificed in the name of development and progress.