autumn. Most stilts were on the eastern shore, feeding on small invertebrates at the lake edge and in the numerous pools, backwaters and channels of the shore. They moved seasonally in response to changing water levels and food supply, with more than 600 flocking at times. I found small breeding colonies of stilts on short rushland at pond margins and near the lake. Banded dotterels did not breed at Lake Wairarapa but spent much of the year there, peaking at 350 in autumn. They were largely confined to the eastern shore and used fewer habitats than pied stilts, foraging in flocks on saturated or partially-flooded native turf flats.

The other native waders are less numerous. Black-fronted dotterels can be quite hard to find but are scattered round the lake shore, with up to 60 flocking in winter of 1983. Variable and South Island pied oystercatchers are also present. Spur-winged plovers are not very dependent on the wetlands, often feeding and breeding on semi-developed pasture, although flocks of up to 70 frequently visited the lake.

One of the most fascinating groups of birds at Lake Wairarapa is the migratory waders from the Northern Hemisphere. There is always that chance of finding something quite out of the ordinary, such as the lesser yellowlegs that I saw in January 1983. Total numbers of migrants are lower at Lake Wairarapa than in some estuaries, since fewer than 100 godwits or knots visit the lake. However, there are some species, such as least golden plover (more than 70 birds) and sharp-tailed sandpiper (up to 80), which regularly visit in nationally high numbers. Few pectoral sandpipers and greenshanks reach New Zealand each year but one or two of each turn up regularly at Lake Wairarapa. Some of the migrant species show very specific preferences for different areas and habitat types at Lake Wairarapa, and these preferences can change seasonally.

Young shag cacophony

Some of the most conspicuous breeding birds in the wetlands are shags. They nest in colonies in willows bordering some of the ponds, the largest colonies being at Matthews Lagoon. The black shag predominates, with 230 breeding birds nesting after late July 1983. Sixty little shags arrived about a month later and occupied many of the same trees as black shags. At least some of the 23 little black shags nested in one colony, so that all three species shared the same tree. A constant feature of spring at the ponds was the cacophony of young shags begging for food. The amount of fish needed to sustain this level of breeding must be immense. The three species differed in their habits: black shags mostly flew individually to the lake to dive for fish, little black shags fished in small flocks, and little shags kept mostly to the ponds.

Several species inhabit the ponds and swamps and are rarely found elsewhere. Although the numbers of dabchick (about 25) and the elusive bittern (about 15) seem low, they are nevertheless important components of their national population. The status of the more secretive swamp inhabitants, our small native rails, is more uncertain. Spotless crake appear to be well established, especially around Boggy Pond. Because they are so elusive, one of the most exciting experiences of my study was the chance to watch and photograph a marsh crake. The resulting picture in this article is believed to be the first coloured photograph of this species to be published in New Zealand. Both spotless and marsh crakes moved seasonally in response to changes in water levels. I found crakes wading at the water's edge in young raupo, but at high water they were in mature raupo, where they walked on fallen leaves covering the water's surface. Their large relative, the pukeko, was in all swamps, venturing on to farmland in the wetter months.

Of gulls, the Southern black-backed gull is the most numerous, with up to 500 birds in 1983 based at two breeding colonies on shingle deltas of the western shore. Black-billed gulls breed elsewhere but more than 200 were present in autumn and winter, usually flying over the lake in search of fish. A few Caspian terns also used the lake for much of the year.

Up to 100 white-faced herons occupy the wetlands, using a variety of habitats from pasture to the lake edge. Some pairs nest in tall trees on farmland near the lake.

Most important in southern North Island

The Lake Wairarapa wetlands have already lost some of their original values. Banded rails and fernbirds were once present but have disappeared as a result of wetland drainage. Even though no major development yet occurred on the shore itself, drains have been dug across it, stopbanks and fences built, and stock have been given access to the flats, causing pugging of the fragile marshland.

Despite this deterioration, the wetland complex is a unique and valuable area for wildlife. It is the most important wetland in the southern North Island and is clearly a wetland of international importance, satisfying several criteria for identification of such wetlands, as outlined by the International Union for the Conservation of Nature and Natural Resources. For example, it regularly supports more than 10,000 waterfowl, and at least seven species have more than one percent of their national populations at Lake Wairarapa.

It is a complex freshwater system. The many varieties of birds present are a result of the varied habitats available to them, since each species has different niche requirements. Many of the values of the area are a result of the close proximity of different wetland types, giving nearly a continuum of habitats from lake to ponds. Furthermore, the large size of the wetland has led to large numbers of birds.

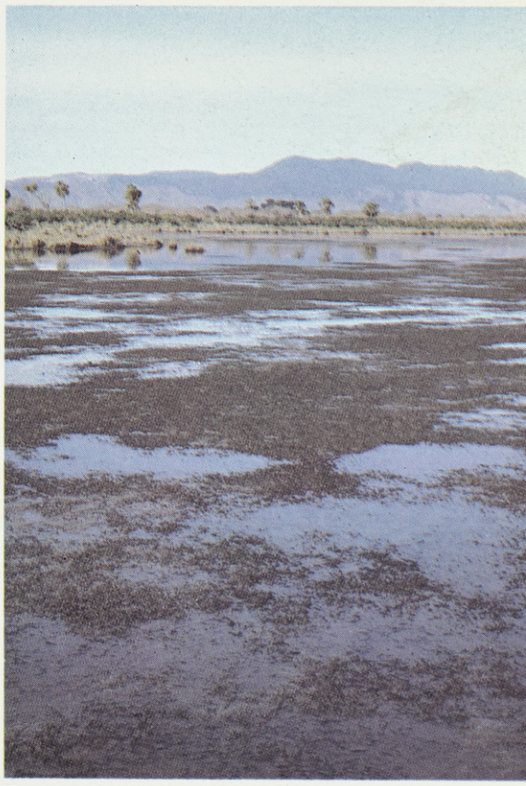
The large, nearly unmodified lake with its wide expanse of eastern shoreline has considerable aesthetic value. Space and wind, birds, and sparse, short plants combine to give a landscape character of unusual quality for this region.

What lies in store

There is still much of value to wildlife and to man at Lake Wairarapa. Any development of the eastern shore of Lake Wairarapa would harm wildlife, including both native and international migratory species, and therefore the Wildlife Service strongly recommends the retention of the wetlands. Furthermore the deterioration that has already occurred can be reversed by suitable wetland management.

When talking of conservation it is often difficult to argue in economic terms. Reservation, however, need not mean an economic 'loss' to the region. The lake can still be used as a storage vessel to protect farmland from flooding and there is some room for use of stock as a management tool to maintain habitat diversity. There is also a valuable game-bird resource. Controlled public use should be encouraged, with information centres, nature walks and observation hides. Combined with development of the National Wildlife Centre at Mount Bruce, this would extend the region's tourist potential as well as provide jobs.

Multiple-use of the Lake Wairarapa wetlands is possible, while at the same time the wetland and wildlife values are conserved for the benefit of our future generations.



The eastern shore of Lake Wairarapa, showing a mosaic of shallow pool and sparse native turfs. The Aorangi Range is in the background.
Photo: P Moore

Footnote

In October 1984 the Wairarapa Catchment Board ruled out the 'polder scheme' as a viable option for the development of lake Wairarapa because of a lack of finance. Instead, it proposed that lakeside banks be constructed to protect farmland from flooding. This would still eliminate some wildlife habitat, including about 100ha of semi-developed ponds, marshland and willows between Boggy Pond and the lake.