Two dry summers, and a shortage of water to meet irrigation demands have focused attention on the possibility of diverting 15 m^3/second of water from the Cameron River, which drains into the Rakaia through an extensive wetland system and Lake Stream. The diversion is back through Lake Heron, which would become a storage lake, and then by a canal into the Ashburton River, where the water would eventually be channelled into the Rangitata Diversion Race.

Mr Gerry McSweeney identifies some of the fauna for branch members. Part of the 200ha of swamp land is in the background.

Niggerheads extending well out into the lake, indicating a very low lake fluctuation.

Photograph E. A. Norris

The Lake Heron Issue

E. A. Norris Chairperson, Mid Canterbury Branch

This proposal is mentioned as a possibility for future development in the Ashburton River management plan published earlier this year by the South Canterbury Catchment Board. It is also the basis of a water right application by the Barr Hill Irrigation Association who would use the water to irrigate the higher plains to the south of the Rakaia River. Another application has been by Mt Arrowsmith Station to drain 3675m^3 of water per day from 200ha of wetland area along the western fringe of the lake shore. Still another proposal has been made by Southern Energy group who would build a 49m dam at the lake outlet for hydro generation. This would lead to the inundation of much of the valley now drained by Lake Stream.

Lake Heron, which is sited in a depression in an old glaciated valley about 100km NW from Ashburton, was made a flora and fauna reserve in 1931. In 1977 the Lake and a 20.12m strip were made a nature reserve under the Wild Life Reserves Act, 1977.

This year the Mid Canterbury branch has had two field trips to the lake. The first was in March, and was led by Mr D. Howden; the second was in May led by Mr Gerry McSweeney.

Members were impressed with the Lake. They appreciated its scenic and recreational values — many prize winning photos have been taken there — and its wild life values.

Lake Heron and its surrounding ecosystem is a very important wild life habitat. A total of fifty four bird species have been recorded there. Lake Heron and adjacent wetlands is a most important breeding area for the Southern Crested Grebe, which has a total New Zealand population of only two or three hundred. According to studies made by wild life officer Colin O'Donnell the Crested Grebes build their nests floating in water, more or less attached to the shore.

One of the reasons for the Lake's wild life value is the large adjacent comparatively unmodified wetland area. Long term fluctuations on Lake levels are unknown, but a five year cycle is thought to be less than 80cm. If the Lake was used for irrigation water storage, the level would fluctuate within a range of 2 metres. This means the birds would either be drowned, or left high and dry.

If the river was redirected as planned, a further problem could be long term effects on the lake itself. At present it is clear and oligotrophic; under natural processes the Cameron waters are filtered through shingle, and sediment is deposited there, or near the lake to give a productive swamp area where Marsh Crakes nest. With redirection and rechannelling, the sediment can directly enter the lake. Two results are possible:

- The Lake could become eutrophic at a greater rate than otherwise possible, affecting birds and fish populations; and
- the wetland areas could disappear.

One of the disturbing aspects of the data available about Lake Heron and its environs is that very little is known about the long term effects of any modification of the Lake Heron system. However, some