

# Preserving the Te Anau wetlands

AS BUS-LOADS of tourists thunder along the highway between Lake Manapouri and Lake Te Anau few of them would guess that just out of sight to the east is one of the finest examples of a string bog outside the Boreal peatlands of the Northern Hemisphere.

THE FIRST IMPRESSION that any visitor to the Te Anau basin must get is of thousands of hectares of well-tended farm land. There is little to suggest that hidden behind the rolling pastures there are some 3000 ha of wetlands and forest remnants of considerable geomorphic, biological, and palaeobotanical interest.

The Department of Lands and Survey, which is responsible for farm development and settlement in the area, is excluding from development a number of bogs, swamps, stream berms, and other wetlands and patches of less-modified bush and scrub. These areas are important scientifically for their unique or unusual plants and plant-associations, for the opportunity they give to study peat samples dating back for several thousand years, and for the secure habitat they offer for breeding waterfowl and other wildlife.

## Managed as reserves

At present these areas are being fenced off and managed as reserves. When the surrounding farm units are surveyed for settlement the reserved areas will themselves be surveyed and gazetted as wildlife, nature, or other reserves.

The Kepler String Bog, also known as the Old Channel Bog, occupies the ancient channel of the Waiau River between banks of old glacial moraine. String bogs have a characteristic pattern of pools elongated at right angles to the main line of drainage and

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stepped up the slope like a staircase.

The Kepler Bog drains into Home Creek, itself to be set aside as a reserve, and thence into Lake Manapouri.

The complex vegetation pattern includes wire-rush (*Empodisma minus*), turpentine plant (*Dracophyllum oliveri*), sedge (*Baumea rubiginosa*), and the mosses (*Eucamptodon inflatus*, *Campylopus kirkii*, and *Sphagnum falcatulum*).

The impressive pool system near the centre is divided by islands and isthmuses supporting bog pines (*Dacrydium bidwillii*, *D. intermedium*, and *D. laxifolium*), which have probably been protected by their isolation from the fires that have swept the district since pre-European times and which severely modified the previous vegetation pattern.

A recent survey by the Wildlife Service recorded grey and paradise ducks, Canada geese, marsh crakes, bitterns, fern-birds, and black-backed gulls nesting around the pools.

The peat is about 6 m deep, and borings taken for pollen and macrofossil analysis have provided a valuable record of the post-glacial history of the surrounding vegetation.

Noel Hellyer, assistant director (survey) in the Wildlife Service, describes the Riverslea Farm Development Block,

south of the Kepler String Bog, as being an excellent example of land management. A wildlife reserve has already been established on the block.

"Bruce Newlands, the farm manager, has done an incredible amount to protect wildlife habitat in the area," he says.

## Dome mire

East of the main road north of the Te Anau township, but screened from it by the intervening forest and scrub, lies one of the best specimens of a dome mire anywhere in New Zealand. Known simply as "Dome Mire", it is a classic raised bog with a domed centre and a concentric pattern of ponds, similar to bogs found in the vast peatlands of northern Scandinavia, Siberia, Alaska, and Canada.

Like all true bogs, it depends largely on rainfall for its water supply, and the acidic, infertile water supports little other than the normal bog plant species found in the district.

The main interest for the botanist lies in the margins. The north-western and north-eastern edges of the bog support stands of silver pine (*Dacrydium colensoi*), which is not found elsewhere east of the main divide. Subfossil remains suggest that it was once widespread in the Te Anau basin.

A small orchid (*Acianthus fornicatus*) has been found in a fen just south of Dome Mire, which has considerably extended its known range. Black-billed gulls, pied stilts,