the limestone syncline in the western Paparoas which form the largest intact tract of warm, lowland forest left in New Zealand. Exceptionally diverse vegetation is a feature of the region, reflecting the complex geology, varied landforms and different climatic regimes. The mild humid coastal climate allows warmth adapted North Island species to thrive eg, nikau, northern rata and rangiora. Over 40 species have their southern limits in the region including two major tree species, titoki and puketea. A remarkable number of endemic (ie, found nowhere else) species occur in the Buller, together with a number of other species whose distribution is centred on the region.

The presence and location of such species indicates the sites of vegetation refuges during past glacial episodes. The Buller region appears to have played an important role in sustaining the New Zealand vegetation during the ice age, and in contributing to its botanical diversity. The limestone syncline forests of the Paparoas are the most outstanding forest bird refuge in the South Island. Densities of forest birds are amongst the highest ever recorded in New Zealand. These include healthy breeding populations of endemic species with restricted distributions eg, western weka, great spotted kiwi, kaka, robin and parakeets. The remaining lowland forests of North Buller are also vitally important habitats for these bird species and as wintering over habitat for birds from the extensive adjacent uplands. Unique populations of large carnivorous land snails occur in some

North Westland Reserves

Long the centre of environmental controversy, the lowland beech forests of North Westland are very poorly served by the existing reserves. Yet this is a region of extraordinary ecological interest and tremendous scenic appeal. Beech forests are better developed here than elsewhere in the country. All four beech species red, silver, mountain and hard — are well represented across a wide spectrum of

Key Reserve Features

BULLER

Paparoa National Park (30,000ha)

- largest intact tract of warm lowland forest left in New Zealand
- exceptionally high diversity and abundance of native bird species.
- New Zealand's last large unspoilt low land karst (limestone) landscape.
- outstanding scenery from coastal pan cake rocks and blowholes to jagged

Atbara-Nile (Park Addition) 3,800ha

excellent set of forested terraces not represented in other reserves.

Kohaihai (5,460ha)

- internationally important Honeycomb Hill caves containing excellent sub fos sils of extinct birds.
- beech-free forests on the Oparara Pla-
- good numbers of kaka, great spotted kiwi and landsnails.

Oparara (6000ha)

- nation's finest example of mixed podo carp beech forest on alluvial surfaces.
- outstanding amenity values

Little Wanganui (3100ha)

best example of terraced valley forest in the Karamea District.

Ngakawau (9400ha)

- · major terrace sequence of forest com-
- high bird populations and two species of large land snails.

Karamea Bluffs (3300ha)

representative example of coastal forest on visually prominent steeplands.

NORTH WESTLAND BEECH FORESTS

Deepdale (5100ha)

major representative reserve in the Reefton Ecological District.

- · beech-podocarp lowland forest on easy
- outstanding wildlife values with high numbers of kaka and parakeet, and one of densest robin populations in North Westland

Winding Creek/Johnny Walker (1100ha).

- proposed addition to Coal Creek EA.
- best remaining example of kahikatea forest in region.
- lowland and hill country forest with very high kaka numbers

Tawhai (6000ha)

- proposed addition to Big River EA.
- nation's finest example of hard beech forest, and transition to rimu forest.
- key area of kaka habitat in North West-land

- best remaining example of tall red beech terrace forest in Grey Valley.
- known habitat of rare yellowhead and good numbers of more common forest birds.
- adjoins middle gorges of Grey River, a nationally important wild and scenic

Ahaura Gorge (1100ha)

- outstanding sequence of forested river terraces unrivalled in North Westland and probably of international signifi-cance for the monitoring of soil and vegetation development over time.

 • forest surround of Ahaura River Gorge,
- a wild and scenic river of national im portance
- very high parakeet numbers.

Otututu (1500ha)

 river terrace and floodplain forest communities poorly represented in existing reserves.

Moonlight (210ha)

best example of lowland terrace forest in Blackball Ecological District.

Maruia West Bank

- best developed red beech stand in South Island on regionally unique gla-cial landforms
- valley floor forest with excellent populations of robin and parakeet.
- · outstanding scenic values

CENTRAL WESTLAND PODOCARP FORESTS

Card Creek (1600ha)

- · virgin forest on prominent limestone
- addition to adjoining Card Creek EA es sential to ensure viability of its wildlife populations.

Kaniere (500ha)

only remaining example of dense rin hill forest in Hokitika Ecological Dis-

Doctor Hill (1250ha)

- best remaining example of warm mixed podocarp foot slope forest providing optimal forest bird habitat in Hokitika district
- rare lowland population of blue duck.
- scenic forest at mouth of Doctor Creek valley, a popular tramping route.

Upper Totara (2440ha)

- nationally important area of pink pine
- best example of lowland kaikawaka for-est in Hokitika District.
- isolated population of robin and type locality of land snail.

Kakapotaki (450ha)

- · striking coastal ridge with high amenity
- representative examples of coastal and swamp vegetation, podocarp forest, silver pine associations.
- forest and swamp bird populations in-cluding robin and bittern.

landform and altitudes in both pure stands and in mixed beech-podocarp forests. They include the nation's finest examples of red beech forest (Maruia) and hard beech forest (Tawhai)

The impact of glaciation on the landforms and biota can be traced back over tens of thousands of years. By contrast, in South Westland evidence of earlier glaciations has been eliminated by recent heavy

glaciation. This makes North Westland a crucial area for understanding the development of soils and vegetation over long periods of time.

Moreover, in North Westland, the two major forest classes, beech and podocarp, meet in one of the foremost anomalies in the distribution of New Zealand forest vegetation. The beeches, with their poorly dispersed seeds, seem to be slowly expanding their range southward into the podocarp forest of central Westland from old ice free refuges to the north

North Westland forests have exceptional wildlife values. They are an important national stronghold for three declining species with limited distribution, namely kaka, parakeet and robin, and contain small populations of the rare yellowhead. For these and many other wildlife species the importance of such a large, diverse and relatively unmodified area of forest cannot be over-

Ten major reserves are sought in North Westland, the largest being the Maruia West Bank, Deepdale and Tawhai (Big River Ecological Area extension) proposals. The reserves, like those of the Buller and Central Westland, have been chosen to protect viable representative examples of the vegetation, wildlife, landforms, geology and soils of the region's ecological districts. Each ecological district (there are five in the North Westland beech area) is a separate biogeographic division and provides a basis for assessing the natural diversity of plant and animal communities.

