THREATENED NATIVE SPECIES

Invasive weeds are one of the main threats to the survival of 61 threatened native vascular plant species; and have an impact on another 16 species. The weeds variously take over habitats required by native seedlings, have dense swards or mats that prevent seedlings establishing, or smother, shade out or otherwise compete with adult native plants. Another indirect threat to the survival of some native plants is hybridisation with introduced species.

Weed impacts are one of the main current or potential threats to nine native plant species that are very likely to become extinct in the wild in the immediate future: the Chatham Islands toetoe, climbing broom, the Poor Knights spleenwort, a coastal peppercress, a spider orchid, a native bidibid, a rare wetland grass (*Amphibromus fluitans*), a grass endemic to Marlborough (*Australopyrum calcis* subsp. *capsis*), and a small herb found in dune lakes (*Sebaea ovata*).

Russell lupins—colourful but destructive along the Ahuriri River near Christchurch. *Alicia Warren*

Invasive weeds also threaten the long-term survival of some native animals by changing or destroying their habitat, reducing the availability of food or breeding sites, or influencing the way native and introduced animals behave. For example:

- Native wrybill plover, banded dotterel and black stilt are specialised users of braided riverbeds. Brushweeds such as broom and Russell lupin destroy the open nesting and feeding areas in these riverbeds and provide cover for introduced predators.
- Although some introduced plants provide food for many bird species, they tend to favour introduced birds. For example, native birds avoid barberry and hawthorn, but introduced birds eat their fruit and disperse the seeds. Over time this could create large areas of habitat more suitable for exotic birds than for natives.
- In freshwater systems, native mussels are almost totally excluded from dense beds of egeria and other submerged weeds.

IMPACTS ON NATURAL AREAS

Wilding pines on pastoral lands. Similar invasions are occurring in protected sub-alpine areas and tussocklands. *Alastair Fazdia*

The impacts of established weed species are increasing. If left uncontrolled, they could threaten over 575 000 hectares of protected natural areas within 10–15 years. The most vulnerable natural community types are freshwater, wetlands, coastal habitats, lowland forest, shrubland and native grasslands, although weeds have invaded nearly all types of native land and freshwater communities, across almost the full range of altitude, soil type and climate. The impacts of these weed invasions can be far-reaching and unpredictable. Erosion, drainage, burning and grazing promote weed invasions and exacerbate weed impacts.

Sub-alpine areas:

More than 260 000 hectares of some of the best protected subalpine tussock grasslands, herbfields, frostflats and