

Clarence/Waiiau-toa River



The Clarence/Waiiau-toa River is considered to be one of the last remaining wild braided rivers in New Zealand. It is home to a unique range of plants and animals many of which are highly threatened or are only found in a braided river environment. The key threat to the Clarence/Waiiau-toa River is weed encroachment. Weeds can cover feeding and breeding habitat for braided river birds, provide homes for unwanted predators and reduce the overall habitat quality for many species. The Kaikōura Water Zone Committee in partnership with the Department of Conservation, LINZ, landowners and the community have invested a lot of time and money into protecting the river environment from weeds. This publication showcases some of the work done to the Clarence/Waiiau-toa River.

GREY WILLOW

Willows produce a large canopy which significantly alters the environment by blocking sunlight and taking nutrients away from existing plants. Willow seeds are easily spread by wind and can tolerate a variety of climate conditions. Their growth can lead to blockages, flooding and structural changes in waterways.

BLACK-FRONTED TERN COLONY

Black-fronted terns only breed on isolated rivers and are classified as nationally endangered by the Department of Conservation. (see front page)



BROOM GALL MITE RELEASE

In areas where aerial spraying was not an appropriate method of control of brooms, Broom Gall Mite infested twigs were dropped from a helicopter at 50m intervals. Gall mite form small, wart-like colonies on the branch. It attacks small shoots on the broom eventually stunting and killing the plant.

The Kaikōura Water Zone Committee has allocated \$148,000 towards weed management along the Clarence/Waiiau-toa River

- Aerial spraying of herbicide was used to control Grey Willow, Gorse, Broom and Hawthorn.
- A spray wand was used to target individual trees and plants, ensuring native species were not affected in the process.

RARE PLANTS REDISCOVERED

In 2015, two native herbs, classified by the Department of Conservation as extinct, were rediscovered near the Clarence/Waiiau-toa River. The pygmy gorsebush, last seen in 1998, was rediscovered by a DOC ranger growing in a wetland on the margins of the river. Since then, the species has been seen in other parts of the South Island, leading DOC to speculate that the seed may lie dormant and only germinates in the right conditions such as a wet Spring followed by very dry Summer. The slender button daisy, last seen in the wild in 1998, was also rediscovered in the middle reaches of the Clarence/Waiiau-toa River.

MANAGEMENT OF THE CLARENCE/WAIIAU-TOA RIVER

Because of the huge amount of land involved in the Clarence/Waiiau-toa pest management plan, the catchment was split into four distinct areas. These areas were determined by pest plant density, land tenure, who the respective territorial authority is (Marlborough or Canterbury) and access to the areas.

- Area 1.....State Highway 1 to the Dart Stream
- Area 2.....Dart Stream to the Gore Stream
- Area 3.....Gore Stream to the St James Homestead
- Area 4.....St James Homestead to Lake Tongopu

GORSE AND BROOM

Gorse and Broom are considered by many to be New Zealand's worst scrub weeds. They both spread rapidly, mature quickly and colonise large areas. Gorse prevents the establishment of native plant seedlings and can increase nitrogen in the soil thereby changing the types of plants which can survive in the same area and disturbing the ecology of the area.

OLD MAN'S BEARD

Old Man's Beard is a vigorous growing vine which forms a tangle, smothering mass over trees and shrubs, blocking out light and eventually killing other plants.

HAWTHORN

Hawthorn forms dense thickets which blocks access to the area and prevents the growth of other plant species.

