



Photo: Variable Oystercatcher



Biodiversity snapshot

2019/20

Essential to thriving nature is thriving biodiversity. Having environments that are rich in biodiversity means that nature can better provide the benefits we rely on. However, our indigenous biodiversity continues to be affected by humans and continues to decline across Canterbury and Aotearoa New Zealand.

The common threats to biodiversity in Canterbury remain introduced pests and continuing land use change and intensification. In response, Environment Canterbury has a biodiversity programme which seeks to halt the decline and restore the natural character of degraded habitats and ecosystems.

Our priority is to focus first on protecting and maintaining what remains, and our guiding principles - how we work - follow four tenets: action for priority ecosystems; smart information and management; working with others/future delivery; and leading by example/our land, our people. These principles are all considered in how we initiate, develop, implement and monitor biodiversity projects in Canterbury.

Working with the community

The Community Partnerships projects in 2019/20 were designed to work hand in hand with our community. The aim is to build the capacity and capability of our grass-roots community organisations. They deliver projects that improve their local environments through education, collaboration and on-the-ground action.

Key achievements

- **Networking** - This year's cross-organisational programme focused on communication and how to tell your story on social media. Eighteen groups went through a training programme to develop and maintain their online voice.
- The Christchurch Enviro hub found a home in the shared space of the Kiosk in the Botanic Garden and held several community events, including a Post-COVID Conversation to talk about how to embed the positive environmental outcomes from lockdown.
- The EcoCentre in Timaru hosted the Sustainability Festival, which educated the community on local environmental issues and sustainable living practices.
- **Community predator trapping Initiatives** - We supported five community groups to expand their predator trapping projects to protect habitat of critically endangered species including the rare jewelled gecko.

Key project data 2019/20

Over the 2019/20 financial year the Regional Biodiversity team, Zone Delivery Biodiversity Officers and River Engineers developed and delivered projects that had specific biodiversity outcomes. The development and delivery of these projects closely followed these three tenets; engagement with willing landowners and strategic partners, use of the best available tools and information to inform our work, and delivery of on-the-ground action on priority ecosystems.

Projects by zone

Braided rivers

● completed ● ongoing

Other water bodies

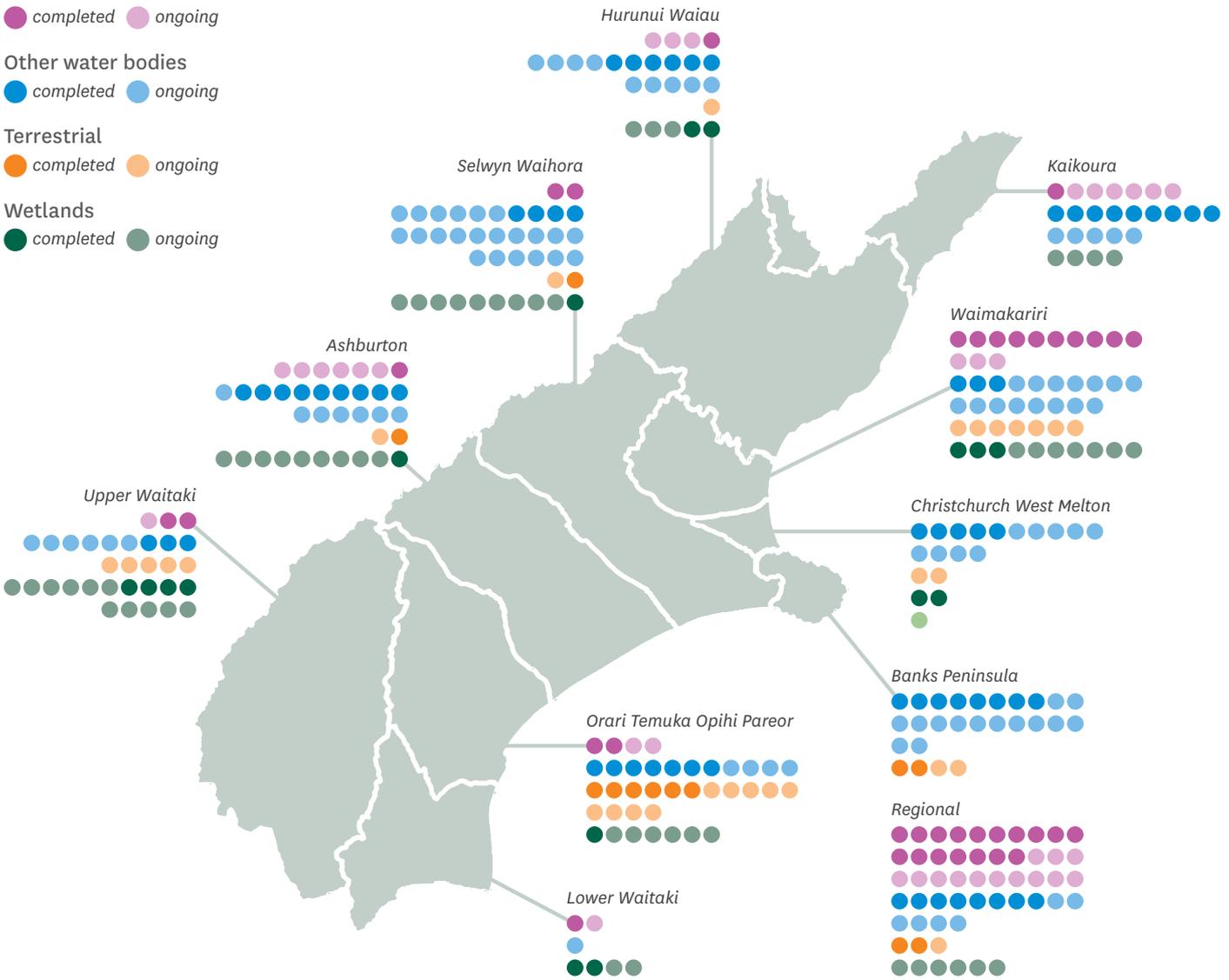
● completed ● ongoing

Terrestrial

● completed ● ongoing

Wetlands

● completed ● ongoing



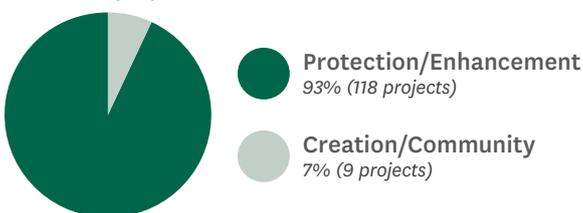
Total completed projects



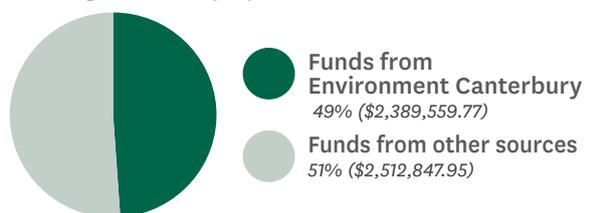
Total ongoing projects



Nature of projects 2019/20



Funding source of projects 2019/20



Case studies

The below highlights just some of the amazing on-the-ground work in our priority areas to improve habitat for our native species.

Braided rivers

Upper Rangitata and Rakaia Rivers

This flagship programme has successfully completed its ninth year of landscape-scale weed control, complemented by the creation of safe breeding areas and predator control, which supported the CWMS goals for braided river bird breeding habitat and natural character.

Clarence River/Waiiau Toa

The five-year collaborative project to create safe breeding island habitat for endangered braided river birds has been an over-whelming success. The breeding success of chick hatchlings surviving to flying age in managed areas was over four times higher than in unmanaged areas across the 1825 nests monitored.

Wetlands

Wetland Action Plans

Wetlands in the Mackenzie and Lees Valley basins were the focus of efforts this year, and assistance was provided for ten projects in these regions. In Lees Valley the primary goals have been to work with landowners to fence and manage their wetlands better, with a longer-term objective of managing invasive species threats to the wetlands of the valley on a landscape scale.

Immediate Steps wetland projects

During the 2019/20 year there were nine wetland projects completed through our Immediate Steps Biodiversity programme. In total the on-the-ground actions for these projects involved the planting of over 9600 native plants, over 6.2km of fencing, and over 66 hectares of weed control.

Fish habitat

Instream fish barriers on Banks Peninsula

Over the summer two students were employed in partnership with Christchurch City Council and a project was developed with input from Koukourārata Rūnanga to assess instream structures on Banks Peninsula and determine if there were barriers for fish movement. Environment Canterbury will use this information to prioritise barrier remediation work and habitat enhancement around key catchments. This data also contributes to NIWA's citizen science-based fish passage assessment tool, a publicly accessible national database recording instream structures and their likely impact on fish movements and river connectivity.

Canterbury mudfish

Canterbury mudfish (kōwaro) are the most threatened of New Zealand's mudfish species. We are working with landowners in South Canterbury to improve mudfish habitat in Taiko Stream. Efforts have focused on removing willows, fencing and riparian planting. We are monitoring the mudfish population over time through surveys. This work will allow Environment Canterbury to identify and prioritise future locations for habitat protection and restoration.



PLANTING AREA
104.8 ha



NUMBER OF PLANTS
69,224



LENGTH OF PROTECTIVE FENCING
36,834 m



AREA FENCED
440.8 ha



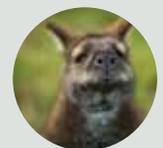
WEED CONTROL
44,132.95 ha



FISH HABITAT IMPROVED
27,647.5 m²



NATURAL FISH PASSAGES ENABLED
10



PEST CONTROL AREA
10,749 ha

Biodiversity on our land

Environment Canterbury continues to lead by example and increase biodiversity protection on our land.

Examples of operational project work on Environment Canterbury-owned land:

- The Whakaora Te Waihora programme is delivering projects that improve the biodiversity values in and around Te Waihora/Lake Ellesmere (<https://tewaihora.org/welcome-tautimai/>), including: the Whakaora Te Ahuriri project, which is developing a constructed wetland that includes the installation of 130,000 plants (<https://tewaihora.org/whakaora-te-ahuriri/>); co-funding the Weed Strikeforce; working with Te Taumutu Rūnanga on the Whakaora Te Waikēkēwai stream restoration project; and maintaining priority riparian linkages.
- Completion of a lizard survey and monitoring the response of native vegetation in the absence of stock grazing on Kaitorete Spit.
- Willow control on Ahuriri Reserve wetlands.
- Purchase of ‘Henderson’s lease’, protecting and enhancing an area of nationally significant dryland floodplain habitat in West Melton.
- The retirement of grazing licence at McLeans Island and the Ashley/Rakahuri River and replacement by native planting and protection planting.
- Continued management of four large (233ha) nature reserves along the Waimakariri River.
- The installation of ecological enhancement corridors along the Waimakariri, Ashley/Rakahuri and Eyre Rivers and in Northern Pegasus Bay (over 94,000 plants over 43 hectares) to increase the connectivity of biodiversity habitat.

Photo 1 inset: Tomtit/miromiro

Photo 2 inset: Non-migratory galaxiid

Photo 3 inset: Gecko on kawakawa

Photo below: Wetlands as Farm Assets project, field day on Wairuna Farm, Ashburton.



*Taking action together to shape a thriving and resilient Canterbury, now and for future generations.
Toitū te marae o Tāne, toitū te marae o Tangaroa, toitū te iwi.*

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