

Te whaitua wai Māori | The freshwater domain

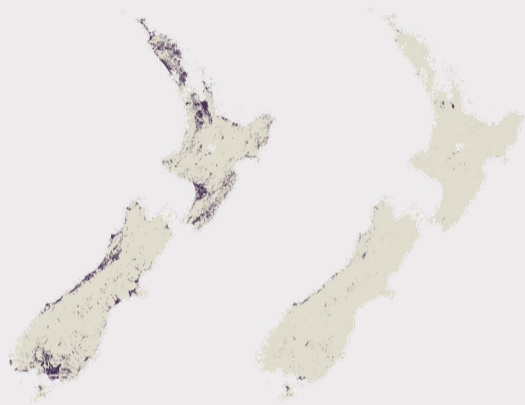
*The people are guardians of the natural world, and the natural world is a guardian of the people.
He kaitiaki ngā tāngata o te ao tūroa, ā, ko te ao tūroa he kaitiaki o ngā tāngata.*



88% of freshwater flora and fauna are found nowhere else on earth.

The variability in Aotearoa New Zealand's climate, geology and landforms gives rise to great diversity in freshwater ecosystems such as rivers, lakes, aquifers, tarns, karst systems, groundwater, wetlands, geothermal springs.

Decline in ecosystems

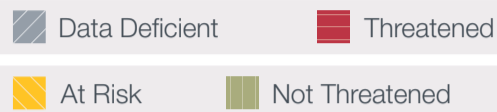


Indigenous wetlands - pre human settlement

Indigenous wetlands - 2018 / 2019

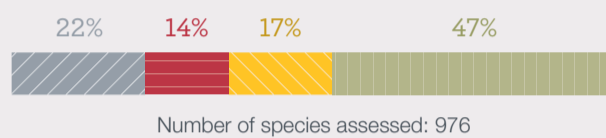
Source: Freshwater Environments of New Zealand database

Freshwater biodiversity state and trends



*A species is 'Data Deficient' when not enough is known to assign a conservation status.

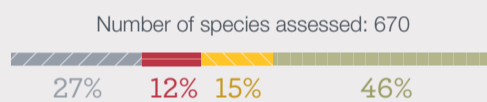
Conservation status of resident indigenous freshwater species 2019



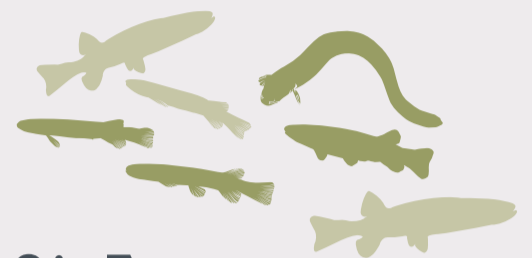
What we don't know



Around **1 in 4** indigenous freshwater invertebrates are Data Deficient*.

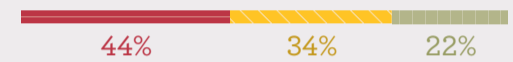


Species under Threat



3 in 7 indigenous freshwater fish are threatened with extinction.

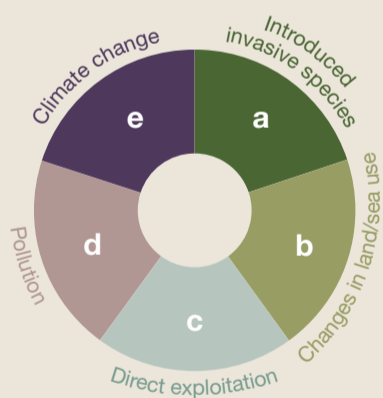
Number of species assessed: 51



4 out of the 6 whitebait species are 'Threatened' or 'At Risk'; and the longfin eel/reherehe is 'At Risk'.

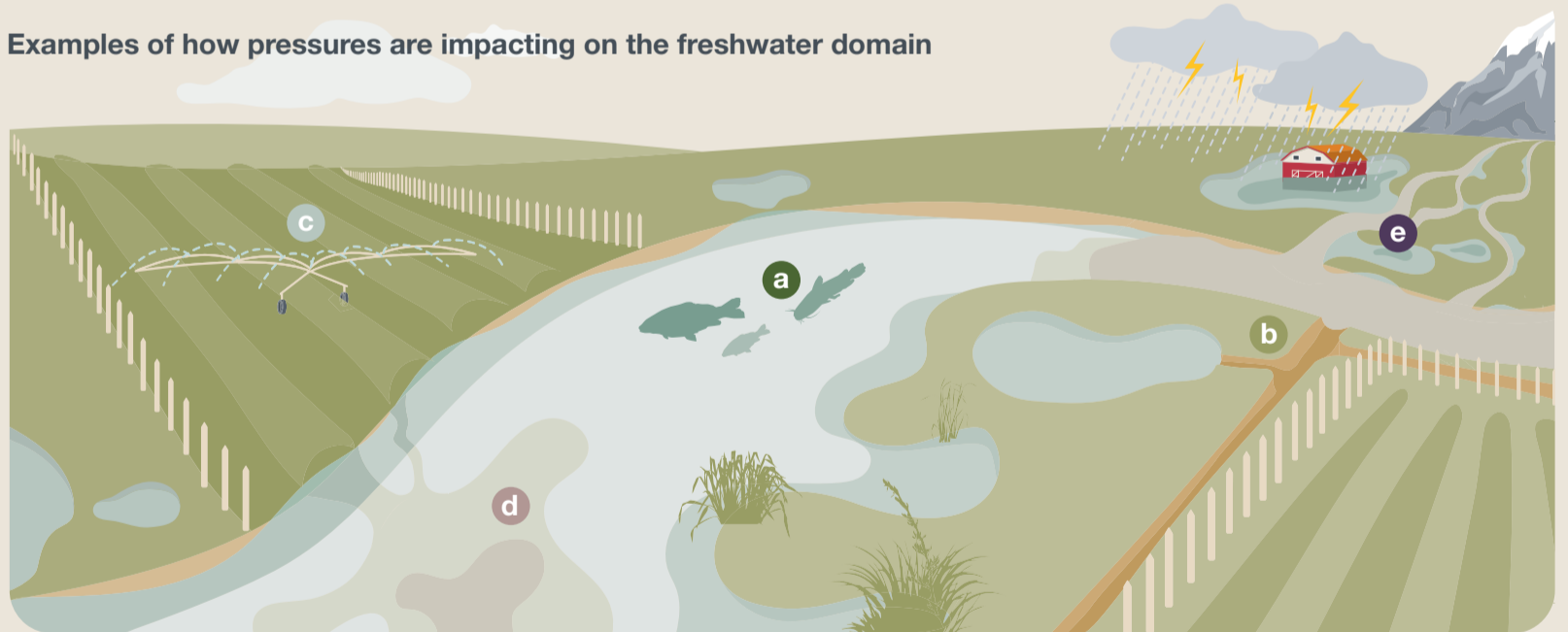
Freshwater biodiversity pressures

Examples of how pressures are impacting on the freshwater domain



Five pressures, related to human activity, are causing the decline of biodiversity in Aotearoa.

Their impacts are complex and different for each domain.



- a** Introduced pest fishes like gambusia and introduced game fishes such as trout prey on indigenous fishes and invertebrates in freshwater systems. Some feed on aquatic plants which can result in degraded water quality.
- b** The loss of wetland ecosystems has mainly been due to drainage and land conversion.
- c** Water abstraction, diversion and storage activities lead to changes in water levels for lakes, wetlands and groundwaters, and changes in river flows. This affects the health and connectivity of freshwater ecosystems.
- d** Pollutants, such as excessive nutrient and sediment loads, enter freshwaters from a wide variety of sources, including agriculture, forestry and urbanisation, and can lead to poorer quality aquatic habitat or be toxic to aquatic life.
- e** More frequent and larger flooding and drought events will affect freshwater ecosystems. Changes in river and stream flows may hinder fish migration to and from the sea, affecting the lifecycles of some species.

Related Resources:

The information presented in this series of factsheets is sourced from the report Biodiversity in Aotearoa – State, Trends and Pressures:

<https://www.doc.govt.nz/nz-biodiversity>

Te Mana o te Taiao – Aotearoa New Zealand Biodiversity Strategy

<https://www.doc.govt.nz/anzbs-strategy> sets a strategic direction for the protection, restoration and sustainable use of biodiversity in Aotearoa for the next 30 years.

Separate sheets are available for **marine** and **land** domains as well as a generalised sheet for combined domains at <https://www.doc.govt.nz/nz-biodiversity>