

Conservation Values in the Manuherekia Catchment

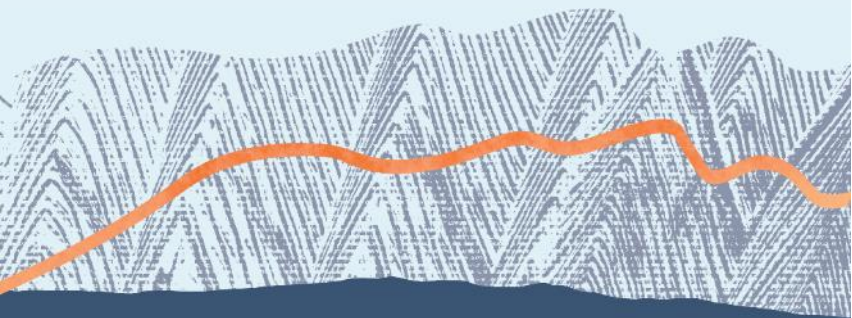
Presentation to the
Manuherekia Reference
Group

11 September 2019



DOC Advocates for Conservation

- ▶ DOC advocates for conservation of indigenous biodiversity
- ▶ Emphasis on the restoration and enhancement of threatened indigenous biodiversity habitat
- ▶ New Zealand Threat Classification System is used to identify the taxa



Freshwater Fish Values

- Protection and enhancement of indigenous fish habitat and fish passage generally, through connectivity of waterways, and use of barriers as required
- Protection and enhancement of remnant populations of non-migratory galaxias, bully, tuna (eel), kanakana (lamprey), and other threatened species



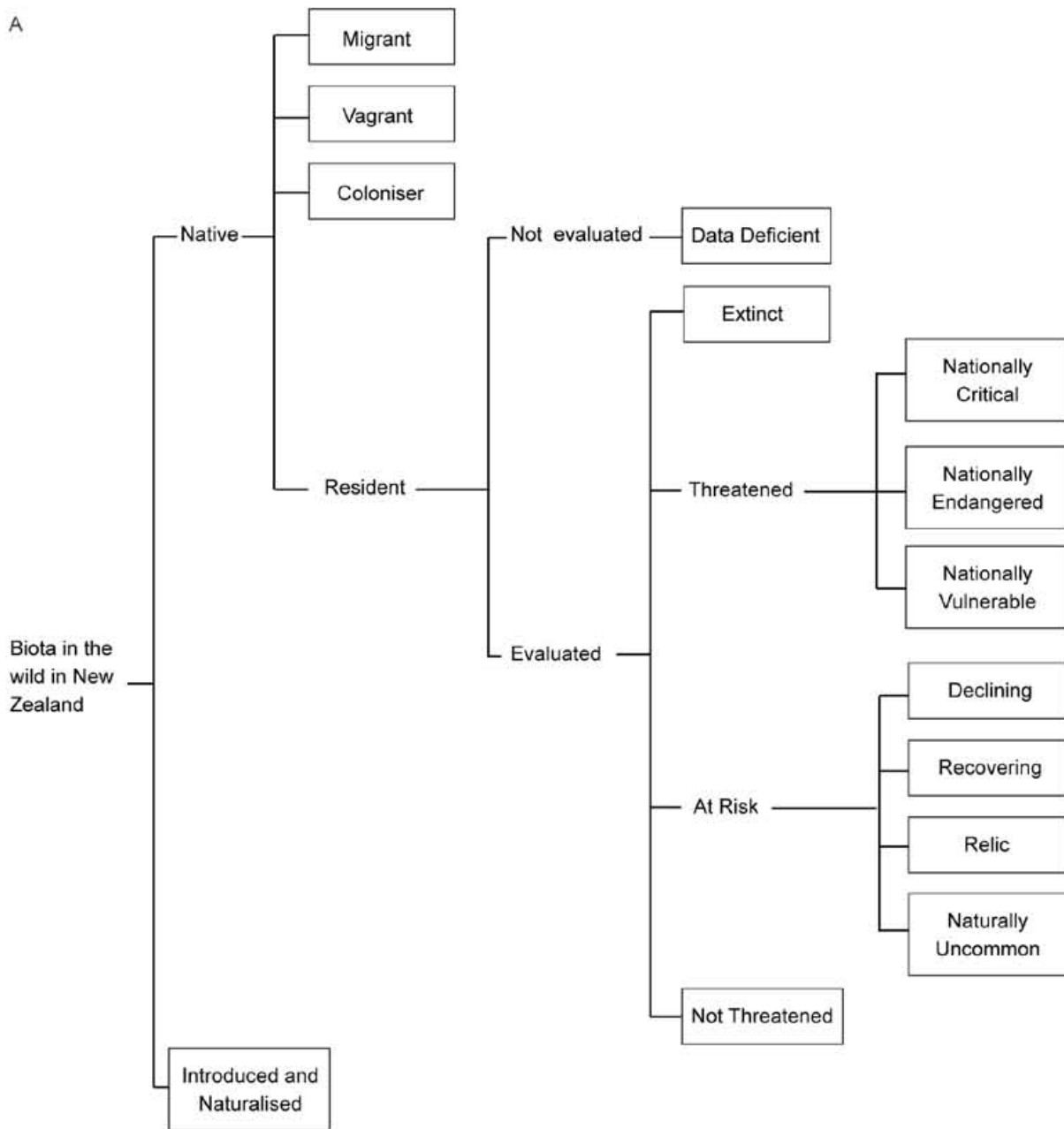
Kanakana (lamprey)



Common bully

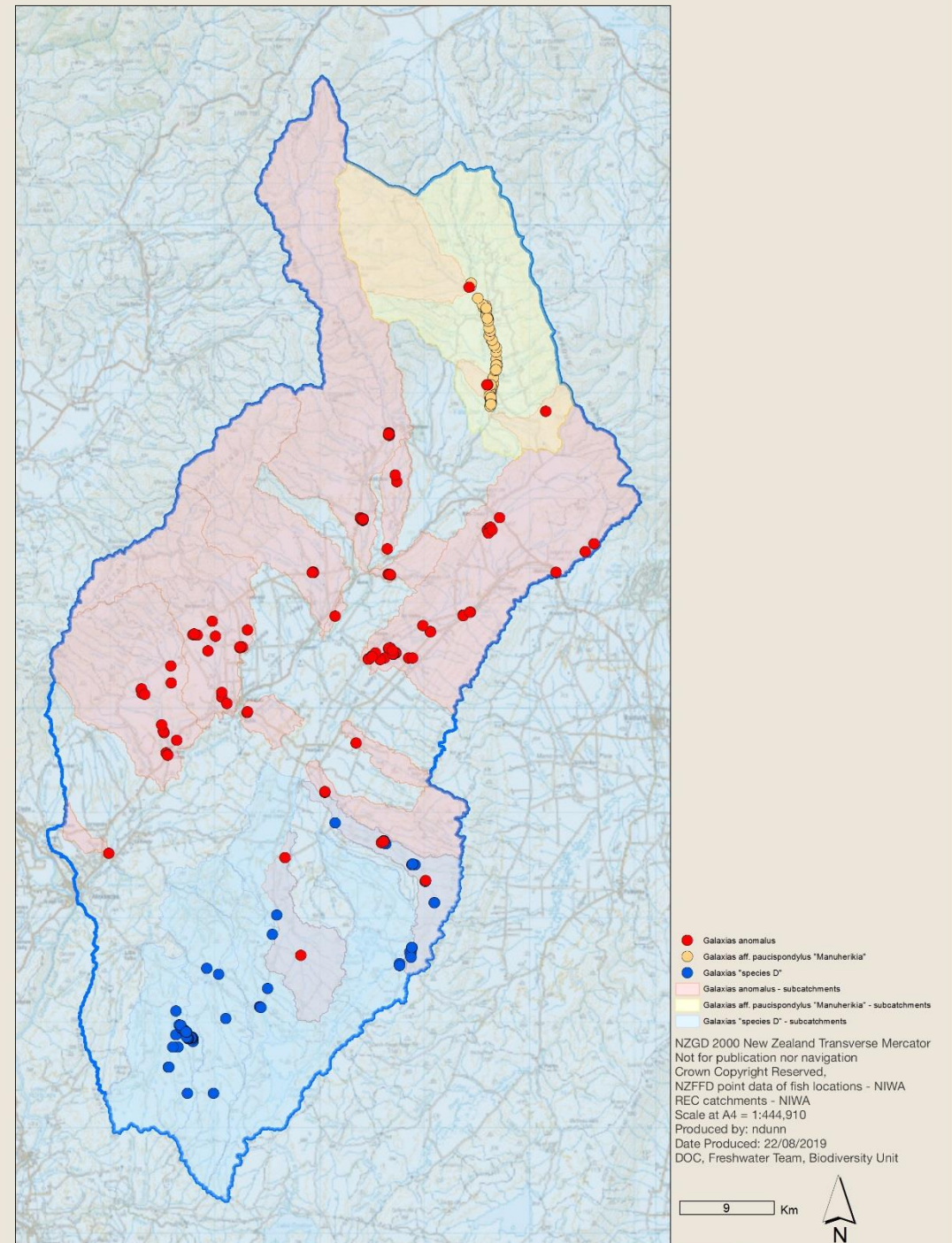
Structure of the New Zealand Threat Classification System (2002)

A



Non-Migratory Galaxias Habitat

- Alpine galaxias (*Galaxias* aff. *paucispondylus* “Manuherika”) – Nationally Endangered
- Central Otago roundhead galaxias (*Galaxias anomalus*) – Nationally Endangered
- Clutha flathead galaxias (*Galaxias* “species D”) – Nationally Critical



Nationally Endangered Non- Migratory Freshwater Fish

Manuherikia alpine
galaxias



Manuherikia alpine galaxias



Manuherikia alpine galaxias



Manuherikia alpine galaxias

**Nationally
Endangered Non-
Migratory
Freshwater Fish**
continued

Central Otago
roundhead galaxias



Central Otago roundhead galaxias *Galaxias anomalus*.

Dunstan Creek, Otago: Clutha flathead galaxias habitat



**Nationally
Critical Non-
Migratory
Freshwater Fish**

Clutha flathead
galaxias “species D”



Clutha flathead galaxias (Clutha River) *Galaxias* “species D”.

Clutha flathead galaxias (Clutha River) *Galaxias* “species D” habitat in Manor Burn Catchment.



Migratory Indigenous Freshwater Fish

Kanakana (lamprey) –
Nationally vulnerable

Tuna (longfin eel) –
At risk: declining

Koaro – At risk:
declining



Kanakana (lamprey) – Nationally vulnerable



Longfin eel – At Risk: Declining



Koaro - At Risk: Declining



Koaro - At Risk: Declining

Threatened invertebrates

Koura, Kakahi and others

- ▶ Diverse instream invertebrate communities (e.g. caddisflies, stoneflies)
- ▶ Includes threatened invertebrates such as koura (freshwater crayfish), kakahi (freshwater mussel)



Koura (freshwater crayfish)
- At Risk: Declining



Kakahi (freshwater mussel)
- At Risk: Declining

Other Freshwater Indigenous Values

- Birds
- Wetlands
- Dryland ecosystems and plants
- Lizards



Nationally Critical Birds

Black-billed gull

Grey duck (Tuakitoto)

Black-fronted tern



Black fronted tern



Black-billed gull



Grey duck (Tuakitoto)

Other Threatened Bird Species

Banded dotterel –
Nationally vulnerable

South Island pied
oystercatcher (Torea)
– Declining

Black shag – Naturally
Uncommon



Banded dotterel



South Island pied oystercatcher (Torea) at
nest containing eggs



Black shag

Manuherekia Saline Wetlands

Wetlands impacted by
water use



Location of the Manuherekia saline sites

Dryland plants



Isolepis basilaris



Carmichaelia vexillata

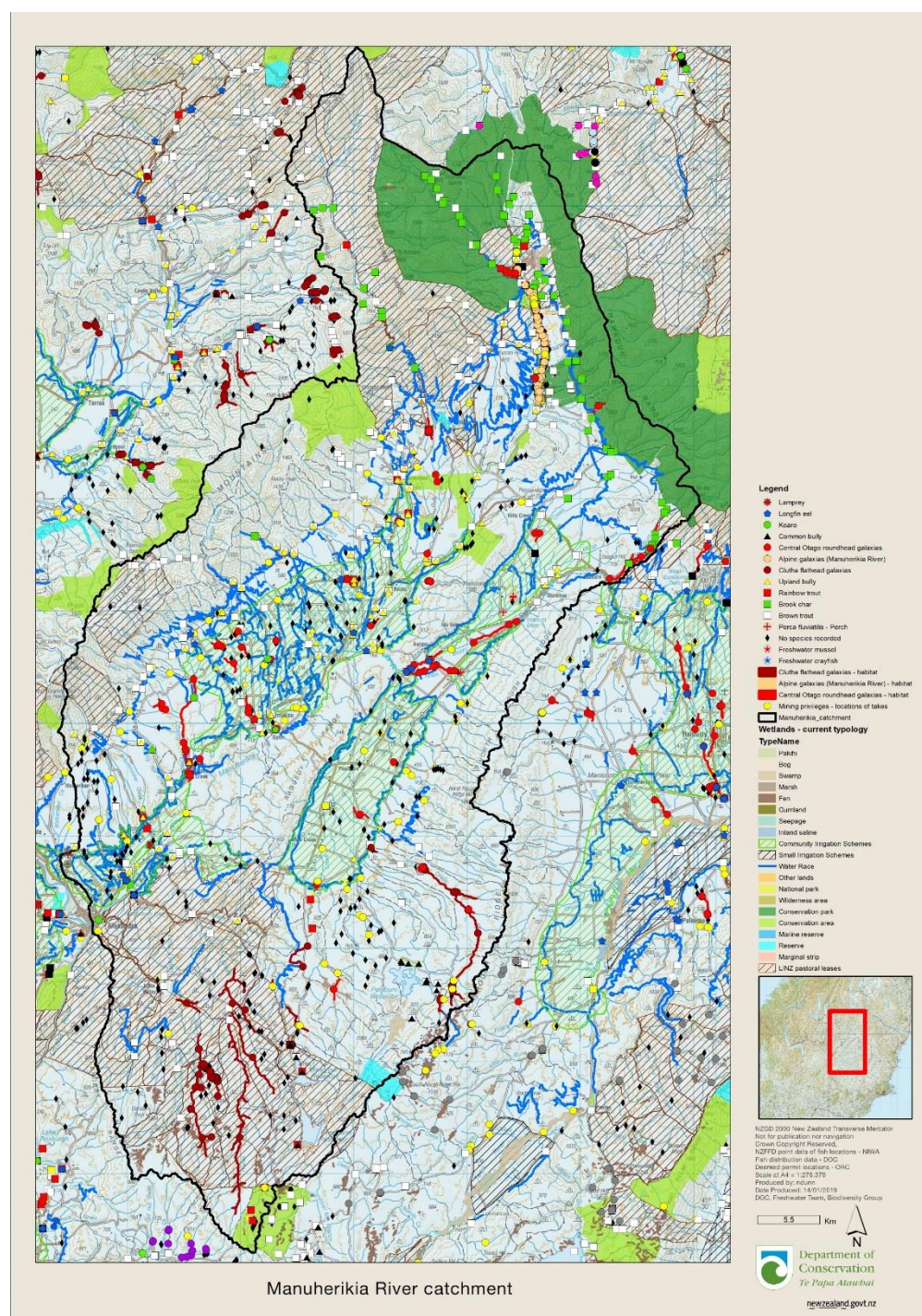
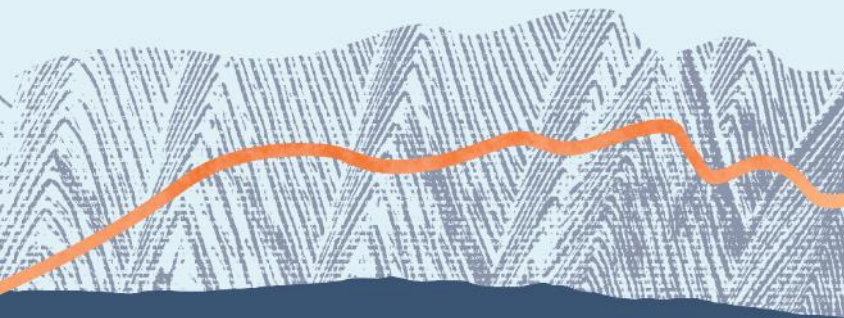


Lepidium kirkii



Myosotis brevis

Overview of freshwater fish and wetland values in the Manuherikia catchment



Other Values

- Cultural
- Recreation
- Historic



Indigenous values

- ▶ Threatened species and ecosystems in the Manuherekia are present in the mainstem, tributaries and terrestrial habitats.
- ▶ These threatened species and ecosystems are declining in the Manuherekia catchment.
- ▶ DOC will be advocating to maintain and enhance their abundance and distribution to secure their future.

