

The braided river bird count database

The value of long-term monitoring

Anne Schlesselmann

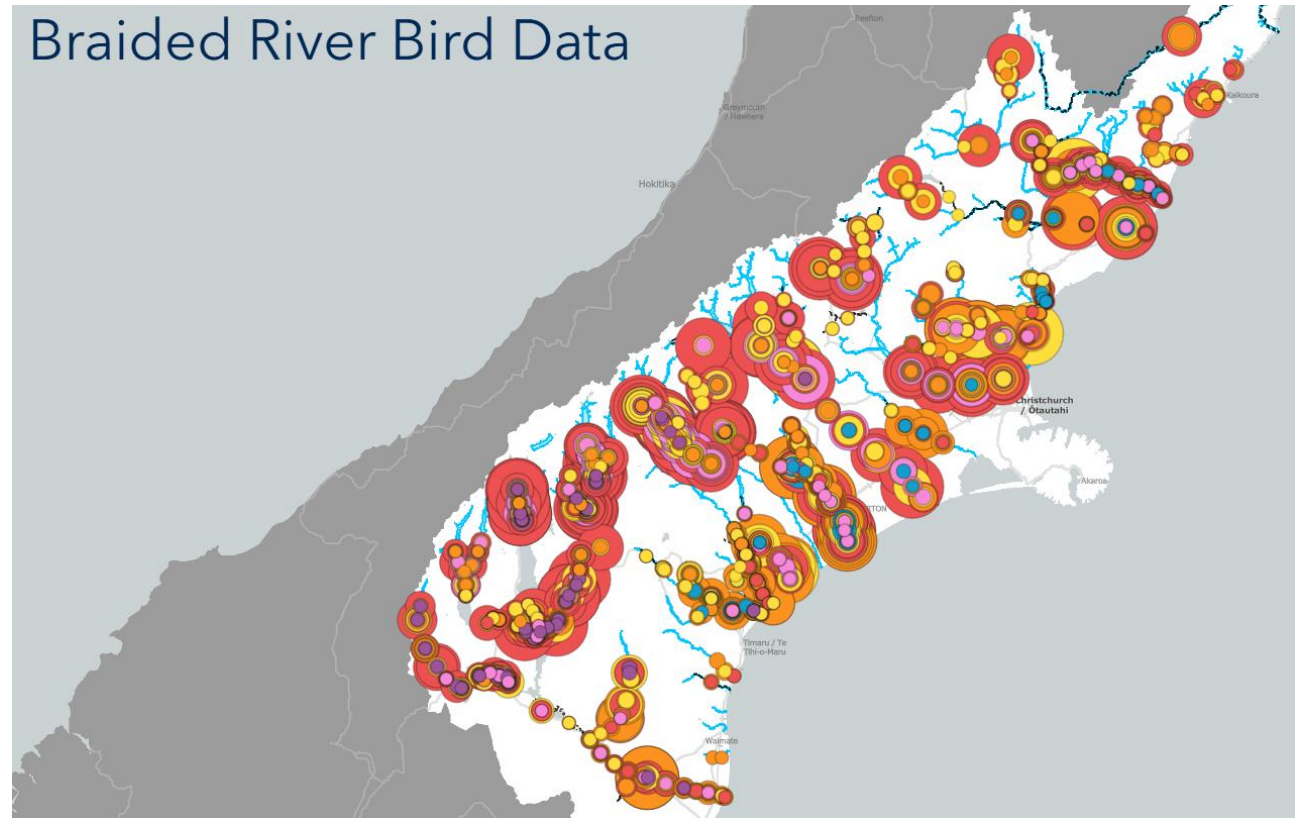
BRAid 2026

8 July 2026

Braided river bird count database



BRAID 



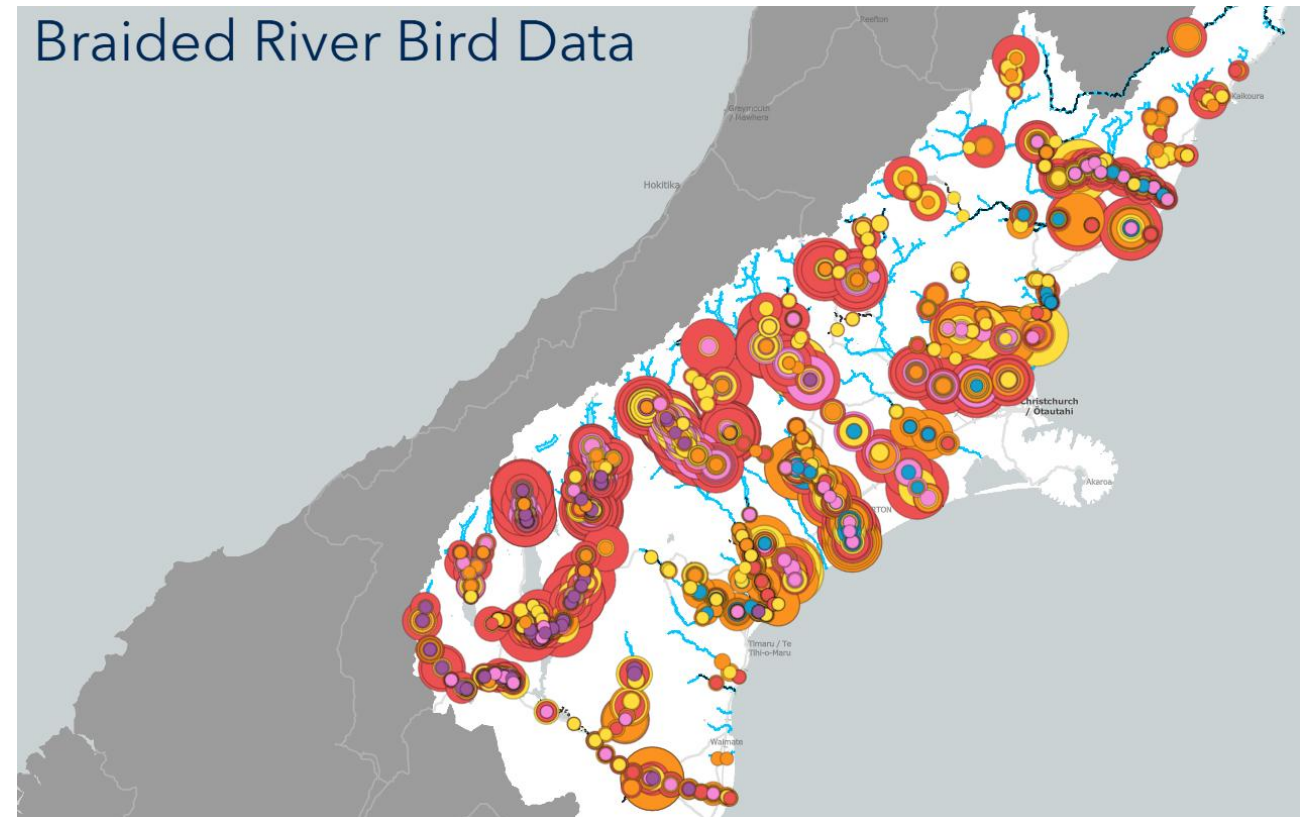
What is the braided river bird count database?



Canterbury

- 67 rivers
- 1962 - 2025
- 918 surveys

Miles Burford (ECan)



Why monitor?

- Understand
- Guide action
- Document outcomes



Photo: Luke Seitz

Braided river bird community

O'Donnell 2000. Environment Canterbury Report U00/37



Braided river bird community

- Canterbury rivers provide habitat for **80+ bird species**

O'Donnell 2000. Environment Canterbury Report U00/37



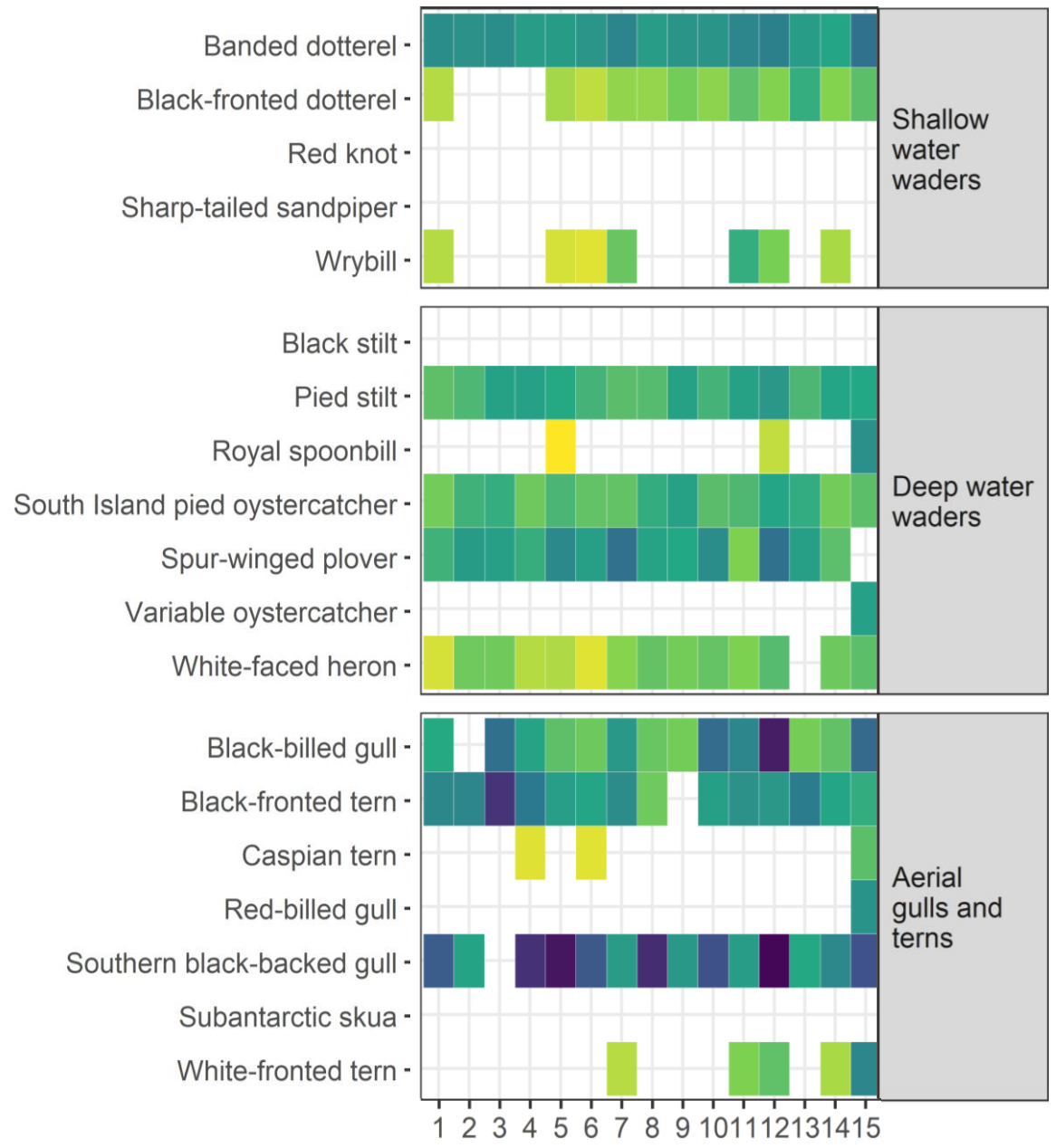
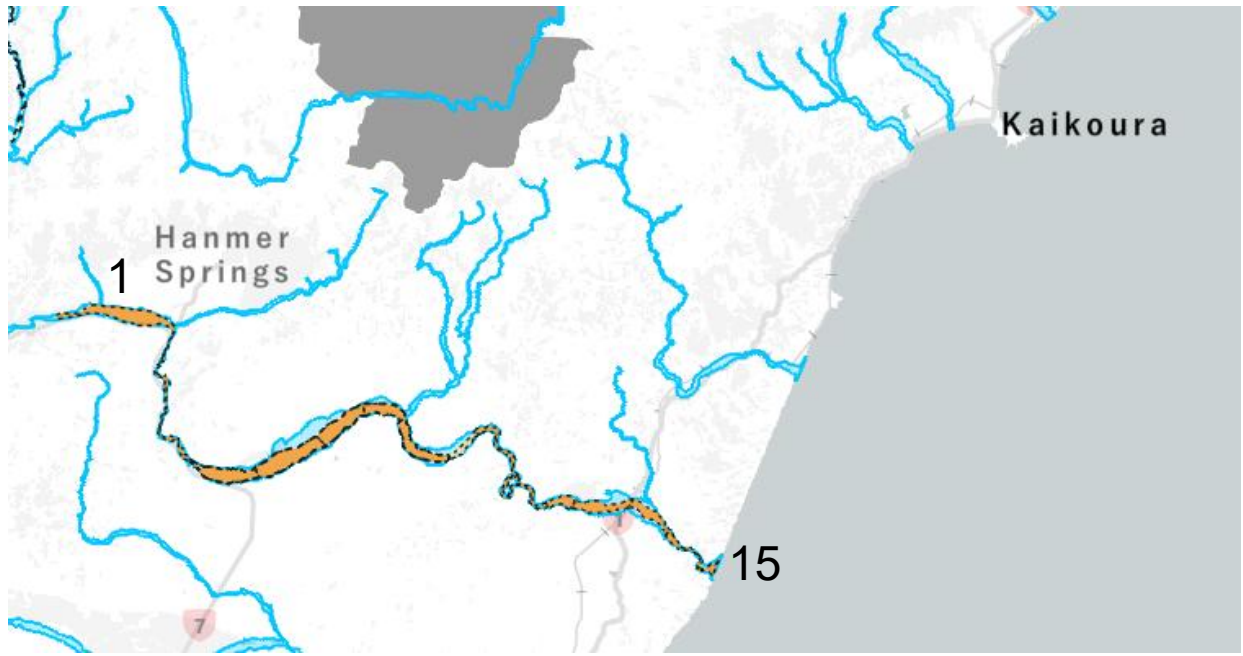
Braided river bird community

- Canterbury rivers provide habitat for **80+ bird species**
- 8 endemic species
- 23 *Threatened* or *At Risk* species
- 11 highly mobile species (NPSIB 2023)



Species distribution

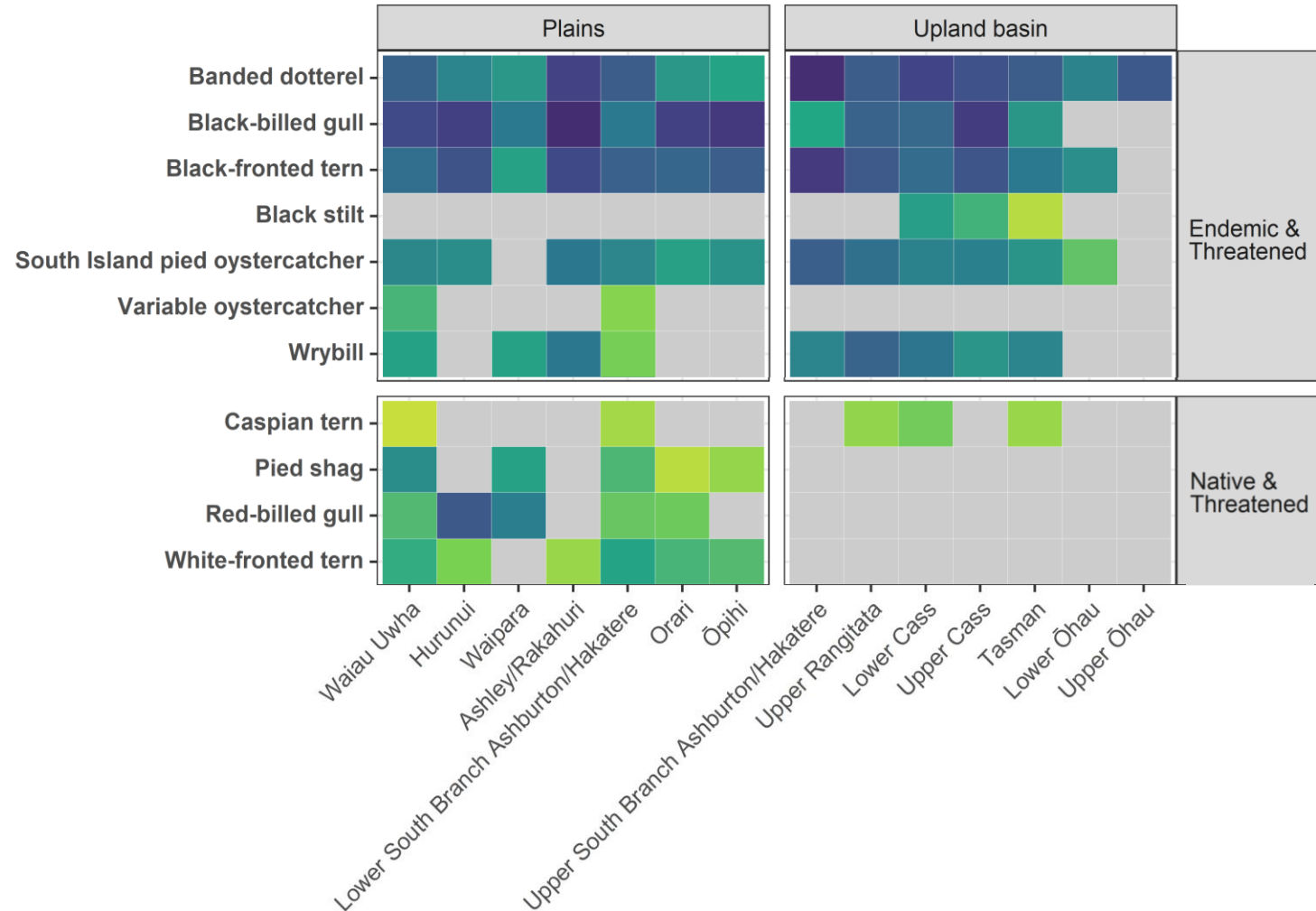
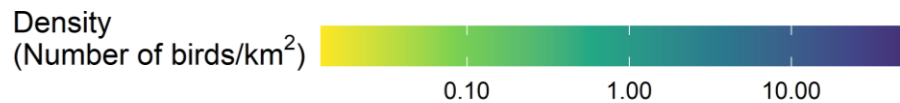
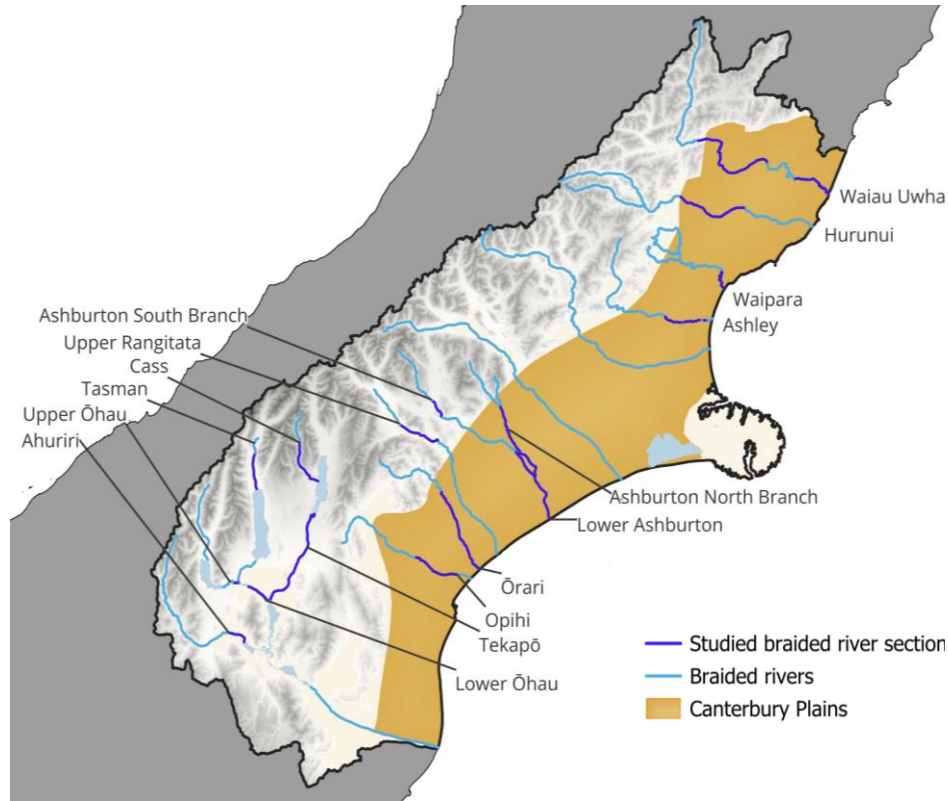
Waiau Uwha surveys 2022-2024



Species distribution

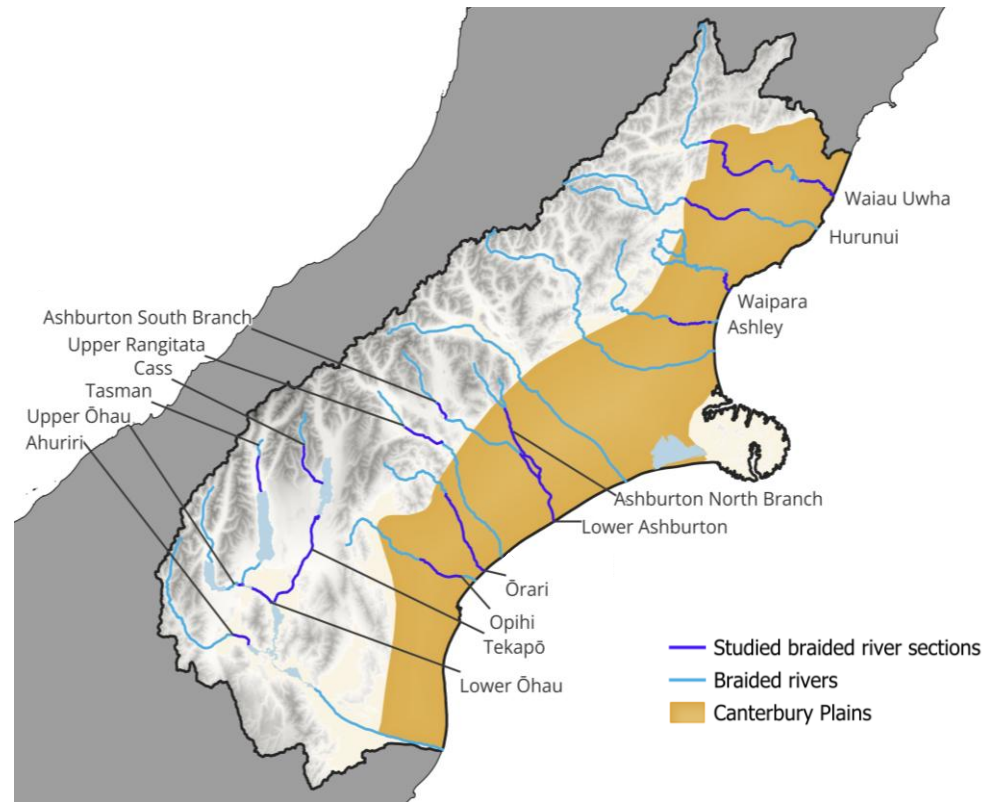
Canterbury 2020-2024

Highly mobile species



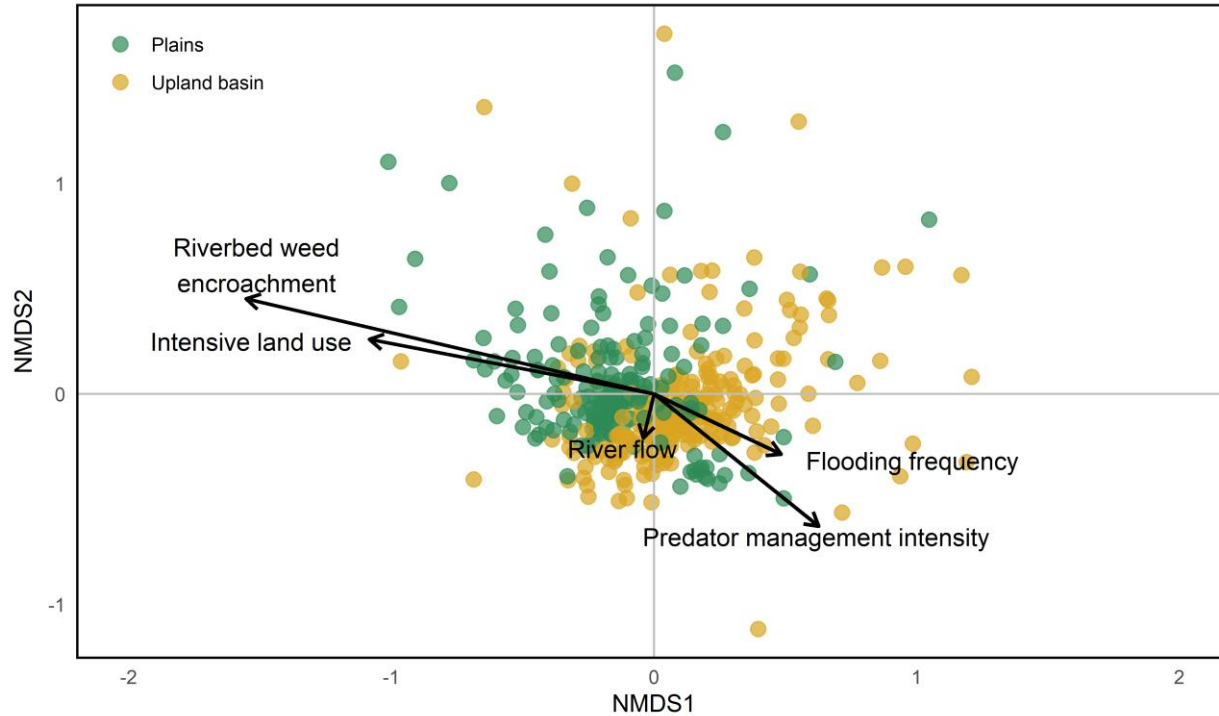
Braided river bird communities and environmental drivers

Canterbury 1979-2024



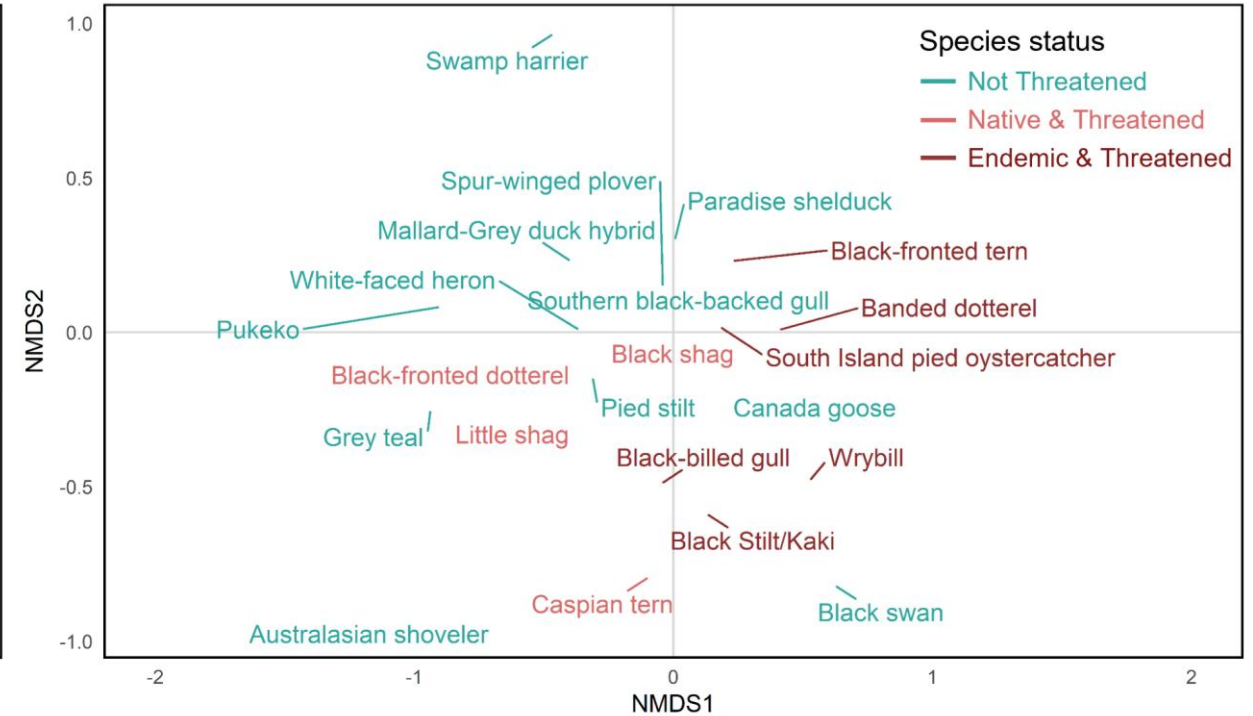
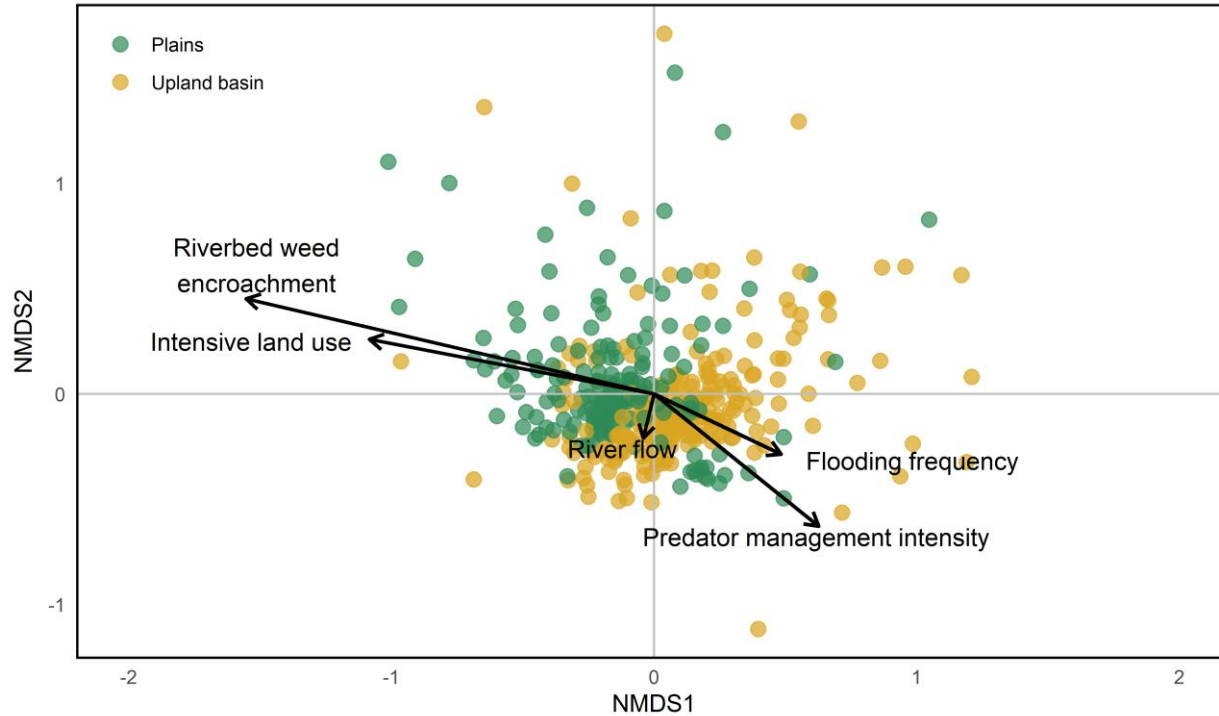
Braided river bird communities and environmental drivers

Canterbury 1979-2024



Braided river bird communities and environmental drivers

Canterbury 1979-2024



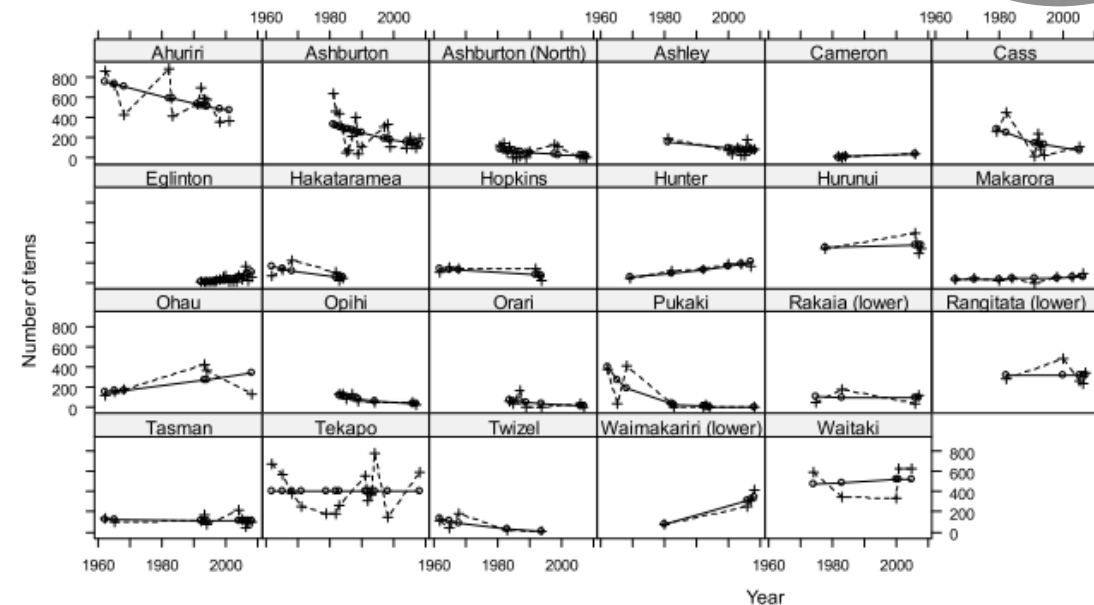
Guide action



Meta-analysis of population trends: Tarapirohe



- Data from 29 rivers with 4-18 repeat counts 1962-2008
- Significant declines on 8 rivers
- Significant increase on 1 river
- Rivers with declines have relatively low flow



O'Donnell & Hoare 2011. *New Zealand Journal of Ecology* 35: 30-43

Winter vs breeding population trends: Pohowera

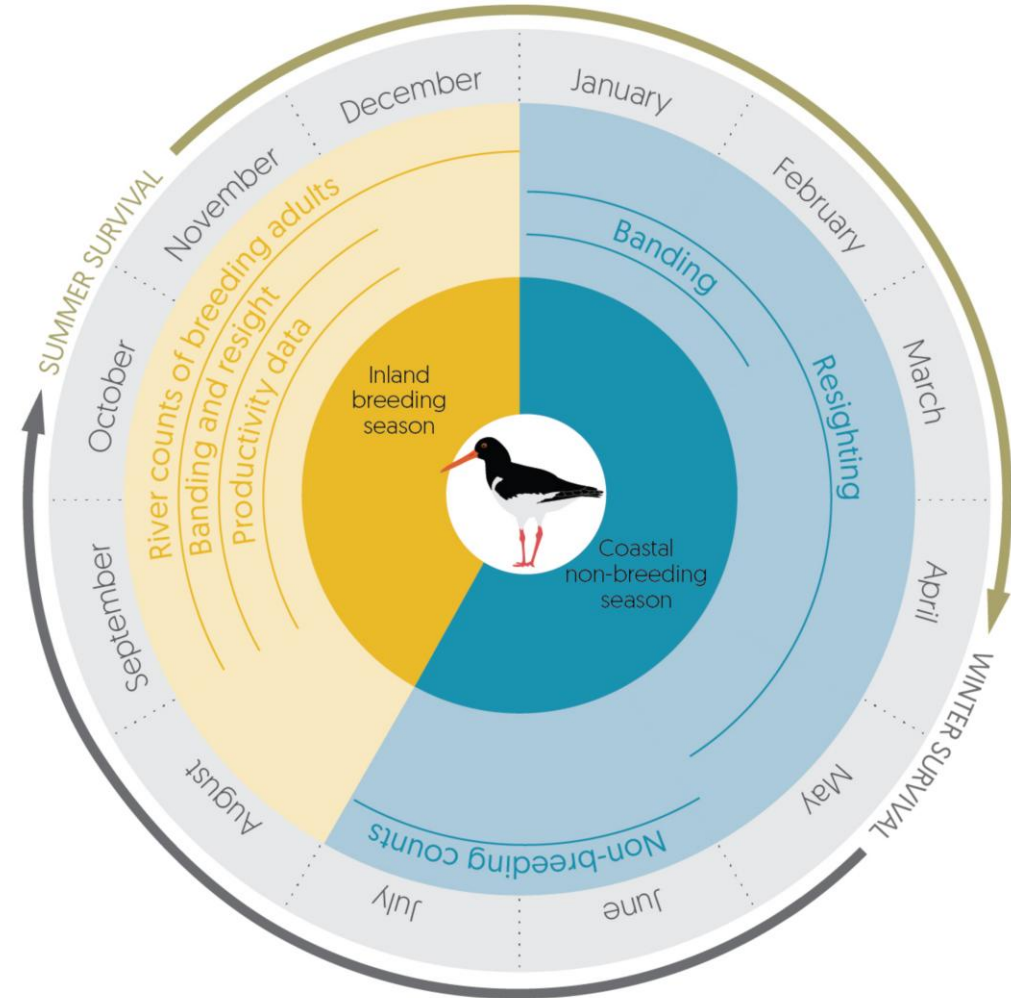
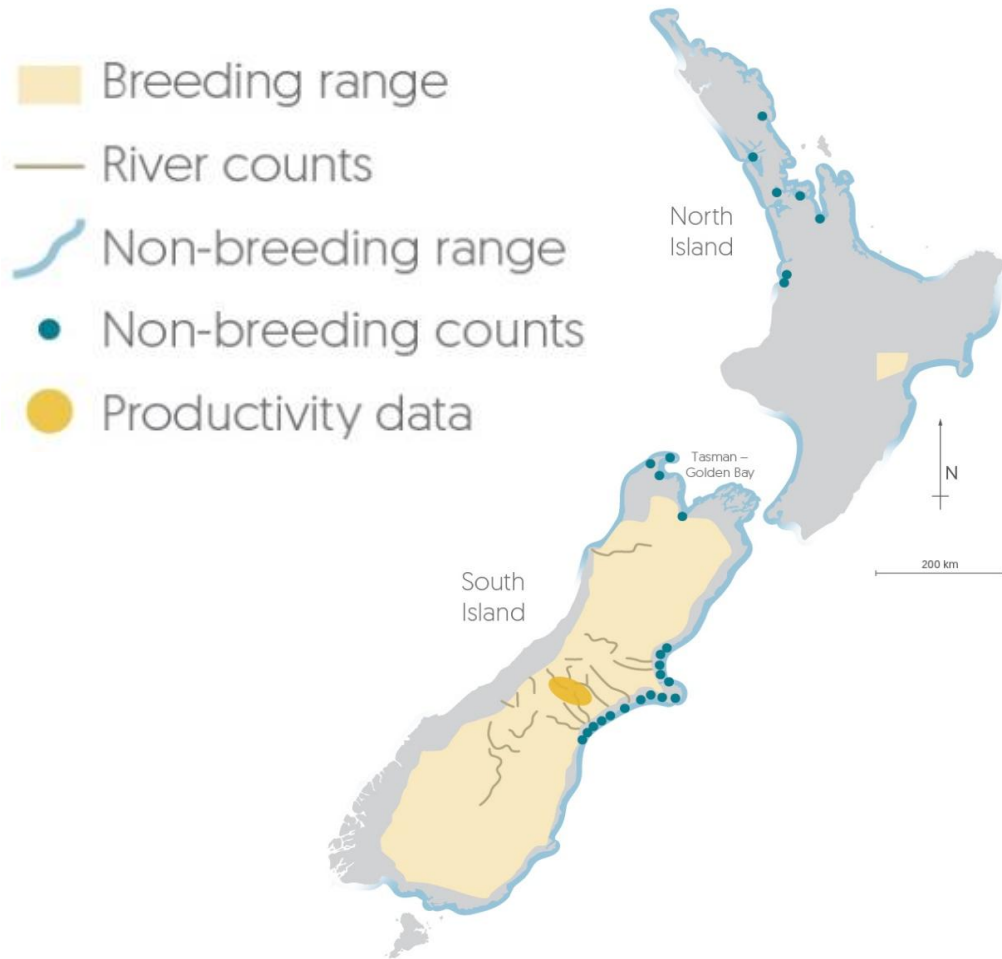
- Braided river count data (SI only 1962-2017):
-3.7% p.a.
- Winter count data (NZ only 1984-2018):
-1.4% p.a.

O'Donnell & Hoare 2020. *Notornis* 67: 733-753.



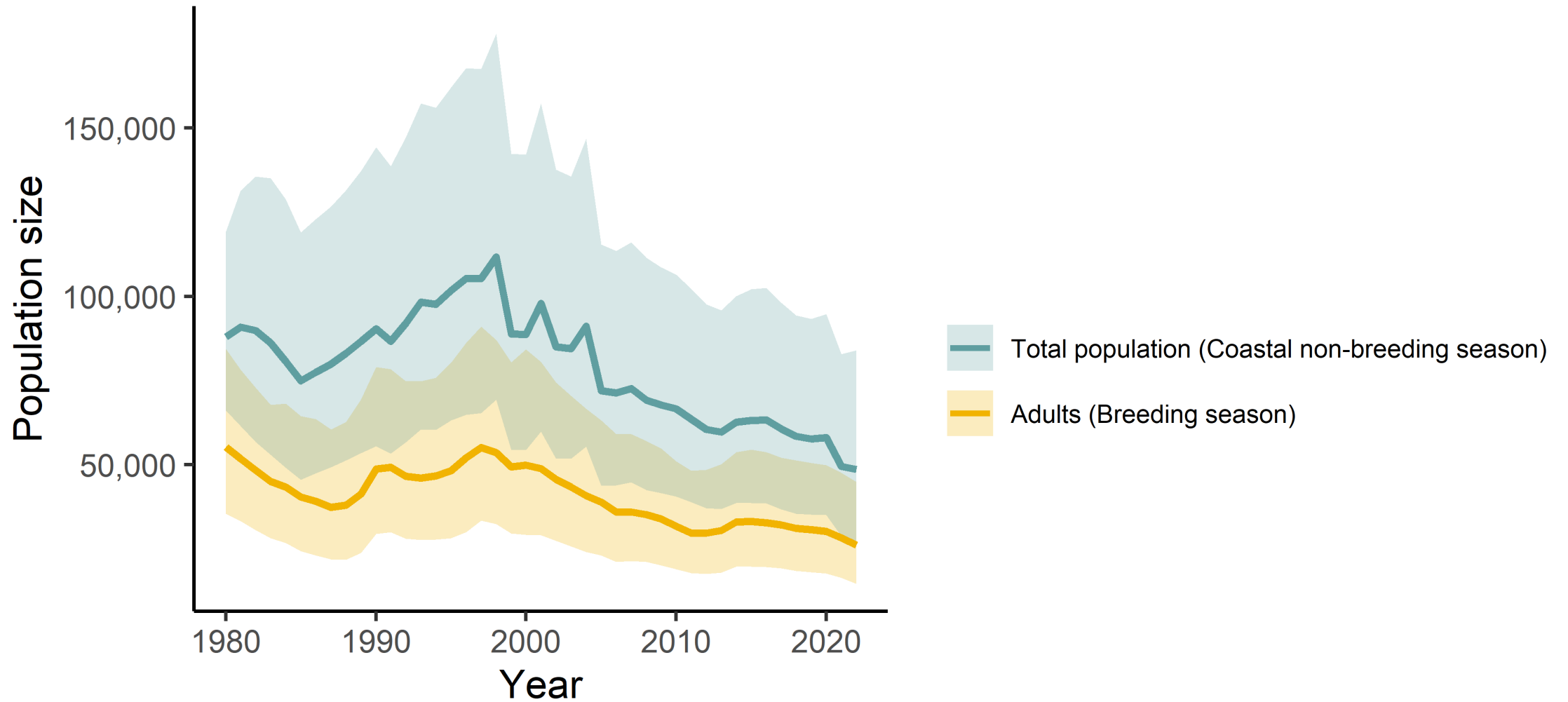
Photo: Luke Sutton

Seasonal and range-wide data: Tōrea



Schlesselmann et al. 2026. *Journal of Applied Ecology* 63: e70228

Population declining at 1.8% p.a.



Trends at different spatial scales



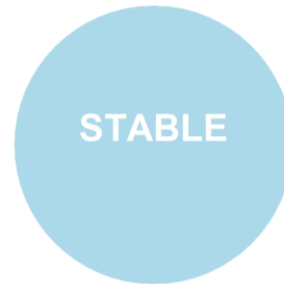
On track to decline over 10 years



50% or more

25% or more

10% or more



Increase over 10 years








Over 10%

Over 50%































Over 100%



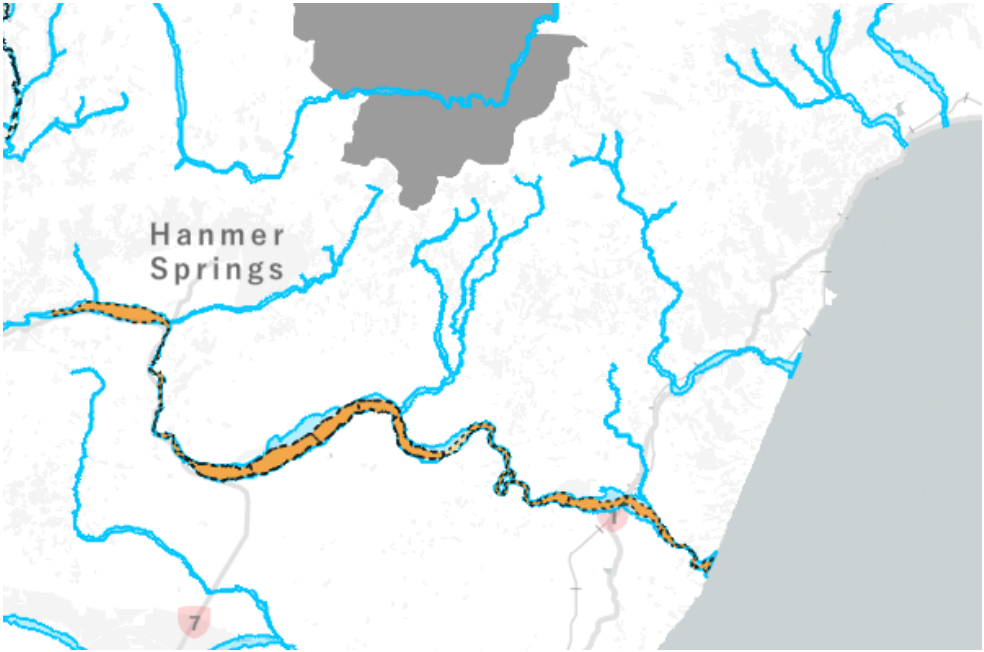
BRAIDED RIVER BIRDS | CANTERBURY REGION

Species	Region	Subregions				
		Mackenzie	Canterbury High-Country	South Canterbury	Mid Canterbury	North Canterbury
Wrybill Ngutu pare						
Banded dotterel Pohowera						
SI pied oystercatcher Tōrea						
Black-fronted tern Tarapirohe						
Black-billed gull Tarāpuka						

BRAIDED RIVER BIRDS | CANTERBURY REGION

Species	Region	Subregions				
		Mackenzie	Canterbury High-Country	South Canterbury	Mid Canterbury	North Canterbury
Wrybill Ngutu pare						
Banded dotterel Pohowera						
SI pied oystercatcher Tōrea						
Black-fronted tern Tarapirohe						
Black-billed gull Tarāpuka						

Waiau Uwha surveys 2008-2024



Species	Trend							Evidence strength
	Rapid decline	Moderate decline	Shallow decline	No or little change	Shallow increase	Moderate increase	Rapid increase	
Banded dotterel			■					●●●●●
Wrybill				■				○●●●○
Pied stilt				■				●○●●○
South Island pied oystercatcher	■							●●●●●
Spur-winged plover				■				●●●●○
White-faced heron						■		●●●●○
Black-billed gull			■					●●○●○
Black-fronted tern	■							●●●●●
Southern black-backed gull				■				●●●●●
Black shag	■							●●●●●
Canada goose						■		●●●●○
Grey duck-mallard hybrid				■				○●●●○
Paradise shelduck				■				●○●●○
New Zealand kingfisher						■		●●●●●
Swamp harrier						■		●●○●○

Document outcomes



Change in trends before and after predator control

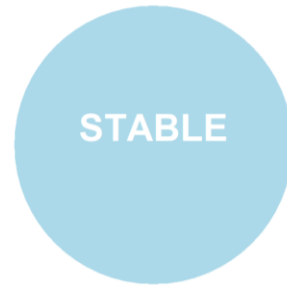
On track to decline over 5 years



50% or more

25% or more

10% or more



Increase over 5 years



Over 10%

Over 50%

Over 100%



SPECIES**REACH***Predator Control* [**Upper South
Branch Ashburton***Before* *After
2000***Tasman***Before* *After
2005***Upper
Rakitata***Before* *After
2016***Upper
Ohau***Before* *After
2011***Lower
Ashley***Before* *After
2004*Wrybill
Ngutu pareSI pied oystercatcher
TōreaBlack-fronted tern
TarapiroheBlack-billed gull
Tarāpuka

SPECIES	REACH									
	Upper South Branch Ashburton		Tasman		Upper Rakitata		Upper Ohau		Lower Ashley	
	Before	After 2000	Before	After 2005	Before	After 2016	Before	After 2011	Before	After 2004
Wrybill Ngutu pare										
SI pied oystercatcher Tōrea										
Black-fronted tern Tarapirohe										
Black-billed gull Tarāpuka										

After predator control: Improved trend for each species

SPECIES	REACH										
	Predator Control [Upper South Branch Ashburton		Tasman		Upper Rakitata		Upper Ohau		Lower Ashley	
		Before	After 2000	Before	After 2005	Before	After 2016	Before	After 2011	Before	After 2004
Wrybill Ngutu pare											
SI pied oystercatcher Tōrea											
Black-fronted tern Tarapirohe											
Black-billed gull Tarāpuka											

After predator control: Improved trend for each species – stronger change in trend for colony nesting species

Conclusions

- Wide uses of braided river bird data base
- Long term data sets increase exponentially in value
- Provides evidence-base to inform decisions
- Provides a stronger position to report on biodiversity goals



Photo: Neil Fitzgerald

WALLY'S
GUIDE TO
THE BIRDS OF...

LOWER WAITAKI

RIVER



R. F.
E.
R. J. B.
D. J. V.
S. P. C.

VOLUME

NEW ZEALAND
WILDLIFE SERVICE, 1
SEPTEMBER

REGIONAL P
ISSN 01

WAL

the LOWER WAITAKI



LIVE
GUIDE TO
MORE BIRDS

20 DEC 1994





Kia ora

Thank you to the many people that have counted birds over the decades.

Special thanks to:

ECan: Miles Burford, Jean Jack, Frances Schmechel

DOC: Ellery Mayence, Colin O'Donnell

BSI: Simon Howard, Catriona MacLeod, Amy Whitehead

