

Manaaki Whenua  
Landcare Research

# Te Reo o Te Repo

Mātauranga Māori and wetland research

**LINK**ONLINE

Yvonne Taura, Mahuru Wilcox and Beverley Clarkson  
Manaaki Whenua – Landcare Research, Hamilton

# OUTLINE

- Importance of wetlands in Aotearoa
- Te Reo o Te Repo
  - Culturally focused wetland research and restoration
- Tuihonoa Te Reo o Te Repo
  - Educational wetland resources from Te Ao Māori
- Handbook Volume II
  - Continued commitment to culturally focused wetland research and restoration



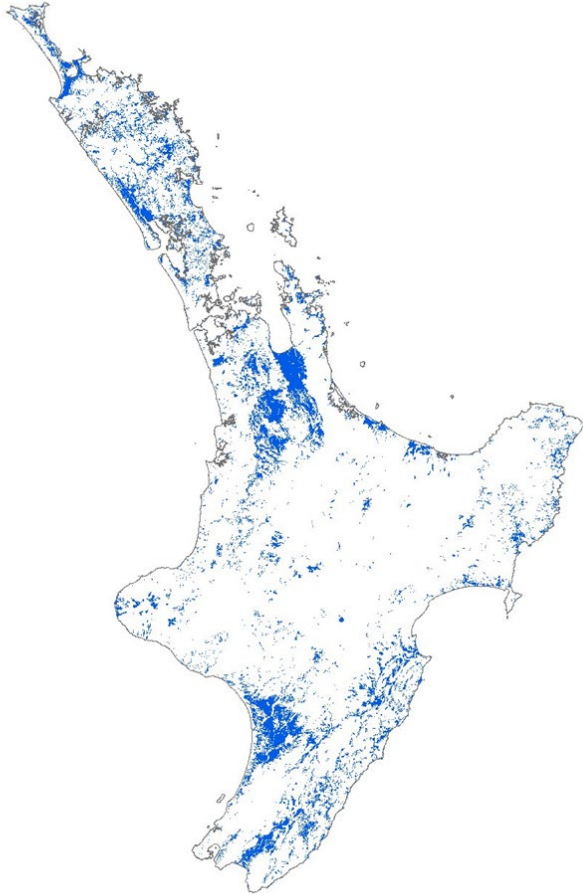
# IMPORTANCE OF WETLANDS

- Provide large environmental, economic, social and cultural benefits
- Wetlands of Aotearoa have been severely reduced since European settlement – 90% loss
- Remaining wetlands continue to degrade
  - drainage, nutrients, weeds, pests



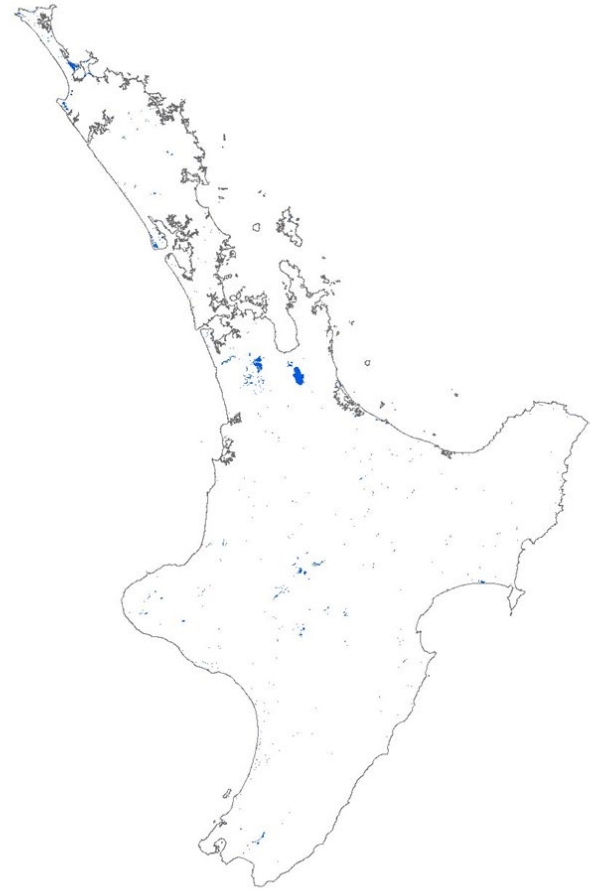
# NZ WETLANDS

**Historic Extent**



Ausseil et al. 2008

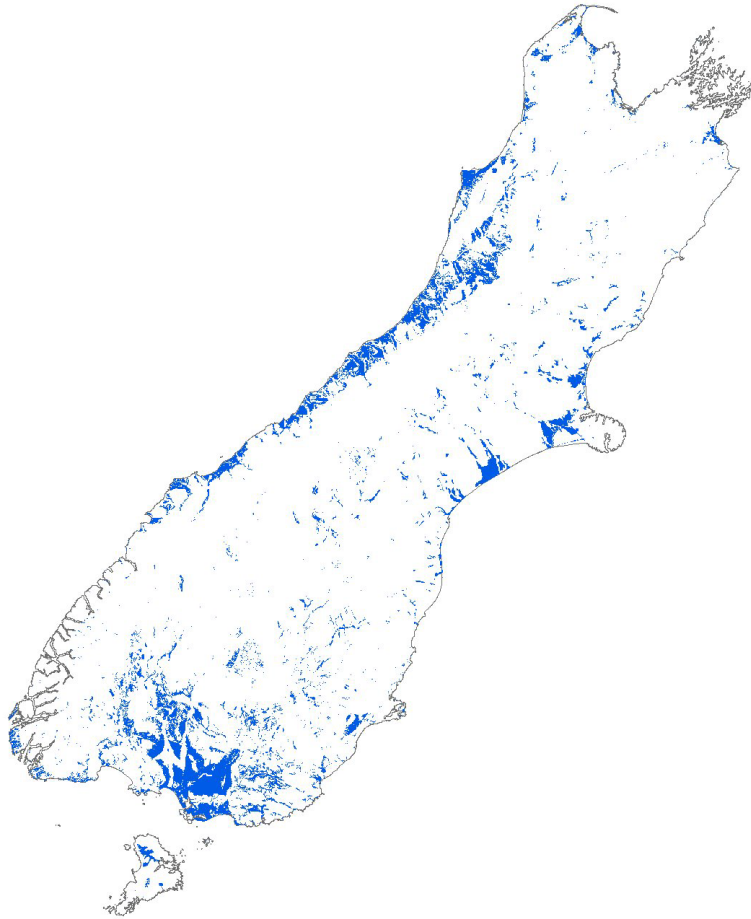
**Current Extent**



North Island – 4.9% remaining

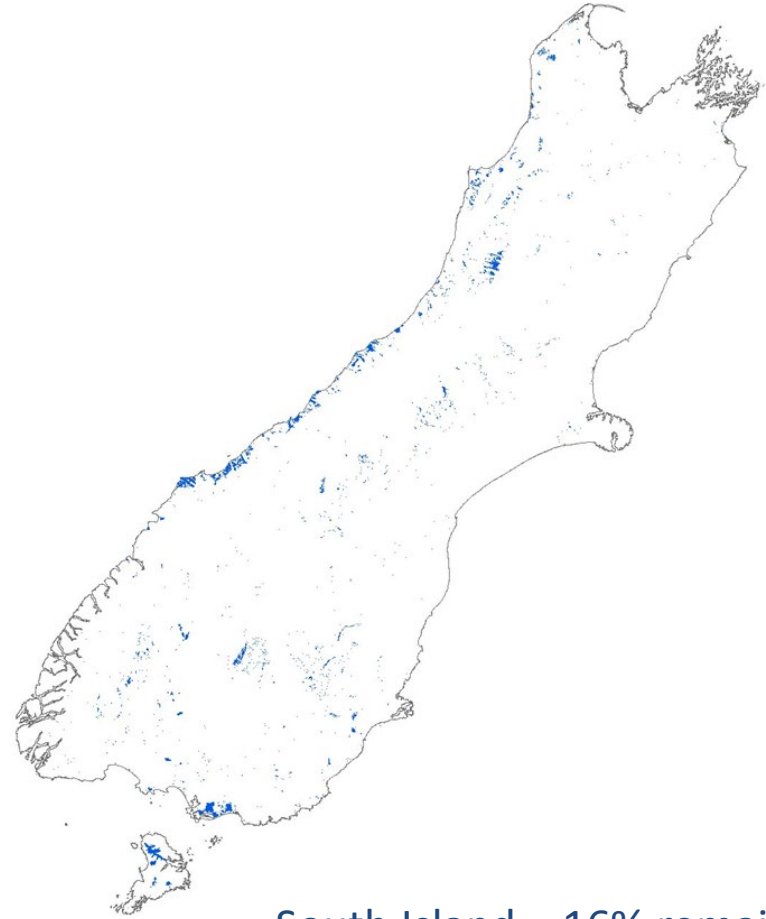
# NZ WETLANDS

**Historic Extent**



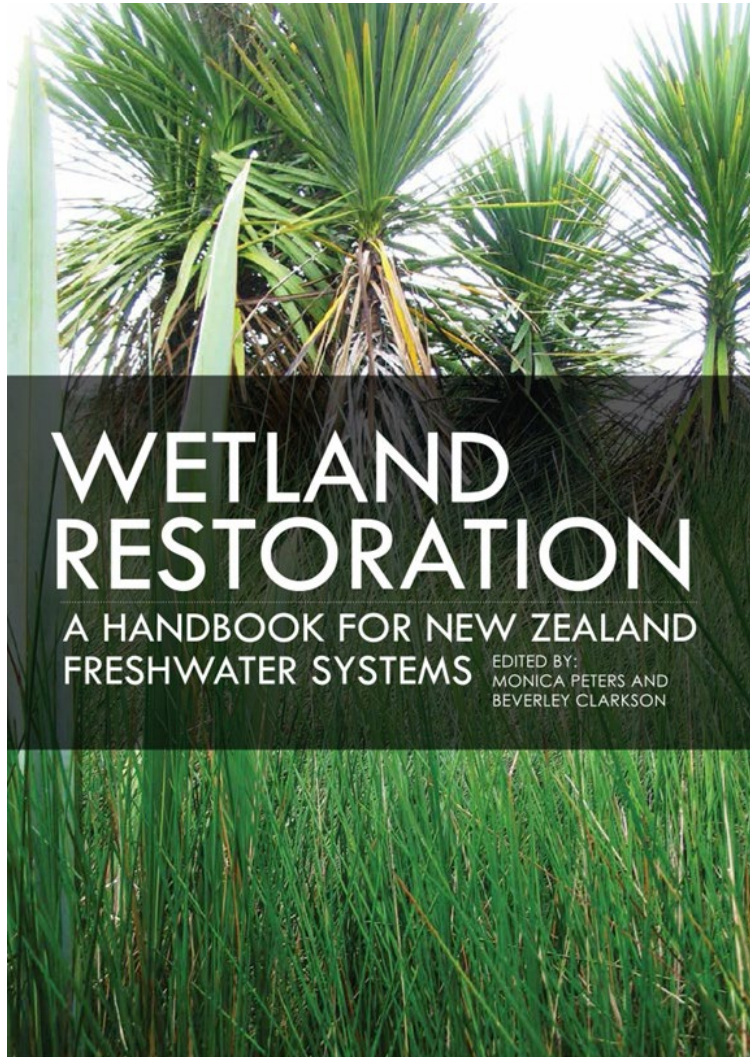
Ausseil et al. 2008

**Current Extent**



South Island – 16% remaining  
Total NZ – 10% remaining

# RESTORATION HANDBOOK



2010, reprinted 2012

## How to do a wetland restoration project

- Hydrology
- Nutrients
- Weeds
- Revegetation
- Pests
- Native fauna
- Monitoring
- Case studies

***MWLR Wetland Research Programme***



# TE REO O TE REPO

## THE VOICE OF THE WETLAND

CONNECTIONS, UNDERSTANDINGS AND LEARNINGS  
FOR THE RESTORATION OF OUR WETLANDS

# TE REO O TE REPO



## **Voices of our people – Voice of the wetland**

- Collaboration with Waikato-Tainui
- Connections
- Understandings
- Learnings
- Collaborative projects to identify cultural wetland values
- Kairangahau Māori
- Best practice





# TE REO O TE REPO



## **Kapu Tī**

- Engagement process with tangata whenua

## **Cultural Resources**

- Cultural indicators and taonga species

## **Tools & Approaches**

- Tools used for wetland restoration
- Mātauranga Māori





# KAPU TĪ



- Involvement of tangata whenua
- Developing new working relationships
- Process of engagement with tangata whenua
- Building meaningful partnerships
- Valuable learnings



# A RESEARCH PARTNERSHIP JOURNEY

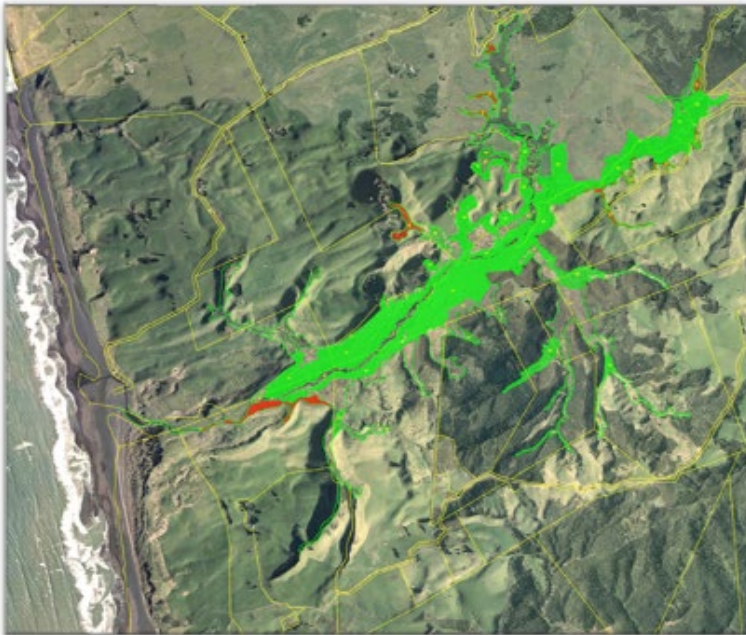


- Partnership with Ngāti Whakamarurangi at Toreparu wetland
- What is my role as a researcher?



# A RESEARCH PARTNERSHIP JOURNEY

1. Presented research proposal and gained approval
2. Discussed values and goals/vision for the Toreparu
3. Identified key/important aspects of the Toreparu
4. Specific indicators
5. Created a scale for each indicator



# A RESEARCH PARTNERSHIP JOURNEY

- Two different world views/ methods.
- Complementary assessment methods
- Identifies management priorities and informs planning
- Be careful!
  - Site specific and unique to each area
  - Only tangata whenua can develop CHI indicators/ carry out assessment
- Knowledge selection, reinterpretation and appropriation



# CULTURAL INDICATORS



Kuta  
Giant spike sedge



Matuku  
Australasian bittern

- What are cultural indicators?
- Importance in managing and restoring cultural resources
- Meaningful tohu of each hapū & iwi
- Examples of taonga species



# TOOLS & APPROACHES

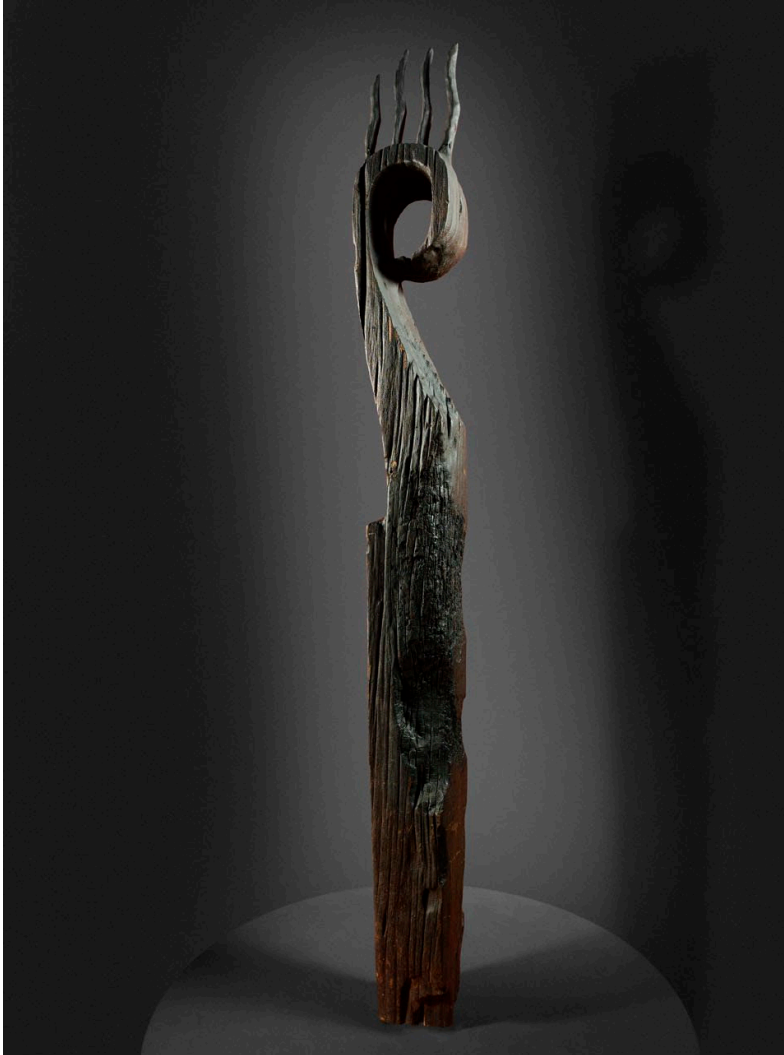


- Herbicide use, often a controversial topic
- Impacts on aquatic and terrestrial invertebrates
- Iwi led and multi-stakeholder approach
  - Native plants vs. Herbicide use
  - Successes & challenges





# MĀTAURANGA MĀORI



- Māori knowledge
- Cultural perspective
  - Whakapapa
  - Tikanga
  - Kaitiakitanga
- Application of mātauranga Māori and Whakapapa



# TUIHONOA TE REO O TE REPO

**TE WHAKAMAHI I NGĀ RAUEMI O TUIHONOA TE REO O TE REPO HEI WHAKARITE ARA WHAKAAKO**

He kōrero hei āwhina i te kaiako

Ngā tohu mō ngā rawa ā-iwi

Ngā roto tāpokapoka

Ngā taonga raranga

Te whiro – he hoa rānei, he hoariri rānei?

Te matamata – ngā karu o Matariki

Ngā rongoā o ngā repo

Te kōura – te mōrehu onamata

Whakahaia na Dr Monica Peters  
© Manaaki Whenua Landcare Research

© Nō te Karauna te manatārua 2020

# TUIHONOA TE REO O TE REPO



- Opportunity to work with science educators and reo Māori experts
- To transform/translate TROTR into an educational resource
- Kura kaupapa & mainstream schools

[www.sciencelearn.org.nz](http://www.sciencelearn.org.nz)



TUIA NGĀ REPO ME NGĀ TĀNGATA  
Call Of The Wetlands And The People

# TUIHONOA TE REO O TE REPO

TOPIC

Te repo ☆

EXPLORE +

Articles Interactives Teacher PLD

Primary Secondary

TEACHER PLD ☆

He kōrero hei āwhina i te kaiako

ARTICLE ☆

Te Repo – he kupu whakatakī

ARTICLE ☆

Te matamata – ngā karu o Matariki

ARTICLE ☆

Te kōura – te mōrehu onamata

ARTICLE ☆

Te tau kōura – he tikanga tūturu mō te hopu me te ...

INTERACTIVE ☆

Te whakamahi i ngā rauemi o *Tuia te reo me ngā tāngata* hei ...

ARTICLE ☆

Te ngaro haere o ngā tikanga tūturu e pā ana ki te hao ...

ARTICLE ☆

Te repo me ngā tuaiwi-kore noho whenua

ARTICLE ☆

Ngā taonga raranga

## Te Reo Māori:

- 24 articles
- 1 teaching learning guide
- 1 interactive map

## Te Reo Pākehā:

- 8 articles
- 1 teaching learning guide
- 2 interactive maps
- 12 short-clips

<https://www.sciencelearn.org.nz/topics/te-repo>

TUIA NGĀ REPO ME NGĀ TĀNGATA  
Call Of The Wetlands And The People

# TUIHONOA TE REO O TE REPO

INTERACTIVE

## Te whakamahi i ngā rauemi o Tuihonoa *Te Reo o Te Repo* hei whakarite ara whakaako

Kei tēnei pāhekoheko ngā hononga ki ētahi rangahautanga mō ngā rauropi o te repo e kīia ana he momo noho taonga ki te iwi.

**TE WHAKAMAHĪ I NGĀ RAUEMI O TUIHONOA *TE REO O TE REPO* HEI WHAKARITE ARA WHAKAAKO**

He kōrero hei āwhina i te kaiako

Ngā roto tāpokapoka

Ngā tohu mō ngā rawa ā-iwi

Te whiro – he hoa rānei, he hoariri rānei?

Ngā taonga raranga

Te matamata – ngā karu o Matariki

Ngā rongoā o ngā repo

Te kōura – te mōrehu onamata

© Nō te Karauna te manatārua 2020

**Te noke**      **Te kōura**      **Te ruru**

Ngā tohu mō ngā rawa ā-iwi

Tēnā toroa ngā rauemi e tohua ana i raro nei hei tūhura i tēnei kaupapa.

- Ngā tohu mō ngā rawa ā-iwi
- Ngā tohu ā-iwi me te repo

Manatārua: Te noke, Scott Bartlam; te kōura, Tākuta Ian Kusabs; te ruru, Janice McKenna. Nō roto mai i *Te Reo o Te Repo – the Voice of the Wetland*.

<https://www.sciencelearn.org.nz/topics/te-repo>

TUIA NGĀ REPO ME NGĀ TĀNGATA  
Call Of The Wetlands And The People

# TUIHONOA TE REO O TE REPO

## INTERACTIVE

### Wetlands – in

Wetland ecosystems hold significant values and the steps we take in these investigations. This interactive



#### Inquiry and action learning process

Using an environmental education inquiry process develops essential skills as students become involved in finding information, developing cultural competency, examining different points of view, communicating with others and problem solving for environmental improvement. Providing support and guidance of the process for students is key for successful learning and action outcomes. Some students will require more scaffolding than others.

COLLECTION +

<https://www.sciencelearn.org.nz/topics/te-repo>

TUIA NGĀ REPO ME NGĀ TĀNGATA  
Call Of The Wetlands And The People

# TUIHONOA TE REO O TE REPO

EVENT

## SLH: Te Repo – wetlands as a context for learning

11 February 2021

Time:

4:00–4:45 pm

Region(s): Nationwide

Type(s): Professional development

Our repo (wetlands) are essential ecosystems rich in fascinating plants and animals. They also have many stories to tell us. Join us as we share our latest range of articles, activities, videos and interactives designed to support you to deepen your understanding, and love, of repo.

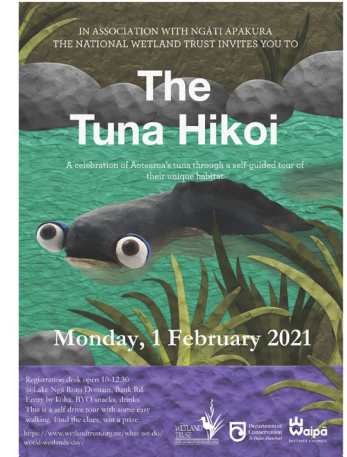
### WETLAND ECOSYSTEM CONNECTIONS



<https://www.sciencelearn.org.nz/topics/te-repo>

TUIA NGĀ REPO ME NGĀ TĀNGATA  
Call Of The Wetlands And The People

# TUIHONOA TE REO O TE REPO



TUIA NGĀ REPO ME NGĀ TĀNGATA  
Call Of The Wetlands And The People



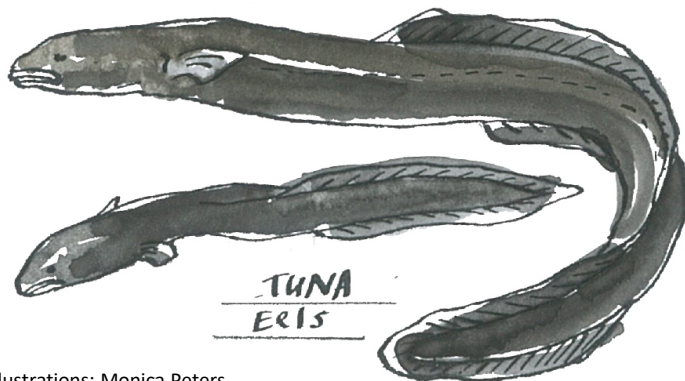
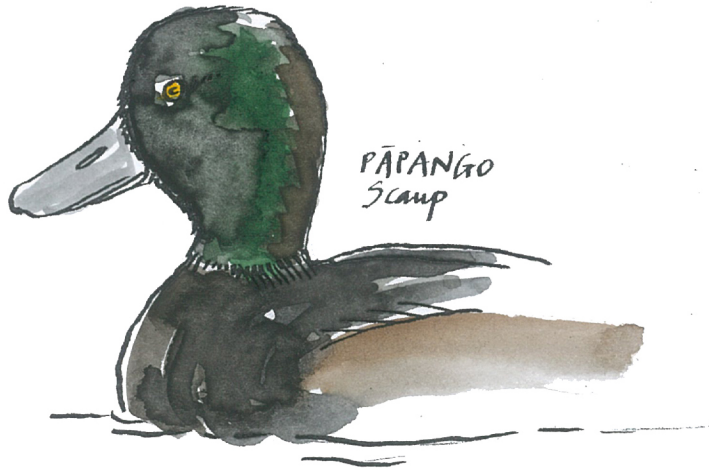
# HANDBOOK VOLUME II



- **Feedback from readers – whānau, council, international interest**
  - Filled a gap
  - An excellent presentation of whānau perspective
  - An important resource to promote wetland restoration



# HANDBOOK VOLUME II



Illustrations: Monica Peters

- Hand-picked contributors
- Māori-led projects, whānau priorities, throughout Aotearoa
- Robust scientific research
- Highlighting at-risk native species





# 11<sup>th</sup> INTECOL

international wetlands  
conference

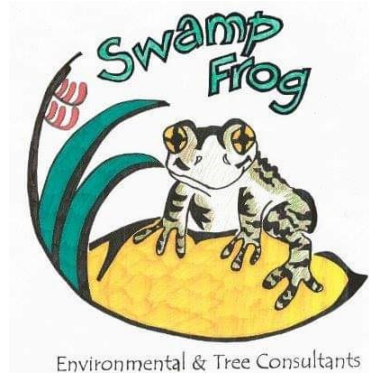
10 – 15 OCTOBER 2021 | Christchurch, New Zealand



**VOLUME II to be launched 2021**  
**Watch This Space!**



# ACKNOWLEDGEMENTS



THE UNIVERSITY OF  
**WAIKATO**  
*Te Whare Wānanga o Waikato*

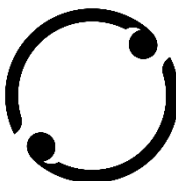
*Abby Davidson*



Department of  
**Conservation**  
*Te Papa Atawhai*



**MINISTRY OF BUSINESS,  
INNOVATION & EMPLOYMENT**  
HĪKINA WHAKATUTUKI





# 11<sup>th</sup> INTECOL

international wetlands  
conference

---

10 – 15 OCTOBER 2021 | Christchurch, New Zealand

<https://www.intecol2021.com/>

<https://www.landcareresearch.co.nz/publications/te-reo-o-te-repo/>

<https://www.sciencelearn.org.nz/topics/te-repo>

