

Living Aotearoa - A demonstration Biodiversity Data Portal for New Zealand Part II

Susan Waugh



Acknowledgements

- *A Te Papa conducted this project in collaboration with Atlas of Living Australia*
- *TFBIS & Te Papa funded the project*
- *60 Interviewees & Data contributors*
- *Alison Burnett, Lara Shepherd, Ann McCrone, Karin Mahlfeld for data management and stakeholder relations*
- *Curators, Web-team and Rights specialists at Te Papa.*
- *The work would not have been possible without lots of help from NIWA, DOC, LCR TRC Te Atiawa, Ngati Toa & Sector analysts*



Natural History Team

- Interpreting the natural world for diverse audiences
- Underpinning the discovery, understanding and management of New Zealand's biodiversity.
- Growing the passion for science in Aotearoa New Zealand



Collaborative biodiversity projects



Fishes of the NZEEZ



Taxonomic Discovery since 2002

- **250 New Taxa**
- 40 fishes
- 3 seaweeds
- 3 birds
- 3 ferns
- 1 whale
- 12 flowering plants
- 15 extinct birds
- 151 molluscs
- 23 lice
- 5 beetles
- 4 crustacea

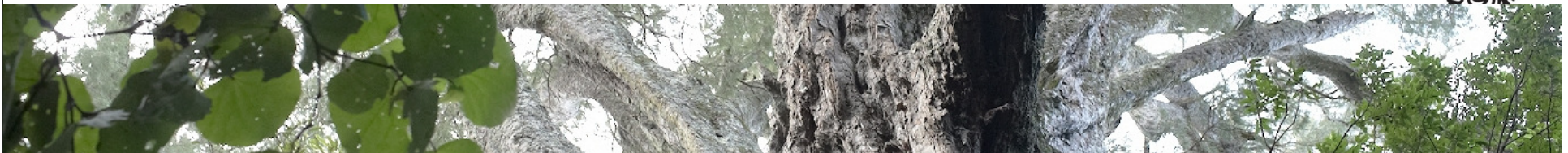


Photo: NewZealandby1e




TFBIS Biodiversity Portal Project

- Aims: To explore biological data sharing potential, to develop concepts for federated infrastructure for zoological datasets in New Zealand
- Asked data users their views on priority data sets, accessing & linking data and system governance
 - *60 people in Museums, Iwi, CRIs, DOC, MPI, PCE, NGOs, Regional Councils*
- Pilot project with Atlas of Living Australia
10 data sets, 5 agencies, 100,000 data points.



http://livingaotearoa.ala.org.au

☆ ▼ ↺  print screen 🔍

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LIVING AOTEAROA

Demonstration site

EXPLORE HERE



The Living Aotearoa - Biodiversity Pilot Portal is a unique platform to learn, discover and act on biodiversity and conservation both in Aotearoa / New Zealand and internationally.

New Zealand is home to many unique and rare species. This site is set up as a demonstration of how we can integrate information, and share what we know about species (and ultimately ecosystems), drawing data from a range of sources.

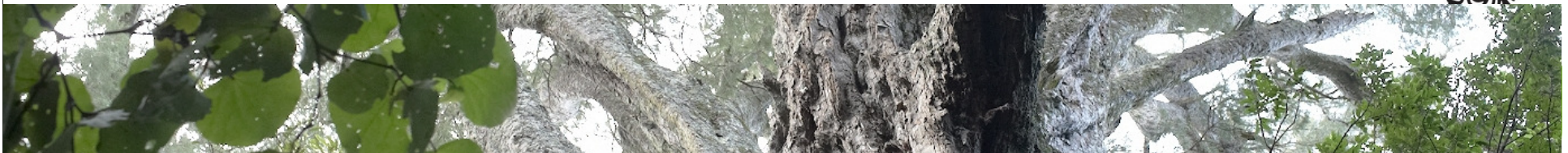
We hope this portal helps engage people in conservation and biodiversity management decisions and increases our knowledge of the state of biodiversity in New Zealand.

This site has been developed to test data display and data sharing concepts, using the platform provided by



Datasets featured

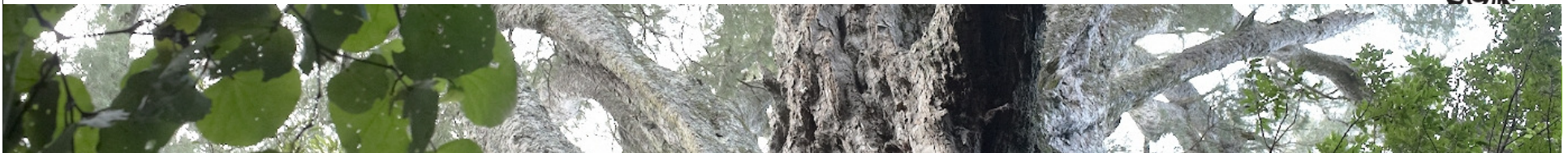
- Bat observational & museum records (DOC & Te Papa)
- Freshwater fish observations (NIWA)
- Kuri records (Te Papa)
- Landsnail museum & observation records (Pte collection & Te Papa)
- Giant Weta collection data (Te Papa)
- Seabird colony data (Te Papa with KJ Wilson)
- Cicada & Lice collection data (Te Papa)
- 5 minute bird observation data (TRC) – not published.
- Environment base layers – Environment Classification (LENZ) , DOC protected areas



Seabird population data review aims:

Aims:

- To collate and make available seabird colony data for management and risk monitoring nationally
- To revise the status and trends of the populations of 9 taxa of shearwaters
- To provide a resource for ongoing review of status and trends of all NZ breeding seabirds – collaborative projects to analyse and assess
- To identify key populations for monitoring by scientists and bird groups



Data detail

- Highly dispersed, literature, grey literature, government archives, researcher notebooks
- Assessed the methodology (coded), verified locations, dates, count details
- Linked references
- Provided assessment of data quality against international standard (ACAP)



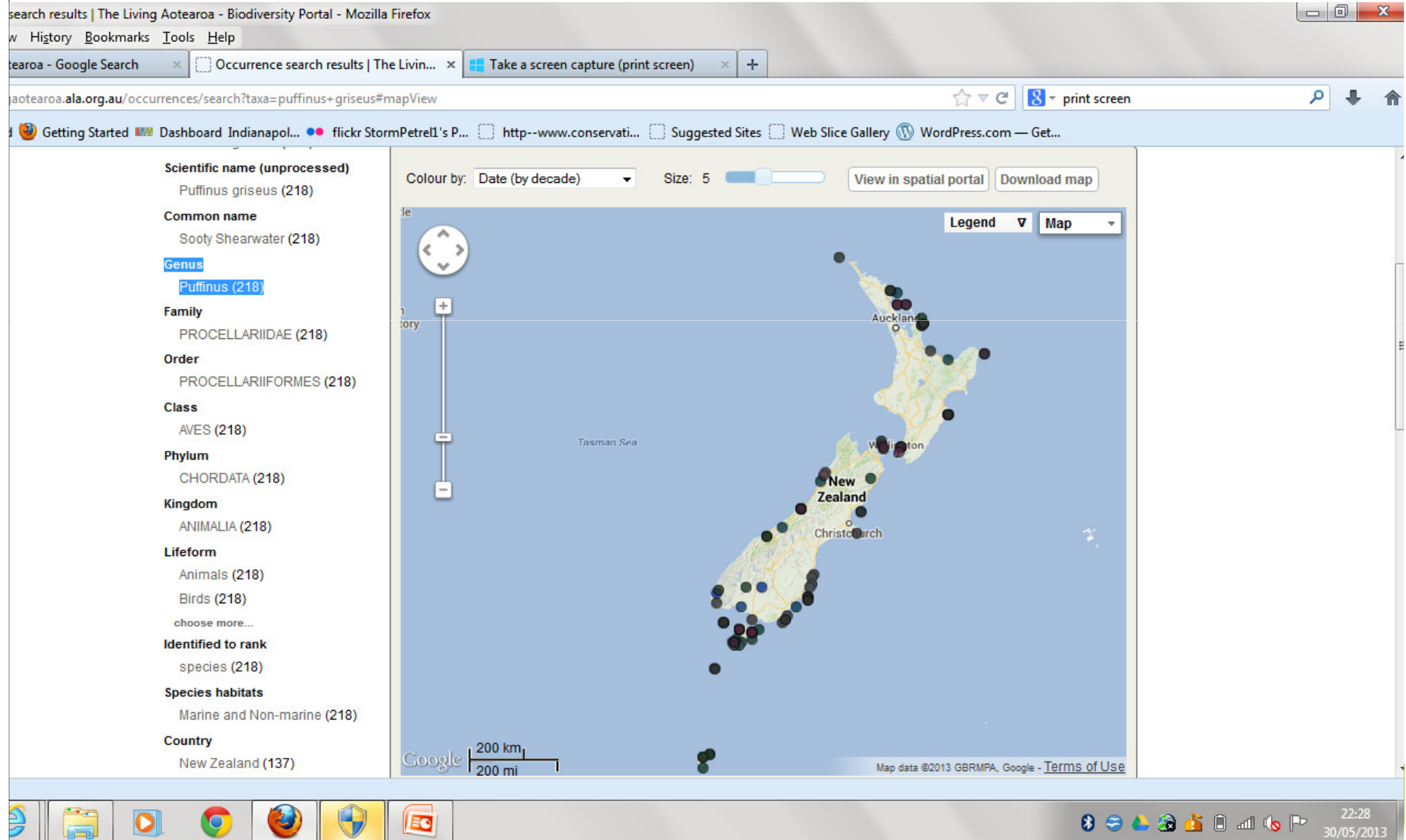
Shearwater population review (9 taxa)

Waugh et al. Tuhinga 24

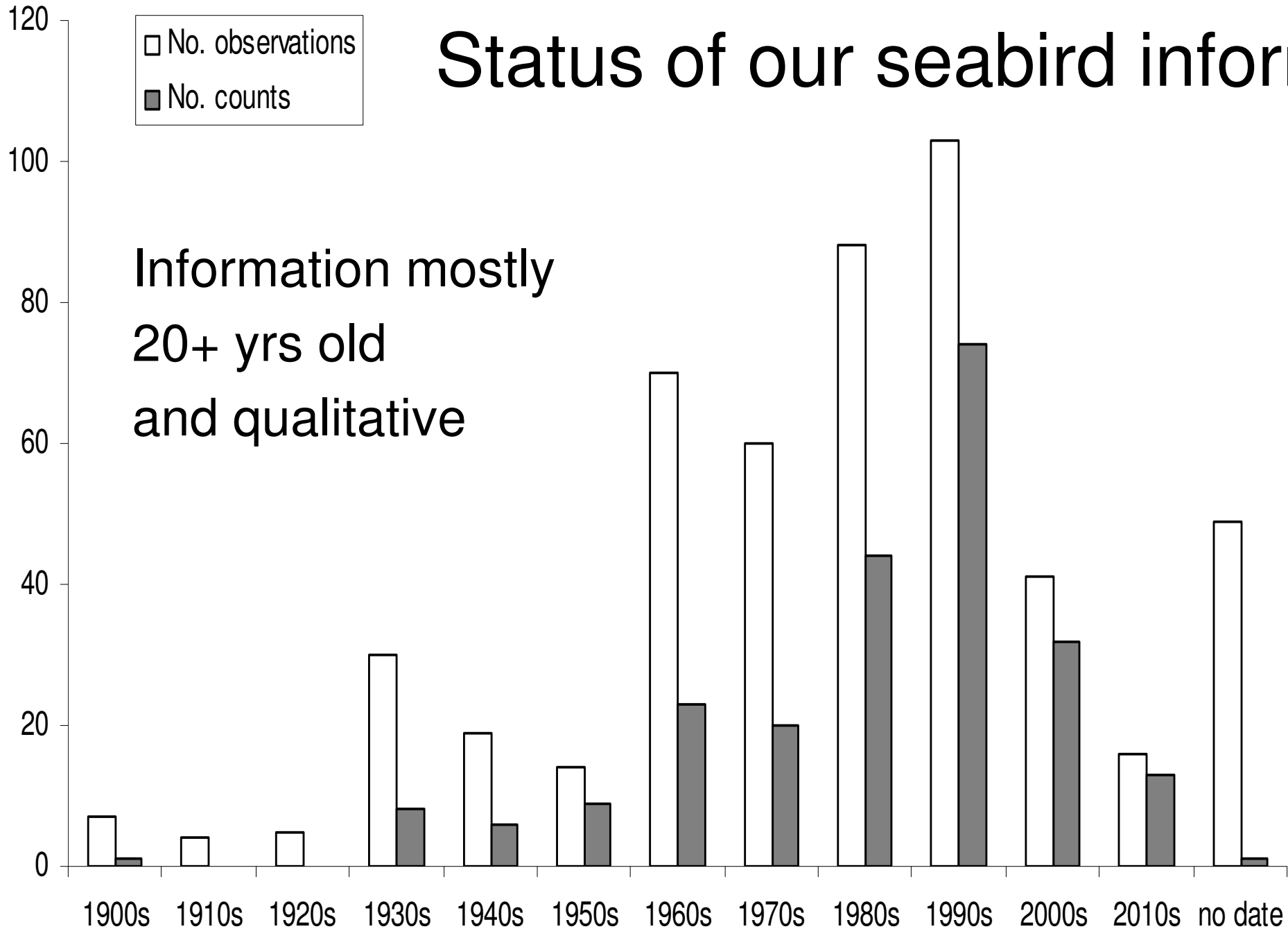
- State of information – old and mostly flakey
- Unique compilation of data, ‘sensitive’ information but readily shared.
- Wedge-tailed SW – 50 k pr, unknown trend
- *Kermadec Little SW 100 k pr, unknown trend
- *Buller’s SW – unknown numbers, unknown trend
- *North Island Little SW – 5-10k pr, unknown trend
- Flesh-footed SW 10-15, rapid decline
- *Hutton’s SW – 100k pr, stable, well known
- *Fluttering SW – unknown number, unknown trend
- Sooty SW – 13 – 30 m pairs, rapid decline.
- *Sub-Antarctic Little SW – unknown number, unknown trend



Sooty shearwater



Status of our seabird inform



Next steps for seabird data

Publish/Link to seabirds.net (cf G. Humphries)

THEY Contribute to assessment of status and trends
(requires interpretation)

USED by groups to do oilspill & other risk
assessments

?Mobilise at-sea atlas records (requires resource)

? Link to NZ Birds Online (requires resource)

Use to test Dan & James metadata scheme



Living Aotearoa project

- Website live for 2 years
- Provided a great mechanism to explore data accessibility
- Enabled us to publish 'real' data, accessible to wide community
- Explored multiple data types
- Great people! Fantastic goodwill
- Altogether a lovely experience.



Key Learnings – what worked well

- Darwin Core format key to data exchange – readily taken up
 - Permissions & access were readily given
 - No major data format issues across taxon groups
 - ALA were great to deal with...nothing seemed too tricky!
 - Diversity of views across stakeholder groups
 - Different concerns about data access & security
 - All had a common vision of access easily accessible and fit for purpose (their purpose)
 - Common desire for ‘free access’ system, small sub. charge ok
 - Strong desire for transparency, contribution to governance
- A lot of work needed around defining objectives!!!



Key Learnings – what took more work

- Taxonomic issues too complex to overcome for scale of our project
- Profile pages – very good to include but took too much input for our budget to prepare.
- Dont underestimate the time taken to get data permissions sorted out



Te Papa focus 2013/14

- Online taxonomies for all major taxon groups that we research (links to NZOR)
- Explore with other groups to produce a collaborative project with focus on front-end delivery.
- Contribute to development of structure and governance, and funding support for the 'bigger' project.
- Following July feedback from community to further explore ALA potential – connecting diverse datasets



Next steps for Living Aotearoa

- Continue to develop profile pages to meet national requirements?
- Add more datasets (e.g NZ Mammals online)?
- (Continue to) explore links with existing database?
- Bring in more Museum-based zoological data (e.g. OZCAM)?
- Develop a collaborative group to explore and implement next stages? (NSC?)



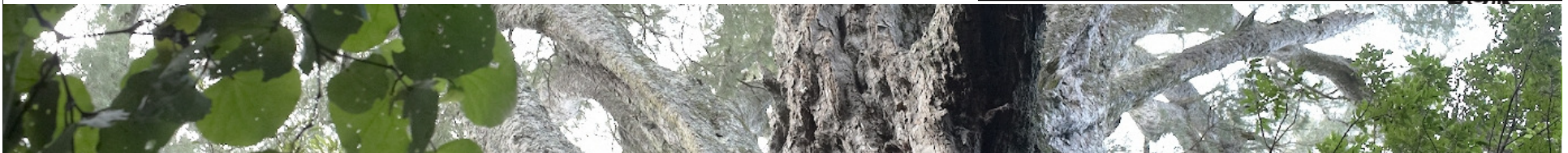
Further resources

- Data for seabird colonies available on <http://livingaotearoa.ala.org.au>
- *Puffinus* Publication: *Tuhinga* 24, www.tepapa.govt.nz/tuhinga/

**Te Papa TFBIS Project (284)
on a National Biodiversity
Portal for New Zealand.
User needs analysis and
demonstration portal site**

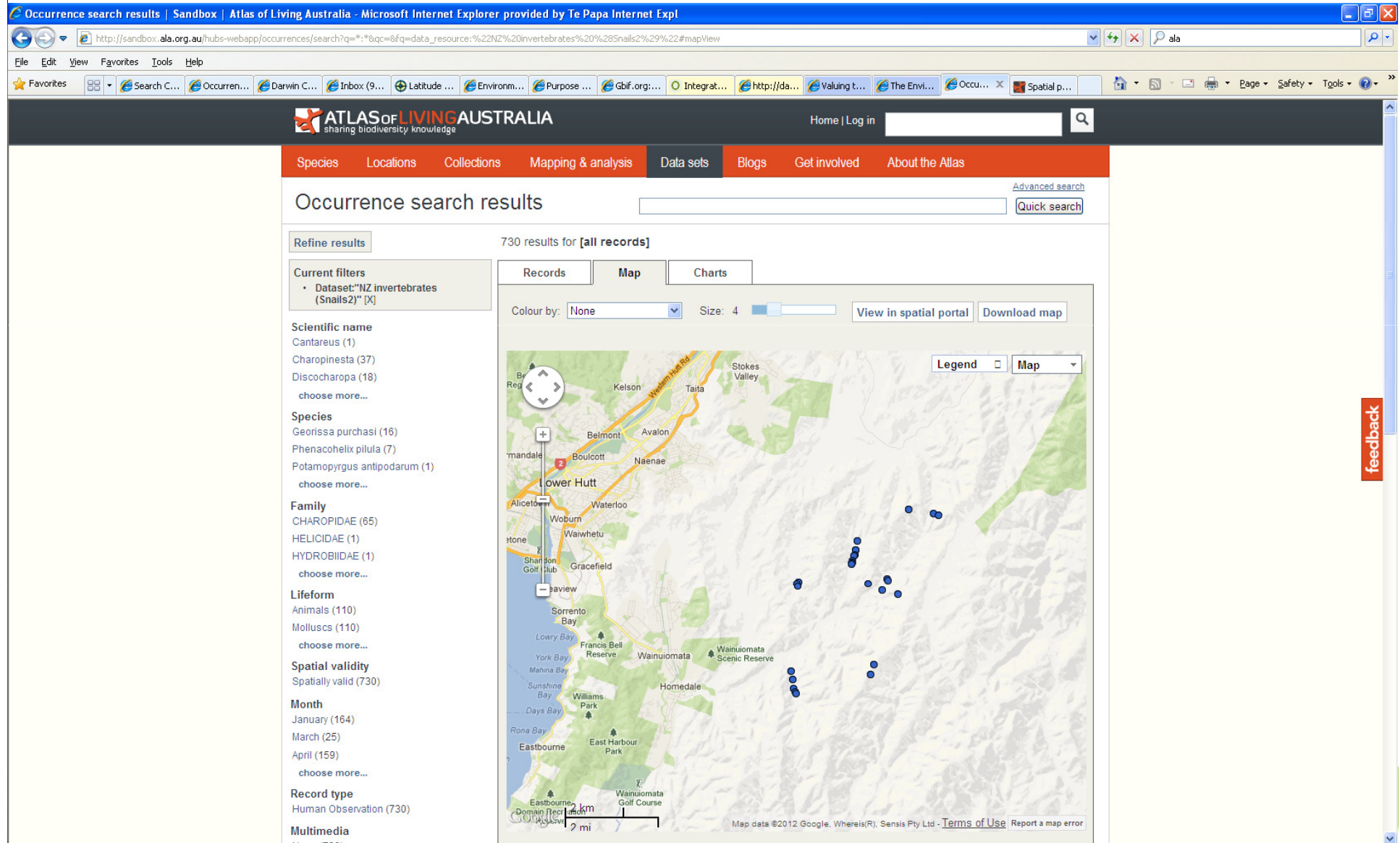


**S Waugh, A Burnett
& L Shepherd**



Atlas of Living Australia (ALA) – New Zealand test data example

New Zealand land snails local data set



Atlas of Living Australia (ALA) – New Zealand test data example

Te Papa bat collection data set

Occurrence search results | Sandbox | Atlas of Living Australia - Microsoft Internet Explorer provided by Te Papa Internet Expl

http://sandbox.ala.org.au/hubs-webapp/occurrences/search?q=data_resource_uid:dr10678fq=#mapView

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ATLAS of LIVING AUSTRALIA
sharing biodiversity knowledge

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Occurrence search results

323 results for Data resource: NZ Tepapa bats 3_12_2012

Refine results

dcterms rightsHolder
Museum of New Zealand Te Papa Tongarewa (323)

Scientific name
ACCIPITRIDAE (1)
CHIROPTERA (2)
Chalinolobus (2)
choose more...

Common name
Bats (2)
Bent-wing Bat (1)
Brown Long-eared Bat (1)
choose more...

Subspecies
Chalinolobus nigrogriseus rogersi (1)

Species
Chalinolobus gouldii (2)
Chalinolobus nigrogriseus (1)
Chalinolobus picatus (1)
choose more...

Family
ACCIPITRIDAE (1)
EMBALLONURIDAE (1)
MINIOPTERIDAE (1)
choose more...

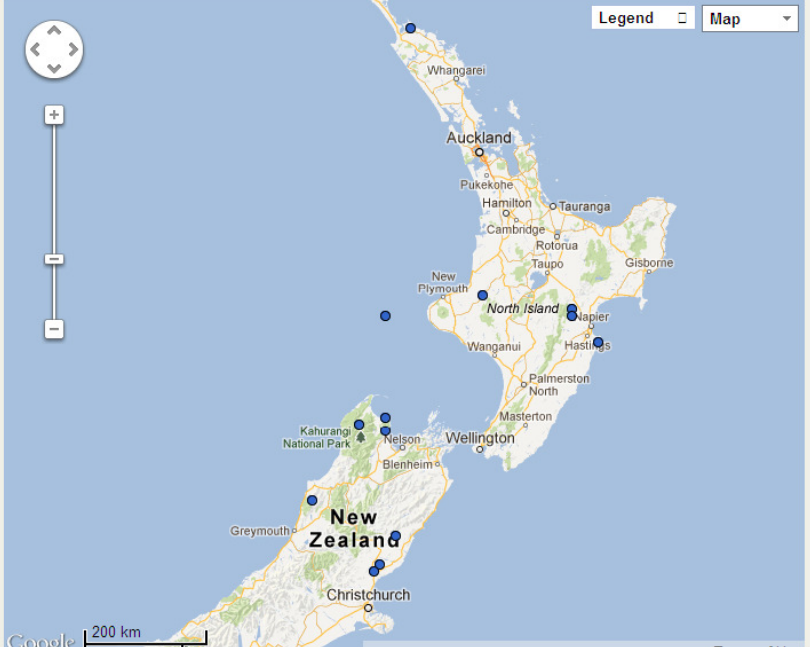
Lifeform
Animals (322)
Birds (1)
Mammals (321)
choose more...

Species habitats
Non-marine (316)
Marine and Non-marine (1)

Records Map Charts

Colour by: None Size: 4

View in spatial portal
Download map



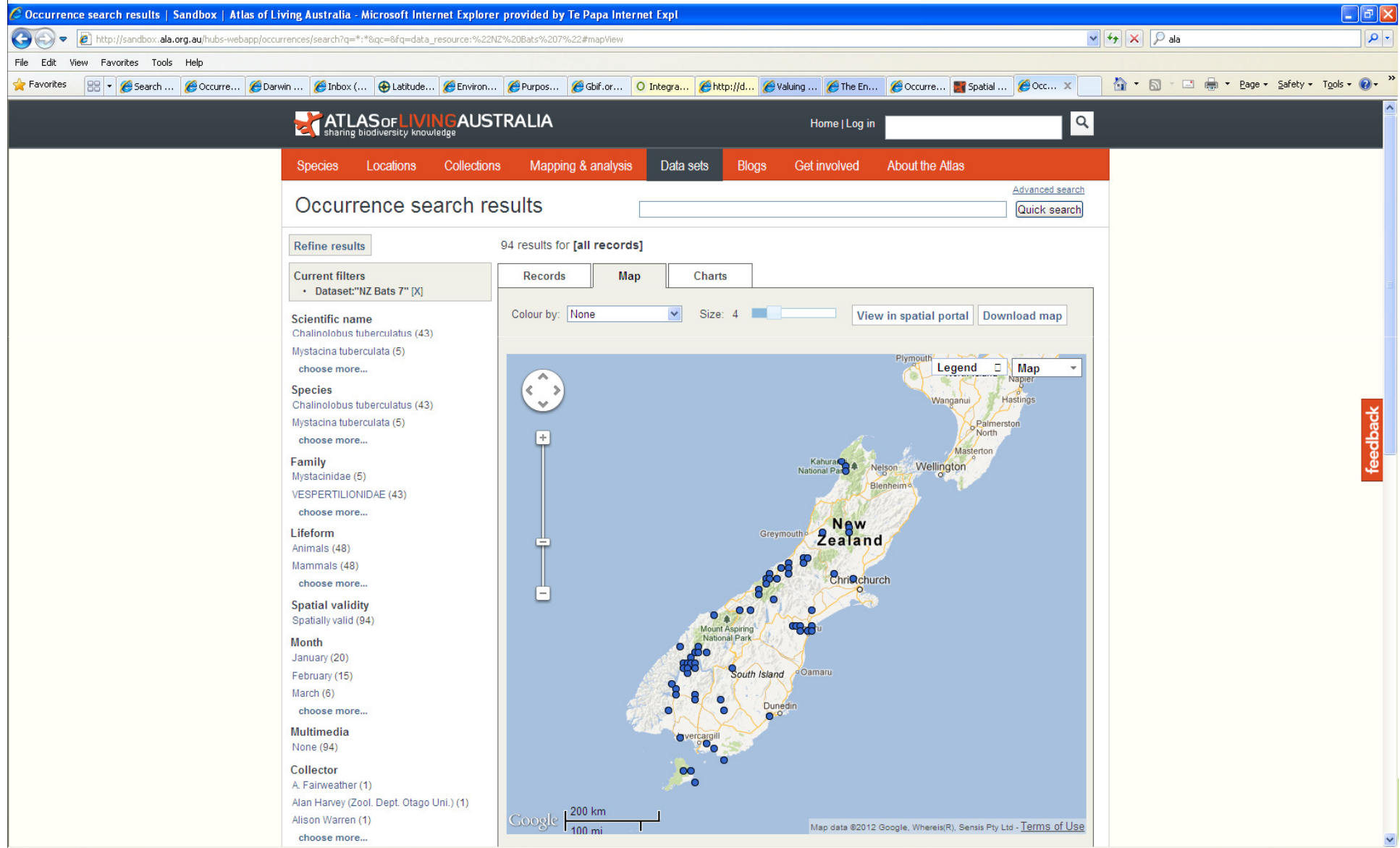
Legend Map

200 km

feedback

Atlas of Living Australia (ALA) – New Zealand test data example

DOC bat observation data set



Atlas of Living Australia (ALA) – New Zealand test data example

Te Papa invertebrate collection data set

Occurrence search results | Sandbox | Atlas of Living Australia - Microsoft Internet Explorer provided by Te Papa Internet Expl

http://sandbox.ala.org.au/hubs-webapp/occurrences/search?q=*:*&qc=&fq=data_resource:%22NZ%20invertebrates%2010%22#mapView

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Occurrence search results

Advanced search Quick search

Refine results

725 results for [all records]

Records Map Charts

Colour by: None Size: 4 View in spatial portal Download map

Legend Map

Scientific name

- Acidoproctus emersoni (1)
- Austromenopon ossifragae (1)
- Bedfordiella unica (27)
- choose more...

Subspecies

- Pediculus humanus capitis (1)

Species

- Acidoproctus emersoni (1)
- Austromenopon ossifragae (1)
- Bedfordiella unica (27)
- choose more...

Family

- CICADIDAE (3)
- MENOPONIDAE (5)
- PEDICULIDAE (1)
- choose more...

Lifeform

- Animals (725)
- Arthropods (725)
- Insects (565)
- choose more...

Country

- New Zealand (576)

Spatial validity

- Spatially valid (149)

Month

- January (46)
- February (73)
- March (85)

New Zealand

Google 200 km 100 mi

Map data ©2012 GBRMPA, Google, Whereis(R), Sensis Pty Ltd - Terms of Use

feedback

Atlas of Living Australia (ALA) – New Zealand test data example

NIWA Freshwater fish database

Occurrence search results | Sandbox | Atlas of Living Australia - Microsoft Internet Explorer provided by Te Papa Internet Expl

http://sandbox.ala.org.au/hubs-webapp/occurrences/search?q=data_resource_uid:dr1028#mapView

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Occurrence search results

Advanced search Quick search

Refine results

499 results for Data resource: NZ Freshwater_fish_up_to_yr_2000_test_30_10_2012

Records Map Charts

Colour by: None Size: 4 View in spatial portal Download map

Legend Map

Google 200 km 200 mi

Map data ©2012 GBRMPA, Google, Whereis(R), Sensis Pty Ltd - Terms of Use

feedback

dcterms rightsHolder
NIWA (499)

ownerInstitutionCode
NIWA (499)

datasetName
New Zealand Freshwater Fish Database (NZFFD) (499)

inlandDistanceKm
0 (29)
0.3 (18)
0.1 (15)
choose more...

NoElectricFishPasses
1 (368)
0 (9)
choose more...

measurementValueMin
80 (2)
110 (1)
130 (1)
choose more...

measurementValueMax
100 (1)
150 (1)
193 (1)
choose more...

Scientific name
Aldrichetta forsteri (1)
Anguilla australis (27)
Anguilla dieffenbachii (90)
choose more...

Common name
Alpine Galaxias (1)