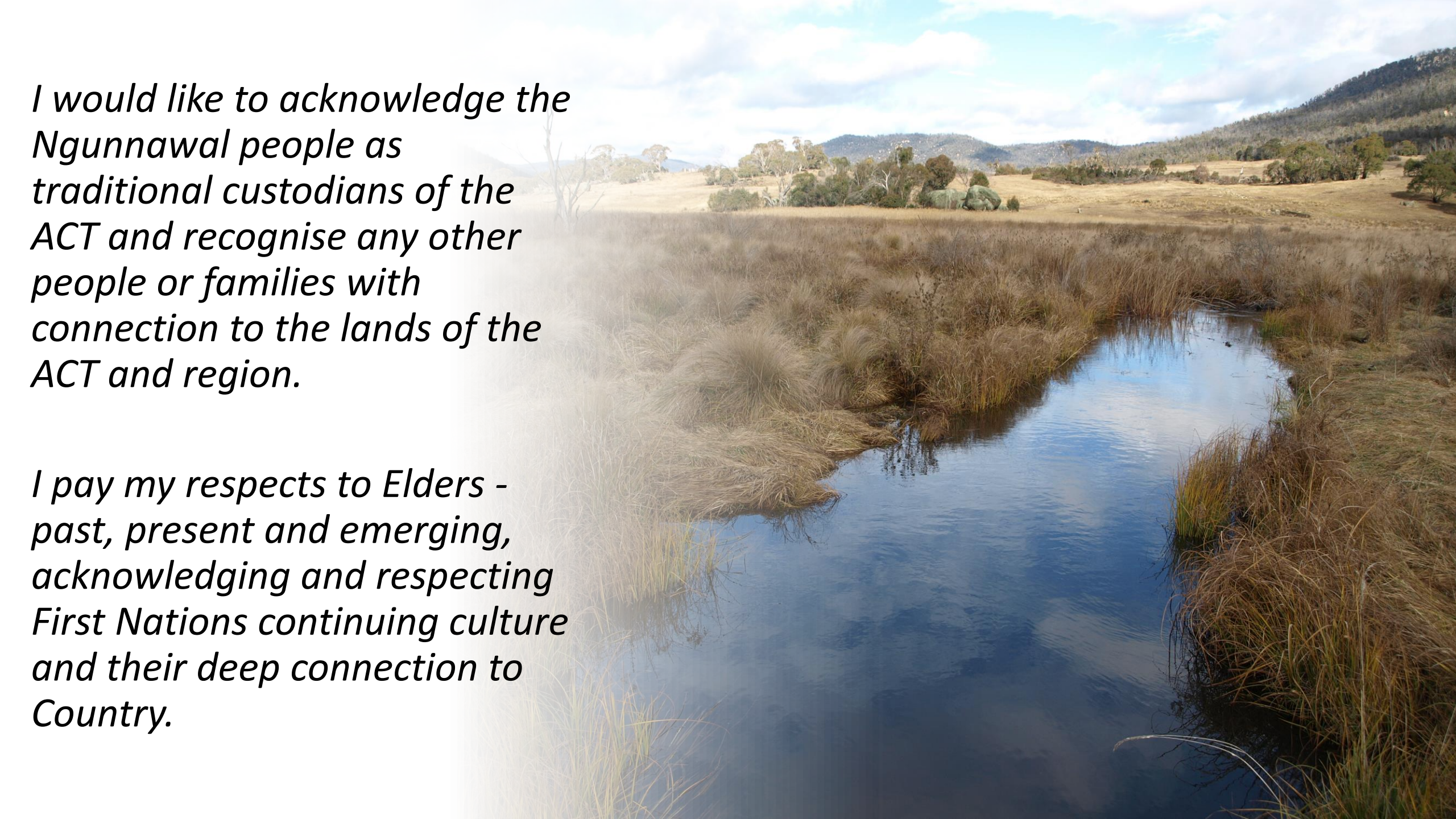




ACT Government Office of Nature Conservation



Dr Renee Brawata
A/g Director (Conservation Science and Programs)
Office of Nature Conservation

A landscape photograph showing a river winding through a grassy field. The river is in the foreground, reflecting the sky. The field is covered in tall, dry grasses. In the background, there are rolling hills and a cloudy sky. The text is overlaid on the left side of the image.

I would like to acknowledge the Ngunnawal people as traditional custodians of the ACT and recognise any other people or families with connection to the lands of the ACT and region.

I pay my respects to Elders - past, present and emerging, acknowledging and respecting First Nations continuing culture and their deep connection to Country.

Who are we?

Environment Planning and Sustainable
Development Directorate

Environment Heritage and Water Group

ACT Parks and
Conservation
Service (*Reserve
management and
Environmental
Offsets*)

Office of Nature
Conservation
(*Policy and
Science*)

Conservator
support and
partnerships
(*Guidelines*)

Office of
Water

Resilient
Landscapes
(*Biosecurity,
Pests and Weeds
and NRM*)

ACT Heritage

Environment Protection and
Conservation Planning policy

What do we do (ONC)?

- Monitoring, research and evaluation
- Ecosystem condition assessment
- Data management/custodian
- Provide science advice
- Undertake legislative review, biodiversity policy review and reform
- Statutory planning (e.g. Action Plans, CNSMPs)
- Supporting adaptive management (apps, decision support tools, advice, analysis, catalysing programs)
- Implementation (e.g. fisheries, threatened species translocations)



Office of Nature Conservation (Science and Policy)

Conservation Research
(Science)



Parts of previous
Conservation Policy and
Planning

*Biodiversity Policy and
Planning

*Environment Strategic Policy
(C'th reform, Biodiversity Data
Repository, CNCP policy)

Office of Nature Conservation
(Science – 8 thematic teams)

- **Fauna (Threatened, general and overabundant)**
- **Vegetation**
- **Urban legends (Connecting Nature/People)**
- **MAD (Maps and Data)**
- **Fire Ecology**
- **Adaptive Management Support Team**
- **Kangaroo program**
- **Aquatic Team (including aquatic fauna)**

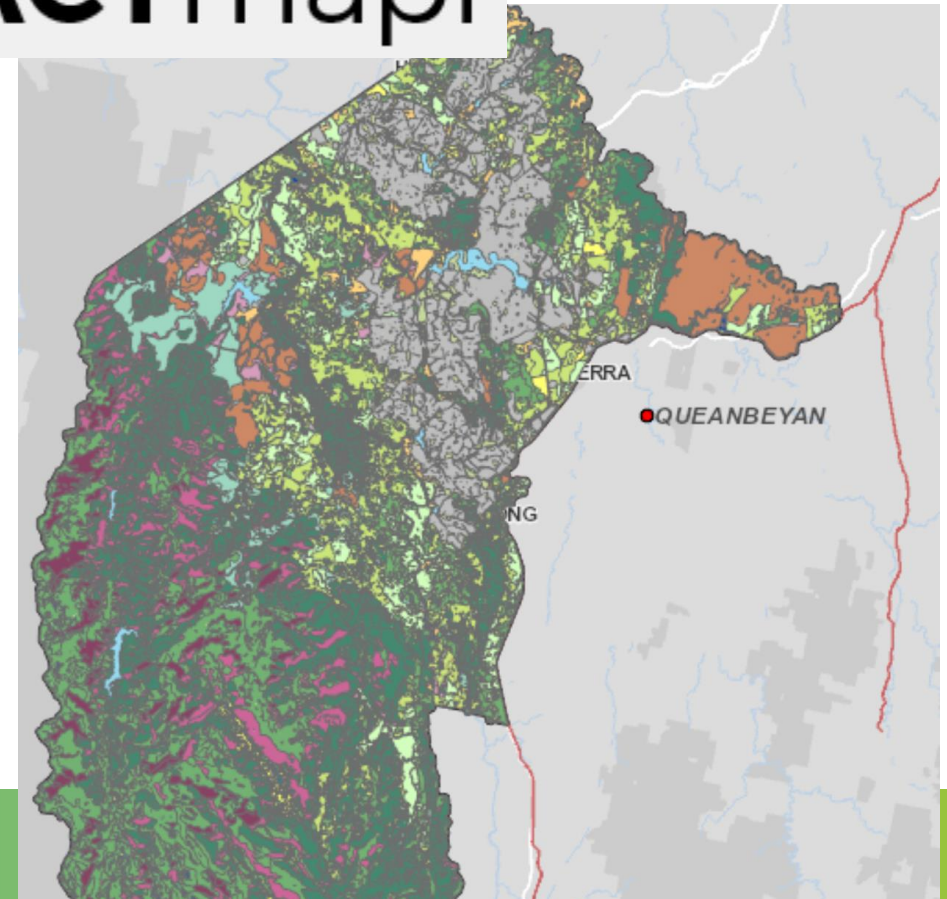
Maps and Data (MAD)

- We Manage Maps and Data!
 - Ecological asset mapping - like habitat & threatened species, ACT Wildlife Atlas
 - Public Biodiversity Data on [ACTMapi](#) and the [Geospatial Catalogue](#)
 - We pull data from Canberra Nature Map nightly! It helps inform:
 - Environmental Impact Assessments
 - Land and conservation management
 - Reserve planning and operations (like weed spraying, prescribed burn program)



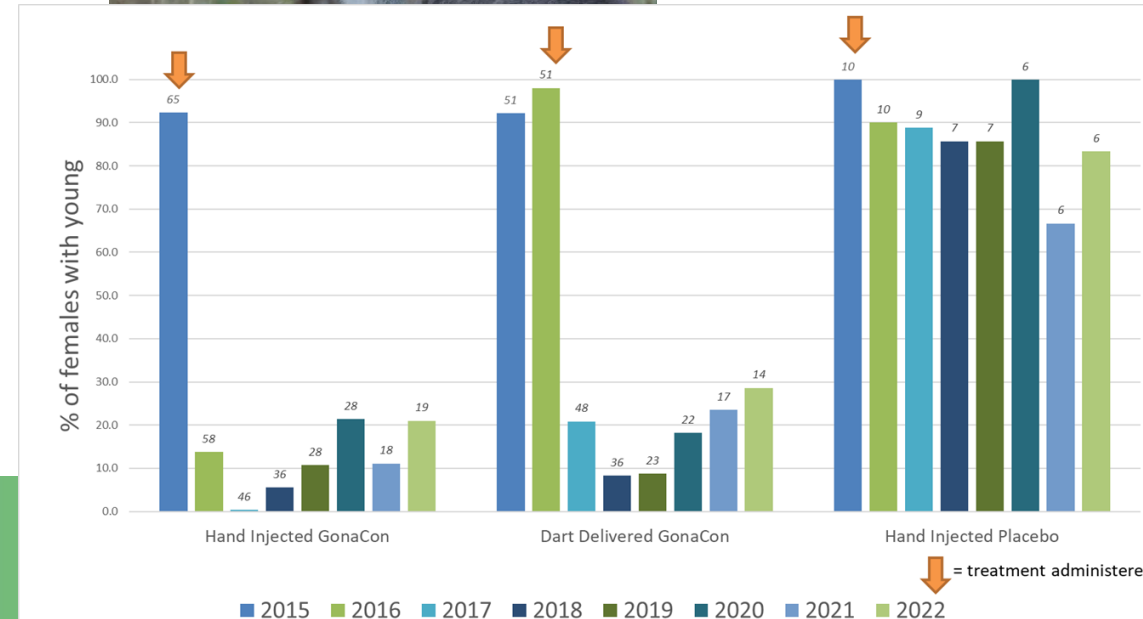
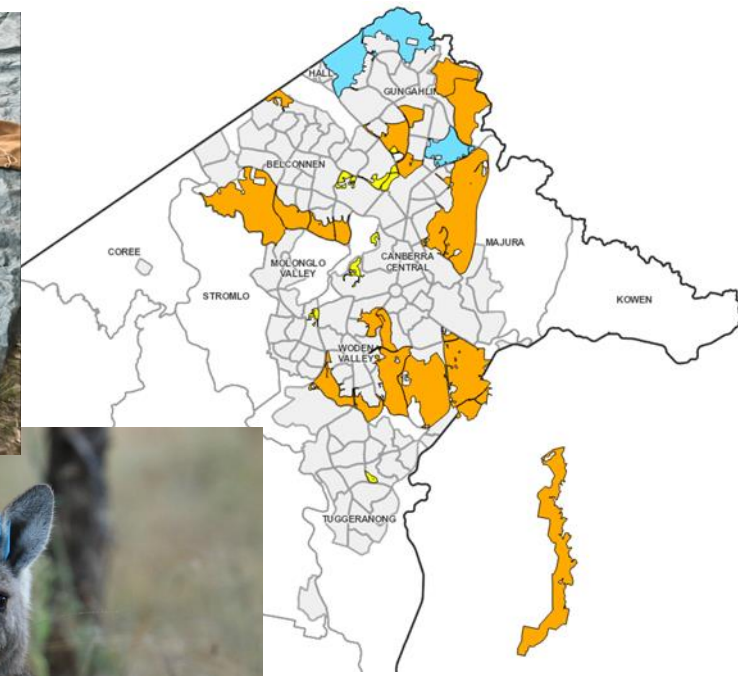
Significant Species,
Vegetation Communities
and Registered Trees

ACTmap*i*



Kangaroo Team

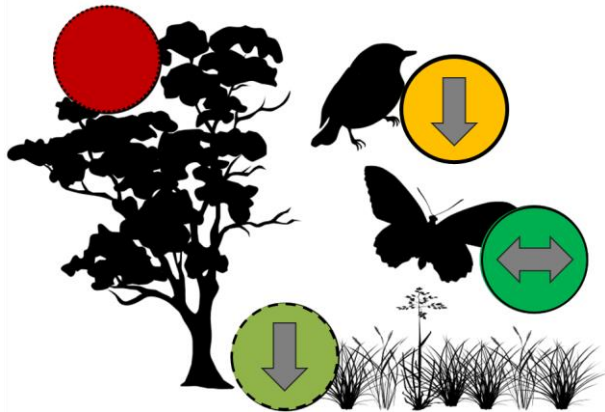
- Science! Population estimates annually:
 - December – June annually
 - 28 KMUs (16 KMP, 3 Offsets, 9 FC research)
 - 3 methods – Direct, Sweep and Walked Line Transect Counts
- Herbage mass monitoring annually
 - October-December
 - Step point, quadrats and weed surveys
- Fertility control for managing kangaroos - research since 1998 (GonaCon immunocontraceptive since 2008). Hand injected and dart delivery trials.
- Ongoing monitoring of breeding status, population size, fecundity, herbage mass



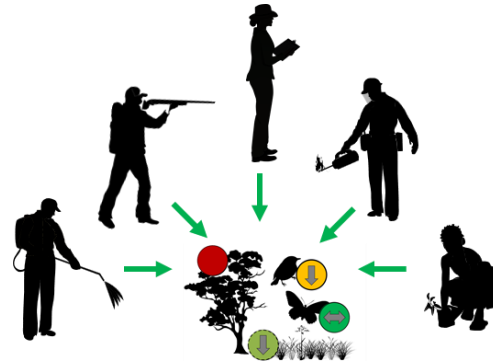
Adaptive Management Support Team

Helping facilitate adaptive management in the ACT through

Ecosystem Condition Assessments



Priority Management Evaluations



Monitoring and Evaluation Support Services



Forests



Grasslands



Woodlands



Bogs and fens

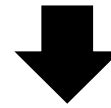




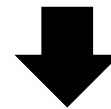
Fire Team:

Project in focus

How does bushfire and planned burns effect Subalpine Woodland?



- Acoustic data
- Camera trap data
- Habitat and vegetation surveys



Outcome:

Inform future fire management in Namadgi NP



Mountain brush tail



Native bush rat



Agile antechinus



Long nosed bandicoot



Echidna



Eastern pygmy possum



Feather-tailed glider



Broad toothed rat



Starting analysis on 3 years worth of data

We hope to answer questions around the effects of prescribed burns, bush fire, fire frequency, and severity on Namadgi fauna diversity and vegetation

Fauna Team - Threatened fauna Research and Monitoring



Photo credit:
K Marsh



Fauna team – General fauna Project in Focus

- Baseline distributions for three small native mammals (dasyurids) of the ACT
Habitat associations, connectivity of populations and potential restorations

Common dunnart
Sminthopsis murina



Agile antechinus
Antechinus agilis



Yellow-footed antechinus
Antechinus flavipes



Vegetation Team

- Monitoring of threatened community condition (grasslands and woodlands)
- Threatened species monitoring and delivering on Action Plans
- Identify and address threats to threatened species and communities
- Plant community type (PCT) mapping
- Development of decision support tools
- Strategic Restoration Plan (watch this space!)
- Targeted research
 - ANBG – seed banking/propagation trials for rare species
 - ANU – eDNA barcoding plant species for undertaking herbivore diet studies



Managing and Monitoring Blakely's Red Gum Dieback in the ACT

Is sugar good for trees?

Project in Focus

- Ongoing monitoring of individual trees
- Analysis of potential causes
- Mapping dieback across ACT
- CSIRO/NRM different tree provinces
- PhD project - leaf chemistry
- Offsets experimental burning of dieback
- Carbon (mulch/sugar) additional trial, looking at changes in leaf and soil nitrogen to increase carbon to nitrogen ration
 - Mt Majura
 - Mulanggarri
 - Red Hill
 - Farrer Ridge



Aquatic team

- Murrumbidgee native fish surveys
- Urban lakes fish stocking – small native fish option?
- Fisheries management and policy, biosecurity etc.
- Montane spiny crayfish surveys
- Population genetics and habitat restoration (ELJ's)
- Blackfish recovery postfire in the Cotter River
- Riparian and aquatic vegetation surveys (macrophytes)



09 Jun 2020,

Urban Legends - Connecting Nature Connecting People



Evidence-based tools which support the provision of ecological advice to the planning system and other key stakeholders, including the **Urban ACT Ecological Network**



Biodiversity Sensitive Urban Design Guide to inform protection, restoration and ecologically sensitive development through the new Planning System for the ACT



Canberra Urban Biodiversity Surveys and **expanded Canberra Nature Map** for citizen scientists to contribute data about urban wildlife habitat and change over time



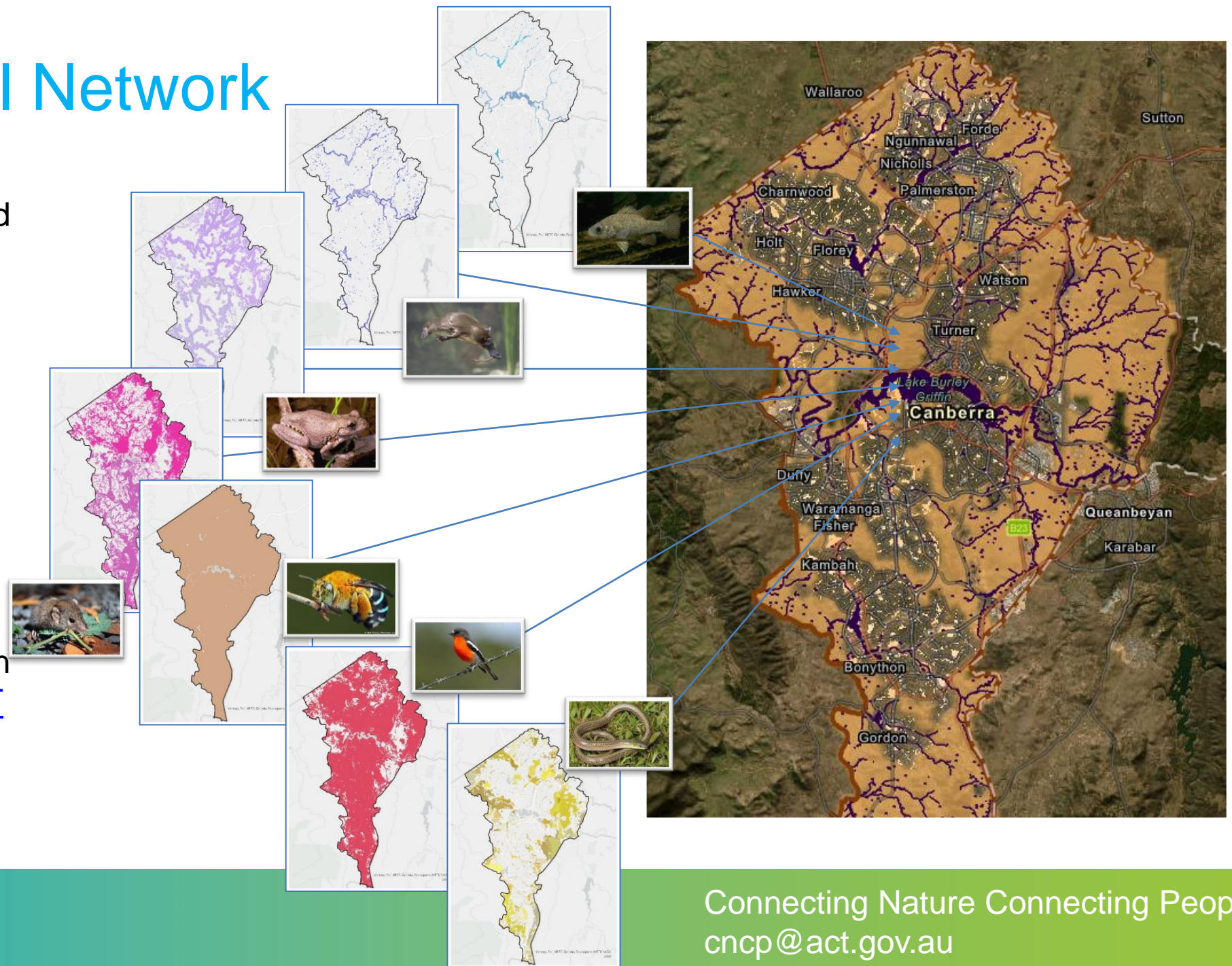
Restoration and protection of 20 priority urban sites that will deliver urban cooling, enhance connected habitat and provide community amenity, including concept planning to renaturalise **Sullivans Creek**.



Co-design and incorporation of **Ngunnawal knowledge and language**

The Ecological Network

- **Draft Urban ACT Ecological Network** based on expert elicitation
- Provides a vision for a network of **functionally connected habitats** across ecosystems in urban Canberra
- Informing **Biodiversity Sensitive Urban Design (BSUD)**
- **Interim outputs** have been made available on the [ACT Ecological Network Dashboard](#).



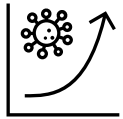
Canberra Urban Biodiversity Surveys (CUBS)



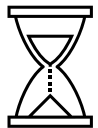
- 1. Survey seven species groups** across urban green spaces in Canberra to **gather presence data**.
 - Collaborate with Canberra Nature Map, universities, and existing surveys to leverage citizen science.



- 2. Undertake vegetation mapping** at monitoring sites to **measure habitat metrics** provided by experts.
 - Is biodiversity higher in areas that conform to expert predictions of good habitat?



- 3. Analyse data** to see which habitat features are most strongly **linked to species presence**.
 - Generate new spatial layers for key features to enable more accurate mapping of habitat and connectivity.



- 4. Continue to monitor changes** to biodiversity, habitat condition, and connectivity in **urban green spaces**.
 - Track if biodiversity outcomes are improving over time in response to new guidelines and on-ground actions.

Opportunities to get involved!

- We are working with **Friends of Grasslands**, **Catchment Groups** and **TCCS Urban Trees** team to deliver biodiversity benefits through delivery of the Urban Forest Strategy (where to plant, what to plant, where to avoid)
- We are encompassing existing and new citizen science programs as part of Canberra Urban Biodiversity Surveys – keep an eye out for **Platypus Month** (on now), **Insect Pollinator Surveys** (via Canberra Nature Map) and potential new opportunities for an expanded **VegWatch** program



Australian
National
University



- Community nominations for **20 additional restoration areas** are under review, which focus on restoring high priority wildlife corridors on TCCS managed land through the city
- Visit the **Connecting Nature Connecting People** website <https://www.environment.act.gov.au/act-nrm/biodiversity/connecting-nature-connecting-people> (easier to google it!)



Djan Yimaba Yara
*(Thank you and Bye in
Ngunnawal language)*

Renee.Brawata@acr.gov.au

Photo: Stuart Rae