

# Defining metrics of success for feral animal management in northern Australia

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Northern Australia  
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World class research to support sustainable development in northern Australia

This research is supporting more effective management of feral pigs, cattle, horses and buffalo in northern Australia with a focus on the Archer River catchment.

## What's new?

- We've made several field trips to the Archer River catchment to conduct vertebrate and invertebrate fauna surveys, wetland and turtle surveys, feral animal impact surveys and water quality assessments. The field work has been done in collaboration with Kalan Enterprises rangers around Coen and Aak Puul Ngangtam (APN) rangers south of Aurukun.
- We've developed a wetland typology mapping framework and used aerial photographs, time lapse photography and remote sensing to map the waterholes in the catchment.
- We completed a summary of marine turtle nesting and predation data and feral pig survey and control data for the past six years, which rangers are already using to inform management actions.
- With on-ground partners APN, we've supported Wik Traditional Owners to visit the very remote southern Wik estate, and better understand contemporary values associated with wetlands and feral animal impact. We recorded important interviews with Traditional Owners and gained insights into potential conflict that exist between feral animal management and local values, including the importance of feral pigs and cattle as a food source vs the important cultural and resource values of wetlands.
- We've collated photos from the trip into a photo book and presented it to the Traditional Owners.
- We spent five days working with Traditional Owners and APN rangers to include science in the Wik Returning Generation Camp. The camp was attended by students and teachers from Koolkan Aurukun State School, senior Traditional Owners, rangers and others.
- CSIRO, UG Media and the Atlas of Living Australia (ALA) have linked the offline mobile data collection application Nestor to the ALA

Biocollect platform. Data can now be uploaded directly to Biocollect when in mobile or wifi range.

- We've published *Thermal and asphyxia exposure risk to freshwater fish in feral pig damaged tropical wetlands*. <https://doi.org/10.1111/jfb.13742>
- We've presented our research to the Dept of the Environment and Energy in Canberra, the annual Great Barrier Reef Wetlands Network Forum in Innisfail and the Nest To Ocean Program showcase in Brisbane.

## What's next?

- The project team has one more field trip planned for late 2018 to finalise the data collection, including wetlands and turtle surveys (James Cook University), vertebrate fauna surveys (CSIRO), following up on family visits with Wik Traditional Owners, invertebrate surveys, feral impact surveys, and ground-truthing waterhole typology mapping by helicopter and vegetation surveys (Department of Environment and Science).
- We are updating and modifying handbooks produced in collaboration with Balkanu on 'how to monitor impacts' and 'how to manage feral animals' which includes details for land managers on how to conduct aerial distance sampling for monitoring feral animal populations, how to conduct freshwater and terrestrial vertebrate surveys and how to set up baiting and trapping stations for managing feral pigs.



APN rangers setting up the traps, photo Justin Perry.



Setting up the fauna surveys requires everyone to chip in, photo Justin Perry.

## Project summary

Feral animals cause significant damage to aquatic ecosystems across northern Australia, affecting biodiversity, ecosystem function and Indigenous cultural values. Funding for feral animal control often focuses on managing the pest species and largely ignoring the iterative and cumulative impact on natural values. This project will determine the impact of large feral animals across aquatic systems in the context of regional and local feral animal control, local aspirations and government priorities.



Kids checking motion sensor cameras and learning about fauna surveys, photo Justin Perry.



This project focuses on the Archer River to improve management of feral pigs, cattle, horses and buffalo in northern Australia.

## Further information

Contact project leader, Justin Perry at [justin.perry@csiro.au](mailto:justin.perry@csiro.au)

The project page can be found [on the Hub website](#), along with the [project start-up factsheet](#).

This project is due for completion in March 2020.



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