

Sustainability crises are crises of relationship: lessons from Nyikina ecology & ethics

Science summary

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Ethical principles embedded in Nyikina knowledge of Nyikina Country can help reframe, and address, sustainability crises.

Summary of Milgin, A, Nardea, L, Grey, H, Laborde, S, Jackson, S. Sustainability crises are crises of relationship: Learning from Nyikina ecology and ethics. *People and Nature*. Available at doi: [10.1002/pan3.10149](https://doi.org/10.1002/pan3.10149)

Key points

This paper focuses on the ethical foundations of Nyikina peoples' knowledge of the land, waters and life of Nyikina Country. It was written as part of a project on Indigenous water requirements for WA's Fitzroy River by a team of Nyikina Indigenous elders and social and environmental scientists. The key message is that Nyikina people know much about interactions between features and beings in the landscape, and that they also value the balance that is maintained by knowing how people should behave in relation to lands, waters and non-human beings. Our paper:

1. Presents key elements of Nyikina peoples' way of knowing and taking care of the land and waters of Nyikina Country.
2. Interprets a number of Nyikina language names for plants, animals, water bodies and seasons, for non-Nyikina people to learn about.
3. Describes the Nyikina seasons and their links with water flows in the Mardoowarra/Fitzroy River and the availability of bush foods and medicines. This is reproduced in a poster format (see following page).



Left: The Mardoowarra/Fitzroy River. Right: Linda Nardea showing the Nyikina ecological framework to Hon. Dave Kelly MLA, WA Minister for Water (2019). Photos Sarah Laborde.

4. Describes a Nyikina framework to talk about plants and animals' co-dependency with different environments of Nyikina Country (river environment, floodplain environment, dry environment).
5. Describes key relationships known by Nyikina experts to support balance in Nyikina Country including the roles of humans, plants, animals, water and spirit beings.
6. Derives key principles in the context of the international literature, which we hope can contribute to refocusing the sustainability dialogue towards attending to the reciprocal relationships between humans and non-humans.

Main implications

► **FIRST**, the paper shows the depth of Nyikina peoples' knowledge of the links between water flows and plant and animal life in Nyikina Country, throughout the seasonal cycle. Drawing on a detailed seasonal calendar constructed around the hydrography for the Fitzroy River (see following page), we highlighted some similarities with non-Indigenous hydro-ecological science, and also some differences. One implication for water planning and hydro-ecological science is the need to take this knowledge into account and collaborate with Nyikina knowledge holders when working in Nyikina Country.

► **SECOND**, we showed that these links are reciprocal relationships, so that knowledge of Nyikina Country always comes with commensurate responsibility to act respectfully, in a way set out by Nyikina law and custom. An implication is that water allocation planning and decisions should not solely be based on Australian federal or state legislation combined with scientific and customary knowledge of the dependency on water of various beings and activities of Country. Rather, Indigenous law for the relevant Country must also be taken into account.

► **THIRD**, the Nyikina framework considers that a healthy river system is a river system where people and other beings can fulfill custodial relationships. Water management decisions

must account for their effects on the ability of Nyikina people and key animals and plants to fulfil their custodial responsibilities towards the Country. It follows that quantitative indicators (e.g. of water volumes, species counts or even quantification of a certain social or cultural value associated with water) should be contextualised within a relational framework that emphasises the qualities of consent, trust, accountability, care and reciprocity.

Next steps

- We are linking this research with the work being done with other language groups in the Fitzroy River catchment, as well as the work done by the Martuwarra Fitzroy River Council and the Kimberley Land Council around water governance.
- We are working towards producing a school curriculum from the Nyikina calendar.
- We are working with Indigenous experts and the Martuwarra Fitzroy River Council to produce a generic framework to inform water planning and management for the Fitzroy River.



The Mardoowarra/Fitzroy River is located in Western Australia's West Kimberley region.



The Nyikina calendar and ecological framework produced as part of this research. The calendar will be launched on-country with Walalakoo Aboriginal Corporation on 15 November.

Related information

Professor Sue Jackson leads this project about Indigenous water needs for the Fitzroy River.

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

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