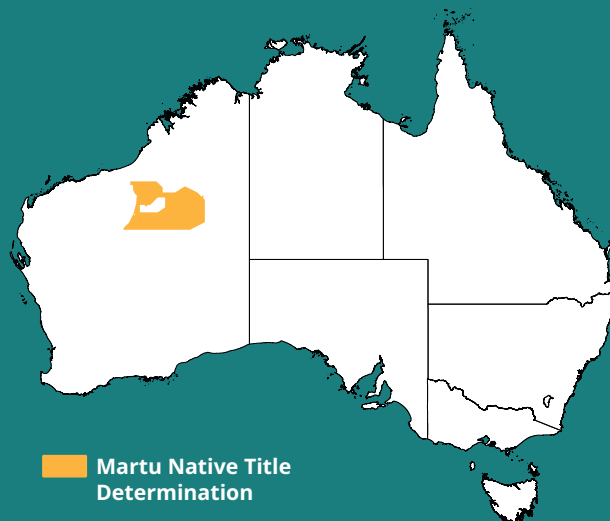


Kalyu (waterholes) on Martu Country

© Kanyirninpa Jukurrpa (KJ) Martu Rangers¹

Common name: waterholes, rockholes, springs, soakages, seepages

Language names: *Kalyu*, *Kapi*, *Yinta*, *Wirrkujja* (rockhole), *Jurnu* (soak)



Status



Some individual *Kalyu* are protected under heritage legislation in Western Australia.

Description

Kalyu come in a variety of forms including semi-permanent and permanent rockholes, lakes, riverine pools and soaks.

Yinta (permanent sources of water) in particular have great ecological importance. They are highly productive places supporting many animals and plants and provide important refugia during dry periods.



Nyari Morgan at a *Kalyu*. Photo: Sue Davenport.

Distribution

Kalyu occur across Australian landscapes.

Habitat

Kalyu can occur in a variety of habitats such as rocky outcrops, rivers and creeks, wetlands, samphire communities, saline *warla* (lakes) and mound springs.

Threats

Threats to *Kalyu* include:

- **Weed encroachment**, including species such as Buffel grass
- **Climate change**, including more extreme temperatures and increased frequency of drought events
- **Wildfires**, including frequent, large hot fires through summer
- **Feral animals**, particularly camels as they can drink large volumes of water or cause a decline in water quality due to defecation or death in the water
- **Mining**, including groundwater extraction
- **Inappropriate visitation**, usually associated with tourism including graffiti and the disturbance/removal of artefacts
- **Loss of knowledge** about the location, stories and cultural significance of the *Kalyu* as Traditional Custodians and knowledge holders pass away, affecting the continuation of cultural practices.

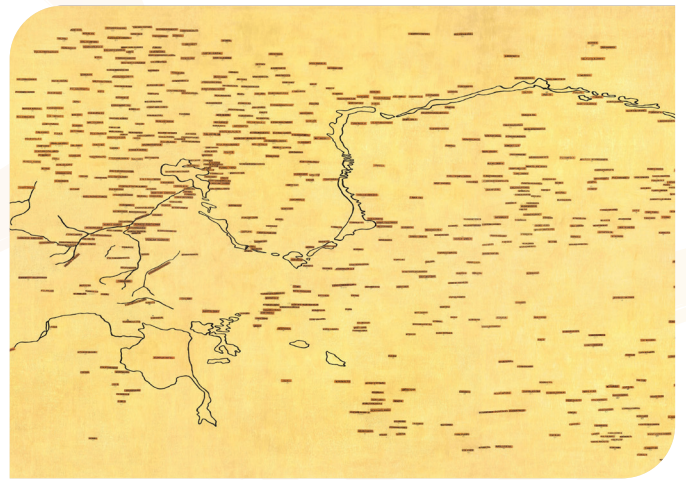
Cultural Connections

Jukurrpa is a word that has no direct English translation but is sometimes described as 'Dreaming'. It refers to the creative epoch where the land, law and Martu people were created and/or given shape; and, to the continuing presence and spirit of those actions in the Country today. This includes waterholes and waterways as well as people, animals, plants and landforms.

Songlines associated with **Jukurrpa** form a network of routes, places and landscapes that cover thousands of square kilometers of Martu Country and beyond, on to neighbouring Country. These songlines connect important places, including **Kalyu**, and carry the stories of their creation.

As a song moves from one Country to another, the song changes to the appropriate language.

Martu pujiman (desert born Martu) travelled these songlines as walking tracks from waterhole to waterhole. Through these songlines, Martu locate, care for and maintain the health of these places. Today, Martu still orientate Martu Country through these songlines including in the work they conduct along the way as Kanyirninpa Jukurrpa (KJ) rangers.



Yintakaja-lampajuya (These are our waterholes). Created in 1987 by Martu and Sue Davenport, this map records more than 570 named waterholes and reflects extensive Martu knowledge of Country. Source: KJ.



Cultural Values

Country

“Martu ngurraku ninti (knowledge of Country) has formed the basis of Martu use of their Ngurra (Country) for millennia. Ngurraku ninti has shaped the ecosystems that occur on Ngurra today.”

KJ Martu Healthy Country Plan

The health of **Kalyu** is one way Martu can read the health of Country in its entirety.

Kalyu are the veins of Country telling Martu important information about the health of the immediate area but also what is happening tens or hundreds of kilometres away.

Kalyu are not just the physical waterhole on the surface, but the groundwater where they flow and the channels beneath.

Knowledge

“Most natural Kalyu carry Martu names, which are linked with valued resources, living and deceased human beings, and also Jukurpa beings, narratives and related rituals.”

KJ Martu Healthy Country Plan

Martu Elders have identified the locations of over 1,500 **Kalyu** using songs and stories. The map is called **Yintakaja-lampajuya** (These are our waterholes) and KJ rangers continue to search for and ground-truth the **Kalyu** sung by Elders.

Kin

All Martu can trace their ancestry to a specific **Kalyu**. The **Kalyu** they belong to shapes their identity – they are that place. Martu will refer to each other by the name of their ancestral **Kalyu** or reference their place of belonging by the name of **Kalyu** and the suffix **-martaji** meaning ‘belonging to’. For example, “ngayu-rna Wurlkurramartaji” or “I belong to Wurlkurra”.

“For Martu, kapi (water) is a key part of the broader cultural landscape, held and managed under customary systems of law. Kapi has symbolic dimensions that attach individuals and groups to yintakaja. There are many stories relating to kapi represented in myth, painting, film, and dance as well as the local customary practices, beliefs and ideas associated with water. All Kalyu on Martu Ngurra are puntura-ya ninti sites.”

KJ Martu Healthy Country Plan

More recently, through **yaninpa ngurrarakarti** (going to Country) and ranger trips, Elders who are seen as the repository of such important **ninti** (knowledge), pass on what they can to the next generation.

“We’re teaching the future generations. They need to keep on checking on the sacred water places and keep teaching the future generations and this must be forever. When the old people finish, the young people have to carry on looking after the old peoples’ country. Martu will keep going, on and on, looking after Country.”

Muuki Taylor, Martu Elder and KJ’s Senior Cultural Advisor



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Design and layout by Nani Creative

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Challenges for looking after Country

Martu *Ngurra* is a vast area of the Western Desert. Martu know how to look after Country but without sufficient recognition of KJ's work and sustained funding and support for ranger programs it's difficult to manage the threats effectively – particularly in the most remote areas. Martu *Ngurra* is part of a larger desert landscape shared by many languages and Traditional Custodians, and what is occurring in one area of Country will impact others.

KJ's 'Martu Kanyirninpa Ngurrara Plan: A plan for healthy country 2015' identifies and prioritises the key concerns Martu hold for the health of Country.

High threats:

- Intergenerational transfer of knowledge not occurring (for many reasons)
- Effects of climate change on the long-term quantity, quality and permanence of *yintakaja*. Martu do not discuss climate change in the same terms as used by Western science, but they do discuss the drying and warming of *Ngurra* and the increased scarcity of resources, particularly of *Kalyu* (some *Kalyu* may dry up if it becomes hotter and drier)
- Introduced predators
- Empty Country (reduced Martu presence)
- Large, introduced herbivores
- Weeds
- Lack of Traditional Custodian management to keep *Kalyu* clean and safe for animals.

Medium threats:

- Unplanned development including mining
- Wildfires
- Inappropriate access to water sources prohibited under Martu law.

Low threats:

- Tourist visitation
- Other people's roads and tracks.

Martu know what needs to be done. Through KJ's Plan, Martu have identified clear actions, indicators of health and goals for *Kalyu* across Martu Country. The Plan also outlines practical ways to manage the threats affecting these places and supports KJ's ranger programs to care for and maintain the health of Country.

¹ This case study has been adapted from the 'Martu Kanyirninpa Ngurrara Plan: A plan for healthy country (2015)' and Davenport, S. & Johnson, P., 2016. *Indigenous Martu Knowledge: Mapping Place through Song and Story. ESRI: GIS and Resilience.*

This project is supported with funding from the Australian Government under the National Environmental Science Program.

Martu Vision

Better funding and recognition for Martu work on Country

Martu are looking after a vast area of Country covering more than 13.6 million hectares of land. This landscape forms part of the most intact arid ecosystem in the world. Sustained funding is needed to ensure KJ rangers can continue looking after Country in the face of increasing threats.

For Martu, looking after Country is both a cultural aspiration and obligation passed on from their old people. Looking after Country includes management of both the natural and cultural values.

Martu want to be included in consultation processes at regional, state and national scales about policies which impact their Country and ability to look after it.

Better protection of *Kalyu*

Exploration tenements across Martu Country have the potential to impact *Kalyu*. Effective consultation with Martu knowledge holders, along with careful planning, is essential to minimise impacts from exploration, mining and other development activities, and to ensure important cultural and environmental sites are identified and respected.

Protecting *Kalyu* is critical to maintaining the health of Country. While some *Kalyu* are protected under state heritage legislation, many remain vulnerable. Martu knowledge and perspectives are therefore essential in decision-making about activities that may affect Country.



Kanyirninpa Jukurrpa



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