

Nguruny (Coastal emu) on Bundjalung Country

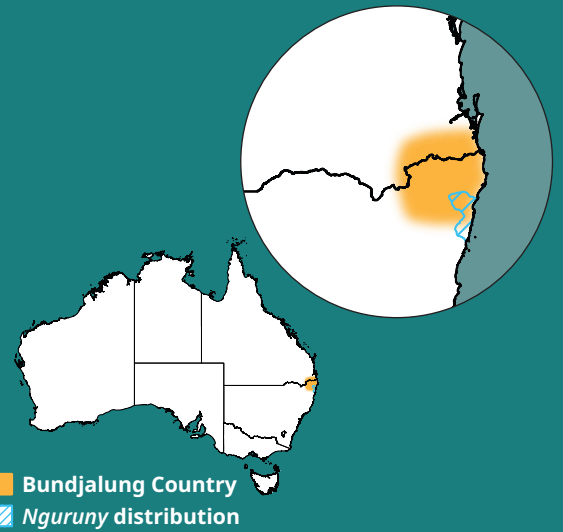
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Names

Common name: Coastal emu

Scientific name: *Dromaius novaehollandiae*

Language names: *Nguruny, Ngurihn*



Status



Description

Nguruny are large, flightless megapods that share the same scientific name as western inland emus despite being geographically isolated and genetically distinct due to the natural barrier of the Great Dividing Range.

After mating and laying the eggs, female *Nguruny* take no part in caring for their young. It is the male who incubates the clutch, not leaving the eggs sometimes for up to 60 days before the young hatch. The male *Nguruny* then rears the chicks on his own until they are between four to six months of age.

As a megafaunal keystone species, *Nguruny* are known to travel up to 50 km in a day, dispersing seeds as they go. This ability to disperse seeds over such a large range is vital for many native plant species. *Nguruny's* digestion of seeds helps to break seed dormancy and cue germination.



Male *Nguruny* with chicks. Photo: Elise Derwin.

Distribution

Nguruny have traditionally occurred within the Gumbaynggir, Yaegl and Bundjalung Nations - as far south as Arrawarra, through Yuraygir, Bungawalbin and Broadwater National Parks, all the way north to Ballina and to the Tweed River.

Due to a myriad of pressures, many local population extinctions have occurred, shrinking its range to isolated areas between Evans Head and Red Rock with a small population in Bungawalbin National Park. In 2023, [NSW Saving Our Species Coastal Emu program](#) reported that there were likely fewer than 50 *Nguruny* individuals left in the wild.

Habitat

Historically, *Nguruny* preferred lowland vegetation types such as shrubby heathland, grassy sedgeland, littoral rainforest and swamps. Due to severe habitat disturbance, coastal development and lack of good fire management, *Nguruny* are now often found inhabiting sugar cane farms.

Threats

Nguruny are at risk of extinction from:

- **Vegetation clearing** on private land, **logging of native forests** and **agricultural and urban development** (including fencing and highway upgrades), leading to habitat destruction, fragmentation and dispersal restrictions
- **Vehicle strikes** with increased speed limits along upgraded coastal and major roads
- **Climate change** along with the **absence of Aboriginal land management** (specifically cultural burning), leading to more intense and frequent bushfires
- **Egg and chick predation**, by feral pigs and introduced predators such as cats and foxes
- **Very low genetic variation** among *Nguruny*, there is more of an inbreeding depression that hinders their ability to adapt to the pressures they face.

Cultural Connections

Nguruny are a significant species for Bundjalung, Yaegl and Gumbaynggir. The pathways traditionally used by *Nguruny* have historically connected these groups. These same cultural pathways are linked to cultural practice, identity, economy and Lore - especially for Bundjalung men. There is currently no physical presence of *Nguruny* within Bundjalung Country; it is considered locally extinct.

The Bundjalung *Nguruny* story is a Lore story told from the east to the west. Other groups' stories of *Nguruny*, like Yaegl and Gumbaynggir, originate in the west and move eastward. Bundjalung understand the significance of this movement pattern for this species. *Nguruny* forms part of Bundjalung's knowledge system and its presence on Country is important in retaining that knowledge and keeping that story alive.





Cultural Values

Country

Historically, our ancestors maintained the pathways with fire, which allowed the animals to move along those pathways too. However, with the absence of our ancestors caring for Country, the changes have been noticeable. The landscape has changed, the ecosystem has become choked up with weeds and other plants – the pathways have disappeared and as a result **Nguruny** have also disappeared.

“Nguruny’s main food source are berries and fruit that they find in the heath. The heath needs regular cultural burns, cool burns, to stay healthy. When the Country is healthy, Nguruny are around.”

Uncle Andrew Johnson, Gulli-bul Elder



Knowledge

Nguruny is significant in Bundjalung Lore with Creation stories passed down through generations connecting people to **Nguruny** and the seasonal movement of the stars, also known as the ‘Emu in the Sky’ story. It’s a story visible in the sky that connects all Indigenous groups across the continent. It tells us when it’s the right time to gather or leave the eggs and when it’s the right time to hunt **Nguruny**. The story provides the whole calendar of what to use and when to use it. For Bundjalung, knowledge transfer is limited because the **Nguruny** are no longer present in the landscape and so knowledge sharing is not triggered.

Kin

Nguruny have been a key source of bush food. After breeding, groups would sustainably harvest the eggs taking a third of the eggs to eat, leaving a third for predators and the last third to hatch out. This was also the time they would hunt the females for meat.

Bundjalung observed, studied and understood **Nguruny’s** movements, habits, breeding cycles, preferred habitats and foods. This overall keen observation of **Nguruny** is exemplified through the cultural dance that many groups continue to perform and this is how the knowledge system is kept alive.

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Results of Poor Management

Wrong-way fire

Consistent good fire is critical for habitat management. *Nguruny* can breed up, but without actions to maintain good habitat, they cannot survive.

“With the absence of cultural burning, the forests get choked up – the understorey becomes impenetrable with weeds, vines and shrubs... Nguruny can’t move through that, so they disappear. On the other side of that is what happens when you get these really hot bushfires... the forest, which is made up of a range of species, gets burnt down, and what sometimes comes back is a monoculture of wattle. A forest of wattle as far as the eye can see - all packed together...that is not good habitat for anything, including Nguruny.”

Uncle Andrew Johnson, Gulli-bul Elder

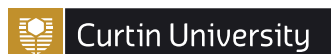
Land clearance and development

The range and habitat of the *Nguruny* have been significantly disrupted by colonial impacts such as agricultural and industrial development, most recently with the upgrade and realignment of the Pacific Motorway causing many *Nguruny* to fall victim to road strike fatalities. This significant disruption of habitat also separates Indigenous Protected Areas and critical grassy plains, which *Nguruny* rely on.

These pressures affect the health of Country and the future of species such as *Nguruny* that are on the brink of extinction.



National Environmental Science Program



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Bundjalung Vision

Shared decision-making responsibilities

Bundjalung leaders would like to have shared decision-making responsibilities for *Nguruny* to ensure it is once again a flourishing species on Bundjalung Country.

Innovative solutions

Bundjalung are keen to explore innovative solutions to protecting and restoring *Nguruny*, including:

- Farming/breeding programs to protect the gene pool of *Nguruny* and breed animals for reintroductions on Country, this could also be a tourism opportunity
- Inclusion of Traditional Ecological Knowledge in management, in particular cultural burning, to restore food sources and habitat for the species
- Economic development, for example, selling commercial emu meat products locally
- Increased cultural practice, for example, hunting emu out west to keep those skills and that Traditional knowledge going.

Measure of success

A Key Performance Indicator we should aim for is that we can once again eat *Nguruny* from Bundjalung Country.



Marcus Ferguson performing a cultural burn on Bundjalung Country. Photo: Michele Lockwood.