



Nilpena Ediacara National Park

Management Plan 2026



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Acknowledgement of Country

The Department for Environment and Water acknowledges Nilpena Ediacara National Park is part of the traditional lands of the Adnyamathanha people and that their culture and heritage beliefs continue to be just as important to living First Nations people today. The department also pays respects to Elders past, present and future, and acknowledges their spiritual and cultural connection to their Country.

Minister's foreword



Nilpena Ediacara National Park is one of South Australia's most significant natural and scientific landscapes. The park protects fossil beds of global importance that provide rare insight into some of the earliest complex life on Earth, positioning South Australia as a

leader in the preservation and interpretation of world-class natural heritage.

This remarkable landscape also supports regenerating semi-arid ecosystems and holds deep cultural significance for the Adnyamathanha people, whose enduring connection to Country continues to guide the park's future. The South Australian Government is committed to protecting these irreplaceable values while ensuring they can be experienced in a carefully managed and sustainable way.

This management plan sets a clear direction for prioritising the conservation of fossil sites and semi-arid ecosystem, supporting ongoing research, strengthening partnerships with the Adnyamathanha community, and delivering high-quality visitor experiences that respect both culture and conservation.

Through responsible stewardship and collaboration, we are safeguarding Nilpena Ediacara National Park for future generations while celebrating its unique place in South Australia's natural and cultural story.

A stylized, handwritten signature in white ink, likely belonging to The Hon. Emily Bourke MLC.

The Hon. Emily Bourke MLC

Minister for Climate, Environment and Water

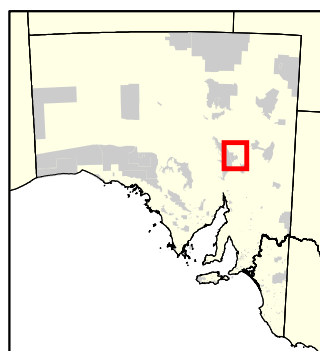
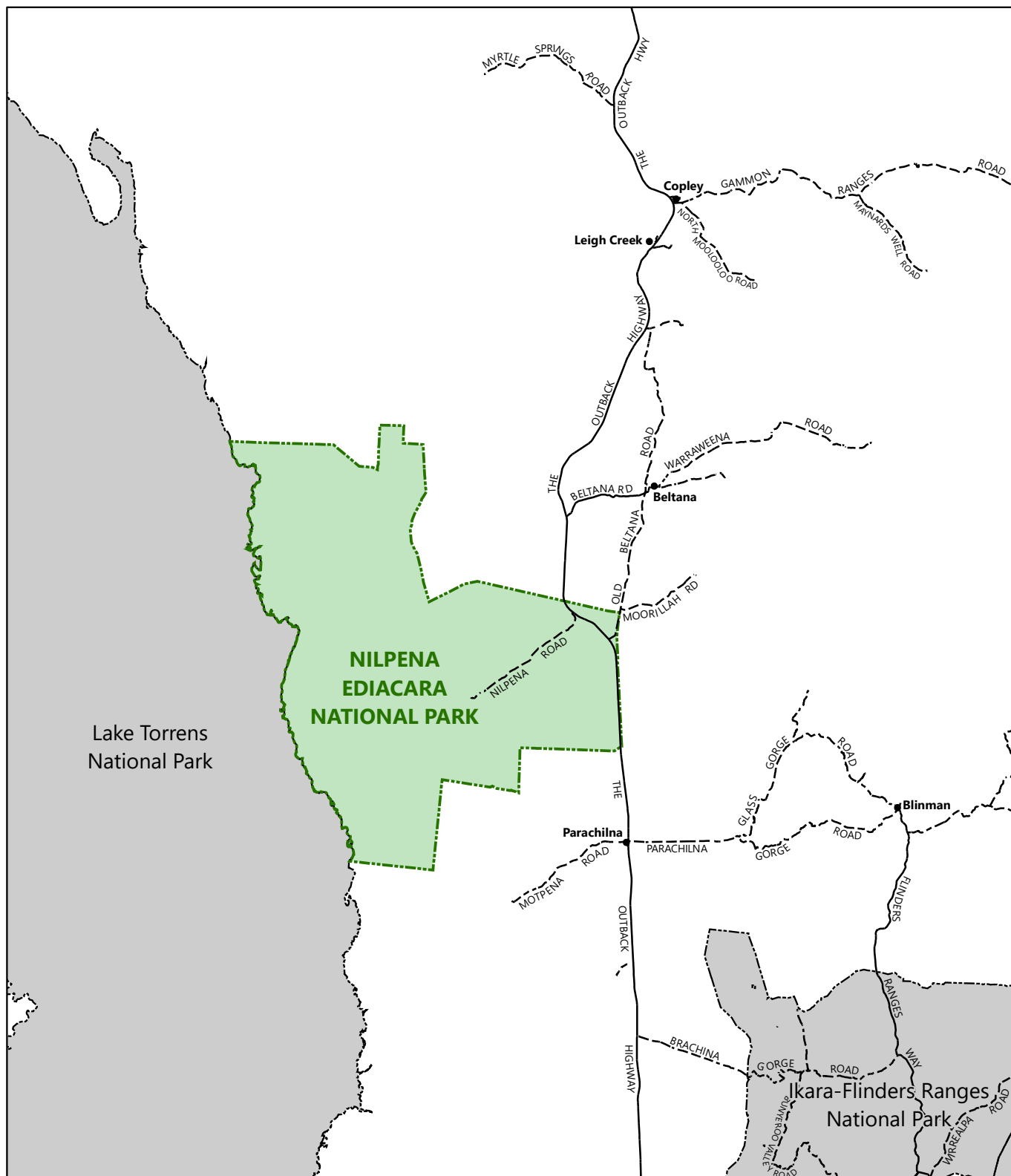
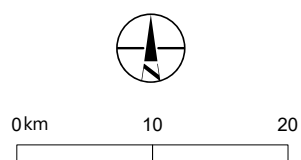


Figure 1

Nilpena Ediacara National Park



LEGEND

- Sealed road
- - - Unsealed road
- Nilpena Ediacara National Park
- Other protected areas

Directions for management

This plan sets the strategic direction for long-term management of Nilpena Ediacara National Park. The park consists of nearly 90,000 hectares of land east of Lake Torrens in the Flinders Ranges, in Adnyamathanha Country (see Figure 1).

The importance of supporting the ongoing connection and involvement of the Adnyamathanha people in managing this park is strongly recognised in this plan of management. Collaboration with the Adnyamathanha Traditional Lands Association (ATLA) ensures that Adnyamathanha knowledge, culture, and values continue to guide the park's management.

Broadly, all of South Australia's National Parks are managed to achieve the objectives of the *National Parks and Wildlife Act 1972*. These objectives ensure that parks are managed primarily for conservation, while supporting public use, enjoyment and education about the park's purpose and significance.

Management of Nilpena Ediacara National Park focuses on conserving internationally significant fossil sites, facilitating ongoing research, ensuring sustainable high-value visitation, preserving and supporting cultural values, and the conservation of a large semi-arid ecosystem. This plan has been divided into four main themes to reflect these priorities, each with their own objectives and strategies. Management will be informed by the latest research, as well as traditional knowledge and perspectives through an ongoing partnership with Adnyamathanha people.

The objectives and strategies in this plan are provided to guide the priorities for park management. The specific actions to manage the park in accordance with this plan will be developed and monitored at a park operations level. This approach ensures that the plan is flexible and able to guide a range of future management challenges.

Developing this plan

This plan is the first management plan for Nilpena Ediacara National Park and incorporates the traditional knowledge and culture of First Nations people.

This plan replaces the Ediacara Conservation Park Management Plan (2012) which became redundant when the park was abolished in 2021 and Nilpena Ediacara National Park was proclaimed.





Management zones

Under section 39 of the *National Parks and Wildlife Act 1972*, a park may be divided into zones in a park management plan. Where a zone is designated, the land must be kept and maintained in accordance with the conditions outlined for that zone.

Two zones are identified in this plan to articulate the management vision for Nilpena Ediacara National Park. These zones are displayed in Figure 2.

Fossil Protection Zone

The Fossil Protection Zone protects the internationally significant Ediacaran fossils in the park. All areas within this zone are considered a site of paleontological and geological significance under the *National Parks and Wildlife (National Parks) Regulations 2016*. The priority for this zone is to provide ongoing protection for fossils. All access is by permission of park managers only, and may include research permits or visitor access under a guided tour. No mining or exploration is permitted in this zone.

Park Operations and Visitor Precinct

The Park Operations and Visitor Precinct is the area of the park where public access is concentrated and all development is confined. The area containing the historic blacksmith's shop, woolshed, and shearers' quarters serves as the main launching point for visitors, offering facilities, walking trails, and heritage experiences. The zone also accommodates park staff, researchers, volunteers, and contractors for operational and scientific activities. Additional infrastructure may be developed to enhance visitor experiences and support park management and administration, primarily through upgrades to existing buildings, with any new structures—such as toilet blocks, staff accommodation/offices, temporary storage, or additions to the shearers' quarters—designed to preserve the precinct's heritage character. This zone supports both park management and visitor experiences while protecting the park's natural and cultural values.

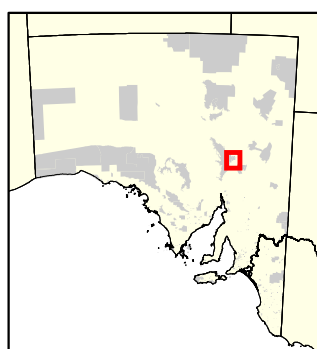
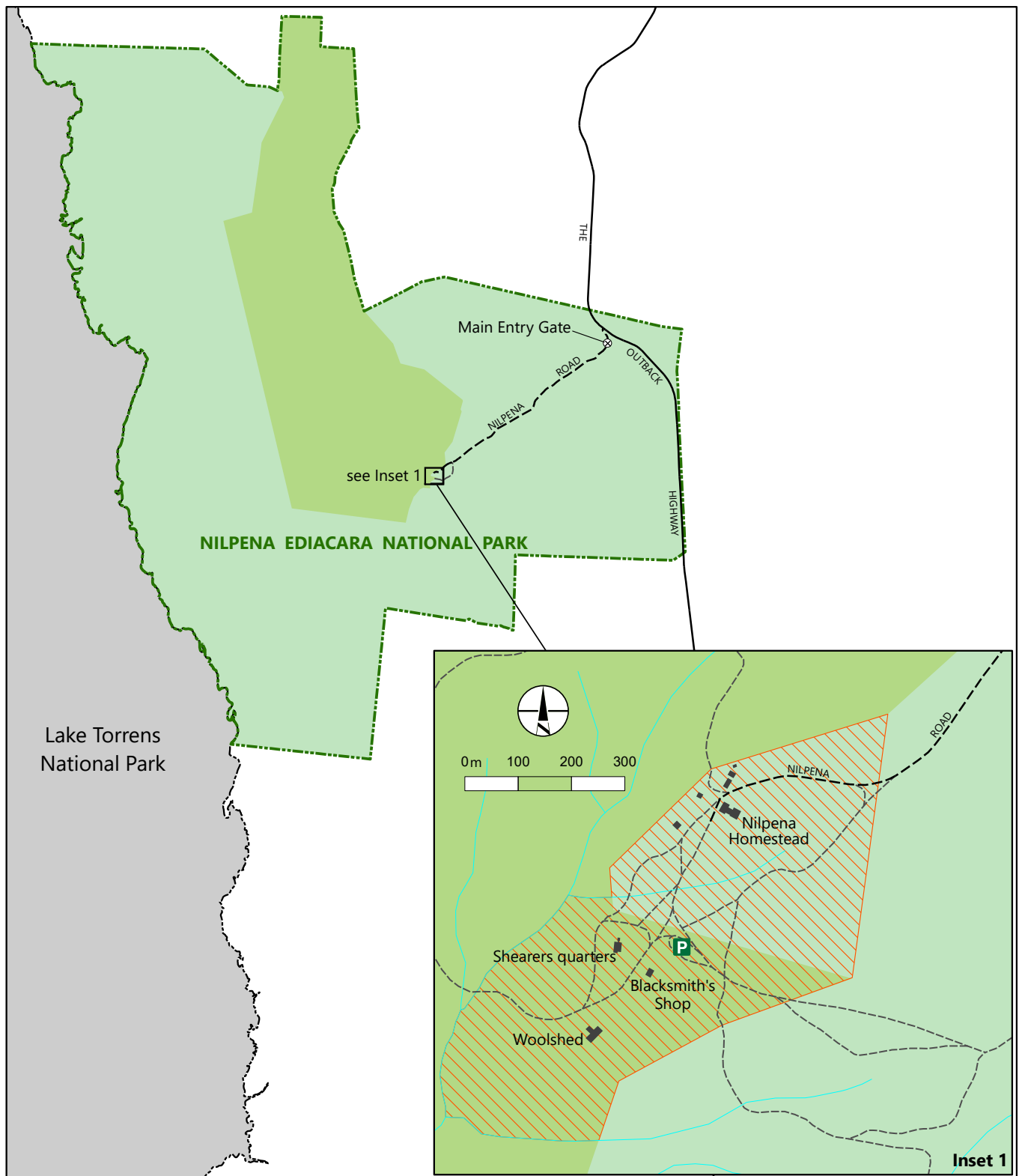
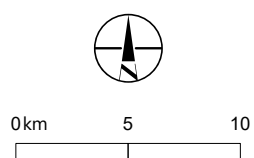


Figure 2

Nilpena Ediacara National Park
Location



LEGEND

- | | | | |
|---|--------------------------------------|---|---------------|
|  | Building |  | Parking; Gate |
|  | Nilpena Ediacara National Park |  | Sealed road |
|  | Park Operations and Visitor Precinct |  | Unsealed road |
|  | Fossil Protection Zone |  | Track |
|  | Lake Torrens National Park |  | Watercourse |

Significance and purpose

Nilpena Ediacara National Park is located in the Flinders Ranges of South Australia and was proclaimed primarily for the protection of key fossil sites.

Fossils were first discovered in the Ediacara Hills in 1946 by geologist Reg Sprigg AO, FTSE, during an inspection of abandoned copper and silver mines. These fossils were later recognised as globally significant, preserving some of the earliest known examples of complex multicellular life on Earth. The discovery is now regarded as one of the most important in palaeontology, revealing a diverse assemblage of soft-bodied organisms unlike those seen in later periods. In recognition of their significance, the name “Ediacara” was adopted for the Ediacaran Period and formally established in 2004. This marked the first addition to the geological timescale in more than 120 years, and the first geological period to be named after a location in the Southern Hemisphere. The name “Ediacara” is derived from the Adnyamathanha word “edhi” (or zebra finch), reflecting the cultural and environmental significance of the area long before its scientific importance was recognised. To help protect these nationally and internationally significant fossils, Ediacara Conservation Park was proclaimed in 2007.

In the 1980s, a second Ediacaran fossil field was discovered on Nilpena Pastoral Station, about 20km south of the Ediacara Hills site. To protect these fossils, the South Australian Government purchased the area with philanthropic support, leading to the proclamation of Nilpena Ediacara National Park in 2021, which brought both sites together in a single park.

The Ediacara Hills fossil site is listed on the South Australian Heritage Register, the Nilpena fossil site is on the Australian National Heritage List, and the park is an important part of the Flinders Ranges World Heritage nomination.

In 2025, the remainder of the pastoral lease was acquired, including the Nilpena Homestead and infrastructure, enabling consolidated management of the park and establishing a ranger station to support ongoing conservation, research, and visitor experiences.

The new park was constituted as a national park in recognition of the national and international significance of the fossils it contains. The park is an active paleontological research site, providing globally significant research into the dawn of complex life. The park provides certainty that this research can sustainably continue. The park also provides an opportunity for visitors to learn about the values of the park through tours and events, and provides the opportunity for film and advertising campaigns in a striking desert landscape.

Nilpena Ediacara National Park is the land of the Adnyamathanha people. ‘Adnya’ means rock and ‘mathanha’ means people - the Adnyamathanha people are ‘the people of the rocks’. Adnyamathanha people have an ongoing relationship and connection with this land, which contains various camping and ritual sites of significance. Evidence of mining and pastoral history are also found throughout the park, most prominently in the structures located in the Park Operations and Visitor Precinct.

The park provides protection for threatened species and ecological communities. The Nilpena Ediacara National Park will continue to be managed to conserve native habitat, and its management provides the opportunity for further research to better understand and protect its biodiversity values.



What are we looking after?

- The richest and most diverse Ediacaran fossil site on Earth, preserving the remains of early animal life and forming a key site in the nomination of the Flinders Ranges for World Heritage listing.
- Places of cultural significance to the Adnyamathanha people.
- Several permanent springs and extensive creek lines that provide critical habitat for wildlife.
- A diversity of landscapes and ecological communities from rolling sand dunes and cracked clay pans; to chenopod, acacia and samphire shrubland; and acacia and eucalyptus woodlands.
- Remnants of colonial heritage including a number of ruins, abandoned mine shafts, and sites associated with early pastoralism.
- Historic buildings, including the former blacksmith's shop, which are valued heritage assets that help visitors connect with the site's history.
- Landscapes valued and in demand by the commercial filming industry.
- A significant scientific resource, including fossil beds that are not yet fully explored, and sites of geological interest.
- Education opportunities to further understanding of the rise of complex animal life.



Challenges and opportunities

Key challenges and opportunities in the management of Nilpena Ediacara National Park are:

- Preventing the damage and/or illegal removal and destruction of internationally significant and fragile fossils.
- Facilitating ongoing research into the Ediacaran fossils and other geological features to develop a better understanding of the origins of animal life on Earth and the geological history of the park.
- Promoting an outstanding visitor experience through guided tours that provide unparalleled insight into this period of evolutionary history.
- Sharing fossil research findings with the broader population through engagement and promotion.
- Maintaining security in a remote and isolated location.
- Supporting Adnyamathanha people to maintain deep spiritual relationships with their land.
- Working with Adnyamathanha people to incorporate traditional knowledge and expertise into the management of the park.
- Ensuring the Adnyamathanha story is incorporated into visitor experiences, and can be delivered by Adnyamathanha people.
- Improving knowledge about the native flora, fauna, springs and soaks that exist within the park to ensure their adequate conservation, especially in response to a changing climate.
- Conserving threatened plant species or ecological communities, and habitat for threatened fauna.
- Providing for commercial filming and tours to enhance public awareness of the park and generate local income for the park and wider region.
- Strengthening partnerships with researchers, the Adnyamathanha community, funding partners, volunteer organisations, the wider community and other stakeholder groups to promote collaboration and effectively implement this plan.
- Managing emerging weeds and other introduced threats to ensure the park maintains and improves its high ecological integrity.





THEME 1:

Protecting internationally significant fossils

The discovery of fossils in the Ediacara Hills helped create a new understanding of life on Earth. The fossils preserve the earliest known evidence of complex multicellular animal life, preserved from a time when the land was covered by a shallow sea at the edge of what would become West Australia and South Australia. East of this site lay open ocean, where the eastern states would form several hundred million years later (Australian Government, 2007). The discoveries made in this park have helped palaeontologists to better understand how early forms of animal life evolved.

The fossils found in the Ediacara Hills were also important in understanding how organisms with soft tissues can be preserved in the fossil record. Up until this discovery, many scientists believed that only organisms with hard parts such as shells or skeletons could be retained in the fossil record.

The potential to research Ediacaran life was greatly expanded by the discovery of a second fossil site in the Nilpena Pastoral Station in the 1980's, nearly 40 years after the initial discovery in the Ediacara Hills. The Nilpena fossil site at Mount Michael is now recognised as one of the best examples of Ediacaran fossils globally.

During the early days of research of Ediacaran fossils, a large quantity of samples and fossils were taken for research and display in museums internationally. Over time, the practice of removing fossils was questioned, and the taking of research samples was restricted. Out of this philosophy the unique practice of excavating, flipping, piecing together and studying the fossil beds *in situ* was developed.

This research approach allows palaeontologists to form clear windows into the Ediacaran period, not by collecting species and individual specimens, but instead by carefully excavating and reconstructing seabeds – snapshots of entire Ediacaran ecosystems that can remain in the field to be studied. The fossil beds are maintained as an active research site making an ongoing contribution to science and continuing to build on our understanding of the evolution of life on earth.

Protecting these fossil beds is a key priority for the management of the park. The first site priority is to work with existing research partners to stabilise fossil beds to secure them against erosion or weed incursion.

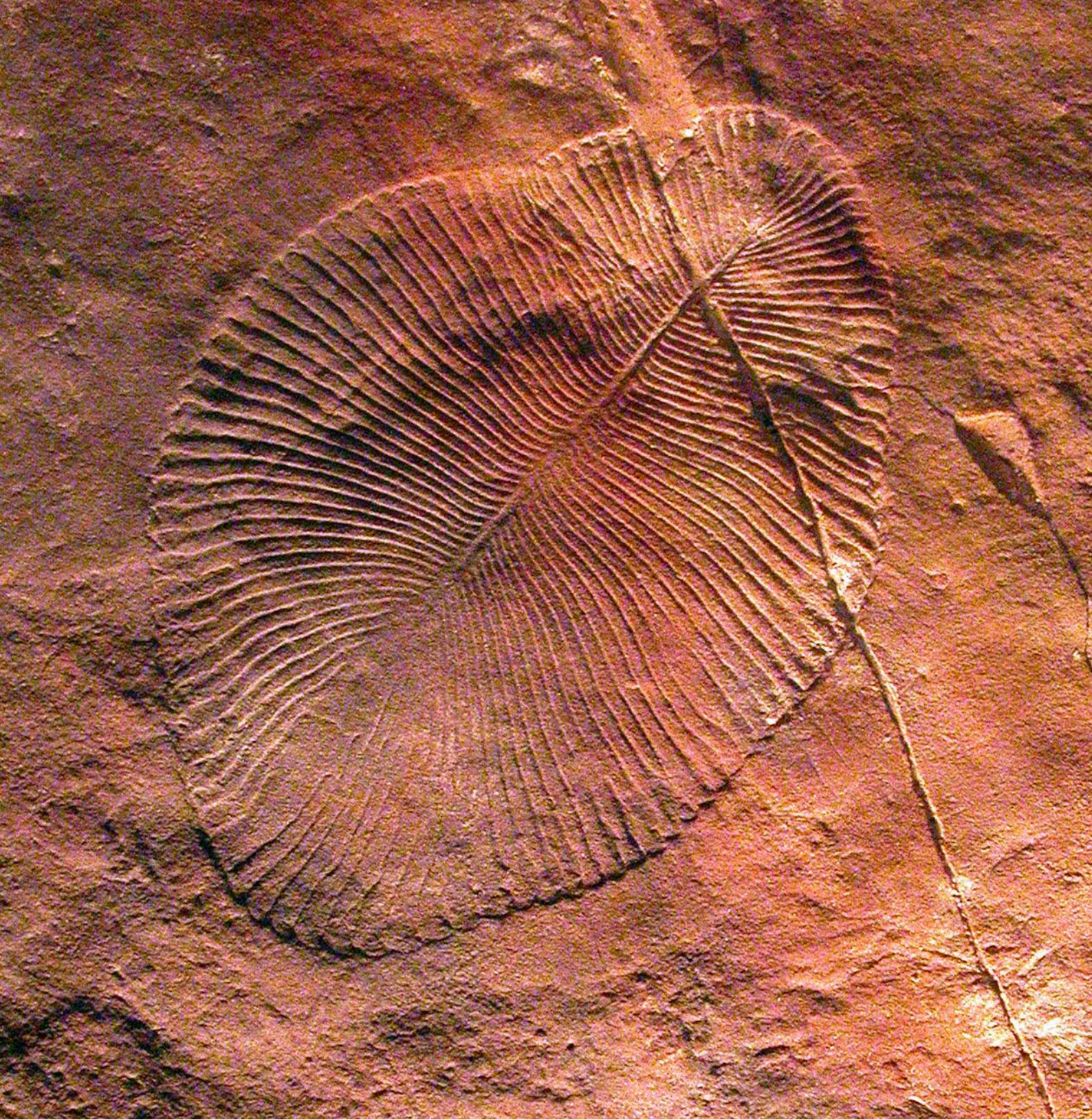
Stabilisation works may include the development of drainage swales and other channels to manage water, spraying weeds, and the locking of fossil beds in place by paving them into the landscape.

A long history of dedicated research into the Ediacaran fossils by the Adelaide University has helped grow understanding of the Ediacaran period, forming a world-class collection with the South Australian Museum, and promoting South Australia as the globally significant centre of Ediacaran life. This has been built upon by decades of research by the University of California Riverside (UCR), which has been pivotal in excavation of fossil beds, their presentation *in situ*, digitising the fossil record, and publishing many papers growing our understanding of the Ediacaran Period. UCR and the South Australian Museum are expected to have an ongoing presence at the site as key research partners, with a role in supporting the management of the fossil fields.

Further disturbance of the soil, excavation, or the relocation of material to the South Australian Museum or other sites may be necessary as part of ongoing research. A Conservation Management Plan has been prepared which considers the ongoing conservation of fossil sites in more detail. This plan includes research protocols guiding future research permit applications, which will be prepared in close consultation with existing research partners. The main priority for these research protocols will be the protection of existing fossils.

Routine maintenance and management will be required by park managers to maintain *in situ* fossil beds. The sparsely vegetated hills in this park are subject to erosion during rain events – forming new gullies and bringing clay onto the fossil sites. The Conservation Management Plan guides monitoring and maintenance actions for park managers to ensure the active research site is managed appropriately and that fossils are protected.

To provide security for fossil sites, public access will be by approval only – with all access points to remain clearly signposted as such. Further security is provided by the designation of a Fossil Protection Zone across both fossil sites. In June 2024 this zone was declared under the *National Parks and Wildlife (National Parks) (Palaeontological and Geological Sites) Amendment Regulations 2023* to be a site of



palaeontological significance. This was the first area to be declared as such in order to provide legislative protection for fossils. The locked gateway, security cameras, and other security facilities help further manage access. Mining or extraction activities are not permitted in the Fossil Protection Zone.

The Ediacara Hills fossil site is registered in the South Australian Heritage Register, and the Nilpena site is registered in the Australian National Heritage List. These declarations provide a level of legislative protection under the South Australian *Heritage Places*

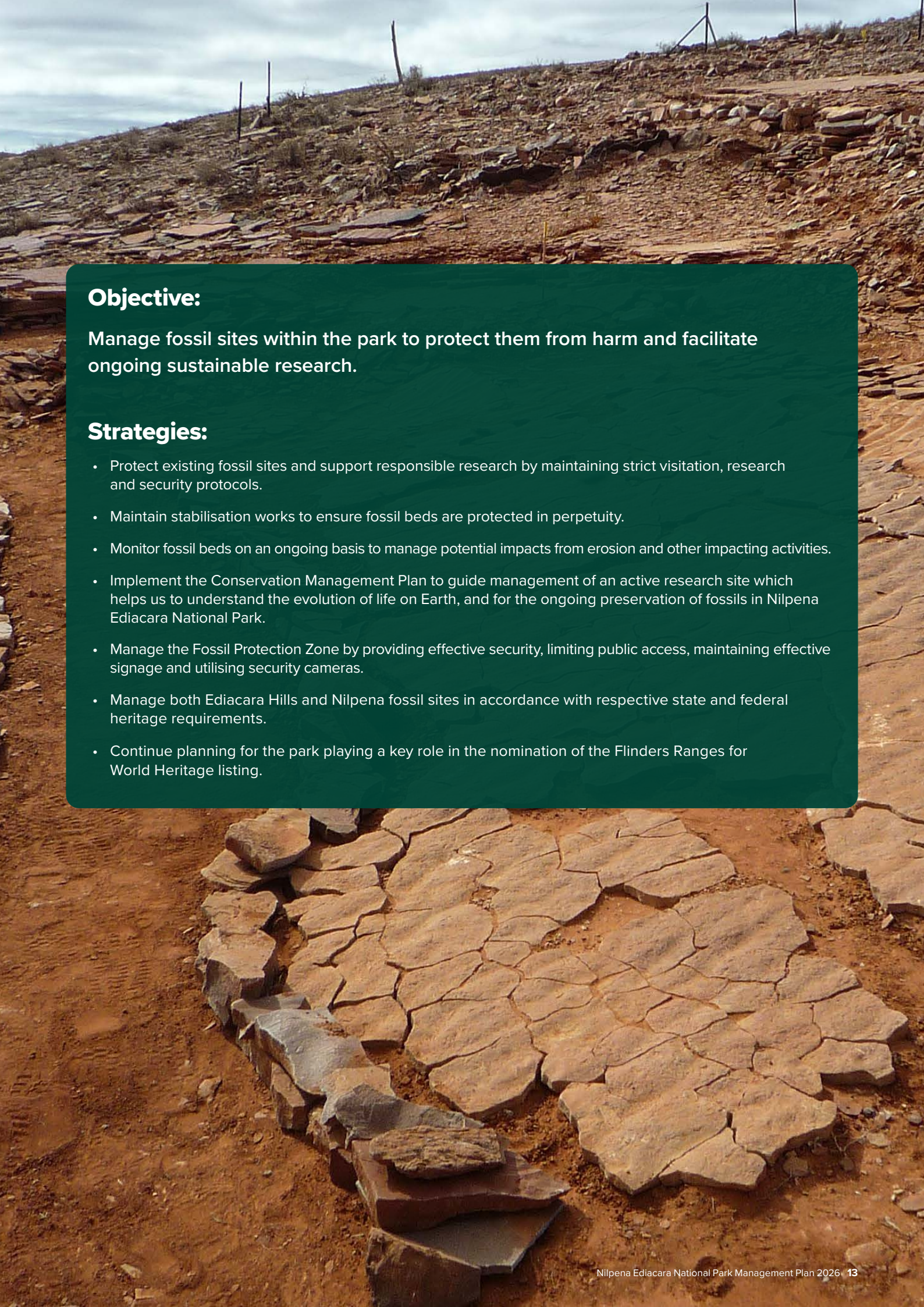
Act 1993 and the federal *Environment Protection and Biodiversity Conservation Act 1999* (EPBC Act) respectively. These Acts outline responsibilities for the management of the site, and restrict certain activities within the area. In the case of national heritage sites, the site must be managed in accordance with National Heritage Management Principles.

On top of state and federal heritage protections,

Nilpena Ediacara National Park is the core of the proposed nomination of the Flinders Ranges for World Heritage listing. Together with other sites in the Flinders Ranges, the national park presents an unparalleled record of the dawn of animal life and the changing planetary conditions that gave rise to animal life. The World Heritage nomination provides the opportunity to celebrate the global importance of the fossil record in the national park. Should the Flinders Ranges be inscribed on the World Heritage List, the area proposed for nomination, which corresponds with the Fossil Protection Zone in this management plan, will be afforded further protections under the EPBC Act.

Besides internationally significant Ediacaran fossil sites, other sites within the Nilpena Ediacara National Park are important for paleontological, geological, ecological or biological research. Ongoing research into this landscape will continue to be encouraged. Park managers will consider applications to undertake other research in the park through a permit and licensing process. Permits for research will contain conditions to help protect fossils as well as other park values, which may include provisions such as requiring a ranger presence, or limiting access to certain areas of the park. Specific conditions attached to the permit will be influenced by the nature of the research.





Objective:

Manage fossil sites within the park to protect them from harm and facilitate ongoing sustainable research.

Strategies:

- Protect existing fossil sites and support responsible research by maintaining strict visitation, research and security protocols.
- Maintain stabilisation works to ensure fossil beds are protected in perpetuity.
- Monitor fossil beds on an ongoing basis to manage potential impacts from erosion and other impacting activities.
- Implement the Conservation Management Plan to guide management of an active research site which helps us to understand the evolution of life on Earth, and for the ongoing preservation of fossils in Nilpena Ediacara National Park.
- Manage the Fossil Protection Zone by providing effective security, limiting public access, maintaining effective signage and utilising security cameras.
- Manage both Ediacara Hills and Nilpena fossil sites in accordance with respective state and federal heritage requirements.
- Continue planning for the park playing a key role in the nomination of the Flinders Ranges for World Heritage listing.

THEME 2:

Sharing the story of the dawn of animal life

Nilpena Ediacara National Park will help share the story of the dawn of life on Earth and the species that once dominated this landscape. A key focus for management of the park will be ensuring this story is told in a way that provides security to fossils and appropriate context for visitors. To that end, all visitor entry will be by approval only.

The central Park Operations and Visitor Precinct (see Figure 2) will be the primary launching point for most visitors to the park. This precinct includes a historic woolshed, shearer's quarters, Nilpena Homestead and surrounding buildings, toilets, and a blacksmith's shop. A significant investment has been made to help protect the heritage value of these buildings and to use them to provide better visitor services. The investment in and management of buildings in this precinct will be an ongoing park management consideration.

The blacksmith's shop has been re-developed into an Ediacaran interpretive centre, featuring an audio-visual experience and a relocated 9-metre long fossil bed. This allows people to come up close and personal with the fossils, while the interpretive experience helps tell the story of the Ediacaran Period in an interactive and engaging way. Tours, including school groups and the general public, will allow visitors to take part in the audio-visual experience.

The stone woolshed is being refurbished to provide a space for events, tours and functions. The historic stone exterior presents a quintessential colonial pastoral building, while the locally sourced rippled rock floor provides a reminder of the sea that once covered this area. It is this rock floor which, when observed by a visitor in the 1980's, led to the discovery of the Nilpena fossil site, making it a key part of the story of fossils in Nilpena.

The adjacent shearer's quarters provides accommodation for staff, researchers, volunteers and contractors on an as needs basis. Accommodation for the general public on a regular basis is not considered appropriate.

Other buildings and infrastructure, such as the Nilpena Homestead, located inside of the Park Operations and Visitor Precinct and Fossil Protection Zone are primarily utilised to support park operations and are not considered suitable for commercial or recreational purposes.

Beyond the Park Operations and Visitor Precinct are the fossil fields, accessible through tours. The Nilpena fossil site has been upgraded to contain a high-quality trail suitable for most mobility types. The unique *in situ* research approach of the Nilpena fossil ground allows for up close viewing of the fossils that are preserved on the underside of sediment layers. Fossil benches provide further opportunities to see and touch the fossils. The fossil fields provide visitors the unique opportunity to visit an active paleontological research site and see fossils half a billion years old metres from where they were excavated. In order to support an intimate visitor experience, no interpretive signage or other additional infrastructure is planned for the fossil site.

Aside from the fossil fields, Nilpena Ediacara National Park also contains scenic and isolated landscapes, including dry and cracked clay pans which are highly valued by commercial film producers. While the rugged environment of the park can provide the misconception it is able to withstand most pressures, the park does contain sensitive sandy dunes, threatened species habitat, and multiple areas of cultural significance.

To ensure that access can be provided to non-sensitive areas for filming or photography, the environmental and cultural sensitivities of priority areas will be inspected and approved for use. Applications for commercial filming or photography will be subject to further consideration, including with Adnyamathanha people through the Ikara-Flinders Ranges National Park Co-Management Board, to ensure sensitive sites are identified and protected. Policies may be developed in collaboration with the Ikara-Flinders Ranges National Park Co-Management Board to create simplified approval processes where sites have been previously approved for filming and photography.

Commercial opportunities, including filming, tours, and other activities can only occur in this park by permit or licence. All public access creates a degree of risk to park values. An adaptive management regime will be implemented whereby local park managers will continually monitor for potential impacts, and implement management actions to remedy these impacts or reduce risks. Management activities may include reducing or restricting tours. Commercial tour access to areas outside the Park Operations and Visitor Precinct and fossil fields



will be considered on a case-by-case basis. Approvals to undertake commercial activities in the park will incorporate the views of Adnyamathanha to limit risks to cultural values. Due to the internationally significant fossil sites, culturally sensitive sites and natural values, free and independent travel, including camping, is not considered appropriate for Nilpena Ediacara National Park.

Volunteers and interest groups have a long history of working to preserve Ediacaran fossil sites and promote

their importance, including the Waterhouse Club and the Flinders Ranges Ediacara Foundation. Working in partnership with these groups will be an important step in protecting the fossils whilst developing new opportunities for visitor access. This may include developing additional scientific and educational outreach opportunities to promote the park or Ediacaran fossils more generally.

The background image of the page shows a rugged landscape with a prominent, layered rock formation in the upper half. The rocks are reddish-brown and show clear horizontal strata. A few small, green trees are visible on top of the formation. The lower half of the image shows a dirt path or clearing with more rocks and sparse vegetation. The overall scene is arid and sunny.

Objective:

Enable visitors to experience Nilpena Ediacara National Park without impacting on the integrity of fossil sites or other sensitive areas.

Strategies:

- Provide high quality guided tours of fossil sites that promote the value of conservation and education, and reinforce Nilpena Ediacara National Park as a world-class destination.
- Ensure guided tours are kept to numbers that are within the capacity of the facilities, and reduce or restrict tours when required to limit impacts. Monitor any other impacts which may arise through public access and develop an adaptive response.
- Manage the Nilpena blacksmith's shop as an immersive interpretive centre that helps visitors understand the importance of fossil assemblages in the park. Promote the interpretive centre as a hub for geology and learning for student groups.
- Develop and maintain the historic woolshed as a multi-purpose space suitable for events and tours.
- In collaboration with the Ikara-Flinders Ranges National Park Co-Management Board, consider applications for commercial filming and photography within Nilpena Ediacara National Park and develop streamlined approval processes for activities at sites previously assessed and approved for use
- Maintain open communication with stakeholders about park management, and foster the development of partnerships to advance key park objectives and strategies.
- Work with key private partnership bodies, including Flinders Ranges Ediacara Foundation, to explore opportunities to increase the educational and research benefits the park provides.

THEME 3:

Partnering with Adnyamathanha people to protect culture and heritage

The cultural significance of Nilpena Ediacara National Park to Adnyamathanha people dates back tens of thousands of years.

The sustainable management of the land by the various Aboriginal groups of the northern Flinders Ranges was disrupted through colonial settlement from the 1850s, which brought about a period of conflict and displacement. These Aboriginal people including the Wailpi, Kuyani, Yadliaura, Vanggarla and Biladappa people, form the modern day Adnyamathanha people. Settlers set up camps and ran stock over the land, destroying traditional food and monopolising water sources. As Aboriginal people hunted the now diminishing native game, so too did they hunt the sheep and cattle now on their land, with violent reprisals from pastoralists.

The violence of these early interactions between Aboriginal people and white settlers (who were called Udneyu in the Adnyamathanha language – also meaning 'dead', such as a ghost or spirit) is characterised by the contemporary diary of pastoralist John Bowyer Bull. The diary details that settlers were responsible for "taking the water and hunting grounds from [Aboriginal people] and giving them no recompense for it, but shooting them down" (Brock, 2019). The killings of Aboriginal people and settlers took place in a series of conflicts throughout the region, particularly during the 1850s and 1860s.

While this violence took place, some pastoralists saw the potential labour benefit from Aboriginal people and employed them to work on their farms for lower wages. This evolved into a period of substantial adaptation from the Adnyamathanha people who survived the early periods of violence, displacement and disease. From the 1880s, much of the early violence had subsided, and Aboriginal people became more embedded within the pastoral economy. Adnyamathanha, stationed primarily at Nepabunna mission from the 1930s onwards, became ingrained in the pastoral and mining industries local to the region, over time negotiating to achieve pay and conditions aligned with non-Aboriginal workers.

The connection of Adnyamathanha to their Country was legally acknowledged in March of 2009, when Native Title was recognised over much of the Flinders Ranges. Growing from this recognition, the Ikara-Flinders Ranges National Park Co-Management Board was established. This Board will have an ongoing co-management role in Nilpena Ediacara National Park. Co-management enables Adnyamathanha to advance the needs of their community, builds relationships between Adnyamathanha people and the government, and improves overall management of the park.

Co-management provides for a cultural dimension to important park management considerations, including the conservation of totem animals and the protection of ephemeral streams and waterways, called Awi Urtu in Adnyamathanha Ngawarla (Adnyamathanha language), which both provide important aquatic habitats and are of cultural importance to the Adnyamathanha people.

The plants, animals, rocks and landscape of the park are associated with Yura Muda, the system of cultural practices, beliefs and stories associated with Adnyamathanha. Yura Muda are a system of stories, teachings and beliefs that inform the people of how to live in harmony – spiritually and physically – with the land. The protection of natural values helps support the preservation of Yura Muda and Nilpena Ediacara National Park's cultural value.



Evidence of Adnyamathanha occupation of Nilpena Ediacara National Park can be observed in significant sites such as hearths and cultural sites across the park, and these artefacts, including undiscovered artefacts, are protected under the *Aboriginal Heritage Act 1988*. While a number of sites are known to exist, they are currently not listed on the state cultural heritage register. Park managers will work with Adnyamathanha traditional owners to facilitate the registration of culturally significant sites.

Following the period of Adnyamathanha displacement, the now Nilpena Ediacara National Park was run as a sheep and cattle station, and the landscape contains various artefacts and buildings that showcase its pastoral history. The buildings in the Park Operations and Visitor Precinct provide the best example, including the blacksmith's shop, shearer's quarters and woolshed. These buildings have been refurbished to help protect their heritage quality and to be practical spaces, useful for the delivery of visitor services and research. In the more remote areas of the park, former mining sites can be found – it is this mining history that led to the initial discovery of Ediacaran fossils by Reg Sprigg in the 1940s.

General public access is strictly managed to help protect important fossil sites in Nilpena Ediacara National Park. However, the restriction of Adnyamathanha people to visit the land, undertake ceremony, and undertake other cultural activities would significantly reduce the cultural value of the park. Park managers will work closely with Adnyamathanha people to ensure they continue to have access to the land for cultural purposes. This may include working through the Ikara-Flinders Ranges National Park Co-Management Board to set aside areas for the use of firearms for hunting and cultural purposes. Any areas designated for hunting will be subject to conditions that ensure it is conducted safely, humanely, and within the approved boundaries.

Nilpena Ediacara National Park provides the opportunity to provide interpretation of its cultural history, where endorsed by the Adnyamathanha community. Working with the Ikara-Flinders Ranges National Park Co-Management Board on the development of additional interpretation will help ensure a consistent approach to teaching visitors about the cultural connection of Adnyamathanha people in the region. Incorporating Adnyamathanha Ngawarla into interpretation will be a part of this process. To ensure language is utilised in a culturally sensitive and appropriate manner, Adnyamathanha people will be involved in its delivery.

Various works will be required across the park to maintain visitor services, install additional infrastructure, and manage pest species through activities such as goat mustering. This often requires the specialist skills of the Adnyamathanha people, particularly for additional cultural heritage surveying, and working to develop interpretation. These park management activities provide opportunities for additional Adnyamathanha employment.

During colonisation, the remains of many First Nations people, including Adnyamathanha ancestors, were removed to institutions in Australia and overseas. Others have been displaced due to erosion or development, and in some cases have been held by institutions or by First Nations people with the intention of returning them to Country. The Department for Environment and Water works closely with the Adnyamathanha to support the safe return of ancestors, including identifying suitable reburial locations within Nilpena Ediacara National Park and meeting legislative requirements.

The name Ediacara is believed to come from the Yura Muda, derived from the Adnyamathanha Ngawarla word *idhi*, meaning zebra finch. This is only one part of a longer oral history of the site and a fragment of the complex system of Yura Muda across the landscape. Understanding the story behind the name, which can be heard from the Nilpena Ediacara National Park audio visual (AV) welcome, helps visitors appreciate the deep and ongoing connection between Adnyamathanha culture, the fossils, and the park.



Objective:

Work in partnership with Adnyamathanha people to maintain the park's heritage and enhance the community's connection to Country.

Strategies:

- Conserve and celebrate the park's rich cultural heritage.
- Enable Adnyamathanha people to use the park to maintain their culture, care for Country and transfer knowledge and connection to Country to the next generation.
- Facilitate the registration of Adnyamathanha cultural sites on the Register of Aboriginal Site and Objects managed by the Attorney General's Department.
- Undertake further cultural heritage surveys of the park and use findings to inform park management, with a focus on sites of high visitor access or potential disturbance.
- Continue to recognise, respect, protect and maintain important cultural sites in partnership with Adnyamathanha people as Native Title holders. This may include actions such as fencing to protect key sites from visitor access.
- Educate visitors about the importance of the park for Adnyamathanha people through interpretation, including opportunities for Adnyamathanha-led guiding experiences where appropriate.
- Preserve the heritage of the stone pastoral buildings in the Park Operations and Visitor Precinct while enhancing present day visitor use.

THEME 4:

Conserving the natural values of the park

Nilpena Ediacara National Park protects a semi-arid landscape consisting primarily of umbrella bush (*Acacia ligulata*) low open woodlands. Permanent and ephemeral springs, soaks and creek lines flow west across the park towards Lake Torrens, supporting river red gum (*Eucalyptus camaldulensis*) woodlands along their course. White cypress-pine often occurs in association with the red gums, while inland tea tree (*Melaleuca glomerata*), elegant wattle (*Acacia victoriae*), and lemon-grass (*Cymbopogon ambiguous*) are prominent understorey components. Mulga (*Acacia aneura*) low woodlands grow on the low dunes and sand plains. Cane spear-grass (*Austrostipa breviglumis*) (rare) has been recorded in the park.

The plants and animals protected in the Nilpena Ediacara National Park are not well understood, due to limited surveys and studies aside from preliminary bird surveys. The park is a relatively recent addition to the state's reserve system, and an ongoing program of surveys will be required to better understand the values found in the park, and how these can be best protected.

The environment of Nilpena Ediacara National Park is mostly remnant native vegetation which has been historically disturbed by grazing. Maintaining boundary fences to prevent stock ingress from neighbouring properties will be an ongoing park management priority. Relationships with boundary neighbours will be important to ensure that they meet their obligations to maintain fences and remove stock that enter the park. Since grazing ceased in 2019, the park has experienced significant natural regeneration of vegetation, which also contributed to its successful registration under the Australian Carbon Credit Unit Scheme as a carbon storage project. This project aims to establish permanent native forests on land that has been previously cleared, with natural regeneration to be supported by additional native species plantings and pest plant and animal control for broad-scale conservation outcomes.

Grazing from pest animals also occurs in the park, including from goats (*Capra aegagrus hircus*) and rabbits (*Oryctolagus cuniculus*), which are common in the landscape. Other pest species of concern include foxes (*Vulpes vulpes*), cats (*Felis catus*) and wild dogs (*Canis lupus familiaris*). Wild dogs have historically occurred on this and neighbouring properties and will continue to be monitored and managed in

accordance with regional pest management programs and obligations under the *Landscape South Australia Act 2019*. A variety of broad-scale pest management programs are in place in the region, and integrating these programs into park management will be an important factor to limit grazing impacts. Other programs, such as localised goat mustering programs, are important measures to keep pest species to manageable levels.

Macropods can become overabundant in the region. The overabundance of native species can increase total grazing pressure in this region, particularly from red kangaroos (*Osphranter rufus*) and euros (*Osphranter robustus*). This can reduce the overall health of the ecosystem. Strategic management of these species should consider nonlethal management actions in the first instance; however, where these actions are considered ineffective or not feasible, culling may be implemented. Any culling will follow strict procedures for the humane destruction of animals. Commercial harvest options may be considered for macropod species.

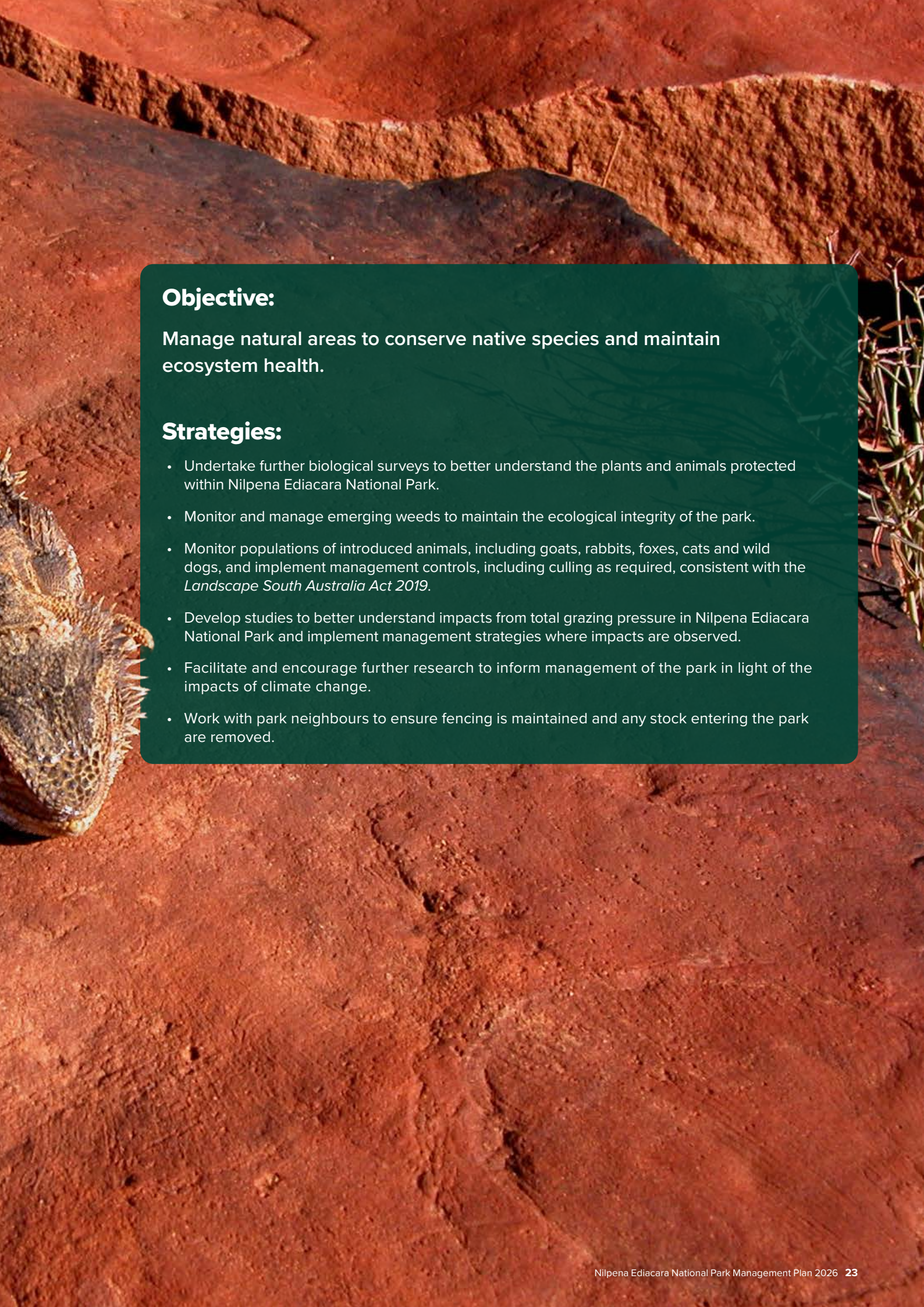
Some native species reintroduction efforts have taken place in the region over the past several years, including of the brush-tailed possum (*Trichosurus vulpecula*), called the Virda in Adnyamathanha Ngawarla and western quoll (*Dasyurus geoffroii*), called Idnya. Both the Virda and the Idnya are totems of the Adnyamathanha people. No reintroduction program is planned in Nilpena Ediacara National Park in the short-term, with a preference instead given to understanding the values already present in the park, and implementing programs to facilitate the recovery of these species. Reintroductions may be considered as part of longer-term planning. It is anticipated a reintroduction would need to occur alongside a dedicated pest animal control program.



While there is some evidence of weeds along the creek lines, Nilpena Ediacara National Park is expected to have experienced minimal weed incursion. Emerging weeds will be monitored and controlled where possible to maintain the park's ecological integrity and encourage the rehabilitation of native species, with a focus on managing regionally significant weeds and weeds of national significance such as introduced cacti (*Opuntia*, *Cylindropuntia* and *Austrocylindropuntia* spp.).

Climate change will present additional challenges for all park values in an already harsh climatic zone. With hotter and drier conditions, some species, especially those dependent on permanent or semi-permanent water supplies, will struggle through dry years. Park management should involve developing a better understanding of climate change in the region, and pursuing opportunities to support the resilience of at-risk native species and communities to changing conditions. Improving ecological health by managing pest species and reducing total grazing pressure may help create ecosystems more resilient to the strains climate change will create. Collaboration with research bodies such as universities can be explored to better understand the responses of key species to climate change in the park.





Objective:

Manage natural areas to conserve native species and maintain ecosystem health.

Strategies:

- Undertake further biological surveys to better understand the plants and animals protected within Nilpena Ediacara National Park.
- Monitor and manage emerging weeds to maintain the ecological integrity of the park.
- Monitor populations of introduced animals, including goats, rabbits, foxes, cats and wild dogs, and implement management controls, including culling as required, consistent with the *Landscape South Australia Act 2019*.
- Develop studies to better understand impacts from total grazing pressure in Nilpena Ediacara National Park and implement management strategies where impacts are observed.
- Facilitate and encourage further research to inform management of the park in light of the impacts of climate change.
- Work with park neighbours to ensure fencing is maintained and any stock entering the park are removed.



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