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# New Operations Manager and Projects - by Caroline Minton

Hi everyone! I was excited to join the Great Victoria Desert Biodiversity Trust (GVDBT) in January as the Trust's new Operations Manager.

**I've been impressed by the passion, commitment and talent of the numerous GVD stakeholders I've already had the pleasure of working with. You can read about many of them in this edition of the GVDBT's newsletter. Kathryn Sinclair is currently enjoying maternity leave and the pleasures of first-time motherhood; she tells us about it overleaf.**

A quick bit of background about me: I have a Bachelor of Science in Biology, Honours in Environmental Science and have recently completed a Master's in Business Administration. I also bring to the role 20 years' of broad experience, across a range of industries, in environmental management, sustainability, stakeholder engagement, communications and project management, including the conservation of various threatened species.

Since joining the Trust I've been beavering away on a variety of interesting projects. First off the bat was establishing contracts for some important foundational work to be completed in 2017: Malleefowl survey site selection and the mapping of fire scars and burn rules. You can hear more from the GVDBT's project partners overleaf.



GVDBT Operations Manager, Caroline Minton (left).

I've also been working with various experts to scope and plan surveys across the GVD for Sandhill Dunnarts and Malleefowl, to be undertaken later in 2017. And I'm excited to say that the Trust can now accept donations, thanks to donation and receipt forms recently developed as part of a suite of templates to streamline the work of the Trust, including this new-look newsletter. I hope you like it!

I've added lots of new content to the Trust's website, so check in regularly for other news, updates, reports and information. And please read on for updates on the Trust's most recent activities and that of other stakeholders in the GVD.

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From left: Management Panel members Norm Galli, Nigel Wessels, Garry Middle (Chair) and Stephen van Leeuwen and Operations Manager Caroline Minton.

# Trust’s Management Team Visits the GVD

You can see pictures and hear stories, but there’s nothing quite like experiencing something for yourself to gain true understanding.

**That’s certainly what it felt like for those of us visiting the Great Victoria Desert (GVD) for the first time. I joined the Trust’s Management Panel on a three-day site visit to the GVD in early June, where we saw first-hand the various vegetation communities, habitats for endangered Malleefowl and Sandhill Dunnart, and the threats facing the GVD’s rich biodiversity.**

The density of the vegetation and the changeability in the ecosystems and landform is surprising. The GVD is definitely not like the sparse, sandy plains of the Sahara Desert featured in the movies! It’s beautiful.



Breakaway country in the GVD. Photo by Stephen van Leeuwen.

And with so many hidden treasures. We visited places where hand tools had historically been made by the indigenous people of the region - there was evidence of discarded projects scattered across the base of one breakaway and near a strange pile of rocks rising above the plain that looked like they’d been placed by aliens.

The extent of threats to biodiversity conservation was concerning, especially considering the remoteness of the area - the closest towns being Kalgoorlie-Boulder, about 300km south-west of the GVD border. There were footprints of introduced predators and herbivores everywhere we went – prints of camel, fox, cat and wild dog, and piles of evidence of rabbits. A few camels were spotted amongst the trees, while several wild dogs and dingoes were easy to spot travelling along the tracks. Emus, huge red kangaroos, tiny finches and a few other birds were the only native species we saw. Admittedly we were out during the day.

Not surprisingly Malleefowls and Sandhill Dunnarts proved to be elusive. However, we were rewarded for hiking 2km through beautiful but dense and undulating country adjacent to the APA pipeline by witnessing close-up the majesty of a huge Malleefowl mound. The effort those birds go to in creating and maintaining a nest is mind-blowing. Unfortunately this mound hasn’t been used for at least a couple of years, highlighting one of the



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challenges of Malleefowl monitoring. Thank goodness for our tour guide, Dylan Tucker from AngloGold Ashanti, and his GPS – despite its size, the mound was well hidden by dense vegetation and hard to spot even from several metres away.



*A Malleefowl mound (nest) in the GVD.*

Flying into the Tropicana Gold Mine, our generous hosts for each evening, we got to see the stark reality of the impacts of late-season wildfires caused by lightning, evidenced by large pale and barren areas in the landscape fringed with fingers of fire ‘scars’ radiating out into the vegetation. Fire is believed to be the most significant threat to biodiversity in the GVD, and it certainly looked that way from up close. A demonstration from Ryan Butler, the Department of Biodiversity, Conservation and Attractions’ Regional Leader-Fire Management, highlighted

just how flammable the Spinifex grasslands can be and how challenging fire management is across vast, remote areas such as the GVD.

The Trust’s management team has acquired a greater understanding of the GVD’s assets and threats from experiencing first-hand the remoteness, challenges, beauty and ecological and cultural values of the region. This is essential for effectively planning and implementing sound conservation and management strategies. This enhanced knowledge will be put to good use in completing the Biodiversity Conservation Plan for the region which will outline the priorities for management actions and Trust expenditure to protect key assets and address significant threats.



*An Aboriginal artefact. Photograph taken by Greg Stagbouer.*

## Donations now accepted!

The Trust is registered as a charitable organisation and can accept donations from individuals, groups and organisations to contribute towards essential research and on-ground land management for threatened species in the GVD

**Money held by the Trust is allocated to various organisations and individuals according to priority, anticipated benefit and value for money. These include traditional owner groups, researchers, not-for-profit environmental groups and expert consultants. You can read about some of the current projects funded by the Trust in this newsletter.**

Donating is easy – the donation form, with instructions for making a cash, cheque or credit card payment, can be readily accessed via the Trust’s website. If you or your organisation would like to contribute your donation would be greatly appreciated. You can download a form now at [gvdbiodiversitytrust.org.au/work-with-us/donations/](http://gvdbiodiversitytrust.org.au/work-with-us/donations/).

The Trust recently received its first donation. In April the EGP project team generously donated \$500 to the Trust as part of APA Group’s staff awards program. Congratulations

to the EGP project team for their award and a HUGE ‘thank you’ to both the EGP project team and APA Group for their contribution.



*Sean L'Estrange (Shadow Minister for Mines and Petroleum) with EGP project team: Brynne Jayatilaka (APA), Joanna Riley and Jeff Turpin (Kingfisher Environmental Consulting).*

# Burn Rule and Biodiversity Mapping in Spinifex Country

A fire-management project funded by the Trust was combined with additional funding and activities to create a phenomenal 'Back to Country' week for the Spinifex people.



*Tjilpi Mr Roy Underwood, prior to heading off to his country. Photographs by Paul Bulley.*

**Around 80 members and staff from the Tjuntjunjarra Community made the trip to Ilkurka in early May. The week's activities included flying Tjilpi and Minyma (Elders), Rangers and key family members via helicopter to significant ecological and cultural sites. 'Burn rules' were established to protect these sites from fire. The Rangers also collected ecological data to assist the Trust and Spinifex Land Management (SLM), such as vegetation type and the presence of Nganamara (Malleefowl), introduced weeds, predators and feral herbivores. Captivating photographs of Nganamara dancing on top of a nest, and previously unknown Nganamara locations, were among the valuable findings of the expeditions.**

The chopper visits, funded by the Trust, facilitated the essential passing down of traditional ecological and cultural knowledge from one generation to the next, as well as the gathering of information critical for the management of threatened species. Feedback was positive. Spinifex Elder Fred Grant said that "It was really good to go back to places with my brothers, and show my grandsons, and tell them the stories of my country". He was able to visit several of the important water sources in his country. Head Ranger Ethan Hansen said that his highlight was "going onto the remote country and seeing how people used to live, and listening to the stories for those places. Seeing that country with their own eyes and hearing the stories from the Elders is going to help the

Spinifex Rangers do a good job with their future burning programs".

Pila Nguru Aboriginal Corporation Coordinator Samantha Doudle described the experience as "an extraordinary week with many ecological, cultural and social outcomes". Ms Doudle expressed gratitude for the funding, explaining that "It will be hard to convey to the Great Victoria Desert Biodiversity Trust board just what it has really meant to the Spinifex people".

With the additional funding from the Maralinga Piling Trust and the National Landcare Program, the Community made the most of the opportunity to get 'Back to Country', involving the Spinifex Arts Project, the Tjuntjunjarra Remote Community School and the Spinifex Health Service. The school children interviewed the Elders and Rangers to document their experiences on video, and stories were also captured through paintings.

Interviews with the Elders were used as a means to document traditional land management practices, such as patch burning, prior to European influence in Spinifex Lands.

Together with the 'burn rules' this information will be used by the GVDDBT and SLM to inform future fire management planning, through re-introduction of traditional patch-burn practices to protect vegetation and threatened fauna in the GVD from the devastation caused by large late-season





*The Spinifex Team with the helicopter at Ilkurlka.*

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wildfires.

Read on to find out how information from two other projects funded by the GVDBT will also feed into this process.

## Identification of Traditional Burn Patterns and Practices

The Department of Biodiversity, Conservation and Attractions (DBCA) have been engaged by the Trust to reconstruct traditional Aboriginal burning patterns in the GVD.

**It was initially hoped that aerial photography from the military's Blue Streak Rocket Project (BSR) in 1953 could be used for the project.**

However, only a small section of the rocket's flight path was photographed, in a remote area in the Gibson Desert. Instead, the earliest aerial photography available has been sourced from 1960/61, covering the areas of Spinifex country where Aboriginal people were believed to be still either living a traditional or a transient traditional lifestyle. Many people had moved off, or were moved off, these lands to European-style communities by the early 1960s. However, a small number remained and others came and went at various intervals.

A total of 180 aerial photographs, covering about 800,000 ha, were chosen for study. They represent the most likely areas where traditional burning was still being practiced in 1960/61 within the 'flammable' spinifex-dominated landscapes of the northern portion of the Spinifex lands. DBCA are currently electronically 'stitching' together

various digital photographs from Landgate to form a scale-rectified mosaic. Once completed, identification and digitising of fire scars will commence. Contemporary fire scar patterns, reconstructed using Landsat satellite imagery, will be compared and contrasted with the 'traditional' burning patterns evident on the early aerial photography.

There is very little detailed information in the literature documenting traditional burning practices, although it seems that Spinifex people did not use fire as ubiquitously as people in the northern deserts. Further interviews with Spinifex Elders are proposed to gain greater clarity to complement the analysis of aerial photography, so that traditional fire management can be re-implemented in the GVD to protect threatened species and reduce the habitat destruction caused by wildfires.

The project will be completed by the end of 2017. For more information contact [neil.burrows@dbca.wa.gov.au](mailto:neil.burrows@dbca.wa.gov.au).

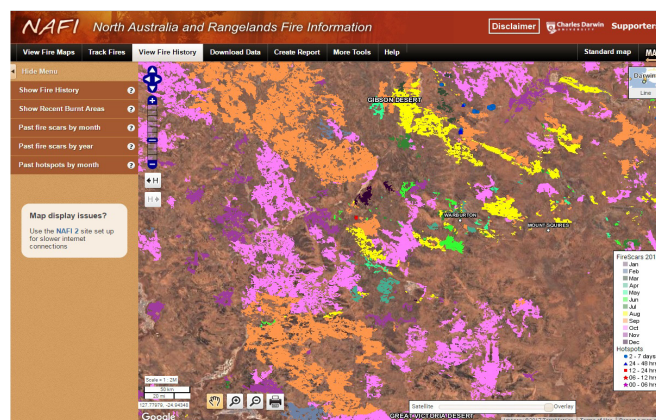
# Extension to NAFI Fire Scar Mapping

The Trust has contracted the North Australia and Rangelands Fire Information (NAFI) service to complete long term fire history mapping for the GVD and the broader WA Rangelands.

This work involves 250m scale maps of burnt areas, showing the month burnt, for each year. The fire histories will also show fire frequencies and times since an area was last burnt. The Trust has contracted for the three years 2000-2002 to be mapped and the final fire histories to be created, by late September 2017. Fire mapping for the years 2003–2016 have been previously completed under other contracts coordinated by Rangelands NRM and part-funded by the Trust.

The mapping will be displayed on the NAFI website [www.firenorth.org.au](http://www.firenorth.org.au), administered by Charles Darwin University, which also provides an online reporting tool that can convert the burnt area mapping patterns for an area into graphs and tables. The burnt area maps, or fire scars, help identify areas that have been more or less frequently burnt, and areas that may have higher fuel loads.

This information will be used in future to plan and implement fire management to protect threatened species in the GVD. For more information contact [peter.jacklyn@cdu.edu.au](mailto:peter.jacklyn@cdu.edu.au).



An example of a fire history map on the NAFI website.

# Malleefowl Survey Site Selection Completed

Gaia Resources was contracted by the Trust to identify potential sites to survey for Malleefowl across the GVD.

Malleefowl are listed nationally as 'vulnerable'. Most of the sighting records in the GVD are primarily in the Southwest corner as a result of mining surveys, collated on a centralised database (NatureMap). Elsewhere records are sparse and isolated. Additional surveys are required to identify Malleefowl distribution and habitat preference in the GVD.

Gaia Resources' first step in identifying suitable additional survey sites was to define 'likely Malleefowl habitat'. A set of mapping layers were initially sourced and analysed, including Beard's Vegetation Complexes, fire scars, Landsat Satellite imagery, roads and tracks.

These were then massaged into a suitability map book containing areas of high, moderate and low suitability for Malleefowl, following workshops with experts and key stakeholders.

Vegetation complexes containing the right vegetation assemblages were then categorised, and areas burnt by wildfires in the last ten years were subtracted. Landsat imagery helped with focussing in on smaller patches of dark vegetation that were interpreted as candidates for the dense Mulga stands identified as a key type of Malleefowl habitat. This interpretation was backed up- at least in the Southwest corner of the GVD- by a strong correlation (e.g. proximity to) known Malleefowl mounds.

A smaller set of potential survey locations that are accessible and geographically distributed across the GVD were subsequently nominated from the thousands of candidate polygon areas. Seventy-six survey sites were randomly selected from these across the three categories of suitability and a final map book of exact sites to survey created to provide to the survey team(s). The survey sites also include many of the accessible sites where Malleefowl have previously been recorded. Surveys are planned for September to October 2017. For more information contact [chris@gaiaresources.com.au](mailto:chris@gaiaresources.com.au).



Jake Geddes (left) and Chris Roach from Gaia Resources.

# Adaptive Management Implementation Plan Delivered

An Adaptive Management Implementation Plan (AMIP) for the GVD has been completed following a third workshop of the Adaptive Management Partnership (AMP).

The AMP was formed to bring together eight stakeholder groups with an interest in looking after desert Country in the GVD: Spinifex Land Management, Yilka Aboriginal Corporation, Central Desert Native Title Services, Rangelands NRM, Greening Australia, the Trust, Conservation Management and the Department of Biodiversity, Conservation and Attractions. Over the course of three workshops (between October 2016 and March 2017) representatives from the AMP have worked closely to identify the region's key natural and cultural assets and develop priority actions for research and land management at the species and landscape level.

The workshops have culminated in the development of an Adaptive Management Implementation Plan (AMIP) for the region - a road map for biodiversity monitoring and conservation activities. The AMIP has been a truly collaborative effort - funded by the Trust, coordinated by Rangelands NRM, facilitated by Conservation Management and with input from all eight AMP stakeholder groups. Pila Nguru Coordinator Samantha Doudle says the Spinifex Rangers are looking forward to strengthening the

relationships they already have with the other partners by conducting joint projects on Spinifex and Pilki Country and in assisting the Yilka People with land management training opportunities. Yilka Advancement Officer, Mladen Mrvelj said that with Yilka just starting out, the AMP will serve them in learning from organisations who have experience in taking care of country.

The AMIP will be used as a guiding document to facilitate the coordination of activities and leveraging of resources between AMP organisations. Rangelands NRM will continue to provide backbone support to the AMP. The AMIP can be downloaded from the Trust's website. Contact [chrisc@rangelandswa.com.au](mailto:chrisc@rangelandswa.com.au) or the Trust for more information.



Participants who took part in the third workshop of the AMP.

## IN OUR REGION

### Southern Deserts Rangers' Forum a Success

More than 60 indigenous rangers gathered at Ilkurlka in early June for the inaugural Southern Deserts Ranger Forum.

The event, organised by Spinifex Land Management and the Indigenous Desert Alliance, attracted more than 85 people from across WA, SA and the NT. The Spinifex Elders welcomed everyone to their Country, at a location approximately 900 km east of Kalgoorlie, WA.



The Rangers Forum saw an impressive gathering of indigenous rangers.

It was an impressive gathering of indigenous rangers from: Spinifex Land Management (Tjuntjuntjara), Ngadju

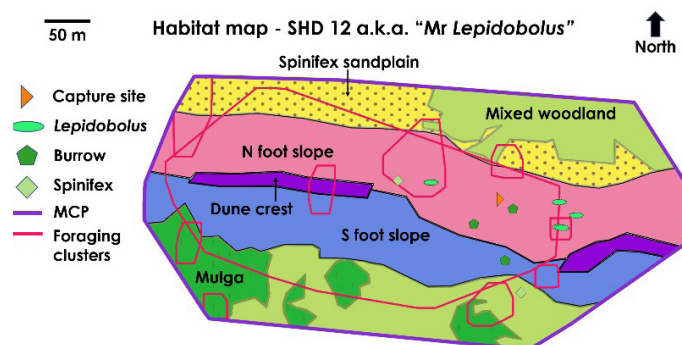
(Norseman), Birriliburu (Wiluna), Ngaanyatjara (Blackstone, Warburton, Warakurna) and Goldfields Land & Sea Council (Kalgoorlie) in WA; as well as Maralinga Tjarutja (Oak Valley), APY Lands (various communities) and Yalata (Yalata) in SA. Collectively these ranger groups manage 1.2 million square kilometres of country across WA and SA. Spinifex ranger Ethan Hansen said 'It was great showing them where we come from and catching up with other rangers'. Other participating organisations included Alinytjara Wilurara NRM, Rangelands NRM (WA), Parks SA, NG Media and Morningstar training. Funding for the event was provided by the WA Government and AngloGold Ashanti Australia.

Ten Deserts Coordinator, Jimmy Cocking, described the week as 'fantastic'. The rangers were engaged in a variety of knowledge areas including management of feral camels, tourists and buffel grass. Supporting partners are being sought to help make the event an annual fixture. Contact Jimmy at [coordinator@tendeserts.org](mailto:coordinator@tendeserts.org) for more information.



# Sandhill Dunnart Survey - Mr Lepidobolus

An update from Jo Riley.



This past tracking session was great! We radio- and GPS-tracked three more non-breeding male Sandhill Dunnarts near the APA Eastern Goldfields Pipeline (13 animals to date).

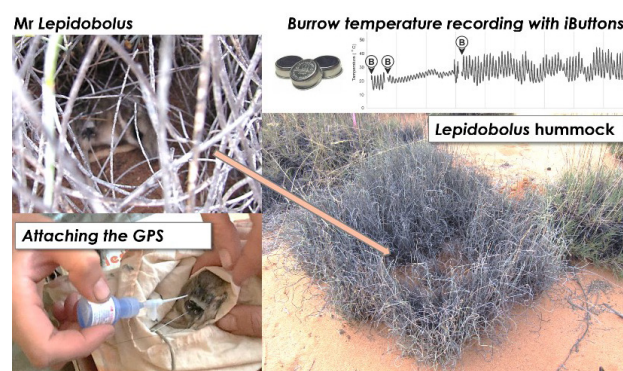
These guys were similar to their predecessors: they had home ranges (MCPs) of 15 to 30 hectares and preferred foraging and nesting on long unburned dune foot slopes and in mixed woodland. They rarely nested and foraged on dune crests, possibly as vegetation is sparser here and there is less protection from predators. Sandhill Dunnarts (SHDs) 11 and 13 predominantly used burrows as diurnal (daytime) shelters. SHD 12 was nicknamed "Mr Lepidobolus", due to his love of nesting within the plant's spirally, soft hummocks. Co-researcher Jeff Turpin even found him in one after the transmitter had detached!

Recent diet analysis modelled the prey selection of SHDs across seasons.

Smaller prey were selected in the non-breeding season.

Dr Brian Heterick from the Western Australian Museum found that SHD 13 was munching miniscule Stigmacros ants (~ 2mm long!).

We return to the GVD this October to study Sandhill Dunnart ecology further.



The research is outlined in the poster Jo and others produced for the International Mammal Convention in Perth in July, which can be accessed from the Trust's website. Jo is currently undertaking her PhD and is seeking funding to support her research. If you can help, or would like more information, contact: [joriley999@gmail.com](mailto:joriley999@gmail.com).

## Spinifex Land Management Receives Ongoing Funding

With only weeks to go until their core funding ran out, Spinifex Land Management (SLM) has managed to secure ongoing funding from the federal government's Working on Country (WoC) program through an application to the Indigenous Advancement Strategy.

**With this funding SLM now joins existing ranger groups around the country with assurances of continued WoC funding through to 2020.**

Together with a further 12 months of funding from the National Landcare Programme the new WoC funds will

allow SLM to continue to implement the Spinifex Healthy Country Plan and generate lasting environmental, cultural and social outcomes across their vast lands. For more information contact Samantha Doudle on [pnacadmin@spinifex.org](mailto:pnacadmin@spinifex.org) or (08) 9037 1144.





# Maternity Leave and Motherhood

A note from Kathryn Sinclair

Hi everyone, I'd like to introduce you to my little daughter, Avalyn, born on 3rd March.

Motherhood's been quite a journey so far – they say nothing can prepare you for it – and it's certainly felt that way.

There's moments that have tested me and many, many more moments that have melted my heart.

Avalyn (Ava for short) is growing up quickly – out-growing clothes and learning more skills. We go for a walk almost every morning in a patch of remnant bush a short distance from my house. I love the idea of exposing Ava to the bush and its beauty and unique sounds from an early age – so she grows up to value the patches of wilderness wherever they are.

*NB Kathryn is currently on maternity leave from the Trust's Operations Manager role.*



*Kathryn, Adam and Avalyn.*

## Perspectives of a TAP Member

by Katherine Moseby

**I'm an ecologist from South Australia (SA) currently with the University of NSW researching the impacts of feral cats on reintroduced populations of mammals including Western Quolls and Bilbies.**

I have a Bachelor of Science (Honours) and PhD in reintroduction biology and have lived and worked in the SA arid zone for more than 20 years. I've been lucky enough to work on a wide range of arid zone species and co-founded Arid Recovery, a fenced conservation reserve where Bilbies, Bettongs, Bandicoots and Stick-nest Rats have been successfully reintroduced.

I joined the Technical Advisory Panel (TAP) for the Trust after attending a workshop on Sandhill Dunnarts in Perth. The Technical Advisory Panel (TAP) was formed to provide expert advice to the Trust, in particular to assist with conservation efforts for the Malleefowl and Sandhill



*Katherine Moseby*

Dunnart. Both of these species occur on my property in SA, a 26,000 ha private nature reserve in the mallee woodlands of the Eyre Peninsula. My partner and I have implemented a number of management actions for these species including fox and kangaroo control, goat removal and fire management and we also monitor their populations annually. I have also monitored both species in the SA side of the GVD and worked with a number of indigenous and government stakeholders to implement surveys and trial management regimes.

SA appears to support a higher density of Sandhill Dunnarts than WA. I hope that I can provide neutral feedback to the GVDDBT regarding ideas and plans and that my experience in SA may help me advise on recovery actions in WA. I look forward to seeing the results of the Trust's efforts.

## Contact the Trust

If you have some GVD research, updates or stories, please forward them to the Trust to share with key stakeholders via the Trust's website and newsletters. Thank you to everyone who has contributed so far. And if you would like to donate to, or partner with, the Trust, then please contact the Trust's Operations Manager: [caroline.minton@gvdbiodiversitytrust.org.au](mailto:caroline.minton@gvdbiodiversitytrust.org.au) or 0435 657 850. We would love to hear from you!