

Ranges Link & Lindesay Link/Gondwana Link – Background

Stopping further fragmentation – reconnecting islands of bush and biodiversity through eco-restoration

Fragmentation of the natural environment through land clearing, mining, logging, road construction and other disturbances causes ecological decline and the loss of biodiversity. Along the Gondwana Link pathway, our goal is to facilitate the repair of cleared land through ecological plantings which will reconnect isolated patches of bush and extend and strengthen wildlife habitat.

In this time of a local, national and global biodiversity crisis, landscapes, such as those covered by the proposed Porongurup **mining exploration licence**, must be spared any further disturbance to, and fragmentation of, bush remnants and natural vegetation along rivers and creeklines. Priority must be given to restoring ecological health through biodiverse plantings on cleared land and the reconnection of isolated areas of bush.

As described below, the Porongurup is part of two conservation efforts aimed at reconnecting habitats, both of which have been developed as part of the even larger scale Gondwana Link effort.

Lindesay Link

This covers the area west of Porongurup through to the Walpole Wilderness Area. It was developed by the Wilson Inlet Catchment Committee working with a number of groups and landholders. Their original plan is attached, and even though it hasn't been updated for some time, should have some useful information for you. Because of how their funding changed and lack of government support, the focus of much of the Wilson Inlet work in recent years has been closer to Denmark.

Ranges Link

The country between the Porongurup Range and Stirling Range national parks is the focus of a community conservation effort known as the 'Ranges Link', which is an initiative of the Oyster Harbour Catchment Group and receives major support from members of the Friends of the Porongurup Range. The Ranges Link focus area is the upper and middle catchment of the Kalgan River and covers about 40 000 hectares of farmland and bushland. In this document [Ranges Link Conservation Plan – Stirling to Porongurup](#), you'll find valuable information to counter the mining exploration licence application. As shown by the map on p. 2, the area covered by the **exploration licence application** is a significant intrusion on the area identified by the Oyster Harbour Catchment Group for creating habitat linkages between the Porongurup and Stirling Range national parks.

The Ranges Link-Stirling to Porongurup group is a sub-committee of the Oyster Harbour Catchment Group, which has this aim:

"Our aim is to continue identifying, protecting and enhancing wildlife corridors between the Stirling Range and the Porongurup National Parks. Native vegetation with high biodiversity values currently exists along waterways and in remnants on private properties (mainly broadacre farms). There are areas under threat from livestock grazing, wind and water erosion, salinity and nutrification. The biodiversity of the plants/animals in some areas is under threat due to isolation. We use our extensive local knowledge and experience to target individual areas at risk and work with the individual landholders to plan and implement onground works. To date we have facilitated hundreds of kilometres of stock exclusion fencing to protect native vegetation, and have been involved with the establishment of over 200 ha of native revegetation using seed mixes/seedlings of local provenance."

This formal planning document was produced in 2016 and apparently is still current: [https://www.wa.gov.au/system/files/2021-07/GS Lower Great Southern Strategy 2016.pdf](https://www.wa.gov.au/system/files/2021-07/GS_Lower_Great_Southern_Strategy_2016.pdf). From page 67 onwards it recognises some corridor planning the Department of Biodiversity, Conservation and Attractions did in the late 1990s, which includes a key ecological connection that seems to run through your property to reconnect the western end of the Porongurup Range with the forests of the Walpole Wilderness Area. The **mining exploration application** lies in the pathway way of that vital environmental opportunity.



Protecting the values of the Porongurup National Park

Another strong ground for objecting to the proposed **mineral exploration licence** is the way in which it wraps close to the western end of the Porongurup National Park, which is a smallish but incredibly significant natural area. The movement of wildlife, for example, means that national parks cannot exist in isolation from the surrounding environment – they are intimately interconnected. It is these interconnections that the Ranges Link and Lindsay Link initiatives are trying to strengthen. Instead of being regarded as islands of biodiversity, national parks need strong natural linkages into the surrounding landscape to allow the movement of animal groups, including birds, reptiles and mammals. Catering for the movement of wildlife will become more acute with climate change and associated drought pressures.

The Porongurup National Park is on Australia's 'National Heritage List' of natural, historic and Indigenous places of **outstanding significance to the nation**. Related to that listing, this Commonwealth Government document gives a rich description of the natural values of the Porongurup National Park: <https://www.awe.gov.au/sites/default/files/documents/porongurup.pdf>

You might find further 'umph' (as you mentioned in your email) from watching this video we produced recently called '[Long Before the Dinosaurs](#)', which relates to ancient invertebrates found in the Porongurup National Park as well as beyond the park boundary.

Biodiversity hotspot

In 2000 all of south-western Australia was scientifically recognised as one of the world's top 25 biodiversity hotspots, where '*where exceptional concentrations of endemic species are undergoing exceptional loss of habitat.*' While the list of hotspots has since been expanded to 36, the best reference seems to still be that original paper (can send a copy if you like: Myers N, Mittermeier RA, Mittermeier CG, da Fonseca GAB, Kent J (2000) Biodiversity hotspots for conservation priorities. Nature 403:853–858).

Below we have pasted some words which describe the hotspot, plus a couple of maps from a couple of papers which show where the most important – ‘hottest’ – parts of the hotspot are, at least for plants. **Yep, around the Porongurups and up to the Stirlings is a key area.** Perhaps the key bit is that we are still ‘discovering’ many species in areas that are reasonably well known – for example over the last 10 years or so there has been one plant species named by botanists and added to the plant list every week, which is pretty unheard of globally. Because the area around the Porongurup is such a tight mix of wet karri forest, jarrah and marri forest and even mallee areas, it is certain to have so much more that is yet to be found. **Please see further maps and information below.**

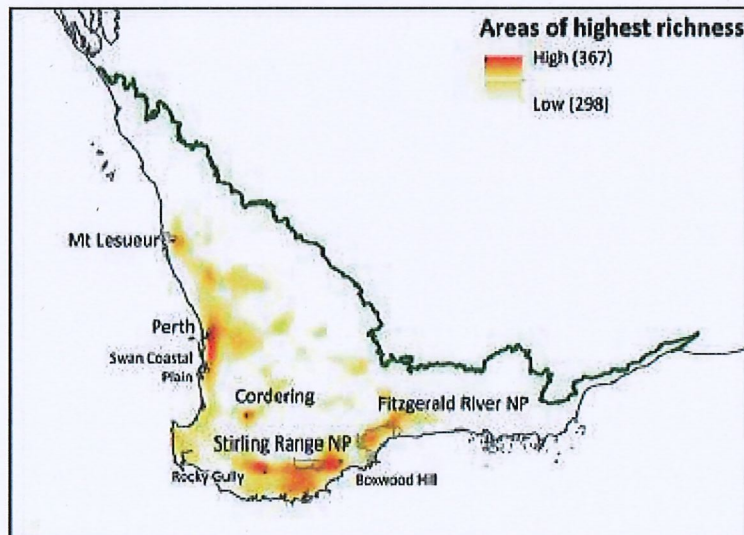
We hope the information above is useful for your presentation to the Mining Wardens Court and we have our fingers crossed the application for the mineral exploration licence will be rejected!

Regards

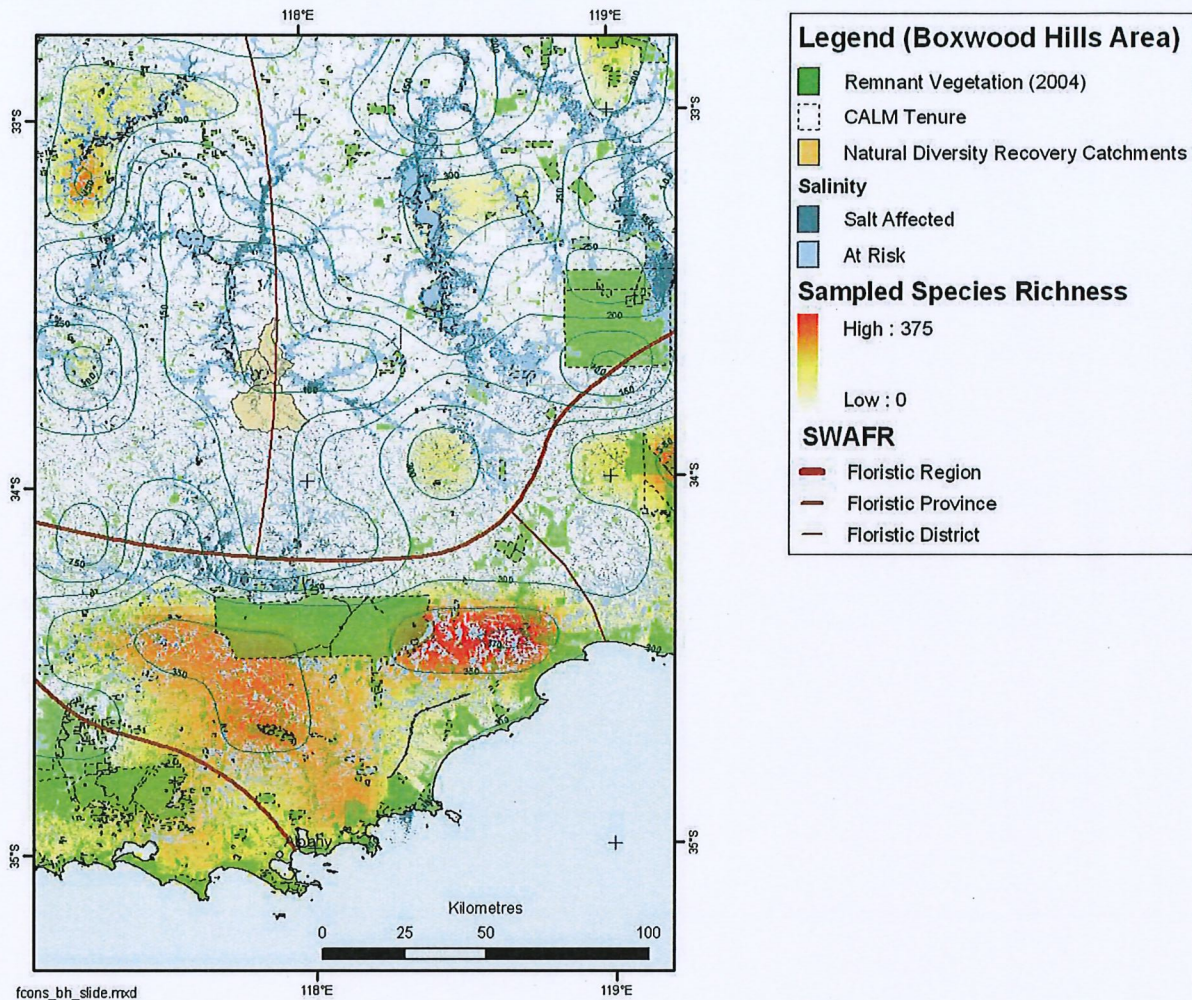
Margaret Robertson and Keith Bradby

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Gondwana Link



The map above is more recent than the one below, but not as well drawn for our purposes. You can just make out the boundary of the Stirling Range NP, and the red areas show where the major areas of plant richness are, which includes around the Porongurup. It's from: Paul Gioia & Stephen D. Hopper (2017) *A new phytogeographic map for the Southwest Australian Floristic Region after an exceptional decade of collection and discovery*. Botanical Journal of the Linnean Society, 2017, 184, 1–15



This map shows how rich in biodiversity the areas around the Porongurup Range and Stirling Range are, compared to other areas, and also how the high number of plant species in the area outside these two national parks is at least as important as the areas inside the parks. It's from: Hopper, S. & Gioia, P. (2004). The Southwest Australian Floristic Region: Evolution and Conservation of a Global Hotspot of Biodiversity. *Annual Review of Ecology and Systematics* 35 pp623-650. Hope you can identify the Stirling Range and the Porongurup Range.

South-western Australia

"You will see many things here that contradict your knowledge of life on Earth"

Professor Kingsley Dixon, Curtin University, WA. Chair, Society for Ecological Restoration International^[i]

South-western Australia is recognised as one of the most biologically diverse places on earth, even though many elements of that richness are still being documented. As of 2017 research had documented '8379 native vascular plant taxa . . . of which 47% are endemic and 49% have been described since 1970'^[ii]. In 2000 south-western Australia had already been listed as one of the world's top 25 biodiversity hotspots – 'where exceptional concentrations of endemic species are undergoing exceptional loss of habitat'^[iii], and is now one of the two global biodiversity hotspots recognised in Australia^[iv]. Knowledge of the impressive diversity of short-range endemic fauna has also expanded^[v], and high levels of local endemism, species richness and turnover are associated with the region's biota^[vi].

These levels of richness and short-range endemism have arisen in a landscape of great age, and where evolutionary processes have continued *in-situ*, virtually without major interruption, for some

250million years. It's an old, weary and infertile landscape, scientifically described as 'subdued' but known locally as 'flat'. This is in direct contrast to virtually all the other biologically richest areas globally, a comparison compounded by the leached and largely infertile soils of south-western Australia. However, those conditions, plus the great continuous age of the evolutionary processes has led to development of a wide, and often bizarre, array adaptive mechanisms across plants and wildlife. The array includes orchids and frogs that live underground, plants that eat insects and a rich array of truffle species, and marsupials that feast on them. It has been proposed that the diverse array of adaptations used by the plant world alone make the region worthy of the title '*One biodiversity hotspot to rule them all*'^[vii] (though it may take considerable further research before colleagues in other hotspots accept that title).

Vegetation types vary enormously. The far south-west corner was largely dominated by tall wet hardwood forests – which are interspersed with species rich swamps and peatlands and occasional granite tors. Further inland open woodland gives way to a mixture of low mallee^[i] shrublands and heaths (called Kwongkan). The heaths are generally the biologically richest areas. Surprisingly, as the climate becomes drier even further inland, these health systems give way to a tall open woodland, often dominated by tall majestic trees like salmon gum and gimlet, which can thrive on less than 250mm of rain per year. Amongst all these systems is a network of broad salt lakes in ancient paleo-drainage systems, relicts of ancient 'Amazon like' river systems that once flowed across the area.

^[i] Eucalypts where the 'trunk' is a largely underground lignotuber. This makes them more resistant to fire, as the lignotuber can simply regrow its above ground branches. The same stems are arrayed as efficient water harvesting structure, sending over 90% of the light rainfall into the ground around the root zone.

^[ii] Quoted in Woodworth, Paddy (2013) *Our Once and Future Planet: Restoring the world in the climate change century*. University of Chicago Press. p214.

^[iii] Paul Gioia & Stephen D. Hopper (2017) *A new phytogeographic map for the Southwest Australian Floristic Region after an exceptional decade of collection and discovery*. Botanical Journal of the Linnean Society, 2017, 184, 1–15.

^[iiii] Myers N, Mittermeier RA, Mittermeier CG, da Fonseca GAB, Kent J (2000) *Biodiversity hotspots for conservation priorities*. Nature 403:853–858.

^[iv] R.A. Mittermeier, W.R. Turner, F.W. Larsen, T.M. Brooks, C. Gascon (2011) *Global biodiversity conservation: the critical role of hotspots* F.E. Zachos, J.C. Habel (Eds.), Biodiversity Hotspots, Springer Publishers, London (2011), pp. 3-22.

^[v] Harvey MS, Rix MG, Framenau VW, Hamilton ZR, Johnson MS, Teale RJ, Humphreys G, Humphreys WF (2011) *Protecting the innocent: studying short-range endemic taxa enhances conservation outcomes*. Invertebrate Systematics 25:1–10

^[vi] Rix MG, Edwards DL, Byrne M, Harvey M, Roberts JD (2014) *Biogeography and speciation of terrestrial fauna in the south-western Australian biodiversity hotspot*. Biological Reviews 90 (3) DOI: 10.1111/brv.12132.

^[vii] Mark C. Brundrett (2021) *One biodiversity hotspot to rule them all: southwestern Australia—an extraordinary evolutionary centre for plant functional and taxonomic diversity*. Journal of the Royal Society of Western Australia, 104: 91-122.

CASTLE MINERALS HISTORY IN THE SHIRE OF PLANTAGENET

BACKGROUND

Castle Minerals Mt Barrow expansion to existing Kendenup/Martagallup Graphite Project

April 2022 Castle Minerals' plan to double its WA graphite portfolio with applications for permits to explore for graphite on at least 20 private properties between Mount Barker and west of the boundary of the Porongurup National Park. <https://thewest.com.au/business/public-companies/castle-poised-to-double-wa-graphite-portfolio-c-6583951>

Castle Minerals Activity Report

Sept 2022 It was reported that work was on hold at the Kendenup-Martagallup Graphite Project pending negotiations to secure additional land access agreements with freehold landowners to enable a previously completed orientation, low-impact Loupe ground EM survey to be extended.

[chrome-extension://efaidnbmnnnibpcajpcglclefindmkaj/https://company-announcements.afr.com/asx/cdt/1587e6ae-76e8-11ee-8070-6e1a36560f27.pdf](https://company-announcements.afr.com/asx/cdt/1587e6ae-76e8-11ee-8070-6e1a36560f27.pdf)

Greenfield Projects

April 2023 The WA State government announced a **\$40 million fund** to bolster the search for critical minerals almost half of which will be used to encourage grassroots exploration targeted in unexplored or currently undeveloped areas within WA. <https://www.wa.gov.au/government/media-statements/McGowan-Labor-Government/%2440-million-critical-minerals-investment-to-support-shift-to-net-zero-20230404>

Castle Minerals withdrew application EL 70/6294

21 July 2023 We believe it is only a matter of time before another application is made by Castle Minerals or another exploration company.

Castle Minerals Activities Report

Sept 2023 Update: Great Southern Project, also referred to as the Kendenup Graphite Project / Mt Barrow ELA 70/6116/ previously 70/6294. <https://www.castleminerals.com/great-southern> <https://company-announcements.afr.com/asx/cdt/1587e6ae-76e8-11ee-8070-6e1a36560f27.pdf>

RECENT MINING APPLICATION HISTORY

Rio Tinto/2022: - application to explore for battery minerals spanning 107,000 hectares of the northern jarrah forest south-east of Pinjarra over 10 tenements: **withdrawn for** a number of reasons including community concerns.

Allup Silica/2022: **withdrawal** of the application to explore for silica sands - the Antwalker Project. May have been the result of the highly organised, Quinninup Community Association Stakeholder Coalition in Quinninup south of Manjimup around Karri Lake and amongst ancient karri trees. They eventually withdrew the tenement closest to Quinninup but are still pushing an alternative (which is often the case) with exploration at their 'Sparkler C project across private farmland in the Lake Muir district. [3].

It may also have influenced Castle Minerals to withdraw their application for permits in the Mt Barker /Porongurup area following a community driven petition and publicity.

9 active objections in Torbay, Balingup and at the Registered Aboriginal cultural heritage site 1km east of Manypeaks which includes part of Ballogup (Lake Pleasant View).

Footnotes

[2] <https://www.dmirs.wa.gov.au/content/open-consultations>

[3] <https://thewest.com.au/business/public-companies/high-purity-samples-buoy-allup-silica-in-southern-wa-c-9158766>