



PARK VISITS BY FRIENDS – 2020

Balcanoona Revegetation & Weetootla Springs Water Quality & Fish Monitoring Projects

19th to 25th April and on either –

15-21 August or 22-28 August TBC

Oocaboolina Refurbishment Project

19th to 25th April and on either –

5-11 July or 2-8 August TBC

VOLUNTEER SUPPORT GRANTS

The Department for Environment and Water (DEW) provided grant funding through the Friends of Parks Inc. In-Parks Volunteer Support Grants program during 2019/20. The Friends group were successful in obtaining a grant of \$5,000.00 to continue its works program to refurbish the Oocaboolina Outstation – funds will be used to

- *replace existing timber framed windows using second-hand frames purchased by the Friends from funds donated by the Lions Club of Blackwood,*
- *replace existing steel bars with steel mesh security screens, and*
- *Re-surfacing two bedroom floors with floor levelling compound.*

FRIENDS of VULKATHUNHA-GAMMON RANGES NATIONAL PARK Inc.

ANNUAL GENERAL MEETING

5th Annual General Meeting will be held at 7.30 pm on Friday 13th March 2020

Fullarton Park Community Centre

411 Fullarton Road. Fullarton

Summary of the 2019 in park activities.

Balcanoona Revegetation

- The new irrigation system completed in Area 1 and commenced in Area 3 and Office Area
- ~ 110 new plants and ~ 95 existing plants were supported by the new irrigation, along with fertiliser, new plant guards and mulch matting. Most of the new plantings were Manduwarra (Curly Mallee) grown by friends. (member Nicky De Preu with home grown seedlings on right)
- Seeds collected from 8-9 local plant species and propagation commenced by friends for planting in 2020
- Trench dug and steel pipe laid under roadway to enable re-veg work in Area 2 in 2020
- Continued documentation of new and existing plantings
- Challenges around digging holes in compacted soils and accessing water when planting highlighted and improvements identified
- Continued active partnership with Balcanoona Rangers both while we are on-site and their critical all-year support and monitoring work



Roger Mathers

BALCANOONA REVEGETATION SITES



Weetootla Springs Water Quality & Fish Monitoring

- Continued collection of water quality measurements
- Actual fish numbers and sizes were collected
- GPS locations for Native Orange trees recorded
- Riparian vegetation assessments were carried out for the first time
- Eradication of tobacco bush weeds



Ray Hickman

Oocaboolina Refurbishment

- Replaced the galvanised iron door on the western side
- Completed painting of walls in the lounge and one bedroom
- Continued repairing and painting of internal door frames
- Replaced steel mesh eastern door with new solid panel door and screen door
- Cleaned site of debris – fire reduction.
- Installed and painted table constructed by Ranger Sian – prepared “conversation pit”.
- All of the above would not have been possible but for the continued loyal support of our members – thank you.



Graeme Oats

Summary of the 2019 administrative activities.

- Incorporation was achieved on 12 December, 2018
- Listing as a charity effective from 1 January 2019
- Successes with 3 grant applications that support all three of the group’s activities in the park.
- Designed & produced a group logo and badge with assistance from Hannah Jones – design depicts the indigenous flower of the Iga tree and purple spotted gudgeon with back ground colours of the indigenous flag, red, yellow and black.
- Designed and produced a group brochure.

Current dry conditions in the park – how do they compare with past experience?

There is a Bureau of Meteorology weather observations site at Arkaroola quite close to where our Friends group is running its activities. Rainfall records for Arkaroola go back to 1938. The average annual rainfall over the period 1938-2019 is 256 mm. The 2019 rainfall for Arkaroola was 40 mm. and the lowest yet recorded. The next lowest was 56 mm recorded in 1940.

In 2018 the rainfall was 66 mm giving a two-consecutive-year total of 106 mm. The previous lowest two year rainfall was 126 mm for 1969-70. In 2017 rainfall was 181mm giving a 3 year total of 287 mm (94 mm p.a.) The previous lowest 3 year total was 329 mm (110 mm p.a.) recorded for 1959-61.

There have been longer periods of below average rainfall at Arkaroola than we have seen in the last three years but they have not reached the same intensity. The longest period of low rainfall was the millennium drought of 1999-2009. During this period the maximum annual rainfall was 225 mm, the minimum was 103 mm and the average over the entire period, 170 mm.

Scientific Expedition Group (SEG) has a long-term project going on the western side of the park which has involved the regular collection of photographs taken at well-defined photo points. This photographic archive is very likely the only existing record of the connection between weather in the park and the state of its vegetation. Below is a set of five photos taken at one SEG photo point. The first photo, taken in April 2008, shows the location after about 10 years of the millennium drought. The second, taken in April 2015, shows the recovery after about 6 years of above average rainfall following the drought. The remaining

three photos, taken in April 2017, April 2018 and April 2019, show the much greater effect on vegetation that the current, and much shorter, dry period has already had.



April, 2008 after about 10 years of the millennium drought – much of the vegetation in the foreground is dried off but there is still some green cover.



April 2015 after the millennium drought was followed by 6 years of above average rainfall – vegetation in the foreground is denser with a high proportion of greenery.





April 2017 the start of the current dry period – the previous three years have been of above average rainfall. Vegetation in the foreground is thick with a high proportion of green.



April 2018 the second year of the current drought – this twelve month period has been sufficient to dry out vegetation in the foreground.





April 2019 in the early part of the driest year on record- now dried out vegetation dominates into the middle ground of the photo with very little greenery. Hills in the background seem quite bare compared to two years earlier. Only 20 mm of rain fell in the eight month period after this photo was taken. What will the scene look like in April 2020?



Acknowledgement All the photographs above are reproduced with the knowledge and agreement of Scientific Expedition Group.

Given the low rainfall at Arkaroola over the last three years the persistence of the Weetootla, Yuwanhinya and Nepouie springs is remarkable. The fact that the flow from these springs continues to be strong goes a long way towards explaining why they are the only sites in the region where the nationally endangered fish *mogurnda clivicola* has persisted. But it may also be that other features of the water bodies, and the associated vegetation maintained by these springs, contribute to the survival of the fish. Gaining insights into what these other features might be is an important goal of the Group's monitoring activity.

When Friends of Vulkathunha-Gammon Ranges National Park began its monitoring program of Weetootla, Yuwanhinya and Nepouie Springs in 2018 establishment of photo points was on the agenda but none have yet been established. This will be a priority in 2020.

Ray Hickman, January 2020

HUMAN RESOURCES

Every member of Friends of Vulkathunha-Gammon Ranges National Park Inc. is important to it. As well as the fee paid which meets basic operating costs a healthy membership confers credibility on the group in its dealings with other groups and with authorities. In 2019 the group had more than 70 financial members of whom about 40 made a working visit to the park.

.....

The Flinders Ranges purple-spotted gudgeon or, given that the “purple spots” are not usually seen, a better name is Flinders Ranges mogurnda, is known as Wirti Udla Varri in the local Adnyamathanha language. The oldest SA Museum specimen of the gudgeon from Balcanoona Creek dates from 1966 when five specimens were collected by a Dr H. Wopfner. Its binomial name is *Mogurnda clivicola*. Mogurnda is said to be an aboriginal name and “clivicola” is Latin and means hill dweller. The clivicola name was assigned in 1999 when the gudgeon was identified as a separate species from the other *Mogurnda* species in Australia (eg *Mogurnda adspersa*, *Mogurnda morgurnda*, and *Mogurnda thermophilae* at Dalhousie Spring). Prior to its formal “description” as a new species, it was known by a variety of names.



Glover and Inglis (1971) refer to *Mogurnda striata* (the chequered gudgeon) as “recorded only from Balcanoona Creek (west of Lake Frome)” and as common in the Creek. This early reference is undoubtedly to the Flinders Ranges gudgeon before its taxonomy was clarified. The Flinders Ranges gudgeon was also assigned to *Mogurnda mogurnda* when it was assumed to be another occurrence of this widespread species, which in turn, was initially known as *Eleotris mogurnda*. In 1973 Scott et al. stated that *Mogurnda mogurnda* was: “....found in abundance in Balcanoona Creek in the Flinders ranges and at Dalhousie Springs”. John Glover, then with the South Australian Museum, suspected that the Flinders Ranges mogurnda was likely to be a new species and began referring to it as *Mogurnda* sp. nov. and as rare, restricted and vulnerable. In the early 1980s, McKay suggested it was a separate species and proposed the name *Mogurnda balcanoonaensis*. But this did not catch on. Gerald Allen and Aaron Jenkins conducted a review of Australian freshwater gudgeons of the genus *Mogurnda* which was published in 1999. In their article they identified six species, which included *clivicola* as one of the three newly described species.

Martin Caon January 2020

.....

LISTING ON REGISTER OF ENVIRONMENTAL ORGANISATIONS

In 2020 consideration will be undertaken by the Committee of establishing and listing a Gift Fund on the *Register of Environmental Organisations* (REO). This would allow the group to accept tax-deductible donations. Making an application to be listed on the REO will require the group to:-

- Have at least 50 financial members, and
- Establish a gift fund with the purpose and use of the funds being included in a clause of the group's constitution. To achieve this, the existing constitution will need to be amended.

At the forthcoming AGM a proposal by Special Resolution will be put to the members for the Committee to proceed with an application for registration of the Gift Fund.

The Friend's Financial Resources

The success achieved during 2019 with grant applications to support the group's work on-site in the Park has increased the Committee's confidence in the group's financial viability over the longer term. Prior to this inflow of grant funds (about \$14,000) the group's income was derived from, membership fees, donations, bank interest from the Bonython bequest and the bequest itself. If it had been necessary for the group to finance its work in the park from these limited resources progress would either have been very slow or the Bonython bequest money would have been used up very quickly.

Now there is confidence in the Committee that there will be at least several years during which income from fees, donations and interest from the Bonython bequest will be sufficient to meet most costs.

Membership Renewal

Membership became due on 1/1/2020. Thank you for your support last year and please consider continuing your membership in 2020. To renew membership refer to the 'How to join page' of the group website at: <http://www.rayh.id.au/vulkathunha/secondary/howtojoin.html>

The Committee at its last meeting discussed membership fees. From a survey of other friends groups most offered memberships of \$10 p.a. household, whilst those in the more distant areas the fee is higher. The Committee decided to increase the annual fee to \$20 per household p.a. subject to membership approval at the AGM. Payment of the current \$10 p.a. fee prior to the AGM will secure membership until 31/12/2020.

If the proposal for an increase to \$20 p.a. is accepted at the AGM it will apply to new members joining, or members renewing, after 13 March, 2020.

Membership fee can be paid electronically through the Friend's bank account at Bank SA.

BSB 105078 Account No. 053 063 140.

If using this method please use your last name as a reference and advise Treasurer, Graeme by email that you have made a payment – gdoats@bigpond.net.au

Payments by cheque payable to "Friends of Vulkathunha-Gammon Ranges National Park Inc." can be posted to 2/17 Waite Street Blackwood SA 5051.