#### BUTTERFLY CONSERVATION SAINC.

Founded 25th July 1998 Adelaide, South Australia.

## NEWSLETTER

No. 83: April 2023



The Mirnu Wirra habitat in the Adelaide Park Lands is one of three sites in the parklands that support the rare and locally vulnerable Chequered Copper Butterfly.



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## WELCOME TO NEW MEMBERS

Clare Gillam

**Kylie Waters** 

**Alex Emmins** 

**Kristina Piper** 

**David Gobbett** 

**Peter Wilson** 

Karen Rodda

Annette Burmeister

**Lily Brice** 

**Tim Souter** 

Lynda Cain

**Debra Arnold** 

**Peggy Knight** 

**Cherie Lee** 

**Sue Lutterus** 

Sian Clark



BCSA thanks Konica Minolta for their generous support to BCSA. Konica Minolta is a Landcare Australia National Partner

Cover photo: Lindsay Hunt.

#### **BUTTERFLY CONSERVATION SA Inc.**

 $\label{eq:An affiliated organisation of the South Australian\ Museum\ and\ Friends\ of\ Parks.$ 

Postal Address; PO Box 4, DAW PARK 5041 South Australia

Email: info@butterflyconservationsa.net.au

Chairman: Gerry Butler - chairman@butterflyconservationsa.net.au 0407972149

 $Acting\ Secretary: Jan\ Forrest\ OAM\ -\ secretary \underline{@}\ butterfly conservations a.net. au$ 

Interim Treasurer: Karen Rodda - treasurer@butterflyconservationsa.net.au

Membership: Gil Hollamby - membership@butterflyconservation.sa.net.

Newsletter Editor and Public Talks Convener: Jan Forrest OAM

- editor@butterflyconservationsa.net.au 0419990430

Book sales: Sarah Macdonald - publications@butterflyconservationsa.net.au

Website: Lionel Edwards - web@butterflyconservationsa.net.au

Committee: Bernadette Johnson, Bryan Haywood (endangered species advocate),

Mike Moore, Ann Winter.

On-line sales: Pushpa Osborne - onlineorders@butterflyconservationsa.net.au

Friends of the Chequered Copper Butterfly - co-ordinator Gerry Butler.

Newsletter Proofreader and Editor - Judith Lydeamore

Consultants: Roger Grund OAM and Dr. Peter McQuillan.

Public Officer: Beth Keane.

#### **DIARY DATES**

**COMMITTEE MEETINGS:** Meetings are normally held bi-monthly

(usually the second Monday of the month) at 6.00pm at a committee member's home.

All members are welcome to attend. If you would like to attend please contact Chairman Gerry Butler on 0407972149.

PUBLIC TALKS PROGRAM 2023: first Tuesday March – November, at the Plympton

Community Centre, 34 Long Street, Plympton, 6.15pm for a 6.30pm start to 8.30pm. with an option for some talks to be viewed via Zoom. Please watch your email for information regarding public talks, or visit https://butterflyconservationsa.net.au/events/list/ at any time.

**NEXT TALK: 2nd May:** *An introduction to gall midges.* Presented by Dr Peter Kolesik, Honorary Research Associate, South Australian Museum.

#### **WEB SITES**

BCSA official website: Butterfly Conservation SA - https://butterflyconservationsa.net.au/

South Australian Butterflies and Moths: <a href="https://sabutterflies.org.au/home/">https://sabutterflies.org.au/home/</a>

YouTube: https://www.youtube.com/channel/UC3LZ9HPh1-DlH-01YIObkiA?view

as=subscriber

Butterflies Australia https://www.butterflies.org.au/external/home

Moths and Butterflies Australasia Inc. (MABA): https://maba.org.au/

#### **MEMBERSHIP ENQUIRIES:**

membership@butterflyconservationsa.net.au or online: www.butterflyconservationsa.net.au/product/become-a-member/

#### Membership payments:

\$10pa - plus \$10 for a mailed newsletter: to Treasurer: PO Box 4, DAW PARK 5041.

#### Cheques to be made out to:

Butterfly Conservation SA Inc. EFT details: BSB 633-000 Account No:152785838 Bank: Bendigo Bank.

Account Name: Butterfly Conservation SA Inc.

#### Please email Treasurer if paying by direct debit:

treasurer@butterflyconservationsa.net.au with name, amount and item.





Annexation of Mirnu Wirra/Park 21 West from our parklands green space will potentially decimate one of three confirmed habitat sites in the Adelaide Park Lands of the rare and locally vulnerable Adelaide's Chequered Copper butterfly *Lucia limbaria*.

Jan Forrest OAM and Greg Coote

Last month, the state government revealed SA Police had nominated Mirnu Wirra Park 21 West as its preferred future site for its Mounted Operations Unit, also known as the "police greys".

The move is necessitated by the planned demolition of the Thebarton Police Barracks to make way for the new Women's and Children's Hospital.

The Adelaide Park Lands supports three colonies of the Chequered Copper butterfly *Lucia limbaria*. Until the announcement of annexation of Mirnu Wirra Park 21W to stables, horse training areas and possible administration buildings these three confirmed sites in the Adelaide Park Lands were considered safe and a refuge for this species. This proposal has the potential to decimate one of these three sites.

One other secure site on the Adelaide Plains is on Beaumont Common. The species was found at this park in 2022.

Over the last couple of years our knowledge of other locations of the rarely seen *Lucia limbaria* species on the Adelaide plains has improved thanks to iNaturalist.

The species, however, continues to be locally vulnerable as most colonies have been found in suburban areas on road verges, house blocks and small parks.

In order to survive this species requires the presence of their obligate ant *Iridomyrmex rufoniger* as well as the caterpillar host plant *Oxalis perennans*.

Just because the hostplant is present this does not necessarily mean the butterfly has survived. This is because the caterpillars are reared in the ant's nest, the ants protect them and in return are rewarded by feeding on 'honey dew' from the caterpillars' dorsal nectary glands.

The butterfly is dependent on this complex interaction between caterpillar, plant and ant.

The hostplant is small and low. It would have been reasonably common in the past. However, as it is prone to being overcrowded by weeds and is rarely seen now.

Even if some hostplants survive in between access roads, stables and horse training areas on Mirnu Wirra Park 21W they would soon be trampled by horses' hoofs. The caterpillars while safe underground in the ant nest would eventually have no food to eat and the ants may not survive very long either.

Whilst the species has been found at Clare and on the Fleurieu Peninsula as well as interstate it had not been recorded on the Adelaide plains for 60 years when first re-discovered in the Adelaide parklands in 2011. This species would have been common on the Adelaide plains in pre-European times.

The announcement that the State Government plans to annexe the park where this species survives for use by the

Mounted Operations Unit (the Police Greys) should be of deep concern to environmentalists and all South Australian residents. The Park Lands are as iconic as the Police Greys. One should not be destroyed for the sake of the other.

In a letter from the Hon. Joe Szakacs MP Minister for Police, Emergency Services and Correctional Services dated 30th March 2023 the following was advised.

"The site was proposed by SAPOL as the safest and most suitable site for the Mounted Operations Unit, out of a range of potential parklands and commercial sites. This was due to its close proximity to the CBD, easy access, optimal environment for horses and low environmental impact."

Clearly, the advice the Minister has received that using Mirnu Wirra Park 21W for the Mounted Operations Unit will have LOW environmental impact is flawed, as it is considered one of the most environmentally diverse parks we have in the Adelaide Park Lands.

Environmental surveys have been undertaken to support this claim. We wonder what advice has the Minister has received to conclude that locating horses on Mirnu Wirra parklands would have a **low impact on the environment?** 

Some people, not aware of what is actually there, could look at it and see grass and trees with no understanding of the soil, native grasslands and other plants and the animals and invertebrates that make this a biodiversity hotspot.

Given the local vulnerability of this butterfly, its hostplants and obligatory ants, this government decision to destroy its habitat makes no sense. Especially given our status as a 'National Park City' and the host in October of the 'World Urban Parks Congress'. Please have your say and make your feelings known on how you view this government decision. https://www.adelaidenationalparkcity.org/

230406-World-Urban-Parks-Congress-in-Adelaide





Below is a link to the iNaturalist page where an observation of *Lucia limbaria* clearly shows this species photographed in Mirnu Wirra Park 21West 20th Oct. 2022. <a href="https://www.inaturalist.org/observations/139949145">https://www.inaturalist.org/observations/139949145</a>.

This female was photographed by Greg Coote in Mirnu Wirra Park 21West on 10th April, 2023.

### From the Chairman **DIRECT ACTION:**

Members and friends are encouraged to contact, via letter and with a personal visit, their local MP, Premier Peter Malinauskas, Police Minister Joe Szakacs, Environment Minister Dr Susan Close, Member for Adelaide Lucy Hood MP and the Police Commissioner Grant Stevens. to discuss our concern about this site and recommend a 'brownfields' site for the Mounted Operations Unit.

Calling into the radio media, such as Radio Adelaide and commercial stations, and raising it as an issue, as well as writing letters to the Editor of The Advertiser will be a good follow-up to the political campaign.

Sign and distribute the petitions prepared by Member for Bragg Jack Batty, the Opposition spokesperson on Environment matters, and the City of Unley petition.

Raising your voice as a BCSA and community member concerned about the loss of biodiversity is very important as once it is built on it is lost forever.

Cheers Gerry,

Chairman, **Butterfly Conservation SA** 

See page 9 for contact details.

#### **Butterfly species recorded in the Adelaide Park Lands** including Mirnu Wirra Park 21W











The planting of saltbushes in the new wetlands has seen more specimens of the Saltbush Blue Theclinesthes serpentata previously only seen occasionally. The hostplant is recorded at Mirnu Wirra.

#### **Chequered Copper**

Lucia limbaria

Status: three confirmed populations in the parklands. Rare elsewhere in South Australia especially the Adelaide plains. Hostplant recorded at Mirnu Wirra.

Photo: Lindsay Hunt.

#### **Meadow Argus**

Junonia villida

Status: not often seen in the parklands although host plant is abundant and recorded at Mirnu

Photo: Robert Fisher.

#### **Painted Lady**

Vanessa kershawi

Status: regularly seen in the parklands. Hostplant recorded at Mirnu Wirra.

Photo: Robert Fisher.

#### **Australian Admiral**

Vanessa itea

Status: regularly seen in the

parklands. Photo: Lindsay Hunt.

#### **Common Grass Blue**

Zizina labradus

Status: abundant. Hostplant recorded at Mirnu Wirra.

Photo: Roger Grund.

#### See page 9 for other species.



**Common Brown** 

Heronympha merope Female above left, male right. Status: regularly seen in the parklands. Hostplant recorded at Mirnu Wirra.

Photos: Lindsay Hunt.

## Chequered Copper

also known as the 'Small Copper' and 'Grassland Copper'

Class: Insecta

Order: Lepidoptera Family: Lycaenidae

Genus: Lucia
Species: limbaria

This 'copper' butterfly belongs to the endemic Australian Theclinae group, which has a strong obligatory association with ants. This symbiotic relationship is a close one and the caterpillars are unlikely to survive in the wild without the ants.

An elusive butterfly, it occurs in well-defined small colonies which can exist for many years if left undisturbed. The butterflies often remain near the colony, with males being highly visible as they sun themselves with open wings. When not feeding, males will take up territorial positions near the hostplant, while females will preoccupy themselves with egg laying.

The butterflies fly near to the ground. Both sexes are immune to attacks from their larval attendant ants by having pheromones the same as the ants. The butterflies remain with safety in the presence of ant trails or near the entrance to ant nests. When settled, the butterflies are easily approached.

#### **Description**

Wingspan: male 23mm, female 25mm. Upperside: central forewing area bright orange, fringes of both wings chequered brown and white. Underside: grey-brown, forewing pale orange in central area with one or two spots and rows of brown spots, hindwing with a series of obscure dark spots edged white, ground colour pale whitish-grey.







Conservation South Aus





Photos: LFHunt

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#### BUTTERFLY CONSERVATION SA Inc. FACT SHEET Lucia limbaria page 2

#### Larval foodplants:

Oxalis perennans (native sorrel or creeping yellow oxalis) and the introduced Oxalis corniculata ssp. corniculata (yellow wood-sorrel) (Oxalidaceae). The plants are perennial herbs, erect or creeping rarely to 30cm tall, 3 leaflets each 2 - 25 mm long, flowers with yellow petals 6 - 12 mm long, fruit 4 - 30mm long. The larvae will eat all parts of the hostplant, but prefer the leaves and flowers.

#### Larval attendant ant:

Larvae are attended by certain small, common black ants *Iridomyrmex* spp. (*gracilis* and *rufoniger* groups). The relationship is obligatory although the early stages can survive in captivity without the presence of ants.

#### Habitat and Ecology:

The butterfly is usually seen in moist grassland or very open woodland areas in which the grasses or understorey are sparse and open. The butterfly appears to best survive where its hostplants can remain alive (at least in perennial mode) over the hot summer months. Larvae and pupae are found in tunnels and galleries made by a small black ant (*Iridomyrmex* sp.) beneath the host plant.

#### Distribution

Early specimens were recorded in the lower north of SA, the Barossa Valley, Adelaide plains and nearby areas in the Mt. Lofty Ranges. The butterfly is presently known from the Fleurieu Peninsula, Barossa Valley, Mount Lofty, Flinders Ranges the SE Region of SA, and in March 2011 from the Adelaide Park Lands thus given the common name of 'Adelaide's Copper'. The butterfly has always been considered rare, however based on the distribution of its larval hostplants and similar habitat areas the range of the butterfly could be more extensive.

The species is also recorded from the higher rainfall areas of Victoria, New South Wales and southern Queensland.



#### Flight period:

May
April
March
February
January
October
September
August

#### Abundance (in SA):

Rare



Photo: LFHunt Oxalis perennans

#### **Threats:**

Its habitat is prime agricultural and grazing land, and its existence is therefore under constant threat from agricultural processes, particularly the effects of herbicides, insecticides, stock trampling, overgrazing and indiscriminate mowing. Colonies should be able to survive a light grass-fire, but not regular burn-offs.

#### Conservation Strategy:

Specific grassland habitat may have to be conserved for the long-term survival of this butterfly.

Strategies may include the introduction of local provenance nectar plants for the adults to feed upon. Some grazing by native or domestic animals is beneficial as it stops grasses from becoming too rank and obliterating the hostplants for this species. The butterfly would be a good candidate for re-introduction into conserved areas, as eggs or adults, if the ant is present. Council reserves and parks that receive some watering should be ideal.

#### ACKNOWLEDGEMENTS Lucia limbaria fact sheet:

Majority of text, map and flight bar from: 'Butterflies of South Australia' website by Roger Grund much of which includes biological information by the late Lindsay Hunt (Victorian Entomologist 36:5 2006). Other references and contributors include: Michael Moore; Fisher RH 1978 Butterflies of South Australia; Braby MF 2004 The complete field guide to Butterflies of Australia; Dashorst RM & Jessop JP 'Plants of the Adelaide Plains & Hills.

Production: Jan Forrest OAM, April 2018.

#### **BUTTERFLY CONSERVATION SA Inc.**

is a not-for-profit organisation for those interested in conserving the habitat of Lepidoptera (butterflies and moths) and other animals. For further Information or to purchase our books 'Attracting Butterflies to your Garden, what to grow and conserve in the Adelaide region' or "Caterpillars, moths and their plants of southern Australia' contact the Secretary, PO Box 4, DAW PARK. 5041 5000.

WEBSITE: www.butterflyconservationsa.net.au EMAIL: info@butterflyconservation.net.au

## The story of the Chequered Copper butterfly, its caterpillars and their guardians the tiny black ants. *Compiled by Friends of the Chequered Copper butterfly.*

In the busy heart of the city of Adelaide there is an unusual partnership unfolding between a local species of butterfly and a tiny native ant. The Friends of the Chequered Copper *Lucia limbaria* Butterfly are undertaking a project in Pakapakanthi Park 16 in the east parklands of Adelaide to monitor the progress of this butterfly and its interaction with the obligate ant species *Iridomyrmex rufoniger* and the caterpillar host plants - a local native ground cover plant *Oxalis perennans*.

Previously the site of horse racing (Victoria Park) and the focus of heavy recreational use, this area was intensively maintained with regular mowing. Once the race track was abandoned, remnant grassland plant species began to reappear. With the discovery of the Chequered Copper *Lucia limbaria* butterfly in 2011 a biodiversity site was set aside by the City of Adelaide. With careful management the City of Adelaide staff developed a one hectare refuge within the city of Adelaide. The site of the refuge, Pakapakanthi Park 16 is located on the south eastern edge of the city, surrounded by city buildings, busy roads and other infrastructure.

When Janet Subagio (a Butterfly Conservation SA member and City of Adelaide Bush for Life volunteer) observed the tiny orange-winged butterfly in 2011 it had not been officially recorded on the Adelaide Plains for 60 years.

South Australian Museum records an adult captured in 1945 from Parkside. As this is adjacent to the Adelaide Park Lands we can presume this species has been surviving in the parklands since that time.

Butterfly Conservation SA advised the City of Adelaide of the significance of this re-discovery and in 2018 Butterfly Conservation SA established the 'Friends of the Chequered Copper butterfly *Lucia limbaria*' and a monitoring strategy was developed with financial and logistical support from the City of Adelaide.

In October 2018 and through the summer, volunteers from Friends of the Chequered Copper Butterfly commenced monitoring the site on various forms of mobile devices using a mapping app. They recorded their observations of the butterflies, their eggs and the locations of the food plants and the local ant species which have established a unique relationship with the caterpillar larvae. The location and distribution of its caterpillar food plant *Oxalis perennans* and the interaction of the native ant species *Iridomyrmex rufoniger* with the developing larvae were also recorded. This monitoring is ongoing.



Photo: Jan Forrest. May 2011. Our first visit to see the Chequered Copper butterfly site in the Adelaide parklands at Park 16. Who would have thought this is habitat for a rare and locally vulnerable butterfly species?







Photos: Greg Coote.

#### **BUTTERFLY CONSERVATION NEWSLETTER Number 83 April 2023.**

The next development for the Chequered Copper was the production of a play 'Herding Caterpillars', co-created by Jacqui Hunter and Gerry Butler and first presented in May 2021 as part of the Adelaide Parklands nature festival event in Tuthangga Park 17.

During the SA Nature Festival Film submission in October 2022 Butterfly Conservation SA and Creative Director (Art) Rosina Possingham presented 'Herding Caterpillars – an extended reality experience' that explores the life cycle of the Chequered Copper butterfly. Based on the 2021 theatrical performance, 'Herding Caterpillars' is brought to life in the virtual world through a host of delightful characters.



This VR experience was a finalist in the Park Lands Art exhibition in April and Creative Director Rosina Possingham is off to the FMX Conference on Animation, Effects, Games and Immersive Media at Haus der Wirtschaft in Stuttgart Germany mid April to promote this production.

For further information on the Chequered Copper view: Greg Coote's 2020 video –

https://www.youtube.com/watch?v=b0bQUO\_jcvc
The BCSA 2022 SA Nature Film Festival submission –
https://www.youtube.com/watch?v=xlZgAKUqHII
AR and VR experience – https://herdingcaterpillars.com/
Projects –

https://butterflyconservationsa.net.au/about/projects/ BCSA site – https://butterflyconservationsa.net.au/ butterfly/chequered-copper/





Photos: Greg Coote.



Photo: Peter Raine.



Photo: Ken Hurley, 1st April 2023 Park 16.







Photos: Greg Coote.

#### Grassland specialist plant species at Mirnu Wirra.

Of the 70 plant species recorded the 28 plants listed below are Grassland specialist species found in Mirnu Wirra Park 21W and adjoining South Park Lands.

#### Flowering species (many of these are butterfly nectar plants)

Acacia acinacea Gold Dust Wattle

Arthropodium fimbriatum<sup>1</sup> Summer Nodding Chocolate-lily

Atriplex semibaccata1 Berry Saltbush Calostemma purpureum<sup>1</sup> **Garland Lily** 

Euphorbia dallachyana

Maireana enchylaenoides1 Wingless Blue-bush

Pauridia glabella<sup>1</sup> Tiny Star

Pseudognaphalium luteoalbum<sup>1</sup>

Teucrium racemosum<sup>1</sup> Grey Germander Vittadinia blackii1 Black's Vittadinia Vittadinia cuneata var cuneata New Holland Daisy

Vittadinia gracilis1 Woolly New Holland Daisy

Vittadinia megacephala Giant-headed New Holland Daisy

Wurmbea latifolia12 Flat leaf Nancy

#### Grass and Grass related Species (many are caterpillar host plants)

Tall or Common Wheat-grass Anthosachne scabra Aristida behriana1 Three-awned Grass

Austrostipa blackii **Crested Spear Grass** 

Austrostipa curticoma **Spear Grass** Austrostipa flavescens<sup>1</sup> **Spear Grass** Austrostipa gibbosa<sup>2</sup> **Spear Grass** Windmill Grass Chloris truncata1

Enteropogon acicularis<sup>1</sup>

Little Mat-rush Lomandra nana Rytidosperma auriculatum **Lobed Wallaby Grass Short Wallaby Grass** Rytidosperma carphoides Rytidosperma fulvum Link Wallaby Grass

Rytidosperma setaceum var setaceum<sup>1</sup> Small flowered Wallaby Grass

Themeda triandra Kangaroo Grass

1 Prescott, AM (1994) It's Blue with Five Petals: Wildflowers of the Adelaide Region. Second Edition. A. Prescott Publishing, Adelaide and Prescott.

2. https://www.adelaidenationalparkcity.org/

#### Who to write/phone/email regarding Mirnu Wirra Park 21W.

Premier Peter Malinauskas premier@sa.gov.au

Minister for Police Joe Szakacs ministerszakacs@sa.gov.au

Police Commissioner Grant Stevens GPO Box 1539, Adelaide, SA 5001 (no email provided)

Deputy Premier and Minister for Environment Dr Susan Close MP officeofthedeputypremier@sa.gov.au

Minister for Planning The Hon Nick Champion MP ministerchampion@

Lucy Hood MP Adelaide@parliament.sa.gov.au

#### PLUS your local member

Copy to:

Lord Mayor of Adelaide lordmayor@cityofadelaide.com.au Conservation SA Craig.Wilkins@conservationsa.org.au Greening Adelaide Chair chrisdaniels@unisa.edu.au Butterfly Conservation SA chairman@butterflyconservationsa.net.au

CEO Trees for Life natashad@treesforlife.org.au

#### **Butterfly species** recorded from the Adelaide Park Lands

Saltbush Blue

Theclinesthes serpentata

Small grass yellow

Eurema smilax

Southern Grass-dart

Ocybadistes walkeri

White banded Grass-dart

Taractocera papyria

**Double-spotted Line-blue** 

Nacaduba biocellata

**Common Brown** 

Heteronympha merope

**Meadow Argus** 

Junonia villida

**Painted Lady** 

Vanessa kershawi

**Australian Admiral** 

Vanessa itea

**Common Grass Blue** 

Zizina labradus

**Chequered Copper** 

Lucia limbaria

### **Chequered Copper Butterfly inspired Herding Caterpillars** VR experience - update.

This production was a finalist in the 2023 Park Lands Art Prize which is showing in the Adelaide Festival Theatre Gallery from 24/3/23-7/5/23. The exhibition is open every Sat (except 1st April) 10am - 3pm and Thursdays 10am - 3pm and Sundays 12noon-4pm. For info about the Park Lands Art Prize go to www.parklandsart.com.



## **Butterfly Conservation South Australia Inc.**

presents the thirteenth



## PUBLIC TALKS PROGRAM 2023

On the first Tuesday of the month March to November at 6.15pm for a prompt 6.30pm start.

#### At the Plympton Community Centre

34 Long Street, Plympton.

www.butterflyconservationsa.net.au

(200 metres E of Marion Rd, and 300 metres N of Anzac Highway).

## **Public transport** options for Plympton include: Bus from the city via Anzac Highway.

Routes: 245, 248, 262, 263, 265, M44, N262. Closest stop is Stop 9, then approximately 350 metre walk along Long Street.

#### Bus from the city via Marion Road.

Routes 100, 101, H20. Closest stop is Stop 10 (east side is approximately 100 metres south of Long street). Stop 10 (west side is on the other side of Moringie Ave. approx. 100 metres north of Long Street). Then approx. 250 metre walk along Long Street.

Entry by donation (minimum of \$5).

#### **Bookings** not required

Please bring supper to share.

Bring your own cup, tea/coffee will be supplied.

Meetings should conclude by 8.30pm.

At the start of each meeting a ten minute presentation on a 'Butterfly of the Month' will be given by a BCSA committee member. DON'T FORGET TO BYO CUP.

Photo Robert H. Fisher: Rayed Blue butterfly Candalides heathi

## Rain moths or Bardi moths recorded in Mirnu Wirra Park 21W

The South Australian Museum has records of two species of rain moths (Family Hepialidae) recorded from Mirnu Wirra Park 21W *Abantiades argentata* and *Abantiades atripalpus*.

The larvae can live underground for up to five years and empty pupal cases of the two species are often found after rain.

As the adult has no mouth parts it does not feed but lives off fat reserves built up during the caterpillar stage. After mating the female can scatter up to 44,000 eggs over the ground when flying near gum trees.

Larvae, pupae and adults featured in the seasonal diet of Aboriginal people.





Photo: L.F. Hunt pupal case. Photo: Ethan Beaver adult Abantiades atripalpus.

#### **PUBLIC TALKS PROGRAM 2023**

**2nd May:** *An introduction to gall midges*. Presented by Dr Peter Kolesik, Honorary Research Associate, South Australian Museum. Larvae of gall midges induce elaborate malformations on plants. They feed on fungi or hunt for mites and insects. This talk will provide guidance on how to spot and rear a species new to science.

**6th June:** *Planning your garden.* Landscape designer Annette Burmeister will provide an insight into how gardens are designed and provide hints what to consider when you are planning a new garden or revitalizing your existing garden.

**4th July Exploring the Universe from the Suburbs:** Dr Kym Thalassoudis will give an introduction to the night sky and describe how anyone can look up and explore its many wonders using just their eyes, binoculars or a telescope.

**1st August.** Coastal butterflies on the brink and how we are conserving them. Matt Endacott is a Coastal Conservation Officer with Green Adelaide and hosted by Holdfast Bay Council. Matt will discuss his role as well as butterfly conservation that his team is undertaking along the coast including recovery programs for the Yellowish Sedge Skipper and Bitter Bush Blue butterflies.

5th Sept. 6.30pm BCSA AGM 7.00pm Public Talk It's time to protect our trees. Dr. Stefan Caddy-Retalic Adjunct lecturer, School Biological Sciences, University of Adelaide will provide an overview of studies undertaken to review the urban tree protection laws across Australia in order to assist with best practice tree protection.

**3rd Oct.** *European Bees, friend or foe*: Rossi Vonderborch from the Bee Society of South Australia will provide an overview of the European bee life cycle, bee keeping and the relationship between beekeepers and conservationists. An excursion to explore the 'Bee Hub' and walking trail at Brownhill Creek will be offered later in October.

7th Nov. Climate change and vegetation responses. Presented by Professor Robert S. Hill Dept. Ecology and Evolutionary Biology, University of Adelaide. Our climate is now changing at an unprecedented pace and the impacts will be severe. What should we do? There are some clear answers that will help us to be prepared for what is coming. This talk will be a ticketed event with catering provided. Further details to be advised.

In the case of an advertised speaker not being available, a speaker of similar interest will replace that advertised.

The views of presenters are their personal views.



# The Herding Caterpillars VR experience goes international and in the process is promoting Adelaide and our parklands.

During April Creative Director (Art) of 'Herding Caterpillars' Rosina Possingham will attend the FMX Conference on Animation, Effects, Games and Immersive Media at Haus der Wirtschaft in Stuttgart Germany.

This event by Filmakademie's Animationsinstitut takes place every spring.

https://fmx.de/en/home

Rosina will be showing people at the conference, on two Virtual Reality headsets, the 'Herding Caterpillars' experience and this will also be displayed on a screen for passersby to view. She hopes the screen will grab people's attention and pull them in to come and view 'Herding Caterpillars'.



#### BUTTERFLY CONSERVATION NEWSLETTER Number 83 April 2023.

Q & A

Why can't we just plant some of the Chequered Copper host plants and re-locate caterpillars or eggs to start new colonies elsewhere?

It is not at simple as that. It's hard enough to re-locate butterfly caterpillars of any species let alone those that need an obligate ant to survive.

Why not use this amazing natural story to highlight the Adelaide parklands and its biodiversity by holding a Butterfly Festival. We already have a Lucia limbaria monitored site and the VR experience to show the life history. It could include guided tours of the diverse plant species found at Mirnu Wirra.

That would work well. It would need to be held in the summer months when the adults are flying. Such an event could contribute to the 'mad March' events and be another attraction for the people that visit Adelaide for the Festival and Fringe. Alternatively it could be held during the

World Urban Parks 2023 Joint International Congress 22-26 October which ironically will be held in Adelaide. https://wup.connectedcommunity.org/home

## Why can't I find any butterflies in a spot where they are supposed to be and the host plant is present?

First of all you need the hostplant plus the ant. If you find both you still may not see the adult butterfly because they are very small, fly very fast and are hard to spot. The adults do not fly far from their plant so you can be very close and still not see them.

Adults fly at certain times of the day when the temperature is right. Caterpillars are easier to see. Look carefully at the plant to see ants herding caterpillars several at a time to feed upon the leaves, again it depends on the temperature.

Do not touch caterpillars (they will drop to the ground) and careful where you tread.

#### BUTTERFLY CONSERVATION SA SILVER ANNIVERSARY PHOTOGRAPHIC COMPETITION

We are looking for images depicting the wonder of any life stage of Lepidoptera (moths or butterflies).

This could be how they live; where they live; what they eat; what eats them; how they protect themselves; how they grow; how they move; different colours and shapes; quirky habits; or how they find a mate or mate.

Images submitted must have been taken recently in South Australia OR be of South Australian species.

Competition judges will highly rate images which help educate the public; give rise to amazement; or encourage people to want to delve into the world of caterpillars, their adults, and other insects.

You may submit as many images as you wish.

#### Further information and an Application Form can be found -

- in the BCSA February Newsletter on page 7
- on the BCSA website: Butterflyconservationsa.net.au
- or email the editor (email below) to request an infomation sheet and an application form.

Application form and digital images (either attached or via an online storage location) should be emailed to: editor@butterflyconservationsa.net.au by 1st July 2023.

#### WHAT'S FOR SALE? - IN OUR ON-LINE SHOP

**BOOKS:** "Caterpillars, moths and their plants of southern Australia" Published BCSA 2019. Our price \$30, plus postage.

"Attracting butterflies to your garden, what to grow and conserve in the Adelaide Region" 2nd EDITION Published BCSA 2016. Our price \$25 (financial members may purchase a book for \$20) plus postage. "The Making of a Monarch" by Linda Shmith. Cost \$20 plus postage.

**DVD:** "Butterfly Garden" produced by Tracy Baron and Carolyn Herbert - \$20 each (BCSA financial members price \$15) plus postage. Limited stock available.

**POSTERS:** "Spiders and their allies of the Adelaide Region" Published BCSA 2014. \$10 a set of two, plus postage.

"Moths of the Adelaide Region" Published BCSA 2016 \$10 Set of four A3 plus postage. Free download available.

**Single posters:** Published Nick Birks "Bats of SE South Australia" and "The Bilby –Endangered Species" posters available for \$5 each, plus postage.

FREE Orchid Posters. Plus postage. Posters are free to schools, but incur postage.

**SITE SIGNS:** to obtain an application form to register a butterfly site click on the site sign logo. Cost \$60 includes postage.

PLANT TAGS: See list and form available on website. \$2.00 per tag, includes plastic stake and postage.

If you would like become a member, order any of our merchandise, including books, plant tags, site signs or posters, check out the **ON-LINE STORE at https://butterflyconservationsa.net.au/shop/** and sign up for a membership/book deal.

For queries email: info@butterflyconservationsa.net.au.









## THE CHEQUERED COPPER BUTTERFLY

So, you live in an ant's nest?

What do you do down there?
WE ARE LOOKED AFTER BY THE ANTS.

How come the ants don't eat you?
WE FOOL THEM INTO THINKING WE ARE ANTS.

What do you eat?
A SMALL PLANT CALLED NATIVE SORREL.

Where do you find the plant?
IT IS HARD TO FIND BECAUSE IT IS VULNERABLE TO WEED INFESTATIONS. WHEN WE FEED THE ANTS PROTECT US.

What do the ants get out of this?

WE PRODUCE 'HONEY DEW' FROM OUR NECTARY GLANDS AND THE ANTS LOVE TO DRINK IT.

IT'S CALLED A SYMBIOTIC RELATIONSHIP

