

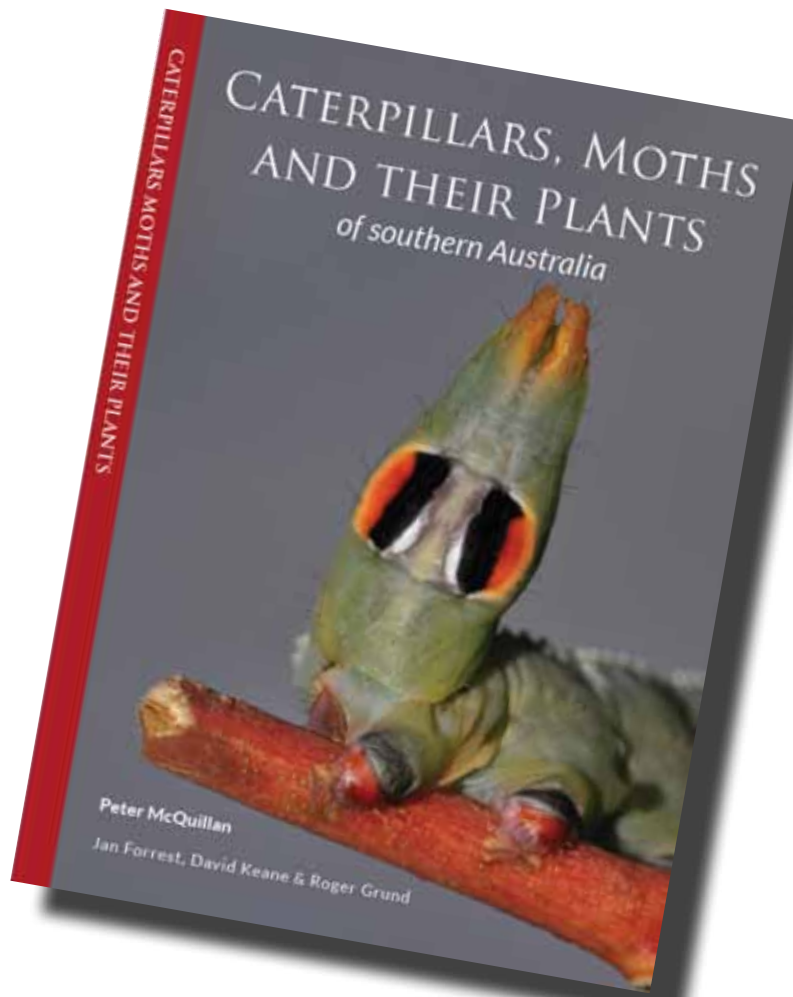


BUTTERFLY CONSERVATION SA INC.

# NEWSLETTER

No. 69: August 2019

**OUR NEW BOOK  
'CATERPILLARS, MOTHS AND THEIR PLANTS  
of southern Australia'  
is being printed right now!**



## BOOK LAUNCH

**For various reasons the official launch of our new book will be delayed until December and all members will be invited. Full details will be made available mid to late September.**

**The book however will be available in retail stores and from our on-line shop immediately it becomes available. This is expected to be in mid September.**

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## Yes 'the moth book' is finally finished!

We started in 2014 working with Peter McQuillan, initially to use the text from the original booklet 'A guide to moths of the Adelaide region' published by the South Australian Museum in 1985 and authored by Peter McQuillan and Jan Forrest however this original text is but a fraction of the content.

This new 208 page book contains over 650 original images of moth life histories and features or mentions over 280 moth species found in southern Australia.

There are many people to thank for this publication - too many to list here, however particular mention goes to Peter McQuillan for sharing his vast knowledge of the moth fauna and to you the members of Butterfly Conservation SA for funding this project.

Signed books will be available at the launch however if you cannot wait - you may purchase on-line at [www.butterflyconservationsa.net.au](http://www.butterflyconservationsa.net.au) from mid September.

BUTTERFLY CONSERVATION SA. INC. Membership enquiries: [membership@butterflyconservationsa.net.au](mailto:membership@butterflyconservationsa.net.au) or online: [www.butterflyconservationsa.net.au/product/become-a-member/](http://www.butterflyconservationsa.net.au/product/become-a-member/) Membership payments (\$20pa - less \$10 for email newsletters): 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](mailto:treasurer@butterflyconservationsa.net.au) with name, amount and item.

## NATIVE PLANT NURSERIES IN SOUTH AUSTRALIA

*The following list has been obtained from the Australian Plants Society who acknowledges with appreciation the following growers (among others) who support our spring and autumn plant sales at Adelaide Showgrounds.*

### **Mt Barker Woodlots & Wildflower Nursery**

(Geoff & Margie Barnett)  
2 Fletcher Road, Mt Barker  
Phone for opening times. Phone/fax (08) 8391 1971;  
E-mail [wildflower@sa.chariot.net.au](mailto:wildflower@sa.chariot.net.au)

### **Westflora** (Russell Dahms)

Specialising in rare & unusual inc. Boronia, Darwinea, Grevillea, Kunzea, Verticordia and Tetratheca genera Eastern Adelaide  
Phone/Fax (08) 8336 5275; E-mail [rdahms@internode.on.net](mailto:rdahms@internode.on.net). Ebay store website  
<https://www.ebay.com/au/st/russellaustriannatives>

### **Medika Gallery** (Ian Roberts)

16 Moore St BLYTH SA 5462  
Hrs Mon-Fri 10-5; Sat 2-5. 08 88445175  
Mob 0498 763 434  
Facebook page; <https://www.facebook.com/Unique-Natives-at-Medika-376695272511217/?fref=nf>  
Or search Unique Natives at Medika.  
email: [medika@adam.com.au](mailto:medika@adam.com.au)

### **Trigg Plants**

website: <https://triggplants.com.au>  
Ebay website: <https://www.ebay.com.au/str/triggplants>  
Email: [belinda@tribbplants.com.au](mailto:belinda@tribbplants.com.au)  
Facebook: <https://www.facebook.com/triggplants>

### **State Flora**

Queens Jubilee Drive, Belair National Park, Belair  
Open 9:00am-5:00pm Mon to Fri, 10:00am-5:00pm weekends and public holidays Phone (08) 8278 7777 and Bremer Rd, Murray Bridge  
Open Monday to Friday, 8:00am to 4:30pm.  
Phone (08) 8351 1420  
[www.stateflora.com.au](http://www.stateflora.com.au)

### **Growing Bush**

(Karen Lane)  
Gum Drive, Belair  
phone enquiries welcome: Phone (08) 8351 1420

### **Coromandel Native Nursery**

RMB 840 Star and Arrow Rd. Coromandel Valley – SA  
local indigenous and others  
Contact for opening times. Phone (08) 8388 2777

### **Provenance Indigenous Plants**

Sandy Crescent, Salisbury Park, SA  
Phone (08) 8250 0477. Open Monday to Friday 9am to 4 pm. Plants of Adelaide coast, plains, foothills  
[www.provenance.net.au](http://www.provenance.net.au)

### **Dealtry Native Plants**

Lot 2 Trevilla Road, One Tree Hill  
Contact for opening times Phone (08) 8280 7079

### **Poolman's Native Plant Nursery**

Lot 6 Oliver's Rd, McLaren Vale SA 5171; Phone (08) 8323 8155

**Goodwinii Eremophila Nursery** Lot 4, Bowman Road, Stirling North (via Port Augusta)  
Phone (08) 8643 6541

### **Nuthin' but Natives**

Wholesale Native Nursery at Booleroo Centre  
Open to public by appointment only  
Phone (08) 8667 2442;  
E-mail: [btwhellum@bigpond.com.au](mailto:btwhellum@bigpond.com.au)

### **Berri Native Plants**

Old Sturt Highway, Berri 5343; Phone (08) 8582 1599

### **Australian Arid Lands Botanic Garden**

Port Augusta [www.aalbh.sa.gov.au](http://www.aalbh.sa.gov.au)

### **Trees for Life.**

May Tce., Brooklyn Park 9 – 4 Mon. to Fri.  
Tel. 8406 0500 before visit

Articles for the next newsletter to:  
'The Editor'  
BCSA Newsletter C/-  
[editor@butterflyconservationsa.net.au](mailto:editor@butterflyconservationsa.net.au)  
Please send images separately as a .jpg, not embedded in word documents.

## BUTTERFLY SITE EAGLEHAWK WATERHOLE

Andrew Lines

Eaglehawk Waterhole Restoration Reserve is located in the Bangham District of the Upper South East in South Australia. Prior to its purchase in 2013 by Nature Glenelg Trust the property was used for the production of sheep and cattle. The Reserve is 684 Hectares (1700 acres) in size and has two main vegetation types, Brown Stringy Bark Forest (*Eucalyptus baxteri*) on the sandy dunes, with Blue Gum Woodland (*E. leucoxylon*) on the clay flats. During the 1960s, 510 hectares of the 684 hectares were cleared by the bulldozer and chain, many of the larger trees were cut down and burnt. Since then a number of trees and bushes have regrown giving the property a tree studded look. After the sheep were removed in 2013 the rate of regrowth in these open paddocks has increased and large stands of native grasses are still present amongst the introduced pasture. Over the last five years in excess of over 50,000 trees, bushes and ground covers have been planted.

Many of the more common species of butterfly like the Painted Lady, Meadow Argus, Common Brown and Klug's Xenica can be found throughout the reserve, Cabbage Whites are less common, most likely due to the genetically modified Canola crops grown in nearby Victoria. The large population of Pea Blues is probably due to the various Lucerne patches and broad acre crops of Legumes grown in the area, Common Blues and Chequered Blues, are also quite numerous.

During the spring of 2015 and 2016 large numbers of Caper White butterflies (*Anaphaeis java teutonia*) along with Small Grass Yellows (*Eurema smilax*) migrated through the area. A single Common Migrant (*Catopsilia pyranthe crokera*) was also sighted during the spring of 2015, a rare visitor to the state. Chequered Swallowtails were observed migrating through the property by Bryan Haywood over the spring of 2013. Only one Wanderer has been seen along with half a dozen Lesser Wanderers.

Mistletoe feeders are present at the reserve, the colourful Wood White (*Delias aganippe*) can be seen floating about some of the large paddock trees during spring and again in late summer, the Olane Azure (*Ogyris olane*) can be found from late spring through to late summer, the large black and white Mistletoe Day-moth (*Comocrus behri*) is often seen patrolling the tree line, other black and white Day flying Moths in the Agaristinae family call Eaglehawk Waterhole home. The rarely seen Southern Whistling Moth (*Hecatesia thyridion*) and the Crimson Beauty (*Cremnophora angasii*) have also been recorded here.

The Willow-herb day-moth is an occasional visitor, the Vine Moth (*Phalaenoides glycinae*) and the Spotted Day Moth (*Periscepta polysticta*) can be common at times as both use the Twiggy Guinea-flower (*Hibbertia virgata*) as their food plant. Two other colourful Day Flying Moths the Satin-green Forester (*Pollanisus viridipulverulentis*) and a smaller Burnet Moth (*Pollanisus apicalis*) also use this plant during the larval stages.

A number of the more endangered species have

been encountered amongst the patches of remanent scrub, which contain a rich and diverse array of native bushes, ground covers and sedges. The Large Brown



Skipper (*Motasingha dirphia trimaculata*) and the Sun Moth (*Synemon parthenoides*) larva use the Black Rapier Sedge (*Lepidosperma carphoides*) for their food-plant, the larva of the Sun Moth live under the clumps of sedge in tunnels and feed upon the roots, the life cycle can take around 3 years. Native daphne heath (*Brachloma daphnoides*) is a common understory plant and also the food-plant in the upper south-east for the Fiery Jewel butterfly (*Hypochrysops ignitus ignitus*). This butterfly has a symbiotic relationship with a species of ant from the genus *Papyrius* (*nitidus* spp. group), commonly known as coconut ants; although the daphne is widespread the larva can only survive in the presence of these ants and their nest. Fringed Blue butterflies (*Neolucia agricola agricola*) can occasionally be seen during the late spring and early summer, Blotched Blues (*Candalides acastus*) and Double Spotted-line Blues (*Nacaduba bioceliata*) are common during the spring and summer months,

Some of the more conspicuous insects of the reserve are the Giant Yellow Robber-fly (*Blepharopes coriarius*), which can often

From the top: Large Brown Skipper, Fiery Jewel (Andrew Lines); Fiery Jewel, Fringed Blue (Bryan Haywood); King Cricket (Andrew Lines); Inland ringed damselfly (Bryan Haywood).



be heard well before it can be seen, there are also 4 types of Dragonfly and 5 types of Damselfly, one of which, the Inland Ring-tail (*Austrolestes aridus*) is a new record for the south-east of the state. During the summer months there are 4 species of cicada that can be heard calling. Little bullock cicada, creaking branch, red-eye and mallee hisser.

23 species of butterfly have currently been recorded from Eaglehawk Waterhole, 17 resident with 6 migratory species, over 150 moth species, including some 50 species of geometrid moths, with many smaller moths still to be named and sorted and 61 species of Beetles. Ant surveys have been carried out by local enthusiast John Samuel-White who has found a greater diversity on Eaglehawk Waterhole than the adjacent National Park Reserves. Numerous different types of wasps, native beea, antlions, and native flies have been identified, with much to still be discovered.

The revegetation and regeneration work has been supported by the Australian Government National Landcare Program (20 Million Trees initiative) and will continue and

so this wonderful area can only get better with time. On a bigger scale the reserve helps connect other landscapes together. The Little Desert National Park is a stone's throw from the eastern boundary fence. Bangham and Geegeela Conservation Parks are around 1 mile away as the crow flies along with some smaller heritage blocks scattered about the district. These all help to not only increase the size of the habitat available to wildlife but to also help connect it all together

This registered butterfly site is large in comparison to most and is rich in the number of species present, all sites big or small are all of equal importance. Your site might be a garden, at a school, along a creek line, parkland or remanent patch of scrub, not only are you helping the butterfly's to thrive you are also creating a better environment to live in.

Happy Butterfly Gardening

Images below Left to right: Red-bottomed resin bee, sugar bag bee, unnamed native bee. (Andrew Lines).



## 2018 - 2019 ANNUAL GENERAL MEETING

Will be held at the Plympton Community Hall, 34 Long Street, Plympton on Tuesday 3rd September at 6.30pm. At the meeting all positions will be declared vacant and we are keen to see some new people on the committee.

If joining the committee is not your thing then please consider putting your hand up for different projects. For example we are always after helpers at BCSA promotion stands at the Plant Sales and Sophies Patch events, held twice a year, and other venues. Other projects include promoting butterflies at Monarto Zoo, Botanic Gardens and possibly other venues; the Friends of the Chequered Copper (*Lucia limbaria*) butterfly in the Adelaide parklands; assisting the editor of our newsletter to package up and post the newsletters to those that receive them by post; looking after the BCSA equipment and promotion materials plus other projects only limited by people power and our imagination. A nomination form for the committee is below:

### NOMINATION FORM FOR 2018-2019 ANNUAL GENERAL MEETING

Please email, post or hand deliver to AGM completed nomination forms to:

Membership Secretary BCSA: [secretary@butterflyconservationsa.net.au](mailto:secretary@butterflyconservationsa.net.au)  
C/- PO Box 4, Daw Park, SA 5041 or bring to the AGM.

I ..... (name of nominator), being a member of Butterfly Conservation SA, hereby nominate:

.....(please print)

to the position of Chairman / Secretary / Treasurer / Committee member. Other Committee roles include: Minute Secretary / Webmaster / Social Media Coordinator / Public Talks Co-ordinator / Newsletter Editor (please circle), for the 2019-2020 year

Signed:.....(Nominator)

Seconded by: .....

Nomination accepted: .....

# Common Brown

also known as the Western Brown

**Class:** Insecta  
**Order:** Lepidoptera  
**Family:** Nymphalidae  
**Genus:** *Heteronympha*  
**Species:** *merope*

The Common Brown is probably the main butterfly associated with many Adelaide people exclaiming “Where have all the butterflies gone?” This is because it used to be particularly common in woodland settings in the Adelaide Hills and along the Hills Face Zone, flying through the understorey or congregating in large numbers on flowering bushes to feed. With the increased pressures of urbanisation and agriculture, and the fear of bushfires and snakes, many grassy habitats of this butterfly have disappeared, and consequently the butterfly has also decreased in numbers.

## Description

*Wingspan:* male 56mm; female 64mm.

The sexes are very dissimilar, having characteristic brown, yellow and black markings that cannot be confused with any other butterfly occurring in South Australia.

*The male* has silvery-grey sex brand patches on the uppersides of all wings.

*The female* underside has a ‘dead-leaf’ pattern on the hindwing. Both sexes have large, blue centred, black ocelli (eyes) on their wings.



Below left adult female, below right adult male.



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C/- SA Museum  
North Terrace,  
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Photos: LFHunt



### **Larval foodplants:**

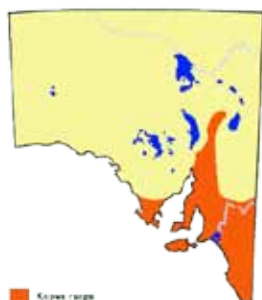
The larvae feed on various native and introduced grasses. In South Australia these include the native *Poa* species (tussock grasses), *Microlaena stipoides* (weeping rice-grass), *Themeda triandra* (kangaroo grass) and *Austrodanthonia* species (wallaby grasses). Introduced grasses include *Bromus ca-tharticus* (prairie grass), *Cynodon dactylon* (couch), *Ehrharta* species (veldt grasses), *Pennisetum clandestinum* (kikuyu). The larvae eat the leaves of the foodplant.

### **Habitat and Ecology:**

The Common Brown butterfly occurs in grassy open forest and woodland areas that receive more than 250mm annual rainfall. It prefers a moist habitat where its foodplant remains in a green condition. The butterfly is one of the first to fly in the morning, and one of the last to finish flying in the afternoon. It will also fly on heavy overcast days, and sometimes even in drizzle. On very hot days the butterflies will congregate in cool, shady areas. Females are attracted to water sprinklers on hot days. The larvae are very slow moving. Pupation occurs loose, under leaf litter on the ground.

### **Distribution**

This species inhabits the southern, temperate forests and woodlands of Australia (including Tasmania). In some years it is very abundant. In South Australia it also occurs on Kangaroo Island and some other smaller islands. It can also be found in the Flinders Ranges where it is mainly confined to the protected and shady moist valleys.



### **Flight period:**

Early October to usually mid May, but very dependent on area and elevation, and tend to emerge later in elevated and cooler areas. Both sexes start appearing in mid-spring, the females mate and then go into hiding, and they continue to do so without feeding until the following early autumn rains when they commence egg laying. The males have mostly disappeared by late summer.



### **Threats:**

At present the Common Brown is not under any major threat.

### **Conservation Strategy:**

It is locally common and no conservation action is required. In urban areas where the butterfly occurs, the preservation of small areas of rank green grass would increase numbers of the butterfly.



Underside of the female (top) and male adult butterflies.  
Photos: RHFisher.



Caterpillar foodplants:  
Above *Austrodanthonia caespitosa*, above right *Poa polyformis*.  
Photos: RSandicock.  
Right *Themeda triandra*.  
Photo: LJPaton.

### **ACKNOWLEDGEMENTS *Heteronympha merope* fact sheet:**

Majority of text, map and flight bar from: 'Butterflies of South Australia' website by Roger Grund.

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, October 2011.

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For further information or to purchase our book *Attracting Butterflies to your Garden, what to grow and conserve in the Adelaide region* or to purchase a *Butterfly Garden* DVD contact the Secretary, c/- PO Box 4, DAW PARK 5041  
WEBSITE: [www.butterflyconservationsa.net.au](http://www.butterflyconservationsa.net.au)

# Golden-haired Sedge-skipper

also known as the Chrysotricha skipper

**Class:** Insecta  
**Order:** Lepidoptera  
**Family:** HesperIIDae  
**Genus:** *Hesperilla*  
**Species:** *chysotricha*  
**Subspecies:** *cyclospila*

The Golden-haired Sedge-skipper is large and colourful, and is very intolerant of wetland degradation. It is therefore an excellent indicator species for the environmental condition of saw-sedge (*Gahnia*) wetlands. Its presence is a sure sign that the wetland is environmentally healthy, and its absence means that the wetland has suffered previous degradation of some sort.

## Description

**Wingspan:** male 33mm; female 36mm.

**Upperside:** male – brown; fore wing with a pale yellow spot half-way along the wing followed by a slightly wavy patch of black sex-scales. Beyond this patch are one or two pale yellow spots and a band of three white spots; hind wing has a bright orange central band. Female – similar to the male except that the outer edge of the wings are more rounded. The fore wing has three pale yellow spots.

**Underside:** male – ground colour rich reddish-brown; fore wing with a dark brown central area, spots similar to upperside but with four pale yellow spots; hind wing with a silvery-white spot part way along, and a series of up to six silvery-white spots edged with dark brown. Female – similar to male except hind wing with a series of six or seven spots, two of which are very small and brown.

## Distribution

Its original range in South Australia included southern Eyre and Yorke Peninsulas, Kangaroo Island, the Fleurieu Peninsula, the Coorong, and the Lower Southeast region extending into southern Victoria. Its range has been in a steady decline in South Australia, which has accelerated over the past 30 years. It is now extinct on Yorke Peninsula, and has been pushed to the extreme southwest on Fleurieu Peninsula. Population numbers elsewhere are extremely low. It rarely recolonises a previous habitat.



**Images:** From top, eggs, first instar larva, final instar larva (right) head of final instar larva (LFHunt); shelter in *Gahnia trifida* (RGrund), pupa, adult male upperside and pupal shelter seal. (LFHunt).



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**C/- SA Museum  
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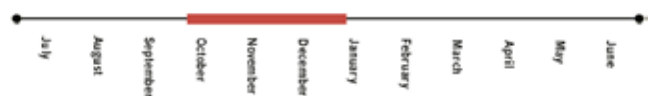
### Larval Foodplants

This species loves a variety of *Gahnia* species most commonly *G. sieberiana* and *G. trifida* with a preference for *G. trifida* in South Australia.

### Habitat and Ecology

*Hesperilla chysotricha* typically occurs in estuarine brackish swamps and along watercourses where the larval food plants, *Gahnia trifida* and *G. filum* grow. It also extends some distance inland from the coast for example into the Mount Lofty Ranges along creek-lines and upland spring environments. Colonies are very localised and often abundant where suitable habitat remains.

### Flight Period



On Eyre Peninsula this species flies in October, but in November in most other areas of the State.

### Threats

This skipper has suffered considerably from agricultural and urban disturbance of its saw-sedge wetland habitat. In historic times these wetlands were cleared, drained and burnt off, but the tenacious regrowth habit of the saw-sedges has won out in many places. However, more aggressive farming practices caused the wetlands to become severely fragmented.

Due to the tall tussock growth habit of the saw-sedges it is usually cattle that are allowed to graze these wetlands, which they do very effectively when hungry, by eating and trampling the sedges back to near ground level.

Remnant saw-sedge wetlands continue to be drained, putting terminal summer stress on the saw-sedges, causing them to in-roll their leaves which make them unpalatable to the larvae of the skipper. Unfortunately as waste products and toxins inevitably end up in wetlands, this will ultimately have an effect on the wetland community, including this skipper. It is apparent that this skipper does not appear to be able to handle too much degradation of its habitat.

### Conservation

In South Australia the adult Golden-haired Sedge-skipper is seen between October and January. Its conservation status is rated as Vulnerable. It shares the same habitat as the Orange-bellied Parrot. The restoration of wetlands with species of *Gahnia* along with the reintroduction of the species is essential for its ongoing survival. Specific habitat needs to be conserved in parks and managed for its survival.

**Images:** From top, adult female underside, adult female topside (LFHunt); foodplants *Gahnia trifida* (RGrund) and bottom *Gahnia sieberiana* (TBerkinshaw).



#### **ACKNOWLEDGEMENTS *Hesperilla chysotricha* fact sheet:**

Majority of text, map and flight bar from: 'South Australian Butterflies and Moths' website by Roger Grund.

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, August 2019

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**EMAIL:** [info@butterflyconservationsa.net.au](mailto:info@butterflyconservationsa.net.au)



## THE EMPEROR GUM MOTH *OPODIPHTHERA EUCALYPTI* SCOTT (LEPIDOPTERA: SATURNIIDAE) IN SOUTH AUSTRALIA

BRYAN T HAYWOOD

*CMB, Moorak, SA, 5291*

### Introduction

*Opodiphtera eucalypti* (Emperor Gum moth) is a spectacularly large moth in the family Saturniidae known from eastern and northern Australia in the Northern Territory, Queensland, New South Wales to central Victoria (Common, 1990; Zborowski & Edwards, 2010). Larvae are known to feed on the young foliage of eucalypts and the adult flight period is from September to February (Marriott, 2008). Larvae will also feed on foliage of the introduced Pepper Tree *Schinus molle* and Silver Birch *Betula pendula* (Common, 1990).

*O. eucalypti* is now documented to occur in South Australia. Previous to this note, no adults or larvae had been documented to occur in this State, despite four specimens occurring in the SA Museum Entomological Collection (M. Moore, pers. comm, 2019). Specimen label data included: Adelaide, 1951; Bordertown, 1975; Blackwood, no date; and South Australia, no date. The distribution is now documented to be from the lower south east and as far west and north as the Mount Lofty Ranges.

*O. eucalypti* final instar larvae were found feeding on three year old *E. baxteri* seedlings on private property 5km SW of Mt. Gambier in 2003 (Figure 2). The photograph was catalogued and identification at that time was not confirmed.



**Figure 1** – Final instar larvae of *O. eucalypti* on three year old *E. baxteri* on Bryton Wood, Moorak (SA)

Advanced larvae are significantly different, which assisted in confirming this observation after an initial inquiry in October 2018 by Fabian Douglas.

*O. helena* is also present on the Moorak property and was common during the early stages of the revegetation effort which commenced in 1997. Larvae

were observed of the usual green form with a pink lateral stripe and a previously undocumented yellow form using *E. viminalis* and/or *E. baxteri* (Figure 3).



**Figure 2** – Usual green form and unusual yellow form of *O. helena* larvae (on *E. baxteri*) observed on Bryton Wood, Moorak (SA)

Identification between adult *O. eucalypti* and the superficially similar congeneric *O. helena* can be problematic, however Marriott (2008) highlights a key characteristic mark on the forewing of *O. eucalypti* highlighting differentiation between the two species (Figure 4).



**Figure 3** – Adult male of *O. eucalypti*. Midland Hwy. 19km. S.S.W. of Bendigo, Vic. 9 January 2019. Black arrow showing forewing mark. Photo: F. Douglas.

### Acknowledgements

Sincere thanks to a friend in Fabian Douglas for inquiring about the presence of this species in South Australia, confirming the identification of an old photograph, highlighting the significance of the observation,

providing editorial input and a recent photograph. Thanks also to Mike Moore for providing specimen data from SA Museum Entomological collection and providing editorial input.

### References

- Common, I.F.B. (1990). *Moths of Australia*. Melbourne University Press, Carlton.
- Marriott, P (2008). *Moths of Victoria*. Part 1 Silk Moths and Allies. Bombycoidea. Entomological Society of Victoria, Melbourne.
- Zborowski, P. & Edwards, T. (2010). *A guide to Australian moths*. CSIRO Publishing, Collingwood.
- Atlas of Living Australia (2018).  
<http://ala.org.au> accessed 2 November 2018.

## PUBLIC TALKS PROGRAM 2019

**3rd September: 6.30pm BCSA AGM 7.00pm**

**Public Talk Protecting Southern Hairy-nosed Wombats in the Mallee**

Southern hairy nosed wombats are the state fauna emblem. Protection efforts began in the 1960s after a severe drought. Moorunde Wildlife Reserve was established in 1968 and is now home to about 2000 wombats. In a climate of hostility towards them from surrounding landowners, Moorunde remains a haven for the species.



Presented by Dr. Peter Clements, President, Wombats SA.

Dr. Peter Clements is the public officer for the Natural History Society of South Australia. This environmental society was formed in 1960 to campaign for the protection of endangered native fauna and flora species and their habitat. Dr. Clements will talk about the work of this Society and particularly what has been done to protect and improve the numbers of the Southern hairy nosed wombats.

Moorunde Wildlife Reserve was established in 1968 after the Natural History Society raised money through public appeal to purchase two sections of Portee Station near Blanchetown. These sections totalled about 2,000 hectares. The land was purchased and fenced and some water was provided via tanks and ponds. The re-establishment of vegetation denuded by sheep grazing was monitored by Society members over the following 40 years. We estimate that in 1968 there were approximately

150 wombats on the reserve while the current estimates are 500-600 southern hairy-nosed wombats on this original section of the reserve.

In 2006, an opportunity arose to purchase more sections of Portee Station. This time, with some bequests in the bank, the Society had a significant proportion of the required money. Donations from the Society's patrons, John and Mary Holt, members, and like-minded organisations allowed us to purchase a further 4,900 hectares of sheep country adjacent to the existing original Moorunde reserve. We conservatively estimate that there are around 2,000 wombats on the expanded 6,900 hectare Moorunde Wildlife Reserve.

Volunteer rangers regularly patrol the fences. Volunteer working bees during our Volunteer Working Bees also maintain the reserve and its biota, removing weeds and repairing tracks and damaged fences. Research projects are ongoing including monitoring wombat populations, DNA analysis of wombat scat to determine the species of plants they eat, recovery of flora and monitoring of grazing pressures from all fauna on the reserve.

## 1st October: Parasites: the silent majority.

The World's biota probably includes more parasitic than non-parasitic species. For example: analyses of biodiversity have indicated that although more species of insect have been described and more are awaiting description than for any other group, each of those species will host at least 1 species of nematode as well as other ecto and endo parasites. As shown in a case study of wombat nematodes, parasites have important roles to play within ecosystems and have evolutionary value.



Presented by Emeritus Professor Lesley Warner.

Lesley is an Honorary Research Associate at the South Australian Museum, she retired from her position as Professor at the Central Queensland University, Rockhampton Campus and returned to the South Australian Museum in 2007, the institution at which she began her parasitology research career in 1981. Her research interests include taxonomy of Acanthocephala from Australian vertebrates and parasitic Nematoda from Australian marsupials and rodents. Her current research project is creating a checklist of Acanthocephala from Australian fish through a grant from the Australian Biological Resources Study, Australian Society for Parasitology Network.



**5th November: Evolution of the southern Australian vegetation – the World's biggest climate change experiment.**

Professor Robert Hill will explain how 45 million years ago, southern Australia was attached to Antarctica and was covered in diverse and dense tropical rainforest. Through time, the climate has dried, and the rainforests have been replaced by a mosaic of dry-adapted vegetation.



Professor Robert Hill is currently the Executive Dean, Faculty of Sciences at the University of Adelaide.

He is a graduate of the University of Adelaide. He completed his Ph.D. on Tertiary plant macrofossils in 1981, and his D.Sc. on the interaction between climate change and the evolution of the living Australian vegetation in 1997. In 1979 he accepted a position as Tutor in Botany at James Cook University, and in 1980 he was offered a lecturing position in the Department of Botany at the University of Tasmania. He remained at the University of Tasmania until 1999, after being promoted to Professor in 1993. He was Head of the School of Plant Science for 6 years prior to his departure, and was awarded Professor Emeritus status by the University of Tasmania Council in 2000. In 1999 he returned to the University of Adelaide as an Australian Research Council (ARC) Senior Research Fellow, in 2001 he was appointed Head of Science at the South Australian Museum and in 2003 became Head of the School of Earth and Environmental Sciences. He was appointed to his current position of Executive Dean in September 2006.

During his career he has won many awards including the Clarke and Burbidge Medals for his research into the impact of long-term climate change on the evolution of Australian vegetation. He is currently Editor in Chief of the Australian Journal of Botany.

### Dr. PETER McQUILLAN

Peter is the author of our new book *Caterpillars, moths and their plants of southern Australia*. Although he was born in Adelaide and graduated from the University of Adelaide he has spent most of his working life in Tasmania. Earlier this year he retired as Senior Lecturer in Geography and Environmental Studies at the University of Tasmania where he taught biogeography and environmental field techniques. In retirement he continues to supervise students and has been appointed as an Adjunct Senior Researcher, Discipline of Geography & Spatial Science.



## Butterfly Conservation South Australia Inc.

presents

## a PUBLIC TALKS PROGRAM for 2019

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.

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

### Public transport options 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 \$2).

### Bookings not required

Please bring supper to share and 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.

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



Photo LFHunt. Wood White butterfly *Delias aganippe*

## PUBLIC TALKS PROGRAM 2020

2020 will be the tenth year of BCSA Public Talks Program and the committee are keen to carry on this successful program into 2020.

If you know of an interesting speaker suitable for our audience please contact public talks convener Jan Forrest at [janf@butterflyconservationsa.net.au](mailto:janf@butterflyconservationsa.net.au).

Past programs have generally concentrated on natural history topics including plants, vertebrates, invertebrates and fossils. To ensure we provide a balance of subject matter do not discount topics of historical interest as these may also be of interest to members and visitors. Jan looks forward to hearing from you.

You can also telephone: 82978230.

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

**BOOKS** *"Attracting butterflies to your garden, what to grow and conserve in the Adelaide Region"* **NEW EDITION** Published by BCSA 2016 - Our price \$25 (financial members may purchase a book for \$20). Postage \$7.

*"The Making of a Monarch"* by Linda Shmith has now been reprinted. Cost \$20 plus postage \$7.00.

**DVD** *"Butterfly Garden"* produced by Tracy Baron and Carolyn Herbert - \$20 each (BCSA financial members price \$15) Postage and packaging \$7 One book plus one DVD postage \$15.

**POSTERS** *"Spiders and their allies of the Adelaide Region"* Published by BCSA 2014. \$10 a set of two, plus postage. *"Moths of the Adelaide Region"* \$10 Set of four A3.

Single posters: *"Bats of SE South Australia"* and *"The Bilby - Endangered Species"* posters are available for \$5 each, plus postage. FREE Orchid Posters.

**Poster postage** is \$12 for up to 6 posters. Posters are free to schools, but incur postage.

**SITE SIGNS:** Application form to register a butterfly site is available on the butterfly gardening website. Cost including postage \$50.

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

If you would like to order any of our merchandise, obtain an order form for a site sign, plant tags or schools poster set, please email: [info@butterflyconservationsa.net.au](mailto:info@butterflyconservationsa.net.au)  
OR write to the Secretary C/- South Australian Museum, North Terrace, ADELAIDE. 5000  
OR check out the **ON-LINE STORE** at [www.butterflyconservationsa.net.au](http://www.butterflyconservationsa.net.au).

## BUTTERFLY CONSERVATION SA Inc.

An affiliated organisation of the South Australian Museum.

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Secretary: Brett Oakes - [secretary@butterflyconservationsa.net.au](mailto:secretary@butterflyconservationsa.net.au) 0415 997 526

Treasurer: Dianne Lynch - [treasurer@butterflyconservationsa.net.au](mailto:treasurer@butterflyconservationsa.net.au)

Membership: Gil Hollamby - [membership@butterflyconservationsa.net.au](mailto:membership@butterflyconservationsa.net.au)

Newsletter Editor and Public Talks Convener: Jan Forrest OAM - [editor@butterflyconservationsa.net.au](mailto:editor@butterflyconservationsa.net.au) C/- South Australian Museum.

Publications and Merchandise: Gerry Butler - [publications@butterflyconservationsa.net.au](mailto:publications@butterflyconservationsa.net.au)  
Committee: Andrew Lines, John Wilson, Beth Keane, Bernadette Johnson, Bryan Haywood (endangered species advocate) and Cristy Seymour (Social Media).

Consultants: Roger Grund 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 Mike Moore.

**PUBLIC TALKS PROGRAM 2019:** first Tuesday March - November, Plympton Community Centre, 34 Long Street, Plympton. 6.15pm for a 6.30pm start to 8.30pm.  
**Next talk: 3rd September: 6.30pm** BCSA AGM **7.00pm Public Talk** Protecting Southern Hairy-nosed Wombats in the Mallee. Dr. Peter Clements.

## WEB SITES

**BCSA official website - Butterfly Conservation SA** - [www.butterflyconservationsa.net.au](http://www.butterflyconservationsa.net.au)  
The former domain name **Butterfly Gardening** - [www.butterflygardening.net.au](http://www.butterflygardening.net.au) is also still available and links directly to the new BCSA site.

**South Australian Butterflies and Moths** - <https://sabutterflies.org.au/home/index.html> (authored by Roger Grund).

**NRM Education** - <http://www.naturalresources.sa.gov.au/adelaidentloftyranges/home>  
'Get involved' - 'Education' - for students, **school monitoring activities** / for educators.  
See also other regional NRM Education sites

## WELCOME TO NEW MEMBERS

Mandy Wyart  
Andrea Bridges  
Elisa Hendrie  
Jim Gorman  
John Sloan  
Linda Cruchett  
Sally Jeavons  
Virginia Ward  
Anton Cobb  
Glyn Scott  
Glenda Richardson  
Mary Hood  
Michaela Stephens  
Sarah MacDonald  
Anika Bradshaw  
Vanessa Ditasio  
Billy-Jo Brewer  
Geoffery Cox  
Nikola Manos  
Samantha Green  
Angelina Pollock  
Angus Stewart-Jones  
Anita Xian  
Anne Kirk  
Bob Allanson  
Esmond Dowdy  
Iris Lucena  
John Morris  
Julia Browning



## KONICA MINOLTA

Thanks to Chris Lane and Konica Minolta for their generosity in printing the BCSA newsletter.

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