



BUTTERFLY CONSERVATION SA INC.

NEWSLETTER

No. 33: February, 2009.

SOUTH AUSTRALIAN MUSEUM ACQUIRES RARE SUN MOTH SPECIMEN

During the 'Bring in your Bugs' day on the lawns of the South Australian Museum a rare specimen of Cryptic sun moth *Synemon theresa* was brought in for identification by a family from Teringie, it was found in their hills face garden..

Fortunately BCSA member Andy Young was able to identify the specimen (he had just returned from Africa the day before). Andy has advised that this species is only known in South Australia from the Stonyfell Waterfall Gully area and although several specimens are in private collections this was the first specimen of this species to be lodged at the South Australian Museum Research Collection for 66 years.

Other specimens in the Museum collection were collected by F. Angel from Mt. Lofty 1942, Burnside 1937 and 1940, Stonyfell 1938 and 1940. This new specimen was collected adjacent to the known locality of the species. It is good to know that it is still there!

The Museum collections are extremely valuable in showing the distribution of different species of animals as well as telling us where species used to occur and when. Whilst the collection is not open to the general public, bonafide researchers from all over Australia and around the world are working on material from South Australian Museum collections thus increasing our knowledge of the Australian fauna.

Through a joint initiative of Museums around Australia and the CSIRO, state collections are slowly being databased and in time, the information will be on-line through the world wide web similar to Australia's Virtual Herbarium. www.anbg.gov.au/avh/

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EXCURSION

**BEHIND THE SCENES
at the Science Centre,
SOUTH AUSTRALIAN
MUSEUM on Friday 24th
April 6.30 - 7.45 (meet in
the plane tree courtyard
at 6.30) limited to 15
people phone: Jan
Forrest 82978230 to
register.**



Cryptic Sun-moth *Synemon theresa* Photos: John Hodgson

BUTTERFLY CONSERVATION SA. INC. for membership enquiries and annual membership payments (\$10):

Treasurer: 20 Thornton Street, KENSINGTON, 5068

ABOUT SUN MOTHS

Sun moths have often been called butterfly moths. Indeed, they are unusual moths and share many characteristics with butterflies:

- They fly during the day. In fact, if the sun is obscured by clouds, sun moths will rest until it reappears!
- They have “clubbed” antennae which they cannot “fold up” when they are resting (a common moth behaviour).
- They sometimes fold their wings upright when resting, possibly to cover the markings of their wings from predators.

Other interesting characteristics of sun moths:

- They lay eggs near the base of the food plant required by their larvae - probably Wallaby grass (*Austrodanthonia* species).
- They do not feed as adults, but survive on nutrient reserves built up during their larval stage.
- As adults, they live short lives (probably less than 10 days). However, their larval stage is potentially 2-3 years long!
- Sun moths have persisted in Australia for many millions of years. However, since European settlement, changes to the landscape have severely reduced their habitat
- Two sun moths have received a national listing as Endangered Species. The golden sun moth (*Synemon plana*) is listed as Critically Endangered and the graceful sun moth (*Synemon gratiosa*) is listed as Endangered.



CRYPTIC SUN MOTHS

The Cryptic sun moth was described by Doubleday in 1846. They have a wing span of 3cm (males) to 3.5cm (females), are grey-brown in colour and have orange hindwings. Cryptic sun moths occur in grassy woodlands. These habitats have been reduced by land clearing because they are also attractive to humans for urbanisation and agriculture. With limited habitat, sightings of cryptic sun moths have been few and far between! Some authors have recently considered them to be extinct!

The specimen that was brought to the SA Museum for “Bring us your Bugs” was the first one seen in many years. It confirms that the species persists in the hill-face zone of Adelaide. We are extremely fortunate to still find them living so close to the city!

References

Department of Sustainability and Environment (2003) Flora and Fauna Guarantee Act 1988 Action Statement No. 146: Five threatened Victorian Sun-moths (*Synemon* species). Available at: [http://www.dse.vic.gov.au/CA256F310024B628/0/8CD033DA4FEC900CCA2570ED0018F14E/\\$File/146+Sun-moths+five+species+2002.pdf](http://www.dse.vic.gov.au/CA256F310024B628/0/8CD033DA4FEC900CCA2570ED0018F14E/$File/146+Sun-moths+five+species+2002.pdf)

Douglas, F (2004) A dedicated reserve for conservation of two species of *Synemon* (Lepidoptera: Castniidae) in Australia. *Journal of Insect Conservation* 8: 221–228.

EPBC Act List of Threatened Fauna. Available at: <http://www.environment.gov.au/cgi-bin/sprat/public/publicthreatenedlist.pl?wanted=fauna>

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 The above text ‘About Sun Moths’ and ‘Cryptic Sun Moths’ was taken from the Uni SA website <http://www.unisa.edu.au/barbarahardy/factsheets/cryptic-sun-moths.asp>

Photo taken by Lindsay Hunt of a specimen collected by him at Waterfall Gully.

CAN YOU HELP look after the BCSA display stand at the:

- **GARDENING EXPO** at Wayville Sat 7th to Monday 9th March, 2009 - contact Jan Forrest ph: 8297 8230
- **OPEN GARDEN SCHEME ENTRANT** at 38 Trevelyan Street Wayville on Saturday 7th or Sunday 8th March any time from 10.00am - 4.00pm. contact Fiona Watson ph 0400271409
- **Mt.PLEASANT SHOW** Mt.Pleasant Showgrounds, 21 March, 2009 - contact David Keane ph: 8389 2352
- **STIRLING AUTUMN GARDEN FESTIVAL** Druid Avenue Stirling , 19 March, 2009 - contact Jan Forrest ph: 8297 8230
- **AUSTRALIAN PLANT SOCIETY** show and sale at Wayville on Saturday 3rd and Sunday 4th May (and again later in the year - contact Jan Forrest ph: 8297 8230.

Our book will be there to refer to, so you don’t need to be a butterfly or gardening expert but just be enthusiastic about butterfly conservation.

WHO IS POISONING OUR BUTTERFLIES?

Today we still find articles on ways to kill our butterflies and moths. Since early days of chemical use humans have embarked on a determined effort to eliminate crawling things without looking into the benefits of having them around. Some butterflies are still being poisoned by drastic and archaic chemical methods, instead of environmentally aware methods. While it is fair to say that certain insects may need some form of control unfortunately gardeners do not always know what species they are targeting. Here are some examples.

Ref: Attracting Butterflies to your Garden

Butterfly Conservation South Australia advocates full protection of our butterflies and their habitats. South Australian butterflies feed on native plants such as *Cullen*, *Hardenbergia*, *Swainsona*, *Indigofera*, *Acacia*, *grasses*, *sedges* and some exotics. See the book for full details.

Ref: What Garden Pest or Disease is That?

Subtitled: "Every Garden Problem"

This book offers ways of eliminating butterflies by the use of carbaryl and maldison dust.

Maldison is sold under the brand name of Malathion and carbaryl is a carcinogenic product of Union Carbide.

The Dinky or Dainty Swallowtail (*Papilio anactus*) is not so common now and is disappearing from our gardens, possibly due to climatic and habitat changes. It even received recent bad publicity by a leading Adelaide horticulturist. The Oleander Butterfly (*Euploea core corinna*) is a rare visitor to S A gardens. Even though these butterflies can cause only minimal risk to specific garden plants they are still on the pest hit list in various publications. Caterpillars for most of our butterflies are small to medium and difficult to identify, and some of the rarer species will be ultimately destroyed. The blue butterflies alone represent 28 species in S A and over 130 in Australia. Generally gardeners do not like caterpillars, or maybe they like to control their own piece of space instead of playing an important role in keeping nature's balance. If people see more butterflies around they may start appreciating them more and stop using chemicals.

David Keane



Papilio anactus Dainty Swallowtail photo: Yvonne Steed.



Euploea core corinna Oleander butterfly

SUCCESSFUL EXCURSION TO HALLETT COVE

Despite being extremely windy a very successful excursion to Hallett Cove saw 20 or more members of the Friends of Hallett Cove, BCSA and Supernova club join forces to check out the *Gahnia lanigera* plants for the Black and White Sedge Skipper *Antipoda atralba* and hear Victor Gostin provide an interesting talk on the Geology of this fascinating area. One specimen of the butterfly was seen as well as many shelters on the host plant.

Roger Grund also reported the sighting of a Rayed Blue *Candalides heathi*.

Photos: Jan Forrest





Moths of Victoria: part one, Silk moths and allies Bombycoidea.

Marriott, Peter.

Melbourne: Ent. Soc. of Victoria, 2008.

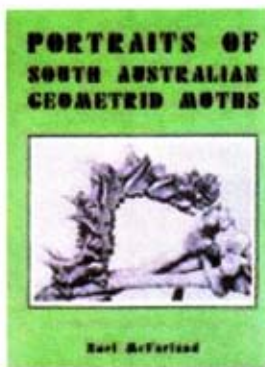
AU\$15.00 ISBN/EAN: 9780980580204

Octavo, paperback, 32 pp., colour photographs, CD-ROM.

This is the first part in a series of 10 - 12 which will cover the 2,000 species of Victorian moths. This handy sized booklet figures the 85 species of Silk moths found in Victoria, Australia. Species are set to display front and rear wings and many species are also illustrated in natural positions. A CD provides over 130 additional pages which contain biology and distributions for each species together with checklists, identification tips and more. (ISBN: 098058020X) (EAN: 9780980580204)

Available from Andrew Isles bookstore: books@andrewisles.com.

PORTRAITS OF SOUTH AUSTRALIAN GEOMETRID MOTHS



Portraits of South Australian Geometrid Moths

N. McFarland

N. McFarland, Arizona, 1988, 400 pages

Paperback, large format. ISBN 0 935868 32 1

The Geometridae is one of the largest families of Lepidoptera, and is distributed throughout the world. The Australian fauna includes more than 1000 species. The larvae, known as loopers, feed on a wide variety of native and introduced plants. This book presents life history studies of 72 species, with descriptions of the larvae, pupae, and adults, profusely illustrated with 1400 photographs, based on the author's lifetime work on collecting, rearing, photographing and describing these moths.

If you are interested in purchasing this book please contact Chairman David Keane ph: 8389 2352.

WHY MOTHS?

Moths and butterflies both belong to the order LEPIDOPTERA however 95% of all Lepidoptera are actually moths. As the BCSA Aims and Objects includes the conservation of moths as well as butterflies we shall try to feature further information about these fascinating creatures and promote their conservation.

Wikipedia says: *Lepidoptera is an order of insect that includes moths and butterflies. It is one of the most speciose orders in the class Insecta, encompassing moths and the three superfamilies of butterflies, skipper butterflies, and moth-butterflies. Members of the order are referred to as lepidopterans. A person who collects or studies this order is referred to as a lepidopterist. This order has more than 180,000 species, 128 families and 47 superfamilies. The name is derived from Ancient Greek λεπίδος (scale) and πτερόν (wing). Estimates of species suggest that the order may have more species and may be among the largest two or three orders, along with the Hymenoptera and the Coleoptera.*

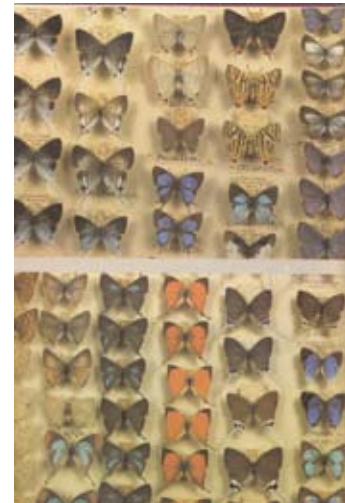
MARGARET FOUNTAINE - A TRULY REMARKABLE LADY

Margaret Fountaine was born into an English middle class clergyman's family in 1862 and was brought up with all the Victorian conventions of her age such as painting, piano playing, church going, the family visits etc. After a disastrous love affair and with a just sufficient income she relentlessly pursued her growing passion for collecting butterflies. As a single lady she travelled by ship, horse and wagon, horseback, bicycle and foot through the Austro-Hungarian Empire, through the Turkey of Abdul the Damned, across the India of the Raj to the edge of Tibet, to Africa, the Americas and even Australia. All this with her net, camphor and boxes, at times in appalling weather conditions and on not a few occasions under threat from the local male peasantry.



Butterfly hunting at Palm Springs; Miss Fountaine on a U.S. visit

In between her adventures with would be male suitors, all described in her memoirs, she collected some 22,000 butterfly specimens which she sent back to England where she returned regularly to sort and arrange her collections. In addition to her primary collection she added many meticulous drawings of butterfly life cycles and she was also a keen photographer of times and places. In her later thirties she at last succumbed to the passions of the flesh with her Turkish dragoman from Syria who became her lover and lasting companion for the next 28 years. He was perhaps in some ways the most unsuitable of all her potential lovers.



Margaret gave her complete collection, to be known as the Fountaine-Neimy [her Syrian companion] Collection to the Norwich Museum. A locked and japanned box was included with the instruction that it was not to be opened until April 15th, 1978 on which occasion it was found to contain twelve diaries from 1878 to 1939 each the size of a London telephone directory and all in her meticulous handwriting. They form the basis of a book of her adventurous, unconventional and eccentric life called "Love among the Butterflies" 1980 – a beautifully illustrated and wonderful book if you can find a copy.

Trevor Rowe



Ceylon: "We stayed in Kandy ... and saw the richly-comparissoned elephants, the chiefs bedizened with jewels, and the grotesque devil-dancer's antics in frone of the governor"



Photos: netting; collection 1; Margaret Fountaine; Ceylon, Collection 2 (Africa); Life history illustrations.

The nomenclature, taxonomy and conservation status of *Ogyris waterhousei* (Bethune-Baker, 1905) stat. nov. (Lepidoptera: Lycaenidae), a threatened butterfly from southern Australia

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Abstract

The nomenclature and taxonomic status of *Ogyris waterhousei* is revised and considered to be specally distinct from *Ogyris idmo* (Hewitson 1862) based on fundamental differences in juvenile and adult morphology. For the past 94 years, *O. waterhousei* has been treated either as a geographical subspecies or as synonym of *O. idmo*, and for the last 36 years it has been known under the name *O. idmo halmaturia* (Tepper 1890), which we show to be a junior synonym of *O. otares* (C. & R. Felder 1865). Assessment of the conservation status of *O. waterhousei* indicates that the butterfly warrants listing as Endangered nationally according to IUCN criteria. The species is restricted to habitats comprising heathland, mallee-heathland or mallee low open-woodland with a heath understorey sand where colonies of the associated ant, *Camponotus terebrans* Lowne, 1865, occur abundantly. *Og. waterhousei* formerly had a wide range in the coastal and semi-arid areas of southern Australia (western and south-western Victoria, southern South Australia); however, its geographic range is estimated to have contracted by about 88–98%, primarily due to habitat loss. Currently, the species is known from only two fragmented populations comprising a total of six extant sites. The common name Eastern Bronze Azure is proposed for *O. waterhousei*.

Key words Azure butterfly, endangered, habitat loss, mallee, myrmecophagous, range contraction.

INTRODUCTION

The monotypic tribe Ogyrini of lycaenid butterflies, containing the single genus *Ogyris* Angas, 1847, is endemic to the Australian Region (Eliot 1973). It currently includes 14 species, of which 12 are restricted to the Australian mainland; the remaining two species occur in eastern Papua New Guinea, of which one (*O. zosine* (Hewitson, 1853)) also occurs in Australia (Parsons 1998; Braby 2000). Affinities of the Ogyrini remain obscure, although the tribe may be closely related to the Arhopalini and Theclini (Pierce *et al.* 2002). Members of *Ogyris* are notable on four accounts – they are relatively large and spectacular lycaenids, with brilliant iridescent colours on the upperside of the wings; the larvae associate, to varying degrees, with a diverse array of ants representing three major subfamilies (Dolichoderinae, Myrmicinae, Formicinae), a unique and most unusual trait among Australian Lycaenidae with obligate ant associations (Eastwood & Fraser 1999); they specialise as larvae predominantly on hemiparasitic plants in the order Santalales (Loranthaceae,

Santalaceae), and thus represent one of only two lineages of Australian butterflies that have diversified and radiated on these plants (Braby 2000, 2006); and finally they represent one of very few groups of Australian endemic butterflies that have adapted to arid and semi-arid environments.

The genus comprises a number of species-groups that differ in adult morphology, wing pattern and life history. Of these species-groups, the *Ogyris genoveva* species-group (containing two species: *O. genoveva* (Hewitson, 1853) and *O. zosine*) and the *O. idmo* species-group (containing three species: *O. otares* (C. & R. Felder, 1865), *O. idmo* (Hewitson, 1862), *O. subterrestris* Field, 1999, and *O. waterhousei* (Bethune-Baker, 1905) stat. nov.), are closely related and have an obligate, specific association with ants of the genus *Camponotus* (Formicinae). The latter species-group is unusual in that, unlike all other species-groups that feed as larvae on aerial stem hemiparasitic shrubs in the Loranthaceae, the larvae are either phytophagous, feeding on root hemiparasites in the Santalaceae, or myrmecophagous with a subterranean life history in which they are believed to be fed by the attendant ants or feed on the ant brood itself (Eastwood & Fraser 1999; Field 1999; Braby 2000). Also, the *O. idmo* species

RARE MOTH FIND AT SCOTT CREEK CONSERVATION PARK
The "Fallen Bark Looper Moth" *Gastrophora henricaria* Guenee 1857 Geometridae

This moth was recently collected in 2003 at the Scott Creek Conservation Park by the renown bushcarer Tom Hands. This species was only previously known from a record at Balhannah by E.G. Guest in the 1880's. The identification was confirmed by Peter Mc Quillan, a moth expert, now living in Tasmania.



The moth was presumed extinct in South Australia! until 2003. Have you seen this moth? The adults have a wingspan of approx. 40mm.

The moth is more widely found in wetter eucalypt forests in Victoria, NSW and S. Qld although is regarded as uncommon. Photo of adult by Tom Hands.



The larva feed on *Eucalyptus* spp. and *Lophostemon confertus* (syn.*tristania*). The caterpillar right was scanned from the book *Moths of Australia* by IFB Common page 12.

D. Keane November 2008

**10 years Commemorative CD
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The CD features the Butterfly Conservation Newsletters 1 - 31 with an index for numbers 1 - 30 and the two original factsheets "Butterflies - an Introduction" and "Attracting Butterflies to your garden"

Cost: one CD \$10, two CD's \$12

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please detach and send to: Jan Forrest, 30 Churchill Avenue, CLARENCE PARK with you cheque

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I would like to order copies of the BCSA 10 year commemorative CD and enclose \$

For those whose membership will fall due at the end of June:

I enclose \$..... membership fee for the financial year/s 2009 - (you may pay up to 3 years in advance)

TOTAL ENCLOSED

\$

TEN YEARS COMMEMORATIVE CD

10 years of Butterfly Conservation Newsletters Issues 1 - 31 in PDF format and copies of our two original fact sheets 'Butterflies - an Introduction' and 'Attracting Butterflies to your Garden' are featured on this 10 year Commemorative CD.

As well, thanks to committee member Trevor Rowe an Index of the newsletters 1 - 30 will be included.

To order your copy please return the order slip on page 5 and send to Secretary Jan Forrest at 30 Churchill Avenue, CLARENCE PARK 5034 SOUTH AUSTRALIA with a cheque or money order for \$10.00 to cover cost of CD, packaging, postage and printing.

To save postage, include an additional \$10 to cover your 2009/2010 membership fee if it falls due this year.

The CD cover features the adult underside, larva and pupa of the Wood White butterfly *Delias aganippe* (photos RHFisher collection).



BUTTERFLY CONSERVATION SA Inc.

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Secretary and Newsletter Editor: Jan Forrest OAM C/- South Australian Museum, North Terrace, ADELAIDE, 5000 ph (08) 8207 7503.

email <forrest.jan@saugov.sa.gov.au > or <forrestjan@adam.com.au>

Treasurer : 20 Thornton Street, KENSINGTON, 5068.

OUTREACH PROGRAM

The full exhibition and AO size panels from the Exhibition "Where have all the Butterflies gone?" are available from Jan Forrest at the South Australian Museum for use by Landcare and other Conservation groups at seminars, conferences and workshops or just for display. Included are five introductory panels, and seventeen panels from seven habitat areas: Coastal, Grasses, Mallee, Urban, Migration/Vagrant, Eucalyptus Forrest/Woodland, Arid, Wetland and Lower South East.

DIARY DATES

MEETINGS - Committee meetings are normally held bi-monthly (usually the second Monday of the month) at 6.00pm in the Urrbrae Wetlands Resource Centre, Cross Roads, Urrbrae or at a committee members home. All members are welcome to attend. If you would like to attend please contact Secretary Jan Forrest.

Next Meeting: 20th April, 2008 at 6.00pm, 24 Hart Avenue, UNLEY.

Gardening Expo BCSA Display - 7 - 9 March, 2009 Wayville Showgrounds.

Mt.Pleasant show Display - 21st March, Mt.Pleasant showgrounds

Stirling Autumn Garden Festival Display - 19 April, 2009, Druid Avenue, Stirling.

WEB SITES

"Butterfly Gardening" - www.butterflygardening.net.au

'Butterfly Conservation SA Inc.' <http://www.chariot.net.au/~bcsa/index.htm>

'South Australian Butterflies' (Roger Grund private site)

- <http://www.chariot.net.au/~rgrund/index.htm>

'Butterfly Watch' - SAMuseum website

www.samuseum.sa.gov.au then click on 'Media' then 'online exhibitions'.

Teacher Resources (Jackie Miers) - <http://www.teachers.ash.org.au/jmresources/>

WELCOME TO NEW MEMBERS:

J. SANDYS

Dean LAMBERT

Michelle LUDEWIGS

Susan AWORTH

Kailan DENNIS

NE Hills Environmental Conservation Ass.

Julie BURGHER

Suzanne GOODES

Tony FLAHERTY

Angus STEWART -

JONES

Helen PATERSON

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