



# BUTTERFLY CONSERVATION SA Inc.

## NEWSLETTER

No. 25: December, 2006.

**4th December 6.00pm at WAITE ARBORETUM, NETLEY**  
**CHRISTMAS DRINKS AND NIBBLES** under the *Capparis mitchelli* tree at the Waite Arboretum, Netley. Bring a chair, some nibbles and a drink to share. Entry through small gate off Claremont Avenue and follow the signs/flagging tape.



### Inside this issue:

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- Excursion to Vale Park
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### EXCURSION to MORIALTA and VALE PARK PRIMARY SCHOOL

**10th December 11.00am at Morialta car park then to Vale Park at around 2.00pm**

11.00am meet Morialta Falls car park. Following our butterfly walk we plan to have lunch then proceed to Vale Park Primary School at around 2.00pm. So, if you can't come in the morning then meet us at Vale Park Primary School carpark on the corner of Ascot Avenue and Arundel Street, Vale Park. (entry from Arundel Street). The schools address is 40 - 56 Ascot Avenue.

See page 6 of the last newsletter for detailed information regarding this excursion  
**PLEASE RING Jan Forrest 8297 8230 to confirm attendance.**

### BUTTERFLY WATCH LAUNCH

'Butterfly Watch' was launched at the South Australian Museum on 17th May by none other than 'Charles Darwin' a popular figure at the Museum's roadshows (below left). During the launch BCSA secretary and 'Bring the Butterflies back' organiser Jan Forrest (below right) paid tribute to three of our outstanding South Australian Lepidopterists Bob Fisher, Lindsay Hunt and Roger Grund without whose images and knowledge the butterfly watch website would not be possible.

Butterfly Watch may be found at the SA Museum's website [www.samuseum.sa.gov.au](http://www.samuseum.sa.gov.au) then click on 'Media' and then 'on-line exhibitions'. Volunteer Leslie Richmond continues to work on the PDFs found on the site and new updated versions will be uploaded shortly.



Photos: Maria Johns

BUTTERFLY CONSERVATION SA Inc. for membership enquiries and annual membership payments (\$10):  
Treasurer, 9 Parkers Road, TORRENS PARK 5062

## PLANT DEFINITIONS

**Native plants** = Usually just means Australian plants in the nursery industry and to the public. Often native Australian plants can also be weedy when grown outside their native range e.g. Cootamundra Wattle, *Acacia baileyana*. When using the word native it has to be qualified by saying to what area i.e. native to the Adelaide Plains.

**Indigenous** = plants occurring naturally in the region concerned eg. indigenous to a region, South Australia or in our case indigenous to the Adelaide Plains.

**Endemic** = plants which is restricted to a region e.g. *Pultenaea involucreata* is endemic to the Mount Lofty region; this means it grows nowhere else in the world except in the Mt Lofty region. Endemic plants are indigenous but indigenous plants not necessarily endemic i.e. *Pultenaea largiflorens* grows in Mt Lofty region, Eyre Peninsula and NSW so it is indigenous to but not endemic to the Mt Lofty region.

**Exotic/ornamental/introduced** = plants which are non indigenous to the area. These plants are not necessarily weeds although many have the potential to become so. A *Buddleia* is ornamental/introduced plant but it does not have the potential to become a weed because it does not have fruit or set seed and therefore cannot establish itself in the paddock or the bush. Only a very small percentage of exotic/introduced/ornamental plants are weeds.

**Weeds/invasive/established** = plants which are non-indigenous growing and can set seed and grow naturally. They are opportunistic and tend to spread and compete with the existing plants e.g. native vegetation.

**Agricultural weeds** compete with crops e.g. wild radish and nettles. Some plants grown for agriculture turn weedy eg couch and kikuyu in the high rainfall areas.

**Environmental weeds** are invasive in remnant native vegetation. The seeds from these non-indigenous plants are usually spread by birds, wind, water and PEOPLE i.e. perennial veldt grass and agasaste. Some weeds are garden escapees, as the name suggest, spread into the surrounding native vegetation esp. if the climatic and soil conditions are right. Some of our hardy, water saving plants and fall into this category. A good example of this is the *Valerian*. We should not promote these for planting even though the butterflies may like them and they are already growing wild. However, if these weeds provide habitat for a rare butterfly their retention may be taken into consideration when clearing weeds in reserves.

Interesting note: *Acacia iteaphylla* (Flinders Ranges wattle) is rare and native/indigenous to the Flinders Ranges, however when planted in gardens in the high rainfall area of the Adelaide Hills, *Acacia iteaphylla* becomes an environmental weed!

Maria Johns



Southern Grass-dart (*Oxybadistes walkeri hypochlora*) feeding on Lantana a widespread garden plant in Adelaide. Photo: L. Hunt



The larvae of the Australian or Yellow Admiral *Vanessa itea* (above) feeds on plants from the nettle family including the indigenous plant *Urtica incisa* and the introduced *U. urens*. Photos: R.H.Fisher

## THE DILEMMA OF BUTTERFLY SPECIES USING EXOTIC (WEEDY) PLANTS

Last issue we heard from Jill Davy-Warren and Andy Young regarding the dilemma of butterfly species using exotic (weedy) plants.

This issue features an article from Committee Member Maria Johns, who as a member of the weeds society is passionate about weed eradication and the need to provide education on the importance of weed removal.

*Editor*

### Weeds, Biodiversity and Butterflies

Environmental weeds threaten nearly all biological communities in Australia. Weeds are costing the taxpayer billions in lost production and degradation of natural ecosystems. Second only to land clearing, invasive species are the main cause of Australia's plants and animals disappearing from areas where they were once common.

A weed is a plant which has, or has the potential to have, a detrimental effect on economic, social or conservation values. Tim Low, in his book, "Feral Future", more simply defined a weed as 'a plant growing where it is not wanted'.

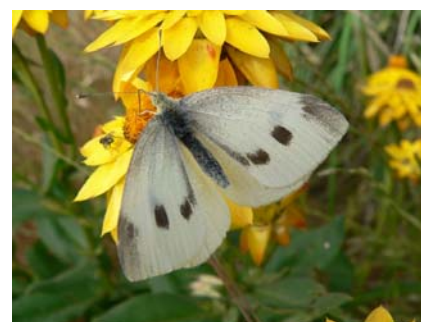
The natural environment has a system of checks and balances. Plants which are introduced from other areas do not have the suite of limiting factors – the herbivores, diseases or environmental conditions, which combine in it's natural habitat to keep it in check. Without it's limiting factors, these plants become highly prolific and invasive.

Feral or invasive plants compete with natives for light, nutrients, space and water. We see weeds like the pretty blue Water Hyacinth choking major waterways around the world, killing the other plant and animal life around it and in some cases affecting the humans who depend on the river for survival. In South Australia local weeds like pines change the structure of the native grassland to a non-native forest reducing the biodiversity.

Weeds and feral animals threaten the habitat of native fauna so they may in turn become rare, threatened, vulnerable, endangered and then extinct. But what happens when native animals adjust to the introduced or weedy plants and use the resources provided by them? Most ecologists would say that if the loss of their native food is the only threat, which is causing the animal's decline, then plant more native food species.



Above: flowerhead of the cotton bush, *Gomphocarpus cancellatus* Phtos: JAForest Right: Wanderer butterfly *Danaus plexippus* Photo: RHFisher



Above: another of our introduced butterflies the Cabbage white *Pieris rapae*. The larvae of this butterfly feeds on plants with mustard oils such as *Nasturtium*. Photo: E.Steel-Collins



Left: larvae and adult of the Small citrus butterfly or Dainty Swallowtail *Papilio anactus*. The larvae of this butterfly feeds on introduced *Citrus* plants such as oranges, lemons and limes. Photos: L.Hunt.

What do you do when an endangered animal like the Yellow-tailed Black cockatoo is counting on weeds for food? The Yellow-tailed Black cockatoo is a species, which adapted to the introduced pinecone seed for food when it's natural food species, e.g. *Hakea*, have been cleared or invaded. The pine trees in turn also affect the native habitat of other animals. So what do you do? Because these native shrubs take 10 -20 years before they start to provide enough seeds for food, the process of clearing pines needed to be done slowly. The process should start with removing the seedlings and pines that are not in the Cockatoo's home range.

Now for a more difficult question.

What if the animal is introduced and depends solely on weeds for survival? Some who are aiming for pre-European ecological balance would remove both the weed and the animal. Some ecologists would ask if that introduced animal or plant is taking the niche (what role it plays in the balance of ecological systems) of a native animal or whether it competes for food and resources with other native animals? After considering these factors, the decision then could be made whether to keep either of these species. You wouldn't think Wanderers were taking the niche of a native animal.

I often hear "What does it matter if we plant weeds in urban gardens where they do not affect native vegetation? Besides, there are so many weeds in the reserves anyway, one more won't hurt!"

Weeds have the ability to spread far and wide by wind, water and birds – often degrade the last remnant of native vegetation in urban reserve areas. In the meantime there are volunteers who spend hours in the reserves and parks hand weeding and spot spraying weeds in order to restore native plant and animal habitat. Bushcarers very passionate about conservation like the people who are working to conserve butterflies however when they meet a confrontation arises.

The Wanderer butterfly (*Danaus plexippus*) is an immigrant butterfly from North America and its larval food plant is *Gomphocarpus cancellatus* formerly *Asclepias rotundifolia* commonly known as broad leaf Cottonbush or milkweed. This plant has been listed as a noxious plant because the milk sap is an irritant to the skin and eyes as any bushcarer who has tackled this plant knows to well. *Gomphocarpus fruticosus* (swan plant) which has narrower leaves is also an environmental weed in Adelaide and the Mount Lofty Region. Cottonbush is usually a weed of disturbed soils and is not as invasive in the intact bushland as bridal creeper or blackberry whose seeds are dropped by birds. However areas of bush where the soils are easily disturbed i.e. sandy soils can have large infestations of this environmental weed. The Cottonbush seeds that look similar to dandelion seeds are easily spread by winds.

Would it be a fair compromise in the bushland situation to remove Cottonbush plants except for the plants, which have butterfly eggs or larval caterpillars? On these individual plants removing only the flowers and seeds leaving the leaves for the Wanderer larvae to munch and thrive? Or if you already have Cottonbush in the urban garden remove the flowers before they produce seed. If you remove the Cottonbush plant in your garden replace it with a larval food plant which will attract one of the indigenous butterflies maybe even one which is on the threatened or endangered list.

*Maria Johns*

## LARGE BRONZE AZURE

One of the states iconic butterflies, the Large Bronze Azure has recently been determined by DNA Biologist, Daniel Schmidt of Griffith University (Brisbane) to be a species in its own right. It was formerly attached to the Western Australian butterfly *Ogyris idmo* as subspecies *halmaturia* but in future will be known as *Ogyris halmaturia*. Sadly, this large and beautiful butterfly is critically



endangered. For further reading go to <http://www.chariot.net.au/~rbg/halmaturia.htm>.

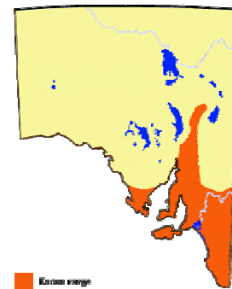
*Roger Grund*

Photos: R.Grund

## ***COMMON BROWN BUTTERFLY***

**Family:** Nymphalidae  
**Genus:** *Heteronympha*  
**Species:** *merope*  
**Sub species:** *merope*

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.



### **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). Introduced grasses include *Bromus catharticus* (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 occurs in grassy open forest and woodland areas which 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. 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 when they commence egg laying. The males have mostly disappeared by late summer. Females are attracted to water sprinklers. The larvae are very slow moving. Pupation occurs loose on the ground under plant cover.

### **Flight period**



Eggs of the common brown Photo L.Hunt  
 Larva (right) Photo RHFisher

### **Threats**

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

### **Conservation**

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, preferably native grass would increase numbers of the butterfly.



Adult male, upperside and underside. Photos: RHFisher



Adult female, upperside and underside. Photos: RHFisher

*Adapted from Roger Grund's website 'South Australian Butterflies' <http://www.chariot.net.au/~rgrund/index.htm> and Butterfly Conservation SA fact sheet.*

## SUCCESSFUL GRANT APPLICATION



### BOOK

Butterfly Conservation has recently received a grant from the Australian Government's Enviro Fund to assist with the publication of the book 'Attracting Butterflies to your Garden' so we are now confident that our book will be published during 2007.

Work continues on the text for the book and the design firm Eco-creative have been engaged to undertake design as well as produce the Butterfly Gardening website for which funds have been obtained from the Norman Whettenhall Foundation (reported last newsletter).

**Photographs of plants** are still required. If you have some good quality transparencies or digital images please contact Secretary Jan Forrest.

### EXHIBITION OPPORTUNITY

The South Australian Museum will be mounting an exhibition entitled 'Attracting Butterflies to your garden' from 22nd September to 25th November 2007. This will be an excellent opportunity to involve other organisations such as Australian Plants Society and the Grasses Resource group. If you are interested in being involved on the project team for the South Australian Museum exhibition please contact Jan Forrest.

### CAN YOU HELP?

With any project of this nature voluntary assistance is always welcome. If you are available to assist please contact Jan on 8297 8230 to have a chat about where your skills and enthusiasm can be used.

## WEBSITES

**Butterfly appearance** <http://www.teachers.ash.org.au/jmresources/butappearance/index.html>

**Butterfly body parts** <http://www.teachers.ash.org.au/jmresources/butbodyparts/index.html>

**Butterfly life cycle** <http://www.teachers.ash.org.au/jmresources/butlifecycle/index.html>

Developed by Jackie Miers from Magill Primary School these are a fabulous resource for teachers.

Also check out Jackie's other school resources at <http://www.teachers.ash.org.au/jmresources> and the school site: <http://lcms.central.sa.edu.au/mpsmoodle/>

## BUTTERFLY CONSERVATION SA Inc.

**Chairman:** Roger Grund

**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 :** 9 Parkers Road, TORRENS PARK. 5062

### 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 held **bi-monthly** (usually the second Monday of the month) at 6.00pm in the Urrbrae Wetlands Resource Centre, Cross Roads, Urrbrae. All members are welcome to attend. If you would like further information or receive an agenda please contact Secretary Jan Forrest.

**NEXT MEETING**—Monday 12th February.

**CHRISTMAS DRINKS and NIBBLES** at the Waite Arboretum Monday 4th December 6.00pm enter through small gate off Claremont Avenue Netley and follow the signs/flagging tape.

**EXCURSION**—to **Morialta Recreation Park** and **Vale Park Primary school** 10th December 2006 see page one and page 6 of the September 2006 newsletter.

### WEB SITES

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

'South Australian Butterflies' <http://www.chariot.net.au/~rgrund/index.htm>

'Butterfly Watch' - [www.samuseum.sa.gov.au](http://www.samuseum.sa.gov.au) 'media' 'on-line exhibitions'.

## WELCOME TO NEW MEMBERS:

**J. Nicholls**  
**Simon Barbour**  
**Judy Telford**  
**Elsie Jarrad**  
**Erinn Fagan-Jeffries**  
**Gary Dungey**  
**Julie Marcus**  
**Laura Marshall**  
**Joan Hall**

