



BUTTERFLY CONSERVATION SA Inc.

NEWSLETTER

No. 14: August 2003

The Value of Introduced Plants “Treading carefully with napalm”

D. Keane (Butterfly Conservation SA Inc)

This article hopefully provokes a change in views and better understanding of the complexities found in the balance of nature. It is further to my thoughts from a previous article called “Weeding between the lines” which attempts to understand relationships between butterflies and plants. In fact this relates to all living things and how we mould nature to “our” benefit.

Is today’s knowledge good enough to act decisively today? A balance can be described as a settled harmony which has subtle changes to the environment. It’s a bit like ageing; if you see a person every day you do not recognize they are getting older, but if you do not see the person for some time you can notice the changes. Whether they look better or worse is influenced by individual perception or judgment, but they look different. Why they look different is the key to understanding change. The thinking process and scenario can be the same for nature itself and poses the question ‘what changes are we creating for the future’ which we can not recognise as we create them? Are we trying to do the right thing for a good cause, but inadvertently creating an unwanted and altered environment in the future.

When is a weed a weed or unwanted plant? Who decides? In “cleaning up the environment” we classify plants according to our perspective and order. Plants are categorised as introduced, indigenous, native, exotic, agricultural, horticultural, natural, ruderal or as just weeds. It is “useful” for us to list plants for identification and “control”, as plants for eradication to protect our agricultural and horticultural endeavours, or to list them as unwanted species as a protection for the natural environment. We label them according to their threat, their nuisance value or appeal or usefulness to us, but what use are they to those who depend on them for survival? Before we go off with our chemical packs and implements we should stop and think about the bigger picture and the long-term perspective. Maybe for the first day on a new site we should walk the site with selective expertise and try to understand and take in the whole picture. What is the balanced view, what will the animals think? Life forms have made changes to adapt to their situation; will we create an in-balance that will have consequences on nature?



Milkweed, *Asclepias rotundifolia* hostplant for the Wanderer Butterfly photo: RHFisher

Butterflies and animals know how useful these plants are; the habitats for shelter, food source, nectar, egg laying facilities, mating. Do the places harbor dangers and predators? Since many of the native plants with which butterflies evolved are now disappearing they have adapted to using any suitable plant which humans have brought into their habitats, they make do or die out. It doesn’t matter to butterflies that we may consider this plant a weed, or that we think the plant is in an inappropriate place. We should understand and retain “their requirements”.

Sometimes we need to view plants from the butterfly perspective instead of the human one. Are our neat, cleaned and tidy places what a

Inside this issue:

- The value of introduced plants D.Keane
- Flight period of some Penambol CP Lower SE Butterflies
- Update on Penambol Butterfly walk
- Wanderer butterflies over-wintering
- Annual General Meeting
- Invertebrata Quiz
- Profile—Neil Collier
- Damage to habitat
- Butterfly Mobile
- Diary Notes
- Quiz answers

butterfly is looking for? What we define as a weedy, messy corner is their happy hunting ground for food and security. Is the bare roadside, sprayed with a continuous cocktail of chemicals and devoid of all things healthy going to be of any use to a butterfly? Similarly a purist view of what should remain in a native environment can damage the balance for butterflies. Certainly we could take out every plant that was not originally there, but are we then removing the plants to which butterflies have adapted as their original plant species have already disappeared. Unless we can create the complete original picture we may be restricting the diversity again. What butterflies may be threatened due to unknown changes? Some examples:

The Australian Admiral (*Vanessa itea*) feeds on the two types of stinging nettles. Has anyone seen stinging nettles lately? There are two species of stinging nettle in SA, one native and the other introduced. Are we killing off the native one? Is there a problem with the introduced one? Are they feeding on the native pellitory which is related to stinging nettles?

The universal Monarch butterfly (*Danaus plexippus*) is the most well known and feeds exclusively on “weeds” in South Australia. Is there room for preserving some weedy areas so that this butterfly can survive here? Maybe in the urban parkland environment, some rural areas or gardens. Or do we want to see the butterfly disappear altogether?

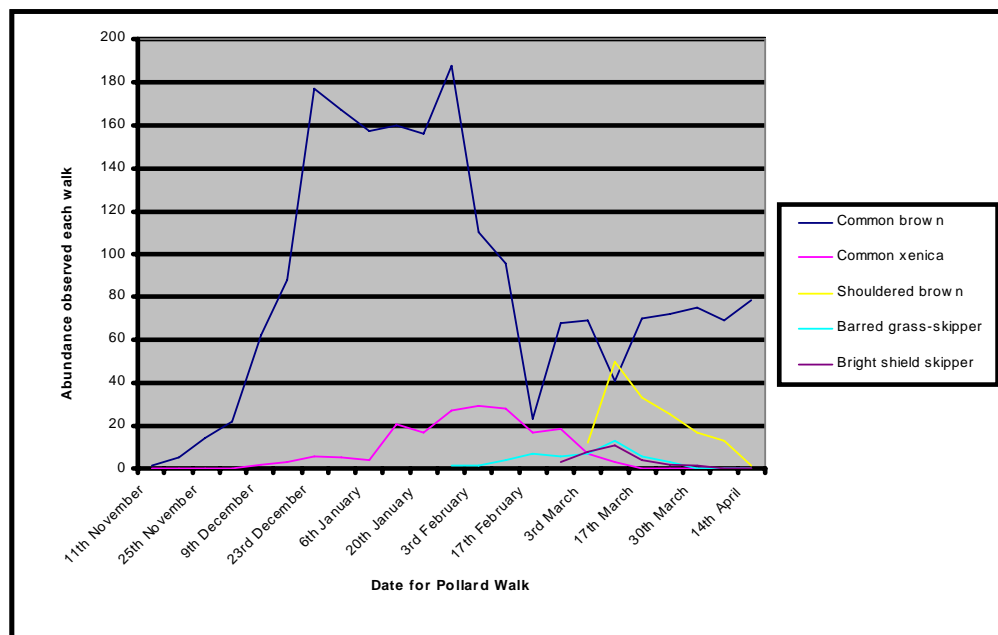
Many of our butterflies feed exclusively from grasses, especially the “browns”. In most cases it doesn’t matter to the butterfly whether the plants are native or not. The butterfly has no botanical appreciation! The plant just tastes good. The removal of the introduced grasses in many situations may not be beneficial for butterflies if no native grasses are present. If we are to change this we need to understand and promote native grasses and grassy ecosystems before we decide on an uneducated course of action.

A large number of butterflies feed on legumes, often referred to by Ann Prescott as “ice creams” as they taste really good and are the most delicious plants to be eaten first by stock and other animals. Since most of the native “ice creams” have gone, butterflies have adapted to clovers and other pasture species. We should be promoting and planting the native lotus, scurf peas and native indigo as replacements for introduced species before complete and hasty removal.

Let us be clear, there are many influences which determine what we see out there. For instance butterfly numbers are greatly influenced by the seasons: good wet springs and warm hot summers usually means lots of butterflies. The changes we make to our environment will ultimately influence numbers and species both in the negative and the positive perspective, but in the short term we may not be able to determine which way it will be. Thus I advocate the cautionary principle.

Members and readers are asked to write in and tell us what you think. Your thoughts may lead us to a better understanding on what is going on in the busy, secretive world of butterflies.

FLIGHT PERIOD OF SOME BUTTERFLIES AT PENAMBOL CONSERVATION PARK, LOWER SOUTH EAST SOUTH AUSTRALIA



Update on Pollard Walk @ Penambol Conservation Park, Lower South East (SA)

By Bryan Haywood
Bush Management Adviser, South East

A third year has nearly come to a close, so I thought an update to other butterfly enthusiasts was in order. The Pollard Walk this year started in October 2002 and will be completed in April 2003. Each week during this period a 30min walk along a predefined transect has been walked to count the diversity and abundance of butterflies in predominantly Stringybark and Swamp gum habitat.

To date over 35 people have participated (and are now butterfly enthusiasts) with many returning for more than one walk.

This year the Pollard Walk has encountered 12 species, 5 of which have a regional conservation rating. These include the Splendid ochre and Orange Ochre's, Bright shield skipper, Shouldered brown and Barred grass skipper.



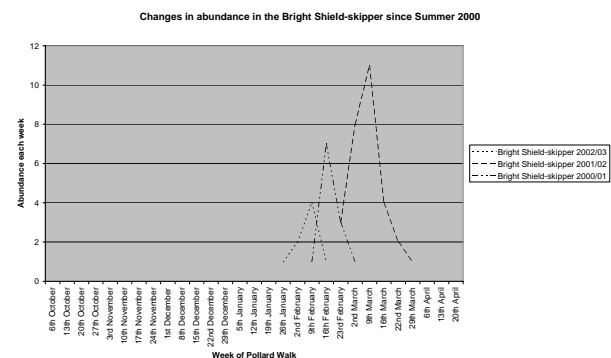
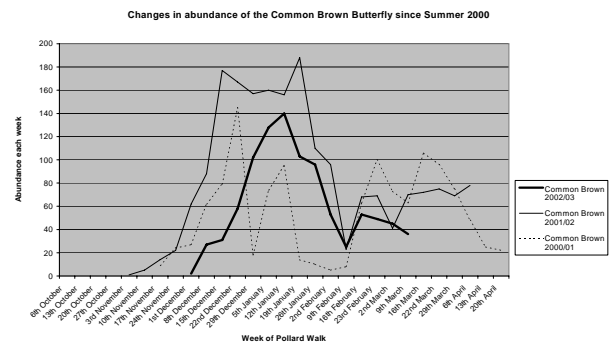
Splendid ochre – *Trapezites symmonus*
(Vulnerable in SE of SA)

Parts of the walk are open, impoverished habitats so the National Parks and Wildlife are embarking on a revegetation program to improve these butterfly habitats especially for the above species. Funding through the Lower South East Bushcare program "Sustaining the South" have been accessed for revegetating 1.5ha along the walk in section 2. As you can see from the table this section needs a little help.

The changes to the butterfly diversity for this section can then be monitored over time.

Section	Habitat Value	Number of rare species recorded	Number of common species recorded	Total numbers recorded for 2000/01
1	high	3	5	517
2	low	1	5	86
3	moderate	3	5	230
4	low	2	6	93
5	low	0	2	106
6	moderate	1	5	155
7	high	2	5	377

Two charts comparing the abundance of the Common brown and Bright-shield skipper since Summer 2000 are below, showing interesting changes over time.



Future plans are to include;

1. Butterfly Walk Marathon to determine the diurnal activity of most species at Penambol CP – from “dawn to dusk”.
2. Expansion of technique to other rare butterfly sites esp. Sword-grass brown.

Encourage schools/children/groups to adopt a South East butterfly.



Over-wintering cluster of the Wanderer butterfly near Rendelsham, South Australia.

By Bryan Haywood
CMB,
Moorak, SA, 5291

A large over-wintering cluster of Wanderer butterflies has caused some interest amongst nature enthusiasts in the Lower South East this winter. Several clusters along 4-500m of roadside vegetation have been reported in the Rendelsham area, 15km NW of Millicent in the South East.

Several clusters of 1-300 individuals were observed predominantly on Dryland Tea-tree *Melaleuca lanceolata* and Drooping Sheoak *Allocasuarina verticillata* on both sides of a road since mid to late May 2003. A local naturalist (John Mullins) informs me that the butterflies are seen flying around the roadside vegetation in the area most years around mid to late May. "This year was particularly spectacular, as it was the most I'd ever seen" John said.

Subsequently, various people have been to view the clusters and reported in excess of 1000 individuals on the protected side of the trees depending on the prevailing winds.

Although not substantiated it appears that the regular clustering at Rendelsham corresponds to the onset of heavy rainfall in the region and that the observations of clustering this year was particularly coincidental to this occurring.

Photo – taken by Bryan Haywood of one dense cluster late in the afternoon on 3 June 2003.

It is not known when and where the clusters disperse to each year as there has not been any specific observations made of this fact esp. by J Mullins and other local people. However, long time butterfly enthusiast Geoff Aslin (Mount Gambier) commented that Wanderer's has been in the region for many years and over-wintering clusters of many hundreds are common in various parts of the South East. Including one at Magrath Flats roosting in Native pine reported by P Roach of Lucindale in the early 1980's. Geoff has also reported clusters near Robe, Canunda, and in the Coorong.

The understanding of the dispersal and distribution of clusters may spark some action for future follow-up in local butterfly enthusiasts. Needless to say this cluster will be monitored more carefully this winter.



ANNUAL GENERAL MEETING

8th September, 2003

**at Urrbrae Wetlands Resource Centre
Cross Roads, URRBRAE
6.00 pm**

**Please bring a plate to share
(we will also order pizzas, cost approx \$2.50)**

**Lindsay Hunt will give an illustrated talk
on
"Butterflies of South Australia"**

BSCA Invertebrates Quiz No.2

1. What world record does the Queen Alexandra's Birdwing hold?
2. What type of jelly is fed by worker bees?
3. What type of "fly" is a Daddy Long Legs?
4. The Boll Weevil is a highly destructive insect to which crop?
5. How many legs per segment does a millipede have?
6. What kind of moth is Britain's "Death's Head"?
7. Which insect sleeps for 17 years and awakes for 5 weeks?
8. What caterpillar do we associate with *Morus alba*?
9. Ladybird was a nickname of which US president's wife?
10. How many times its own length can a flea jump?

Answers on page 6.

PROFILE— NEIL COLLIER

I guess I have ended up studying butterflies in a round about sort of way. Shortly after completing high school, in Sydney, I travelled to Darwin to study tropical aquaculture at The Northern Territory University. After a couple of years my interest in the field decreased and I began to question the effects that the industry may have on the environment. Hence, I began studying topics in ecology, eventually moving to South Australia to pursue a degree in Environmental Science majoring in ecology.

During the course of the degree my interests narrowed further to focus on the area of conservation biology. A further year of Honours study introduced me to independent research in which I studied native ant communities. After the stress and difficulties of Honours, leaving university and getting a job was an attractive idea but I was given the opportunity to undertake further study on the conservation biology of butterflies.



Now that I have rambled about myself it is an excellent opportunity to introduce my research project. At present, the project is broadly entitled “The conservation biology of butterflies in South Australia”. The project is based around two research areas. The first involves surveying butterfly communities in South Australia predominantly along the Fleurieu Peninsula. I plan to use and test the widely applied ‘Pollard walk’, and other methods, to assess butterfly communities in native vegetation and disturbed areas. When these techniques have been tested, the project plans to enlist the help of volunteers to conduct these surveys on a routine and long-term basis. One of the major outcomes of this part of the project is to produce a continuous record of butterfly species and their abundances in South Australia. This type of work has been conducted in Britain for the last three decades and has formally documented the decline and extinction of many butterfly species, as well as the persistence and growth of species populations. This study has made available large data sets that are aiding in the conservation of the British butterfly fauna.

I think we all may agree that once this type of information is gathered it may be easier to convince government departments of the importance of conservation, and in particular the conservation of the South Australian butterfly fauna.

I also plan to focus on the conservation of the Bitterbush Blue (*Theclinessthes albocinta*). The Bitterbush Blue relies in two species of plant in the *Adriana* genus, *A. quadripartita* and *A. tomentosa*. Along the coast *T. albocinta* lays eggs on *A. quadripartita* of which only a few significant populations remain. Furthermore, coastal development and urbanisation may threaten to the survival of these populations in the future. I plan to monitor the effects of replanting *Adriana* and also, by using mark recapture and Pollard walks, determine the sizes of the remaining populations of *T. albocinta*. This work will also record specific aspects of this species’ biology and in particular its interaction with native ants.

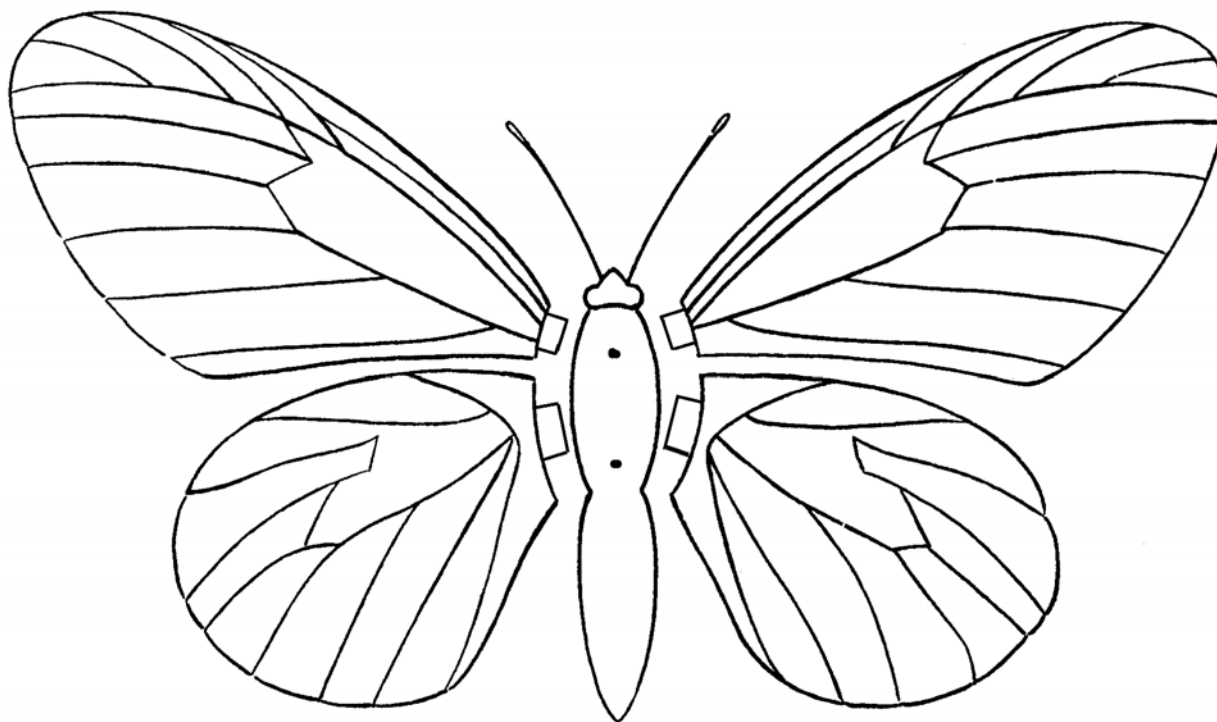
I look forward to being involved in the BCSSA and will do my best to keep the society informed of the progress of the project.

Neil Collier

DAMAGE TO ‘FLAME SEDGE-SKIPPER’ HOST PLANTS AT WATERFALL GULLY

It is with dismay that members of the public have reported to BCSA that the recent clearing of bramble undergrowth above the main fall at Waterfall Gully has also caused considerable damage to large *Gahnia sieberiana* tussocks (Red-fruit Saw-sedge). The activities included either the removal or poison spraying of the *Gahnia*. These plants are the caterpillar hosts for the vulnerable butterfly *Hesperilla idothea clara* (Flame Sedge-skipper) known to occur at Waterfall Gully. **During clearing and spraying activities it cannot be emphasised enough that there should be a responsible supervisor present, knowledgeable in native flora to oversee the operation to prevent the occurrence of such mishaps.**

Three very ancient tussocks of *Gahnia trifida* (Cutting Grass) at the immediate top of the falls are the only known remaining tussocks of this plant between Morialta and Willunga, and thankfully these appeared to have escaped the spraying.



A BUTTERFLY MOBILE

1. Photocopy the above framework at two or three different sizes. Glue onto card and cut out.
 2. build up the wing pattern gradually with colour on both sides of the wings.
 3. Glue wing tabs onto body and bend up slightly.
 4. Loop thread through two points on body and tie off.
 5. Tie thread to ends of cane or sashlick sticks.
 6. Slide centre thread on sticks until mobile is balanced.
- Option: stick two butterfly shapes together, cut holes in wing sections and insert cellophane between the two shapes.

BUTTERFLY CONSERVATION SA Inc.

Chairman: Roger Grund

Secretary and Newsletter Editor: Jan Forrest OAM C/- South Australian Museum, North Terrace, ADELAIDE, 5000 ph 08) 82077503.

email < forrest.jan@saugov.sa.gov.au >

Treasurer : Lois Hasenohr , Unit 13, 4 Randolph Avenue, PARKSIDE. 5063

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 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 the Secretary Jan Forrest at the address above.

WEB SITE (produced by Roger Grund)

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

Answers to Quiz No. 2:

1. World's largest butterfly
2. Royal
3. Crane
4. Cotton
5. 4
6. Hawkmoth
7. Cicada
- 8.
9. Silkworm
10. L. B. J.

