



# BUTTERFLY CONSERVATION SA Inc.

## NEWSLETTER

No. 7: May 2001

### OUR NEW LOGO

The production of our new logo design has been very much a team effort. Helen Woodward one of our two Victorian members and daughter to committee member Lois Hasenhor designed the logo and member Faith Coleman undertook the artwork. Thanks to these two ladies for their work.

Sincere thanks too goes to Charles McCubbin for his permission to use his original artwork of the Wood White Butterfly originally produced for Australia Post for the butterfly stamp series released in 1982.

The logo is featured in white as above and also in a circle design with a yellow/green background.

### Inside this issue:

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- New SA record
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### NEW LOCALITY RECORD FOR SOUTH AUSTRALIA

On 2nd May last year a specimen of the Large Grass-Yellow (*Eurema hecabe*) Family Pieridae was collected by committee member David Keane 100 km N Roxby Downs on Finniss Station.

David found the butterfly flying around *Myoporum insulare* for nectar and commented that very few nectar plants were available in the area at that time of the year.



Large Grass-Yellow (*Eurema hecabe*) Family Pieridae

David has kindly donated this very special specimen to the South Australian Museum collection and is the only South Australian specimen represented in the state collections.

We believe that this is only the second record of this species to be found in South Australia so it is a significant find. The first specimen was collected by Lindsey Hunt in the north of the state. This species is generally found in the northern states, primarily Queensland and northern New South Wales.

## WEEDING BETWEEN THE LINES Part 3

### Butterflies and Plants – by David & Beth Keane

The role of introduced plants, weeding and the survival of our butterflies.

**Wattles** are the larval food plants of butterflies. Elegant Wattle (*Acacia victoriae*) is host to at least four known South Australian butterflies. Icilius Blue (*Jalmenus icilius*), Lithochroa Blue (*Jalmenus lithochroa*), Blue-spotted Lineblue (*Nacaduba biocellata*), and other blues such as the Wattle Blue (*Theclinesthes miskini*). The Elegant Wattle in the mid north is often eradicated on properties and along road sides because it looks weedy and has thorns. It is rare for consideration to be given to the life cycle of butterflies prior to the spraying or removal of plants. If plants have to be removed then timing is important, plants should be removed out of season when butterflies have pupated or hatched. Spraying with chemicals can have a devastating effect on a whole generation of certain species of butterfly. It is fair to say that these butterflies will feed on other leguminous acacias, they apparently are not entirely dependent on one species.

**The pea or legume family** of plants are very important as host plants for butterflies, in fact the greatest number of our butterflies need the pea family for their survival. Often introduced clovers are used instead of natives species for a nectar source during the dry months of summer, especially for blues. Clovers and medics in a larger sense have replaced native peas such as the native scurf peas *Cullen* spp. (name recently replacing *Psoralea*). Native scurf peas will recover from being outcompeted by weeds in woodland areas if minimal disturbance bushcare methods are adopted. Scurf peas can easily be misidentified as clovers when spraying weed areas. Get to know them. The two main butterfly food plants are the Annual verbine (*Cullen cinerea*) which resembles *C. australasica*, a local Adelaide species, and *C. patens* which occurs in the mid north of the state and is the food plant of the majestic Chequered Swallowtail.

**Creeping oxalis** is a name given by amateurs to anything that looks like creeping oxalis or creeping sour-sob. In fact there are several native species mixed up with all this and because of this we may be losing one of our most beautiful small butterflies, the Small Copper (*Lucia limbaria*). Creeping oxalis (*Oxalis corniculata*) the introduced weed of gardens and pots and Native oxalis (*O. perennans*) are both used as a source of larval food. Ants also play a mutual role in the breeding cycle of the Small Copper. Spraying creeping oxalis may have detrimental effects on these ants, and this will not encourage Small Copper butterflies to the garden. A member of Butterfly Conservation SA living in Craigmore, north of Adelaide, is observing the natural breeding of Small Coppers in his garden. Small Coppers are generally restricted to the mid north where the native oxalis survives between rocks, protected from grazing animals. The Small Coppers are attracted to garden fleabane (*Erigeron karvinskianus*) for nectaring, a common plant found in nurseries.

**Plantains** play an important role in survival of the Meadow Argus butterfly, (*Junonia villida*). Ribwort Plantain (*Plantago lanceolata*) is a weed that can be a menace in bushland areas where clearing of other larger weeds have created a space. There are fifteen or so plantain species in SA of which five or six are introduced. Ribwort is also the food plant of the Rayed Blue butterfly (*Candalides heathi*). Native plantains are not so common in the Adelaide region due to heavy weed growth and spraying as a result of mis-identification. Maybe we should do more bushcare work to encouraged these plants back.

**The Daisy family** contains many thistles which are important to butterflies, both for nectar and larval food. The Cape Daisy (*Arctotheca calendula*), a curse of infertile paddocks during spring is taken advantage of by one of our most common butterflies, the Painted Lady (*Vanessa kershawi*).

**The Cabbage family** of plants contain lots of introduced species and only one butterfly in SA, the Cabbage White (*Pieris rapae*) uses them. This butterfly is thought to have been introduced from New Zealand with vegetables, it is a world wide species. I would expect with the spread of new crops such as canola oil the increase in numbers is likely. The Cabbage White also thrives on nasturtiums, in another plant family.

**Asclepiads** are probably the most well known of introduced plants connected with butterflies as they include the Milkweed (also known as Cotton Bush or Swan Plant). This group of plants are the food source of the worldly and best known butterfly, the Monarch or Wanderer (*Danaus plexippus*). The butterfly has naturalised in Australia and its life cycle is well known, with children often breeding them and showing them at school.

The Monarch is one of the most contentious of all our butterflies now that the Bushcare movement is up and running. Its food plants can be a pest in natural situations, where generally all introduced plants are targeted for eradication. This leaves the Monarch with no food source. These weed plants regeneration is generally stable and slow, but populations can exhibit a sudden outbreak so they need to be monitored.

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There are four species of the genus *Asclepias* in South Australia and all are native of South Africa. Broad-leaved cotton bush (*Asclepias rotundifolia*) is common throughout the Adelaide hills and farmland, whereas the Narrow-leaved cotton bush or swan plant (*Asclepias fruticosa*) is less common and prefers ditches along roadsides. Butterfly Conservation SA Inc. only supports the growing of these plants in metro-urban areas where there is some control, with large buffer zone distance to prevent their spread into natural areas. Remember that the white sap from these plants is toxic and can cause eye damage.

The survival and protection of our butterflies must coincide with the total protection of the environment. Weed plants are used as a source of food because the native plants are diminishing as we have altered the environment and changed the natural places. Most plants and animals adapt to survive, but some cannot and will disappear.

**References** to the three part article "Weeding Between The Lines":

Butterflies of South Australia by Robert H. Fisher, 1978, now out of print.

Flora of South Australia by Jessop J.P. and Toelken H.R. 1986, originally Black's Flora.

Look forward to the next article: Attracting Butterflies To Your Garden, the plants and the landscape.

Comments are always welcome about articles, information, new ideas or what you want to know about, it's your Newsletter.

April 2001



### Member Profile DAVID KEANE (Treasurer and Membership Secretary).

I was born in Kent, England in 1949. I left school at the age of 14, working for two years in Kent before moving to Australia in 1964. As a child I collected and bred butterflies and moths wherever I was sent to school in southern England. I became interested in plants because I had to seek out the larval foods to feed them. There was a beautiful woodland next to my Sussex school, and it was exciting to find the many moths behind the heavy curtains each morning.

In Australia I worked as a carpenter until I started at the Adelaide Botanic Gardens mowing lawns (should have started Dave's Mowing!). Because I had no secondary qualifications I decided to sit for the first year exams at the Botanic Garden's Horticultural Course. I studied part time for the first year, learning while I was still mowing lawns, and I just passed with one supplement. Due to the difficulty I had in learning I was relieved to defer my studies for two years by being called up for National Service and spent a year of duty in Vietnam. I took books and encyclopaedias about botany with me and gained lots of knowledge and experience. I made plant collections, and collected butterflies between skirmishes while on patrol.

I returned to the Botanic Gardens and was accepted into the four year full time course and passed easily! (100% for one subject). It's marvelous what some experience and confidence can do.

After completing my studies in 1973 I went to work for a mining company (Monier) doing quarry restoration and environmental work. Rehabilitation of quarries was very new in those days, there was very little information around. Over the 22 years with them I gained many skills and influenced how mining can operate to work with and protect the environment.

In 1996 I left the company to begin my own consulting business (Landscape Profile Pty Ltd). I now work with many mining companies, assisting them in their rehabilitation and development, along the way obtaining various environmental awards.

I am a committee and working bee member of many conservation groups such as Threatened Plant Action Group and the founder of Butterfly Conservation South Australia Inc. We are an important branch of the conservation movement. B.C.S.A. deserves its success, which is based on the founding member's enthusiasm, their vast knowledge and the support of the South Australian Museum.

I am a member of the Kent branch of Butterfly Conservation UK (they both publish great magazines). I returned to England in 1997 and met up with the Kent group on some site visits and working bees. This was the incentive to start a butterfly conservation group here in South Australia. We now have over 100 members including interstate and overseas.

I give financial support to the purchase of butterfly habitats all over the UK. I think it is so important to preserve what's left in our natural world, there is only one chance or it will be gone forever.

BUTTERFLY CONSERVATION SA Inc.  
Membership \$10.00 pa  
Applications and renewals to: David Keane  
c/- P.O. INGLEWOOD, 5133 S.A.

## MISTLETOE AND ASSOCIATED HARMFUL EFFECTS IN URBAN AREAS

By Egon Shore

Being a Local Government employee for some 35 years I couldn't let the article "Weeding Between The Lines Part 2" in the January 2001 issue of the Butterfly Conservation Newsletter by Beth and David Keane go without comment.

Local councils often treated unfairly, because of the perception that they are unable to deal with environmental issues appropriately. This is because of the lack of understanding by detractors of Councils obligations in regarding its 'Duty of Care' and the 'Public Risk' etc. Now I'm not saying that the damage that occurred on York Peninsula was warranted, I am saying that where Local Councils are concerned and to quote an old adage "Oils Ain't Oils", read on!

To Add a Little More to, the Wonderful Story of the "Mistletoe".

Mistletoe is a member of the Loranthaceae family of plants, which has a worldwide distribution and is found in all continents except Antarctica. This group of plants are all aerial stem-parasites with no roots, drawing minerals and water from its host but otherwise carrying out its own photosynthesis, flowering and setting seed etc.

In Australia Mistletoe is found in all habitats from desert to rainforest but is absent in Tasmania.

Generally Mistletoe mimic its host plant by having similar coloured and or shaped leaves to the host, for example:

\* *Amyema miquelii* "The Box Mistletoe" foliage is similar to the *Eucalyptus leucoxylon*, which it commonly parasites in the Adelaide area.

\* *Amyema maidenii* "The Pale-Leaf Mistletoe" has gray leaves that match very closely in colour the foliage of its host plants *Acacia aneura* and *papyrocarpa* found in the northern Eyre Peninsula.

The flowers of "Mistletoe" are however colourful and generally conspicuous and the nectar is a valuable source of food throughout the year for nectar feeding birds and insects, the insects providing further rich sources of food for the insectivorous birds.

The vector for the spreading of this parasite is the diminutive "Mistletoe Bird" *Dicaeum hirundinaceum*, which exclusively feed on the succulent berries produced by Mistletoe.

This bird has the curious habit of standing with its body facing along the branch when defecating in

order to void the sticky seed on to the branch. Thus spreading the "Mistletoe" plant and ensuring future food supplies (all other birds standing with their body at right angles to the branch to defecate).

The "Mistletoes" plants are in turn parasitised by the larvae of a number of Butterfly as reported in Beth and David's article, also the "Mistletoe Browntail Moth" *Euproctis edwardsii* larvae feed on the leaves of all species of *Amyema*.

In the Adelaide region there are four common species of mistletoe:

\* *Amyema miquelii* "The Box Mistletoe", found on many Eucalypt species.

\* *Amyema pendulum* "The Drooping Mistletoe", parasitic on *Eucalyptus* and infrequently on Acacias.

\* *Amyema preissii* "The Wire-Leaved Mistletoe", usually a parasite of Acacias and Cassias.

\* *Lysiana exocarpi* "The Harlequin Mistletoe", has a wide range of host plants including *Amyema*, *Allocasuarina*, Citrus Liquidambar and *Lagunaria* but not on *Eucalyptus*.

### The Harmful Effects

The common species of Mistletoe in the Adelaide area is *Amyema miquelii* "The Box Mistletoe", *Amyema pendulum* "The Drooping Mistletoe", which parasites the local indigenous species of Eucalyptus and many of the non-local species of Eucalyptus. These "Mistletoes" are in turn parasitised by the "The Mistletoe Browntail Moth" *Euproctis edwardsii*.

An infestation can consist of a large number of larvae, which can rapidly defoliate the Mistletoe. However the real problem is not the damage that may be done to the Mistletoe by this caterpillar, but rather the discomfort and skin irritation that are a result of human contact with the minute barbs or spicules of the larvae.

The larvae of the "The Mistletoe Browntail Moth", are a typical Woolly Bare type of caterpillar, which shed their skins several times during the feeding stage. The fine hairs on the caterpillar are like a very fine hypodermic needle (spicule), with a liquid within, that if the liquid contacts a person's skin, cause Caterpillar Dermatitis. Any human contact with hairs, live larvae, cast skins or cocoons can result in a severe rash. With those that are especially sensitive, wind blown hairs may be sufficient to produce intense reactions that may result in hospitalisation. Three Local Council employs involved in trimming storm damaged trees in the mid 1970s required ante histamine treatment at the local hospital which resulted in several days off work to recover.

Because of the "Mistletoe's" potential to cause harm to workers and residents, who work or live in close

proximity to this native plant, one Metropolitan Council was faced with a dilemma. Remove the Mistletoe wherever it occurs on council land and roadsides and risk removing an important part of the local eco-system.

Fortunately the answer to the dilemma was only to removing the Mistletoe from trees that were within 50.00m of a dwelling and or public places, and to hold a public education program so that owners of private property could treat effected trees that were within 50.00m of dwellings etc.



Mistletoe on *Eucalyptus* sp. in the mid-north.

After the initial removal in September 1976 when 85 trees were treated and approximately 500 individual Mistletoes were removed, with a further removal program in 1983. The removals continued periodically as needed up to the present time.

Natural controlling factors of the Mistletoe now and in the past were:

\* If a host is parasitised to any large extent by Mistletoe then the host plant may be killed and in turn this will of course kill the Mistletoe, but this is generally only one of the contributing factors that killed the host plant.

\* Also a single Mistletoe plant will eventually take over the branch on which it is growing and soon after this stage has been reached it is frequently found that the host branch then dies, killing in turn the Mistletoe.

In spite of the removal of the "Mistletoe" over the last 20 or so years, the Mistletoe is still widespread in the district where controls are practiced and the "Mistletoe Bird" is frequently seen and or heard. This I believe is in part due to the large number of "Mistletoe" plants remaining after selective removals and more importantly the efforts in protection of the local native vegetation in the metropolitan area since the commencement of the Mistletoe removal program began. Since that time for instance there have been three National Parks dedicated and 38 Bushcare sites nomination within the City Of Tea Tree Gully alone, with similar advances being made in other Local Government Areas.

In conclusion Council's still occasionally receives reports relating to "The Mistletoe Browntail Moth" problems, however the low number of reports do not present s big problem now. Maybe the selective removals are only equivalent to the natural occasional burn experienced by the Mistletoe before settlement.

#### BIBLIOGRAPHY

Flora of South Australia by JP Jessop and HR Toelken.  
Plants of Western New South Wales by GM Cunningham, WE Mulham, PL Milthorpe and JH Leigh.  
Pre-European Vegetation of Adelaide by DN Kraehenbuehl.  
Plants of the Adelaide Plains and Hills by GRM Dashorst and JP Jessop.  
A Field Guide to Australian Birds by P Slater.

Butterflies of Australia by MF Braby

Moths of Australia by I. Common.

Moths of the Adelaide Region by McQuillan and Forrest.

Insect Pest Bulletin No 131 NSW Department of Agriculture Second Edition 1970.

Lepidopterism in the Australian Region for the SA Poisons Center by, RV Southcott.

Weed Scene September 1973.

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#### *Adriana klotzschii*

**If anyone is interested in growing  
*Adriana klotzschii* from cuttings or seed  
please contact David Keane -  
C/- PO INGLEWOOD 5133  
ph 08) 83892352**

## NEXT NEWSLETTER

Our next newsletter will feature an article from a recent visitor to South Australia David Lohman. David is from the University of Comparative Zoology, Harvard University, Cambridge Mass in the USA. David's two part article is entitled "Plants, ants and blue butterflies".

## QUIZ NIGHT

A proposed fund raising quiz night has been deferred until later in the year. If anyone can suggest a suitable venue please contact David Keane. Venue needs to be large enough for 10—15 tables of 10—12 people.

## BEHIND THE SCENES at the SOUTH AUSTRALIAN MUSEUM—OPEN DAY

The Division of Natural Science at the South Australian Museum will hold an Open Day on Sunday 6th May 10.00 am—5.00 pm (last entry 4.00 pm).

Bring the whole family for a fascinating insight behind the scenes of the Natural Science Division. Mention you are a member of BCSA and get a special tour of the butterfly collections. If any member would like to assist with security on the day, please contact Jan Forrest, Senior Collection Manager and secretary BCSA.

### BUTTERFLY CONSERVATION SA Inc.

**Chairman:** Beth Keane, C/- PO INGLEWOOD 5133 ph 08) 83892352

**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 and Membership Secretary:** David Keane, C/- P.O., INGLEWOOD 5133 ph 08) 83892352 email <dkeane@iweb.net.au >

**Fundraising:** Lois Hasenohr

**Committee members:** Marcus Pickett, Roger Grund, Lindsay Hunt, Mike Moore, John Hunwick and Bob Edge

**Honorary Member:** RH (Bob) Fisher OAM

### OUTREACH PROGRAM

AO size panels from the Exhibition "Where have all the Butterflies gone?" are available free of charge 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.

The full exhibition is also now available, contact Senior Exhibition Officer, David Kerr at the SAMuseum for further details.

### DIARY DATES

#### MEETINGS

Committee meetings are held monthly at the Urrbrae Wetlands Resource Centre, Cross Roads, Urrbrae and all members are welcome to attend. Our next meeting will be held on .... May at 6.00 pm. 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.adelaide.net.au/~reid/>

### We welcome the following new members:

MARION KERR  
JANET SUBAGIO  
CHRISTOPHER  
J. WILSON  
J.&P. HAMILTON  
RUDI & TITA  
HOLTHUIS  
TREVOR J. ROWE  
LESLEY YOUNG  
MAUREEN HODGE  
SUE ANDREWS

