



BUTTERFLY CONSERVATION SA Inc.

NEWSLETTER

No. 6: January 2001

FUND RAISING EVENT

LAST OF THE RED HOT LOVERS

A play by Neil Simon at the Repertory Theatre
53 Angus Street, ADELAIDE. SA.

A middle-aged restaurateur feels out of touch with the
sexual revolution, and wants to be caught up!
Great Simon comedy!

Saturday 24th February 2001 at 8.00 pm

Discount price for BCSA members \$15

A booking form is enclosed and must be returned to any
committee member with ticket money prior to 12th February, 2001
OR
Complete form, enclose ticket money and post to P.O. Inglewood to
arrive prior to 12th February, 2001.

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Theclinesithes albocincta (Waterhouse) (Bitter-bush Blue)

For the full data sheet information go to Roger Grund's website <<http://www.adelaide.net.au/~reid/>>



These images are of The coastal blue form of the butterfly.

See pages 4 and 5 for further information on this butterfly and on page 6 information on its host plant *Adriana* spp.

WEEDING BETWEEN THE LINES Part 2

Butterflies and Plants – by David & Beth Keane

We have a great impact on our butterflies and moths when we disturb and clean up the wildness in our environment by eradicating plants we humans nominate as weeds or “unwanted plants”. We alter the relationships between plants and butterflies, and interrupt their life cycle. Part two gives a summary of some of the plants butterflies need for their survival.

Mistletoes, the plant parasites in the Loranthaceae family are essential to the survival of many kinds of iridescent blues, the Azures (*Ogyris* spp.) Lycaenidae family, as a larval food plant. There is a popular myth about mistletoes that they kill eucalypts and other native plants. In fact all mistletoes are also native and it is illegal in South Australia to kill them (yet some Government agencies still advocate their removal!). Mistletoes are perceived as the culprit in killing trees when in fact certain vegetation is already under stress by other degrading processes: lack of biodiversity, salt movement, chemical use and land clearing. In a healthy environment mistletoes do not pose a problem. With vegetation in its natural balance species don't often eradicate themselves.

I was over on Yorke Peninsula a few weeks ago, “butterflying” and recording threatened plants with one of our members, Yvonne Steed. We saw many mallee trees with mistletoes that were broken off at the base, later to find out that they were “pruned” using a backhoe (a common practice in rural areas!). That day I saw the spectacular iridescent blue Amaryllis Azure butterfly. It was like a light flashing along the roadside. A local farmer stopped and asked what we were doing, so we explained to him that these butterflies were in the area and that mistletoes and ants were important to their life cycle. We could see the damage from his attempts to spray the odd Box Thorn and showed him the off target damage he had caused on surrounding vegetation, especially the spray on mistletoes and the *Melaleuca* host plant. He told us that he removes and sprays mistletoes because the local authorities told him to. He understood with our explanation of the nature of keeping the roadside intact and how it must be looked after that what he was doing made no economic sense either. He saw no real reason to continue with his normal practices. It's a pity authorities don't have the knowledge and commitment to saving the environment rather than controlling it.

In October I found the Olane Azure butterfly (*Ogyris olane*) in the Barossa. It was on the ground with a damaged wing. I was quite excited because I thought it was the rare Dark Purple Azure (*O. abrota*) but Mike Moore identified it as Olane and dampened my spirits! The mistletoes that are its food plant were on Pink Gums which were over stressed by unknown dyeback, possibly originating from rising salt or change in the water table levels, which weakens the trees making them vulnerable to disease attack. Apart from butterflies mistletoe birds also need a healthy environment.

Snotty-gobbles or Dodder-laurel (*Cassytha* spp.) in the Lauraceae family. These parasitic plants are despised as mistletoes are, because of their strangling habit. It's a shame we get rid of plants because some of us don't like them! In clean up programs they are often pulled out or sprayed as they seem to be damaging surrounding vegetation. In fact what they do is natural. The dodder-laurels are the larval food plants of some Blues (*Candalides* spp.) Lycaenidae family. All cassythas are native and should be protected.

Introduced Grasses are important for some butterflies, especially where the native grasses have been eliminated from the urban landscape. Couch grass (*Cynodon dactylon*), Kikuyu (*Pennisetum clandestinum*), False Brome (*Brachypodium distachyon*) and others are the larval food plants of some darts/skippers, Hesperidae family, and many browns, Nymphalidae family.

Butterflies will substitute introduced grasses even though their original food plant is still around, and certain Browns will even switch families e.g. Gahnia in Cyperaceae to Kikuyu in Gramineae. Maybe this is more common in monocots (grass like plants which emerge with one seed leaf). Original food plants would have been native grasses, where many of the species stay green during the summer months. In the urban areas introduced grasses stay green due to artificial watering, and perhaps this is why the butterflies switch larval food plant species. Certainly butterflies can be bred in captivity using many species of the grass family.

Stinging Nettles are the food plant of the Australian Admiral butterfly (*Vanessa itea*). There are two species of stinging nettles in South Australia: Native Stinging Nettle (*Urtica incisa*) and the introduced Stinging Nettle (*Urtica urens*). I always remember stinging nettles names because when you touch urens it hurts!. In S.A. the Urticaceae family contains the native Parietaria and the introduced garden plant “babies tears” (*Soleirolia soleirolii*). The Australian Admiral butterfly is known to feed on “babies tears”. Stinging nettles don't seem so common in the Adelaide hills, and perhaps that is why we don't see many Admirals. Keeping some controlled weedy areas of nettle may increase their numbers.

To be continued.

MEMBER PROFILE - Mike Moore

I was born in England in 1949 and moved to Australia with my parents and my brother in 1955. After living a short time in Adelaide we moved out to Elizabeth to be near my father's work. I enjoyed the open country style of living available in Elizabeth at that time. I grew up and did all my schooling in Elizabeth. I had always wanted to be a teacher and so upon leaving High School set out to qualify as such. I completed an Honours Science degree at Adelaide University and my Diploma in Teaching in 1970. My first posting was back to Elizabeth High, the place where I had done my High schooling. I taught at Elizabeth for four years and then moved to Waikerie as a Science Co-ordinator in 1975. We stayed at Waikerie for eighteen years and there raised our family of two girls and two boys. (Now aged (or almost) 24, 22, 20, 18.) . The family moved to Adelaide at the end of 1993, and now live in Marion. I am the Science Co-ordinator at Seaview High School (on the old Seacombe High grounds) and have three more years there before I am required to move to another (and most likely my last) school.

I think I have always been interested in a Natural History but believe that a number of sets of Project cards put out by the Shell company in the 1960's had a significant effect on the way that I looked at nature. The cards involved many birds, butterflies and plants as their subjects and I continue to have a particular interest in these three facets.

I began "Bird Watching," (Ornithology might be too grand a term for my interest!) in my last three years at University with my then girlfriend and soon to be fiancé and wife - Marion. For five years we travelled fairly widely throughout eastern and central Australia bird watching, but admitting a long-term interest in Butterflies to Marion she organised that I should get involved in a more intensive way. At the same time we did a Botanical course through the WEA.

For the last 20 odd years I have dabbled in butterflies. There was quite a while when the kids were all young that virtually nothing was done, but for the last ten years or so we have chipped away and slowly added to the collection. All my children, are interested too but David, my second son is particularly so. We have spent many a long hour in each others company chasing and hunting butterflies. Unfortunately he has not yet acquired the discipline required to pin butterflies and so this task falls to me and a freezer full of specimens will illustrate my slow progress in this area.

Bob Fisher who it is amazing to realise I met first some twenty three years ago was an important contact for me to make and his encouragement advice and experience were all invaluable to me. It was he that suggested that I get in contact with, Marc Pickett and Lindsay Hunt two others of the founding members of this association.

I am interested in all aspects of Natural History but also have a huge interest in militaria particularly of the Napoleonic period, and it is difficult at times to balance these pursuits. For the past ten years I have also been heavily involved with Hockey, first in the country but then in the city, but love sports in general.

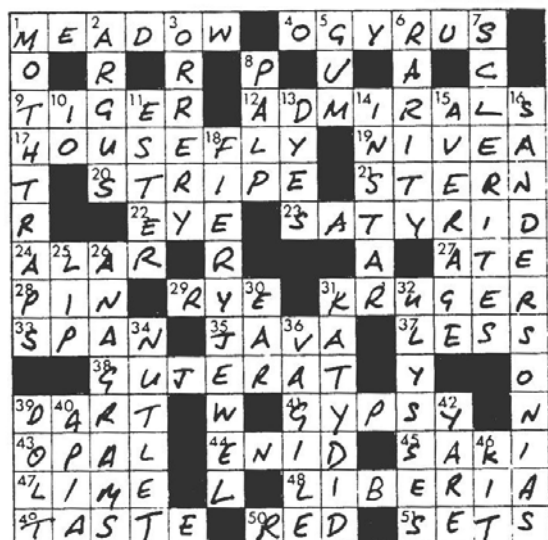
I look forward to retiring (now only eight or nine years away) where I can devote much more time to butterflying because I will be free to travel for a much greater part of the year - If I can afford the new car and the petrol to fill it!

Butterflying has been a very important hobby to me. It has not only given me visual pleasure, but the raising of butterflies has been a fascinating experience. - I only wish I could be a little more successful at times! It is a field of interest and endeavour that one can still make an original contribution in this country. Far from it all being known, in many cases little is known just awaiting the enthusiastic amateur to uncover it.

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

BUTTERFLY CROSSWORD Number 1

ANSWERS



Thanks to David Keane for his contribution. If anyone else would like to contribute a crossword for our next newsletter please forward it to the Editor.

Butterflies In Scott Creek Conservation Park

Wildlife Conservation Fund Grants 2000

Another Grant! In conjunction with the Friends of Scott Creek Conservation Park BCSA has been granted funds to undertake a survey of butterflies present in the park. Members will be involved in field trips to identify species and locate larval food plants and nectar plants. They will also be educating members of the Friends group in significant vegetation for butterflies and what to look for in identifying eggs, caterpillars and pupae. Thanks to Tom Hands, WCF and the Hon Iain Evans MP for the success of this grant application. This work will add butterflies to the ongoing survey and conservation work carried out in the park by the very active and enthusiastic Friends group.

***Theclinesthes albocincta* (Waterhouse) (Bitter-bush Blue)**

Interesting aspects: The butterflies normally fly very close to the foodplant, but males will dune-top during the heat of the day. The species within Australia currently contain four geographic colour forms, two of which occur in South Australia. These two comprise a form with a variable amount of blue on the upperside of the wings, associated with the foodplant *Adriana quadripartita* var. *klotzschii* in the coastal parts of the state, and a form without any blue on the wing uppersides occurring in the inland parts of the state which is associated with the foodplant *Adriana tomentosa* var. *hookeri*.

Larval food-host: *Adriana* spp incl. *A. quadripartita* var. *klotzschii* (coast bitterbush), *A. quadripartita* var. *quadripartita* (rare bitterbush), *A. tomentosa* var. *hookeri* (mallee bitterbush or water bush) (Euphorbiaceae). *Adriana* are dioecious (separate male and female plants), and have numerous nectary glands. The larvae will eat all fleshy parts of the plants but prefer the flowering heads of the male plants. (See page 6 for further information on *Adriana* spp.)

Larval attendant ant: Larvae are attended or at least are harmlessly associated with most ants in the general area of the foodplant, as the ants also feed from the nectary glands on the *Adriana*. These ants include the large sugar-ants *Camponotus consobrinus* and *C. terebrans*, and a small black sugar-ant of the *C. rubiginosus* group, a small *Crematogaster* sp, *Dolichoderus* sp, *Iridomyrmex* spp incl. the large meat ants, *Melophorus* sp, *Monomorium* sp (harvester ant), the stinging *Myrmecia* spp incl. the inch-ant *M. nigricapax*, brown or black *Notoncus* spp, a small *Ochetellus* sp, a black *Polyrhachis* sp and the black stinging *Rhytidoponera metallica*. There is a change of ant shifts at nightfall and at dawn.

Eggs: Small, initially pale green, later turning bluish, hemispherical, flattened top and bottom, with a coarsely reticulated pattern on the side which becomes finer on top. Laid singly on the foodplant, and most commonly on the flower heads of the male plants. Eggs are sometimes so common on the male flower buds as to impart a fine speckled appearance.

***Theclinesthes albocincta* (Waterhouse) (Bitter-bush Blue) continued.**

Larvae: Initially pale greenish yellow with numerous long setae (hairs), changing colour after eating the foodplant. Later instars are onisciform (slater shaped) with a few short lateral hairs. The mature larvae are about 11 mm long, the head is small, smooth, yellow or brown, hidden beneath the body. The larvae are polymorphic (i.e. they occur in many colour forms), and the colour and markings are highly variable, being some shade of green, pink or purple, or combinations thereof, with a darker longitudinal dorsal stripe. The colours usually blend in with the portion of the foodplant they are eating, such as pink or purple if they are eating the purple male flower heads, or green if they are eating leaves. In captivity the colour can change during the life of the larva from purple to green or vice versa. Larvae feed openly during the day as well as at night, and prefer to eat the flower buds of the male plants, which are more common during spring, but will also readily eat other parts of the plant when the male flowers are unavailable. The presence of larvae are readily discernible by holes in the buds of the male flowers and by the scoring of the leaves.

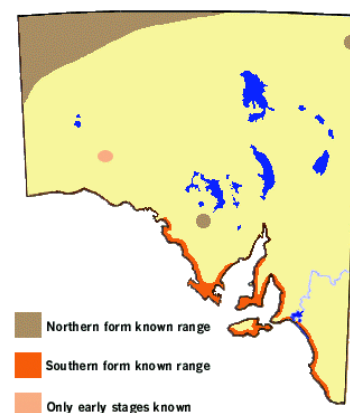
Pupae: Short cylindrical, with a few short bristles, rounded anteriorly and posteriorly, about 9 mm long, in various shades of brown, speckled with darker markings which are more concentrated on the thorax, head and wings. Attached by anal hooks and a central girdle to dead leaf and other debris beneath the foodplant.

Flight period in S.A.: All months, but most common during spring to autumn. Very rarely seen during winter. There are continuous broods over the warmer months, which are completed in 4 - 6 weeks during summer, extending to 10 weeks in autumn. There is sometimes a mass emergence of the butterfly when hundreds of butterflies are seen flying around the foodplant.



Distribution: Found throughout S.A., where ever its foodplant occurs in sufficient numbers. Also recorded generally from mainland Australia.

Habitat: In South Australia the *A.q.* var. *klotzschii* usually occurs within the coastal and near coastal sand dune systems. Additional small inland groves of this foodplant found in the Gawler Ranges and in the eastern Flinders Ranges extending to the Olary Region.



Conservation Status in S.A.: Locally common.

Threats: Groves of *A.q.* var. *klotzschii* are still widespread and common in the coastal habitat, although this area is under constant threat from urbanisation in the form of beachside marina and holiday-shack developments. Some coastal *Adriana* groves, particularly north of Adelaide are under terminal stress from the lowering of the fresh water table due to excessive use of ground water for agricultural purposes. The butterfly is only threatened near Adelaide due to the loss of foodplant from urbanisation and agricultural development. The *A.t.* var. *hookeri* groves of the inland are much rarer and smaller in size, and many of the historical groves have been obliterated by drought and previous pastoral practices. Some pastoralists believe the plant is poisonous to stock and is therefore destroyed, although the plant is not listed as being poisonous.

Conservation Strategy: Coastal management policies need to recognise the dependence of the butterfly on the *A.q.* var. *klotzschii* growing in the back-dune environment and therefore coastal dunes need to remain undisturbed. Near Adelaide, the butterfly and foodplant needs to be re-introduced, particularly to conserved coastal dune areas. The foodplant would make an attractive addition to gardens and the roadside environment in coastal areas as it is tough and easily grown.

PLANT PROFILE By D.Keane**COAST BITTERBUSH (*Adriana klotzschii*)****Family:** Euphorbiaceae "Spurges"**Distribution:** Coastal areas of Eyre & Yorke peninsulas, Kangaroo Island and Adelaide. Also in Victoria.**Habit:** Medium shrub 1 to 3 metres.**Description:** Plants can be either male or female and have a poisonous sap, not grazed by stock. The tomentose (short star shaped hairs) leaves are oval to lance shaped from 2.5 to 9 cm long and having no leaf stalk (petiole), the margins are slightly toothed. Flowers are mostly arranged small, crowded and situated on the ends of the branches (terminal), they are reddish brown.**Butterfly Conservation:** Larval food for Bitter-bush Blue Butterfly (*Theclinesthes albocincta*)**Uses:** Not used in horticulture but would make good coastal planting. It is extremely hardy and easy to propagate. Should be promoted to re-create butterfly habit along the coast.**Note:** There is presently some revision and impending name changes within the genus *Adriana*. Existing books still state *A. klotzschii*, and *A. quadripartita* is proposed.**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.

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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 12th February at 6.00 pm. If you would like further information or receive an agenda please contact the Secretary Jan Forrest at the address above.

BUTTERFLY EXHIBITION "Where have all the Butterflies Gone?" is currently on display at the Cleland Wildlife Park. If you missed the exhibition at the SAMuseum then now is your chance to see it. On display until the end of February 2001.

WEB SITE (produced by Roger Grund)

'South Australian Butterflies' <http://www.adelaide.net.au/~reid/>

We welcome the following new members:

NEHECA
MARIE PILKINGTON
J. DAVY-WARREN
DIANE HART
KEVIN PARKEN
KEN BRADLEY
KAREN LANE
SUE HOLT
PAT WUNDERSITZ
RON SIMMS

