



**WHERE HAVE ALL THE BUTTERFLIES GONE?**

*D. Keane*

We often get asked this question. The answer is that the caterpillars find it hard to survive in the human environment, most people have no idea where butterflies or moths come from or what they need for their survival and preservation of the next generation. In the case of the Australian Admiral (*Vanessa itea*), I noticed in the second week in October 2013 there was a large patch of stinging nettles, their food plant, slashed when thousands of caterpillars were feeding on them. Timing is paramount; these stinging nettles could have been flagged off and left until the butterflies emerged from their chrysalis in a few more weeks, then thousands of butterflies would have been able to visit our gardens.

There are two species of stinging nettle in South Australia; *Urtica urens* (the introduced one) and *Urtica incisa* (the native one). It does not matter which, caterpillars use both as a food source and both nettles perform



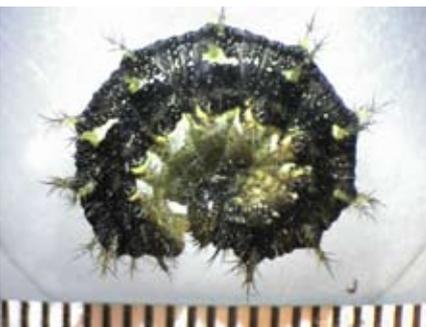
Australian Admiral *Vanessa itea* Photo: RGrund

the same function in the environment.

Not all introduced plants are considered weeds; some play an important and positive role; most have replaced the native species due to urban encroachment and loss of indigenous species.



Australian Admiral caterpillar *Vanessa itea* eggs and pupa, Photos RH Fisher. Caterpillar and introduced stinging nettle *Urtica urens* Photos D Keane, Underside Photo M Gemmell.



The two page Australian Admiral Fact Sheet was made available with the Nov 2011 BCSA Newsletter #43. If you would like a copy please email Jan Forrest.

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**What to do?**

- **Learn more.**
- **Know when life cycles occur for wildlife.**
- **Recognize the food plants and the caterpillars.**
- **Resist "cleaning up". Leave wild and weedy places. Every time you disturb something you destroy some form of habitat.**
- **Remember 'no larder no wildlife'.**

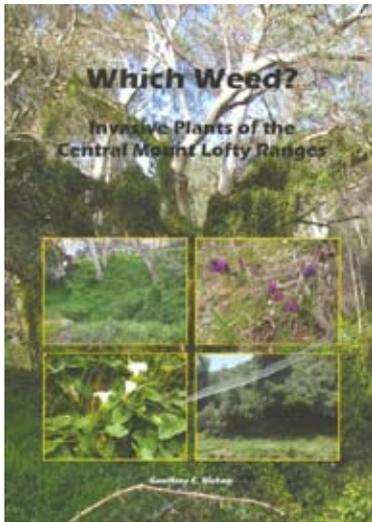
**Contacts and information:**  
[butterflygardening.net.au](http://butterflygardening.net.au), visit [sabutterflies.org.au](http://sabutterflies.org.au)



BUTTERFLY CONSERVATION SA. INC. Membership enquiries: [info@butterflygardening.net.au](mailto:info@butterflygardening.net.au)  
 Membership payments (\$10pa): Treasurer: C/- South Australian Museum, North Terrace, ADELAIDE. 5000  
 Cheques to be made out to Butterfly Conservation SA Inc.  
 Direct Debit details: BSB 805-022 Account No: 02247994 Account Name: Butterfly Conservation SA Inc.  
 Please email Treasurer if paying by direct debit: [mima@esc.net.au](mailto:mima@esc.net.au)

**MEMBERSHIP FEES ARE NOW DUE**

# Which Weed? Invasive Plants of the Central Mount Lofty Ranges



Just released, a pictorial guide to the invasive plants (weeds, if you like) of the Adelaide Hills. Biologist Geoffrey Bishop discusses some 195 plant species that have invaded the Adelaide Hills and are now seen as weeds in our gardens, bushland, roadsides and on agricultural properties. Some are widespread in occurrence whilst others are confined to specific parts of the Adelaide Hills or in particular environments, such as watercourses and other damp sites.

This full-colour 118 page book will appeal to gardeners, community group members, bushcarers – in fact, anyone with an interest in knowing which plants are weeds and which are not!

To obtain a copy of the book, visit the Adelaide Hills Natural Resource Centre at Norton Summit, or complete this order form and send it to the Adelaide Hills Natural Resource Centre (details as below).

*This book was produced by the Adelaide Hills Natural Resource Centre Inc., through funding from the Australian Government's Caring for our Country initiative and the Adelaide Mount Lofty Ranges Natural Resources Management Board.*



CARING FOR OUR COUNTRY



## ORDER FORM

Please send me ..... copies of **Which Weed? Invasive Plants of the Central Mount Lofty Ranges** @ \$20.00 each plus postage and packing.

1 copy \$10.50 (metropolitan area)/ \$11.50 (country zone – postcodes 5200-5749)

2 copies \$10.50 / \$12.30

5 copies \$11.20 / \$14.75

Please send the completed form and cheque to the Adelaide Hills Natural Resource Centre, 1 Crescent Drive, Norton Summit SA 5136 or pay direct to Banks SA account 036349940 BSB 105-141 and email your order to [valhunt@ahnrc.org](mailto:valhunt@ahnrc.org)

Name:	..... books @\$20.00 each	\$
Address:	Postage	\$ _____
	Cheque/postal order for	\$ _____

Email:

Telephone:

Date of order:

**Adelaide Hills Natural Resource Centre, 1 Crescent Drive, Norton Summit SA 5136**

**Telephone (08) 8390 1891 Facsimile (08) 8390 1598 email to [valhunt@ahnrc.org](mailto:valhunt@ahnrc.org)**

**Promoting Butterfly Conservation in the Mid North and Yorke Peninsula**

*David Sloper - Wallaroo*

As a very new member of Butterfly Conservation SA, (Chairman Jan can be very persuasive!) it was very brave of the organisation to loan me the three butterfly display cabinets recently to use at a couple of education events in the Mid North!

As a Community Ranger for the Northern & Yorke NRM Region, I am often asked to present at primary school education events, and traditionally I do a very general presentation on insect orders. Over the last couple of years, Jan has assisted at a couple of these events by presenting the butterfly conservation message. The timing of this year's events in mid September coincided with a field trip on Jan's calendar, so I decided to tackle the butterfly conservation message myself!

The first event was the annual Caltowie Corridors of Green School Environmental Field Day which has been held for the last 12 years at a picturesque location called Appila Springs, approximately 30km north-east of Jamestown. This year's event featured seven presenters talking about frogs, worms, pest plants, native seed propagation, water bugs, cute and cuddly animals and, of course, butterfly conservation.

About 150 primary school students from seven local schools attended this year's event, mainly years 3, 4 and 5. Class teachers and some parents also took part and each school group rotated through a series of seven 25 minute presentations, interspersed with recess and lunch breaks. After some brief revision of the butterfly life cycle, my presentation focused on butterfly gardening, with displays of potted plants, mistletoes, sedges and grasses. The weather was fine, Appila Spring was full with clean fresh water, the flies were thick and everyone enjoyed their day out in the bush!

Every second year, the Yacka Moorundie Landcare Group (north of Clare) piggyback on to the Appila event and hold a similar education day in the mid-north town of Spalding. The Landcare group uses the town oval to stage their event as it reduces the cost of hiring and transporting all the facilities. A number of the primary schools in the Spalding area have low student numbers, and it is

necessary, from a staffing point of view, for all students of the school to attend the education day.

It can be difficult to target a presentation to a group comprising students from Reception to Year 7, so the organisers use a larger number of presenters (11) and combine the age groups from each school. This allows the presenters to narrow their presentation down to a particular age group. Two hundred and seventeen students from six primary schools participated in the day's activities, with approximately 140 students listening to my now well rehearsed butterfly presentation. Another great day, despite the loss of my voice following 13 presentations over two days!

Only two weeks later, and still having the display cabinets in my care and control, I decided to display them on the Natural Resources Northern & Yorke site at this year's Paskeville Field Days. Exhibition space was limited, so I could only display one case at a time, but I used my display of potted plants and grasses to highlight the need to grow both caterpillar food plants and nectar plants to attract local species of butterflies. We had many visitors over the three days of the event and staff handed out a locally produced plant list detailing local species of butterfly and larval food plants.

The final destination for the display cases, before returning to the Big Smoke, was a meeting of the Northern Yorke Peninsula Group of the Australian Plants Society in early October. Well known plant person and author Neville Bonney decided to hold the first public launch of his new book on Quandongs in Kadina, hosted by the local APS Group. To complement Neville's displays, I used the three display cabinets to highlight the link between butterflies and parasitic plants, of which the Quandong is a prime example.

Over 30 people attended the book launch, purchased signed copies of the new publication and then indulged in an assortment of quandong based desserts! The quandong pies and the quandong and wattle seed pavlova were the standouts!

The following day, I made a rare trip to Adelaide, battled Friday traffic, cursed traffic lights and navigated roundabouts to deliver the display cases back to Jan for use at the Australian Plants Society's Spring Native Plant Sale at Wayville.

**NEW - plant tags**

At the recent Australian Plant Society show and sale we piloted the display of a number of plant tags on host and nectar plants. This was extremely successful and added great appeal to our display at the Australian Plants show and sale but assisted the growers to promote their plants and the clients to identify which plants are suitable as butterfly host and nectar plants. Thanks to Gerry Butler for this initiative.



**What can you plant to attract butterflies to your garden?**

These plant tags will inform your nursery clients and visitors to your garden about the link between habitat and our beautiful butterflies. Order from the website below.

**Butterfly Gardening**  
www.butterflygardening.net.au

**FRIENDS OF WAITE CONSERVATION RESERVE Inc.**

**BUTTERFLIES OF WAITE**

**WHERE:**  
URRBRAE HOUSE  
Waite Campus  
Urrbrae.  
Enter from Fullarton Road

**WHEN:**  
MAY 14th  
7.30-9.30 pm

**Enquiries:**  
Jennifer  
8313-7405

**Or:** Helen  
helenp10r@yahoo.com.au

**THE UNIVERSITY OF ADELAIDE**

**Mike Moore talks about the butterflies of the Waite Conservation Reserve**

**Free talk preceded by brief AGM Super provided**

## PROPOSED CHANGES TO THE BCSA CONSTITUTION for adoption at the 2014 AGM, 5th August, 2014

The Constitution has recently been revised to reflect a changing emphasis on invertebrate conservation and tidying up some anomalies. The new constitution will be presented at the AGM on 5th August 2014. If members have any queries or require further information please contact committee member John Wilson at j.and.m.wilson@internode.on.net as it would be nice to clear up any concerns prior to the AGM.

Thanks to John Wilson for all his work on this revision.

### COMMENTS ON PROPOSED CHANGES

1. Clause 3(i) and (ii) about BCSA's Objects have been slightly modified to also include invertebrates and biodiversity.
2. Clause 4b allows for the possibility of "rules" separate from the Constitution. These can be changed by the Committee without changing the Constitution and would be used for administrative issues.
3. Clause 5j changes the membership year from AGM to AGM (note it is NOT currently July-June) to a calendar year from 1 January to 31 December, but leaves open the flexibility for the Committee to change this. The point behind this is to remove the confusion of members (and committee) about the period for which individuals are financial.  
The proposal at this stage is to give a "free" five month's membership from August to December 2014. With the current 155 members (excluding Life and Honorary members) and a \$10 subscription, the cost of that is about \$650. In the last year or two we have "forgiven" a sizeable amount of overdue subs because of uncertainty in when the memberships expired. Alternatively, we could institute a once-off extra levy of ~\$4 per member to make up for that. This could be very difficult with 33 members having prepaid.
4. Clause 5k recognises prepayments of annual membership fee, for a "period determined by the Committee". There is a bit of a conflict with Clause 5h which says membership is for one year.
5. Clause 6g(iv) has been added to provide for removal of a committee member if they are disqualified under the Act. This clause is not essential, as the overarching powers of the Act would allow it even if it's not mentioned here. Added for clarity.
6. Clause 7a has been amended to include the content, timing and form of notice of General Meetings – including notice by email. This is necessary under the Act.
7. Clause 7f provides that for Special General Meetings (ie a meeting called by part of the committee or by the members), the notice period is increased to 21 days.
8. Clause 7h has been amended to include in the business of the AGM confirmation of the minutes of the last AGM and any intervening Special General Meetings, and setting the subs, both annual and Life.
9. Clause 8d has been added to specify what majority is required to approve motions at General Meetings, and to provide for the meeting chairman to have a deliberative as well as a casting vote.
10. A new Clause 9 has been added on "Special Resolutions" – when they are required (basically

changes in Constitution, amalgamations and winding up), notice period and voting. While this isn't essential (it is covered under the Act), it does help ensure we comply with the Act.

11. In Clause 10, the old (a) has been repositioned as (b) to make the order a bit more logical.
12. Clause 11 has been changed to allow for payments by EFT and to require four authorized signatories for cheques and EFT, rather than the three signatories required under the current Constitution. The current practice requiring signatures by two of the authorized people will continue. We now make most payments electronically, and arrangements will be made with the bank to facilitate two signatures on EFT transactions.
13. Clause 13b provides for "rules" outside the Constitution which are intended for day-to-day operations and can be changed by the Committee rather than requiring constitutional change. While we do not currently have "rules", this flexibility is useful.
14. Clause 13c has been added to make clear that alterations to the Constitution need to be registered with OCBA.
15. A new Clause 14 has been added on "Financial Reporting" as required under the Act. This sets out the financial year, record requirements, audit and election of Auditor.

### REVISED CONSTITUTION OF BUTTERFLY CONSERVATION SOUTH AUSTRALIA INC.

\*\*\* Definition of "conservation": Conservation is defined as protection, preservation, restoration, enhancement and careful management of the natural environment. \*\*\*

#### 1. NAME

The name of the organization shall be Butterfly Conservation South Australia Incorporated and hereinafter referred to as BCSA.

#### 2. AIM

The aim of BCSA is the conservation of butterflies (and where appropriate moths) in South Australia.

#### 3. OBJECTS

The aim of BCSA shall be achieved by pursuit of the following objects:

- i. To promote the conservation and sound management of areas of ecological significance to butterflies, especially areas of remnant native vegetation, and to increase public awareness of the importance and significance of invertebrate biodiversity and their part in the food cycle.
- ii. To foster interest by government agencies at all levels, voluntary bodies, community groups, educational establishments and the public generally in the conservation of invertebrates especially butterflies and their habitats, and the activities which can assist in this conservation.
- iii. To re-introduce butterflies into natural habitats where they previously existed.
- iv. To promote and support scientific study and research into the habits, diseases, life-cycles and factors affecting butterflies and the enhancement of their habitats, and to disseminate the results of such research as widely as possible.
- v. To set up a public gift fund under the constitution and rules of BCSA for the specific purpose of pursuing the aim and objects of BCSA.

#### 4. POWERS

- a. BCSA shall have all the powers conferred by Section

25 of the "Associations Incorporation Act. 1985" ("The Act").

- b. BCSA may make rules as it deems necessary for the purposes of this Constitution and the management of BCSA, and may alter, amend, add to or delete such rules.
- c. BCSA shall cause all rules made by it to be printed and published in such a manner as shall be deemed appropriate.

## 5. MEMBERSHIP

- a. Membership shall be open to individuals, families and bodies who are actively interested and willing to support BCSA in pursuit of its aim and objects, and who have no demonstrated history of actions contrary to the aim and objects of BCSA.
- b. The committee may refuse an application for membership.
- c. The committee shall have the power to recommend the revocation of membership if in its opinion the member or member body has acted in a manner contrary to the aim and objects of BCSA.
- d. Member Bodies
  - i. Member bodies are defined as being any trust, association, institution, organization, department or instrumentality of government, local government authority educational organization or other body which in the opinion of the committee of BCSA will support the aims and objects of BCSA. Applications for membership of BCSA from any such body will be considered in the same way as applications from individuals.
  - ii. A member body shall have voting rights equivalent to those of an individual member.
  - iii. Hereinafter the word member applies equally to member bodies.
- e. Family Membership
  - i. Family Membership shall be available and may include up to two adults and up to three dependant children.
  - ii. Adults included in family membership shall have voting rights equivalent to those of an individual member and may hold office on the committee simultaneously. Hereinafter the word member applies equally to family membership.
- f. The BCSA committee may invite any existing member to have free membership as an Honorary Life Member, such Honorary Life Member may also be invited to become ex-officio on the committee, with vote.
- g. Revocation of membership.
  - i. BCSA shall possess the right to terminate the membership of any member of BCSA who, in the opinion of BCSA has acted in a manner prejudicial to the interests of BCSA, has breached any aim or objects of BCSA, or has engaged in or promoted any activity which is contrary to BCSA rules or policy as defined in either this constitution or in resolutions or policy statements adopted at a General Meeting of BCSA. In the case of termination, the member shall possess the right to present argument either orally or in writing to BCSA as to why the membership should not be revoked.
  - ii. The member affected must be notified in writing, stating the grounds and evidence in support, and offering the opportunity to argue against it in writing at the next General Meeting, as well as orally at that meeting. At the same time this information must also be circulated to members.
  - iii. Membership may be terminated by not less than a two-thirds majority vote of members present at a General Meeting.
- h. Membership period shall be for one year.
- i. Membership shall cease on:
  - i. The failure to renew membership within two months of expiry, or
  - ii. Resignation in writing delivered to the committee of BCSA, or
  - iii. Termination of membership by BCSA.
- j. The annual membership and life membership fees shall be determined annually at the Annual General Meeting

of BCSA and fall due on 31 December of that year or at such other date as the Committee shall determine, except that the fee for 2014-2015 which is due for payment on 30 June 2014 will pay for membership until 31 December 2015.

- k. The annual membership fee may be paid in advance for a period determined by the Committee.

## 6. MANAGEMENT

- a. The management of BCSA shall be vested in a committee which shall comprise of a total of not less than five members and shall include a Chairman, Secretary, and Treasurer who shall be the office-bearers of the committee. The committee shall meet at least once per year.
- b. The committee shall conduct the business of BCSA and maintain records of the financial transactions of BCSA.
- c. Members of the committee and its office-bearers shall be elected at the Annual General Meeting for a term of one year. An office-bearer may hold more than one office simultaneously.
- d. Retiring members of the committee shall be eligible for re-election.
- e. The quorum for meetings of the committee shall be three or one half the number of the members of the full committee whichever is the greater.
- f. The Chairman or any two other members of the committee shall have the power to call a meeting of the committee.
- g. An office-bearer or member of the committee shall cease to hold office upon:
  - i. Resignation in writing, or
  - ii. Termination as a member of BCSA, or
  - iii. Absence from three successive committee meetings without explanation acceptable to the committee or
  - iv. Disqualification from being a Committee member by the Act.
- h. Vacancies unfilled or arising among the office-bearers or other committee members may be filled by the committee by co-opting members for the unexpired remainder of the term.
- i. The committee may function validly notwithstanding any vacancies so long as its number is not reduced below the quorum.
- j. The committee may appoint sub-committees of members for specific purposes who shall meet as they see fit or as directed by the committee and who shall report to the committee.
- k. The committee shall have the power to appoint such employees as are required to carry out the aims and objectives of BCSA.

## 7. GENERAL MEETINGS

- a. Written notice of all General Meetings shall be distributed to all members at least 14 days prior to the meeting, setting out where and when the meeting will be held and particulars of the business to be conducted at the meeting. Such notice shall be given by the method selected by individual members for communications, whether by mail or email.
- b. BCSA shall meet not less than three times a year.
- c. Members shall each be entitled to one vote at any General Meeting at which they are present.
- d. A quorum at any General Meeting shall be two thirds of the members or five whichever is the less.
- e. If at any General Meeting there is no quorum within 30 minutes of the time appointed for the meeting then a majority of the members present may decide to adjourn the meeting for a period not exceeding 14 days.
- f. A Special General Meeting shall be called by the Secretary within 28 days of receipt of a directive of the committee or a written request of three committee members or six members specifying the business to be conducted at the meeting.

The notice for a Special General Meeting shall be distributed to all members at least 21 days prior to the meeting.

g. The Annual General Meeting shall be held at least once in each calendar year and not more than 3 months after the close of the financial year which shall be 30 June unless altered at the Annual General Meeting.

h. The business of the Annual General Meeting shall be:

i. To confirm the minutes of the previous Annual General Meeting and of any Special General Meeting held since that meeting.

ii. To receive the chairman's report for the previous financial year.

iii. To receive the Treasurer's report and the audited financial statements for the previous financial year.

iv. To elect or re-elect the committee members and office bearers, who must consent in writing or in person.

v. To elect an auditor.

vi. To set the annual membership and life membership fees.

vii. To conduct any other business placed on the agenda before the commencement of the meeting.

## 8. VOTING

Voting shall be by show of hands except that:

a. Any contested election at an Annual General Meeting or otherwise voting shall be by secret ballot.

b. Any decision to alter or revoke membership shall be by secret ballot.

c. The meeting may by show of hands require any other vote to be by secret ballot.

d. A question for decision at a General Meeting, other than a Special Resolution or termination of a membership under clause 5g(iii), may be determined by a simple majority of members present.

e. The chairman of the General Meeting shall have a deliberative as well as a casting vote, as set out in Clause 10b.

## 9. SPECIAL RESOLUTION

a. The Act requires that there be a Special Resolution to change the constitution, amalgamate with another association, wind up, or distribute assets on winding up.

b. For a Special Resolution, the required notice period is 21 days.

c. For a Special Resolution, the required majority is not less than two thirds of members present at the meeting.

## 10. CHAIRMAN

a. The Chairman shall chair committee and general meetings except that in the absence of the Chairman or at the request of the Chairman another office bearer shall chair the meeting. In the absence of the Chairman or another office-bearer another member may be elected by a majority of the meeting as meeting chairman.

b. The meeting chairman shall have a deliberative as well as a casting vote.

c. The chairman of any meeting shall encourage full balanced participation in meetings by all members and shall decide on all matters of order.

d. The Chairman shall act as spokesperson for BCSA unless an alternative spokesperson has been appointed by the committee or a general meeting. The spokesperson shall make statements in accordance with previously agreed policy, or in an emergency following consultation with at least two members of the committee.

## 11. TREASURER

a. The Treasurer shall cause moneys received to be paid into an account authorized by the committee in the name of BCSA.

Payments shall be as petty cash, cheque or electronic funds transfer. There shall be four authorized signatories, two of who shall be office bearers of the committee and one other a committee member. Two of the four authorized signatories shall sign cheques or EFTs. Major or unusual expenditures shall be authorized in advance by

the committee or a general meeting.

b. The Treasurer shall cause records to be kept of all receipts and payments and other financial transactions, which records shall be available for inspection by any member.

c. The Treasurer shall submit a report on finances to each committee meeting.

d. The Treasurer shall present audited financial statements to the Annual General Meeting.

## 12. SECRETARY

a. The Secretary shall call meetings in accordance with the provisions of this constitution.

b. The Secretary shall cause records to be kept of the business of BCSA including the constitution and policies, records of members, a register of minutes of meetings and of notices, a file of correspondence and records of submissions made by or on behalf of BCSA.

c. Except when duties are otherwise delegated, the Secretary will receive correspondence addressed to BCSA and will present it to the next committee or general meeting. The Secretary will prepare and send correspondence as directed by the committee or general meetings of BCSA.

d. The Secretary will prepare and send out notices of meetings and minutes of meetings.

e. The Secretary shall act as minute secretary, and shall record the minutes at committee meetings and general meetings.

f. In the absence of the Secretary at any meeting another member shall be appointed as minute secretary for that meeting.

## 13. AMENDMENT OF THE CONSTITUTION AND RULES

a. This constitution may be repealed, altered or amended by a Special Resolution by a majority of not less than two-thirds of members present and voting at a general meeting of which not less than 21 days written notice including notice of the proposed repeal, alteration or amendment has been distributed to all members.

b. The committee and/or a general meeting may make, alter, amend add to or delete rules. Notice of a motion to make, alter, amend, add to or delete any rules must be given at the committee meeting and/or general meeting prior to the meeting at which such motion is to be discussed and voted on. Resolutions concerning the rules will be determined by a simple majority.

c. The alteration to the Constitution shall be registered with the Office of Consumer and Business Affairs as required by the Act.

## 14. FINANCIAL REPORTING

a. The financial year shall be a period of 12 months starting 1st July and ending on 30th June of the next year.

b. BCSA shall keep and retain such accounting records as are necessary to correctly record and explain the financial transactions and financial position of BCSA in accordance with the Act.

c. As indicated in clause 11d, the audited financial statement will be presented to the Annual General Meeting.

d. At the Annual General Meeting, the members will elect an Auditor to hold office until the next Annual General Meeting as in Clause 7h(v). If an auditor is not elected at the Annual General Meeting, the committee shall appoint an auditor until the next Annual General Meeting.

## 15. FINANCES AND PROPERTY

a. The income, property and funds (including any profits or financial surplus) of BCSA shall be used and applied solely towards the promotion of the aims and objects of BCSA and shall not be paid, distributed or transferred to any members or their associates, or former members or their associates, provided that nothing herein contained

shall prevent the payment in good faith to any person in return for services actually rendered, and provided that an employee of BCSA shall notwithstanding that employment be entitled to be a member or office-bearer of BCSA and of any committee.

b. On dissolution all property whether real or personal remaining after payments and legal liabilities shall be transferred to such other body formed for promoting similar aims and objectives as shall be approved by BCSA.

c. The Butterfly Conservation Fund, being a public gift fund, shall be established and managed as an entity separate from all other funds of BCSA, solely for the support of the environmental purposes of BCSA, and shall have separate rules adopted by a resolution of a General Meeting of BCSA. The Butterfly Conservation Fund must comply with subdivision 30-E of the Income Tax Assessment Act 1977.

d. Any allocation of funds or property by BCSA to other organisations or persons will be made in accordance with the established aim and objects of BCSA, and not be influenced by the expressed preference or interest of a particular donor to BCSA.

**DOCUMENT DATE 5th Day of August 2014**

**2014 Introductory Bush Regeneration Workshops - by Trees For Life**

The one day workshop covers topics such as the values of and threats to remnant native vegetation, strategic approaches to bush restoration, maximising biodiversity outcomes, and practical minimal disturbance techniques. (see further information on the next page from Trees For Life)

DEWNR has purchased a number of spots for DEWNR Volunteers. Course dates and venues available from Jan Forrest.

**BUTTERFLY ALPHABET**



These amazing images were found on the web by committee member Gerry Butler. Posters are available at the following address: <http://www.butterflyalphabet.com/main/index.php>

**NO MONARCHS AT MILANG**

Jill Davy

BCSA had been sent photos of Monarch butterflies clustering on eucalyptus trees on a property at Point Sturt, near Milang. The photos were taken in 2011, around mid-July into August and there seemed no reason why this spectacle should not be happening again each year. Particularly as the property had been re-vegetated, stock excluded for many years, and milkweed was growing well.

Maybe we were about to have answers to the often asked questions, "Where do the Monarchs go in winter?" "Do they migrate as they do in North America?" "If they cluster together for the winter... where?"

According to Robert Fisher's book, "Butterflies of South Australia", published in 1978, (page 140) 'overwintering clusters have been observed on native pine trees (*Callitris* sp.) near Burra, on *Salix* sp. (Willow) in Waterfall Gully and Morialta in the foothills of the Mount Lofty Ranges.'

More recently clusters have been seen near Rendelsham Southeast and in the Onkaparinga Valley and there may be others.

It is interesting to note that the first sighting of the Monarch (or Wanderer) in South Australia was reported by Adelaide's First Entomologist, Charles Algernon Wilson, October 1878. In the book 'The Insect Man', Wilson found the caterpillars and chrysalis, 'close to my residence in Kensington nearly three miles from Adelaide...has a creek running through it, on the sides of which are the plants in question [native cotton *Gomphocarpus frutescens*] (page 236).

In August last year it was with great anticipation that Jan Forrest and I set off on the long drive to the bakery at Milang where we met up with Cecilia and then on to Point Sturt, see photos below.

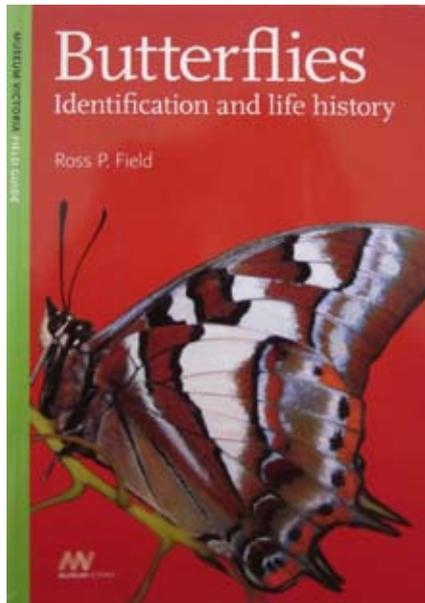
The day was cool but sunny and the view across the lake was spectacular with pelicans and ducks everywhere and plenty of water. Monarchs were seen flying high above flowering gums and low over flowering grasses, some eggs had been laid on milkweed, a few caterpillars were seen and we were taken to the trees which two years ago, about the same time, were covered with monarch butterflies in their hundreds. But this year there were none resting in the trees. We returned to the same area later in the afternoon, in the hope that we may have been too early for them to have sought shelter. but to no avail.

But we have been invited to come again! Contact Jan Forrest 82978230 if you are interested.



Photos: Jan Forrest

As from 1st July a charge will be made for Newsletters that are posted - approved at the last AGM



## Critique of “Butterflies – Identification and life history”, by Ross Field produced by Museum Victoria.

*Mike Moore*

Release September 2013  
 Author Ross Field  
 RRP \$29.95  
 ISBN 978-1-921833-09-0  
 Format paperback, 210 x 150mm, colour illus  
 Extent 324 pp  
 Distributor New South Books

This is another title by Museum Victoria in the Lepidopterous line, running in conjunction with their excellent “Moths of Victoria” series, but why they gave it such a generic title and not simply Butterflies of Victoria – for that is what it is, I am unsure.

I liked this book. It is well produced using thick heavy shiny paper, and contains oodles of images. The colour plates are very good and most useful, the text is clear and concise.

The book describes in some detail the 128 species of butterfly found in, or potentially in, Victoria. The species are sensibly organized into families with colour markings on the edges of the paper to allow you to easily find each section. A species occupies a double page; the right hand page is given over completely to images, the left, text and an image of the food plant.

The images include male and female adults - upper views, an underside view, caterpillars, pupae, eggs and larval food plant, and though the images vary from page to page in scale, are very clear with high definition. The text is divided into sections covering Identification, Larval Food plants, Biology and Habitat and Range. All of the species are named to the sub specific level which for some species is confusing to the reader if more than one subspecies exists in Victoria. This could have been better done by having the simple binomial in the heading and the subspecies mentioned and named in the text. The Identification section contains a well written description.

The value of such detailed descriptions is questionable in the light of “a picture being worth a thousand words”, but they do have value in teaching budding entomologists the various parts of the wings and body and directing them in an ability to construct a more formal description if needed in the future. The text on Larval food plants is vitally important and succinctly put. I particularly liked the Biology section for each species, because information such as this makes the book more than just an Identification Guide.

The final section on Habitat and Distribution is useful, though the information varies from quite specific to, at times, rather vague. As a non Victorian I would like to have had some major towns marked on the map, as I believe this would help me to orientate myself with regards to the coloured dots; eg. Should I be south or north or ..... of this place! I also thought the flying times with the percentage collected marked on to it an excellent idea.

This would be a useful addition to the library of any SA collector because of the large overlap in species between the two states and for the fact that it entices us over the border into Victoria to study species that do not occur here but are not necessarily a great distance away. This book is a most useful addition to the increasing range of butterfly related books available in Australia.

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### CAN YOU HELP PROVIDE IMAGES OF CATERPILLARS AND MOTHS FOR OUR NEW BOOK and SPIDER/RELATED GROUPS FOR OUR NEW SPIDER POSTER?

Our next project is the production of a moth book to replace the now out of print “*A guide to Common Moths of the Adelaide Region*” and a companion to our butterfly gardening book.

We have received a ‘seeding grant’ from the AMLNRM and a small team are working with author Peter McQuillan on content.

Around 80 common moths have been chosen and we would like to include images of not only the adults but their caterpillars as well. **This is where we need help from members.**

If you can provide high quality images of local moths and caterpillars please email them direct to David Keane on [dkeane@iweb.net.au](mailto:dkeane@iweb.net.au) or on CD to D. Keane C/- Post Office, Inglewood SA 5133. Include information on location, date, identification (if possible), habitat and any other information. All images used in the book will be acknowledged. Please include you name in the title of the image.

The new **spider poster** is nearly ready for the printer however we are still seeking images of the small blue centipede often found in gardens and one of the local garden orb weaver spiders. Contact Jan Forrest if you can help.

**GHOST, SWIFT AND RAIN MOTHS OF SOUTH AUSTRALIA**

*Mike Moore*

One of the major Orders of Insects is the Lepidoptera. Lepidoptera means scaly wings and refers to the scale like objects that cover not only the wings but also much of the body. Hairs are usually also present on the insect's body but these are themselves modified scales. We more commonly know the Lepidoptera as Butterflies and Moths.

The Order Lepidoptera is divided into about 130 major groupings called families. Five of the families are what we would call Butterflies, (Papilionidae, Pieridae, Nymphalidae, Lycaenidae, and Riodinidae) and one that we would call Skippers (Hesperiidae).

Interestingly there is no single feature that separates all butterflies from moths. If there was there would only be one family of Butterflies, because the whole aim of the Taxonomic system is separate things out that share a common feature. Mike Braby in his Australian Butterflies suggests that butterflies should perhaps be looked upon as strange, brightly coloured, day-flying moths!

Many of the 130 families are set up on wing venation: the pattern of the veins in the wings. Indeed it is this feature that places a butterfly in the Pieridae rather than the Nymphalidae, or a moth in the Sphingidae (Hawk Moths) rather than the Castniidae (Sun Moths). Whilst wing venation is very important it might not be the only or indeed the unique feature used. Other features can be more practical than wing venation for the amateur because in some groups (particularly small moths) it is difficult to see the veins without removing all the scales from the wings, adding a stain and placing them between glass slides.

Finally to Ghost Moths: These fit into the family Hepialidae (Heep – ee – al-i-day). Not all Hepialids have the same wing venation but what they do have is that they, unlike other moths, have the venation of the rear wings similar in pattern to the forewings. Why Ghost Moths? Three reasons I think. This term seems to have derived from the first named species *Hepiolis humali*. The males of this species are white, are active at night

and have a tendency to hover one to two metres above the ground. Rather ghostly!

In Australia the vast majority of our species are brown though some *Anaetus* species are spectacularly coloured.

Ghost Moths are considered primitive moths; one of the oldest moth families. This was originally considered so because

- the aforementioned wing venation.
- the fact that they do not have a frenulum. A frenulum is a device for linking the wings of moths together to get the fore and rear wings to beat in unison thus making the wing beat more efficient. Interestingly neither butterflies nor skippers have a frenulum either.
- they do not have mouth parts. That is they cannot feed as an adult. This does of course limit their life span.

If they cannot feed what do they use for energy. In Australia the larger ones (and they can get particularly large) live on fat reserves stored in their bodies. This allows them to live for about a week. So too the smaller ones but it is likely their life spans are less than a week because they cannot store as much fat. Because of the fat storage the large moths (caterpillars and adults) were and still are used as a food source by Aborigines.

They have always been considered “primitive” and it is with interest and scientific satisfaction that in the 1970s when their reproductive systems were examined closely for the first time that this too was found to be primitive. In these moths the sperm storage and the egg producing organs are separated and the sperm has to swim from its storage place along an “external” groove to find the cloacal entrance whence they swim up and fertilize the egg. You will appreciate that this is less efficient and more primitive than system that has these features close and internal.

The family Hepialidae is at its most abundant and divergent in the southern hemisphere, particularly in Australia: Indeed some of our largest moths belong to this family.

Hepialids are similar in the way the caterpillars feed. In Australia the smaller species are root parasites feeding on the roots of grasses. This can make them an economic pest when present in large numbers. The larger species

feed on wood, either the roots of trees or the stems of trees. Wood is not however a very nutritious food and this means that the caterpillar needs to consume vast quantities to get enough nutrients to grow. All this eating takes time and so the life spans of some caterpillars can be extensive stretching possibly to five years duration. Some of these caterpillars feed internally others externally. When very young many caterpillars live in leaf litter feeding on mould, they then move to their preferred eating place when larger. The vulnerability of the young caterpillars must lead to great predation, fortunately they produce vast numbers of eggs.

Much of the initial taxonomic work on Australian Hepialids was done here in Adelaide at the South Australian Museum between 1930 and 1940 by Norman Tindale who erected many of the modern genera, and described most



xxxxxxxxxxxx hydrographus, *Trictena atripalpis*, *Abantiades sericatus*, *Bordaia karnka*  
 Photos: Mike Moore

of the current species. Though he continued to tinker until the mid sixties, this large and interesting family was left undeveloped by other Lepidopterists until the 1980s when work was again started on it.

The Genus *Fraus* had a wonderful detailed book written on it and the Genus *Aenetus* was thoroughly investigated but unfortunately the driving force in this work, Ebbe Neilsen from ANIC, died unexpectedly and the work stopped. Thomas Simonsen a Dane living and working in England with the British Natural History Museum has just recently been in Australia with the aim of finishing the work on the Hepialidae with exception of the Genus *Oxycanus*. He will write a monograph on his work and it should be finished in about two years. This work should clear up a number of the conundrums that have become apparent.

#### A little about each Genus

##### *Fraus*

These are the smallest and most primitive moths in the group. They are grey in colour though many species have a white wing bar. They have narrow wings and are less than 30 mm in wing span. Feeding on the roots of grass they emerge in early spring and fly at dusk less than a metre about the ground. These moths are quite different from the rest of the family and may be separated into their own family by subsequent workers.

##### *Anaetus*

These are the beautifully coloured cousins. In South Australia there are at least three species, soon to be five with a KI species being separated and a completely newly discovered species from the Flinders Ranges. Our species are pink and green and white in colour. Other species though are truly spectacular being large, beautiful and spectacularly coloured. *Anaetus mirabilis* is the largest species. The males are aqua and white, the females are emerald green and pink with golden marks in the forewings.

The rest of the Family is split into two groups according to their wing venation. In one group the 4th radial vein (Lepidoptera have five radial veins) originates from the main radial vein stem but in the other group the 4th radial vein stems from the 5th radial vein. Whether this split has any taxonomic significance is uncertain but it is certainly handy for the purposes of identification. Let us look at the first above mentioned group.

##### *Elhamma*

This is a genus with only one species. It is a thick set robust moth of small to medium size. The labial palps of this Genus only have two segments. It is thought that the caterpillars might eat the roots of certain swamp loving plants. Shades of pinky to medium brown colour its body and wings.

##### *Jeanna*

The type species of this genus is *Jeanna delicatula*. And it does look delicate, being rather slender in form with large leaf shaped wings. There are almost certainly another two as yet unnamed species present in WA. One species is greyish the other yellowish in hue. The other species, *Jeanna robiginosa* from Tasmania needs further investigation with regards to its status.

##### *Oxycanus*

This is the largest Hepialid genus in Australia having almost 80 named species. These are large to very large moths (12 cms wingtip to wingtip). The taxonomy of

them is somewhat chaotic, because of the incredible variation present in almost all of the species. Members of the same species seem to vary incredibly in morphology. (ie the colour and patterning on the wings and body.) I also believe that there can be significant variation in the shape of the genitalia. This all makes it very difficult to work out which species an individual might belong to. These moths can be quite spectacular in their patterning and even colourful, especially when first caught.

And now, the second group.

##### *Oncopora*

This is a group of small stubby brownish moths. They feed on the roots of grasses and can be a minor pest of pasture. There are about 14 species of these moths spread over southern Australia and Tasmania. They are difficult to separate species wise.

##### *Bordaea*

These are small to medium woodland moths. This is another of the groups where the taxonomy is in need of serious work. Most of the species are shades of brown with light coloured markings on the wings but one is a rather bright reddish tan and another black. Working with this group is made more difficult because they are poorly represented in collections probably meaning they are rare in the environment.

##### *Abantiades*

These are large to very large moths. Most are brown with white markings on the wings. The caterpillars feed on the roots of trees. There at least 18 species in this genus split half in WA and half in the eastern and southern states. Morphologically and genitalia wise these species are very stable and relatively easy to identify.

##### *Trictena*

These are large to very large moths usually in a variety of brown colourings, usually with white markings on the wings. The name for this group comes from the structure of the antenna where each of the fifty to seventy segments has three filaments projecting from them. There are only three named species but at least six undescribed species exist in collections.

#### What's Interesting About Hepialids

1. They don't feed as adult moths and therefore have short life spans. All of the Groups that have medium to large moths in them spend long periods of time as caterpillars. Probably one to five years. This is needed because they eat such nutritionally poor food (wood) they need plenty of time to accumulate the fat that must sustain them through their week long adult lives.
2. The adults really are simply egg laying machines. One of the common species of *Trictena* has within the female some 30000 eggs that she releases as she flies through the woodland. The females hatch and are almost certainly mated in the first night. They then use the rest of their short lives developing and releasing eggs.
3. Many of the above mentioned Genera have hatching times that are linked to autumn and winter rain bearing cold fronts.

# Butterfly Conservation South Australia Inc.

presents

## a PUBLIC TALKS PROGRAM 2014

### 2014 PROGRAM OF SPEAKERS

Butterfly Conservation  
South Australia Inc.

presents

## a PUBLIC TALKS PROGRAM

On the first Tuesday of the month March to  
November at 6.15pm for a prompt 6.30pm start.

At the Clarence Park Community Centre  
72-74 East Avenue, Black Forest.  
Bus route W91/W90: stop 10.  
Noarlunga Train service: Clarence Park Station.  
Glenelg Tram: Forestville stop 4, 9min walk south.

Entry by donation (minimum of \$2).

Please bring supper to share, tea/coffee will be supplied.

Meetings should conclude by 8.30pm.

At the start of each meeting a ten minute  
presentation on a 'Butterfly of the Month'  
will be given by a BCSA committee member.

www.butterflygardening.net.au

Photo Robert H Fisher: Wood White *Delias aganippe*

#### 6th May: "The secret lives of sea anemones"

Not just simple flowers of the sea, this talk will give you an insight into the lives of sea anemones. Some species can swim, mimic other objects, form symbioses with other organisms or are fatally toxic! Presented by Dr. Andrea Crowther from the SAMuseum.

#### 3th June: "A Revegetation blueprint"

Member David Keane will draw on 40 years experience rehabilitating mine sites and quarries to outline ecological principles necessary for a successful vegetation rehabilitation outcome. This talk will be of interest to all involved in revegetation projects.

#### 1st July: "Jewel beetles and plants"

Dr Peter Lang is a botanist with the State Herbarium, but also has an interest in Buprestid or Jewel beetles and their association with plants. Visitors will be enthralled by Peter's amazing images of these colourful beetles.

#### 5th Aug "The wild life of wildlife - procreation oddities"

The need to breed has created many opportunities for evolution to enhance sexual "apparatus" and behaviour in the animal kingdom. Join us for a brief tour of the bizarre kinds of equipment and rituals that have led to the marvellous array of biological diversity on the planet. This talk by Professor Steve Donnellan will commence at 7.00pm following a short BCSA AGM at 6.30pm.

#### 2nd Sept: "Orchids and lilies of the Adelaide Hills"

Orchids can be used as an indicator of ecosystem health. Author of "Start with the leaves" Robert Lawrence, will show how to identify native orchids and lilies of the Adelaide Hills with a well-illustrated presentation. Books will be available for sale. This talk will be preceded by the launch of the new BCSA Spider and other Arachnids posters.

#### 7th Oct: "Weeds and wildlife"

We know that wildlife sometimes use weeds as habitat – but does it really matter? Jasmin Packer, University of Adelaide, will reveal why weeds are sometimes critical habitat.

#### 4th Nov: "Remarkable fossils from Kangaroo Island"

Some of the best preserved Cambrian fossils in the world come from Kangaroo Island. They are about 515 million years old and include specimens with guts, appendages and some of the best preserved very early eyes. Presented by University SA Adjunct Professor Jim Jago.

*In the case of an advertised speaker not being available, a speaker of similar interest will replace that advertised.*

Put this date in your diary  
NOW!

INVITATION  
to a special butterfly event

on National Tree day

27th July 2014 from 2.00-4.00pm

at the Waite Childcare Centre  
and butterfly garden  
Waite Road Urrbrae Gate 6  
of the Waite Campus

Further details available on the BCSA website  
and by email over the next 2 months.



### VOLUNTEER TRAINING PROGRAM 2014

The Volunteers and Partnership Unit (VPU) co-ordinates an annual training program for volunteers who undertake activities that contribute to DEWNR and NRM Board program outcomes. This year's training program includes core safety training that have been run in the past as well as some new opportunities and include:

- Bush for Life
- Chainsaw and Brushcutter Use and Maintenance
- Defensive Driver
- Four Wheel Drive
- Manual Handling
- Apply First Aid
- Remote First Aid
- Safe Chemical Handling Leader

Forms available from Jan Forrest applications close 19th May.

### ANNUAL GENERAL MEETING

Members are advised that the Annual General Meeting of Butterfly Conservation SA Inc. will be held at the Clarence Park Community Centre on Tuesday 5th August, 2014 at 6.30pm.

An item of business will include the adoption of a new Constitution see information in this newsletter.

Nomination forms will be in the next newsletter however members are urged to consider nominating for a position on the committee in particular that of Chairman or Secretary.

Jan Forrest was elected as Chairman at the last AGM however as no secretary was elected she has been doing both these jobs and is unwilling to continue doing both.

**WHAT'S FOR SALE?**

**BOOKS** *"Attracting butterflies to your garden, what to grow and conserve in the Adelaide Region"* Published by BCSA 2007 - Our price \$25 (members may purchase one book for \$20). Postage \$7.

*"the Making of a Monarch"* Published Linda Shmith 2013 - BCSA members price \$20 plus postage \$5..

**DVD** *"Butterfly Garden"* produced by Tracy Baron and Carolyn Herbert - BCSA members price \$15, postage and packaging \$5. One book plus one DVD postage \$12.

**POSTERS** *"Common Moths of the Adelaide Region"* Published by BCSA 2012 - set of two \$10 plus postage \$12. (available FREE to schools - all they need pay is postage costs, contact Secretary for an order form).

**SITE SIGNS:** Application form to register a butterfly site available on the butterfly gardening website. Cost of sign including postage is \$50.

**POLO-SHIRTS** with Butterfly Conservation logo. Prices between \$35 and \$40. Includes postage. A wide range of colours are available.



If you would like to order any of our merchandise or would like an order form for a site sign, polo-shirt or schools poster set, please email: [info@butterflygardening.net.au](mailto:info@butterflygardening.net.au) or write to the Secretary C/- SAMuseum, North Terrace, ADELAIDE. 5000.

**NOTICES FROM DEPARTMENT OF ENVIRONMENT**

Please provide your email address to Chairman Jan Forrest if you wish to receive notices from DEWNR, these often include invitations to open days and information from Friends of Parks groups and other organisations.

**ENTOMOLOGICAL CABINETS**

The SAMuseum has reserved several entomological cabinets for purchase by BCSA members at a reduced rate. Contact Jan Forrest if you are interested. Conditions apply.

**FOR SALE**

2 Genuine Akubra hats  
**Mens** 'Stockman' size 56  
**Ladies** 'Down Under' size 53  
 Contact: Editor Jan Forrest  
 82978230

Thanks to Gerry Butler, Pat Wundersitz, Jill Davy and Janet Subagio for looking after our display at the APS sale during April and to Bob Meyers for providing the grasses.

**WELCOME TO NEW MEMBERS:**

- Rose Harris
- Amelia Duval
- Margery Wiley
- Frances Reay
- Peter Lovecraft
- Roz Daniell
- Linda Shmith
- Rose Harris
- Jeannette Dowling
- Ben Moulton - City of Onkaparinga (complimentary newsletter)
- John Read
- Rose Falanga

It is with sadness that we report the passing of long term member **Carol Shields**. Carol was a selfless supporter of all things green and is greatly missed by her friends and family.

**MEMBERSHIP FEES ARE DUE 1st July, 2014**



**BUTTERFLY CONSERVATION SA Inc.**

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 Secretary: vacant  
 Treasurer : Mike Moore, 5 Oakleigh Road, MARION. 5043 S.AUST.  
 Committee: Andrew Lines (Minutes), John Wilson (Membership); Gerry Butler (Publications Project Manager), Jill Davy, David Keane, Gil Hollamby, Lorraine Woodcock and Bryan Harwood.  
 Consultants: Roger Grund and Peter McQuillan  
 Public Officer: Beth Keane

**DIARY DATES**

**COMMITTEE MEETINGS** - Meetings are normally held bi-monthly (usually the second Monday of the month) at 6.00pm at a committee members home. All members are welcome to attend. If you would like to attend please contact Chairman, Jan Forrest.

**PUBLIC TALKS PROGRAM 2014:** first Tuesday March - November, Clarence Park Community Centre 6.15pm for a 6.30pm start to 8.30pm.  
 Next talk: **6th May: "The secret lives of sea anemones"**

**WEB SITES**

**Butterfly Gardening** - [www.butterflygardening.net.au](http://www.butterflygardening.net.au)  
**South Australian Butterflies** (R Grund private site) - <http://www.sabutterflies.org.au>  
**Butterfly Watch** and **Butterfly Challenge** - will soon be available on the NRM Education website.  
**NRM Education** - <http://www.naturalresources.sa.gov.au/adelaidemtloftyranges/home>  
 'Get involved' - 'Education' - for students, **school monitoring activities** / for educators.  
 See also other regional NRM Education sites.