BUTTERFLY CONSERVATION SA INC.

NEWSLETTER

No. 48: May, 2013

IN SEARCH OF THE SILVER XENICA
Oreixenica lathoniella

During late March this year a Butterfly survey was held in the native forests of the lower south east between Millicent, Mount Gambier and the area around Piccaninnie Ponds to the South Australian border near Nelson in South Western Victoria. This area has a diverse range of environments from fresh water marsh and swamp containing many species of reeds, rushes and thick with Teatree to stringy bark and swamp gum forest intermingled with blackwood trees (*Acacia melanoxylon*). The understory has a range of plants, Dichondra, Maidenhair and Bracken fern, Lomandra, Grass trees and Banksia.

With these different environments come a group of butterflies found nowhere else in South Australia. Here in the south east corner of the state the great forests of eastern Australia collide with the drier Mallee and Coorong further north and brings to an end the range of many of these eastern butterflies.

Arriving at Honan Native Forest Reserve on the 23rd of March along with the others, we were met by Bryan Haywood committee member of B CSA and the conservation officer for S.A Forestry who unlocked the gate and the convoy proceeded through the forest. Arriving at an intersection of two tracks we set up base camp where Bryan gave a talk on the forest, animals, birds and butterflies. After the informative talk we all fanned out through the forest to begin the search.

There were large numbers of butterflies present along the track and into the forest. As it was later in the season (autumn) there were large groups of female Common Browns, and flying with these were what at first glance appeared to be male Common Browns. After capturing and examining a specimen it was discovered that they were in fact *Heteronympha penelope*, the Shouldered Brown and were numerous in number. The Shouldered Brown is often found flying around the edges and in the clearings of the forests.

Further into the forest the ground layer became thick with Lomandra, here we found the Barred Grass Skipper (*Dispar compacta*) darting about the forest floor and perching on the Lomandra. Breaking through the forest into a small clearing an Australian Admiral (*Vanessa itea*) could be seen patrolling the forest edge, we also disturbed a Magpie moth (*Nyctemeria* sp.) quietly resting on a bush.

Common Blues (*Zizina labradus*), Pea Blues *Lampides boeticus*) and the odd Cabbage butterfly (*Belenois java*) made their appearance in the clearings and along the bush tracks. After a couple of hours searching we returned to base camp for lunch and a good chat about what we had seen.

Continued page 3.

top: Silver Xenica from the Stokes River site, below volunteers searching. Photos: Bryan Haywood

IN THIS ISSUE

BUTTERFLY CONSERVATION SA. INC. for membership enquiries and annual membership payments ($10): Treasurer: 5 Oakleigh Road, MARION. 5043 S.AUST.

MOTHS OF VICTORIA PART 4

Emeralds and Allies
GEOMETRIDAE (B)
by Peter Marriott

This is the second book of geometrids, adults of the familiar looper caterpillars. They range from small and day-flying to robust and intricately patterned creatures of the night.

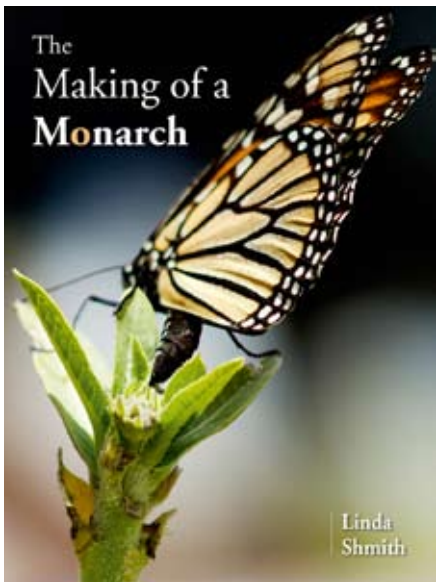
With 180 species and over 700 images, this book presents every known Victorian moth in these groups for the first time.

Here is the essential reference for

- anyone seeking to identify the moths around their homes and countryside.
- Naturalists, students and scientists
- Landcare and Friends groups
- Organisations working with the natural environment.

The CD enclosed provides over 380 additional pages with information, biology and distribution for each species.

Available from The Entomological Society of Victoria Inc. Honorary Treasurer (03) 9435 4781 endersby@mira.net Price $15



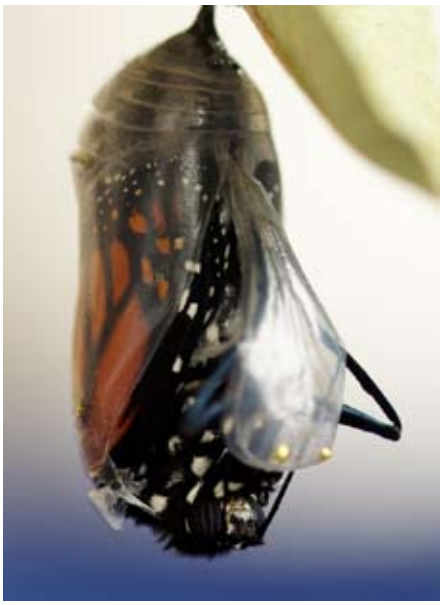
THE MAKING OF A MONARCH

by Linda Shmith

A delightful book suitable for younger children and a 'must have' for every kindergarten and junior primary school library.

Well done Linda for providing a visually exciting resource which introduces young people to the wonderful world of butterflies and their creation.

Available from the Secretary BCSA (members price $20) or from Linda Shmith Email linda@lindashmith.com.au and mention that you are a BCSA member. The website www.lindashmith.com.au includes a section on teaching ideas that may be used in conjunction with the book.



Continued from page 1.

After lunch we all jumped into our cars and travelled a few kilometres down the road to Kangaroo Flat Native Forest Reserve. This area in contrast to Honan is a swampy, marshy area thick with *Gahnia* (cutting grass), *Carex* and Teatree surrounded by Swamp Gum. Here we found female Common Browns, Shouldered Browns, Marbled Xenica, Cabbage Moths, Common Blues and a couple of Australian Admirals.

After a few hours of searching we returned to Honan Reserve to pack up our gear and to prepare for the next day.

The next day (Sunday) we met again at Piccaninnie Ponds at 9.30 and we began our search. We drove down to the main car park and walked along the boardwalk. Here we observed a variety of waterfowl before exploring the fire tracks which lead us to the more inaccessible areas of the conservation park. We spent all of the morning searching to no avail for the elusive Silver Xenica.

Andrew Lines shows volunteers specimens of Marbled Xenica which was found flying during the workshop at Honan Native Forest Reserve Photos: Bryan Haywood

Just a few kilometres North West on the Glenelg River road is the Penambol Conservation Park nestled amongst the pine forest. Here is a reserve specifically for butterflies. In this park at different times of the year a variety of butterfly species can be found. Parts of this park have been revegetated specifically with butterfly food plants in the hope to help preserve the future of Orange Ochre (*Trapezites eliena*), the Splendid Ochre (*Trapezites symmomus*) and the Bright Shield Skipper (*Signeta flammeata*).

There are a number of self-guided walking trails meandering through the parks diverse environment which are a pleasant walk, particularly in spring and summer. Alternatively guided tours can be organised through Forestry S.A with prior arrangements.

All in all it was a great weekend and a great place to visit with plenty to see and do. Thankfully for us, conservationists of the past and now Forestry SA have realised the importance of these native forests and wetlands and have managed to preserve them in a remarkable condition for us to enjoy.

IF YOU WANT SOMETHING DONE - ASK A BUSY PERSON!

That saying above is totally true. There are people that volunteer and become involved in many different projects and organisations and there are those that just sit back and let others 'do it'. Many of us are 'in between' we take part when we can and in particular when we have a special interest or knowledge where our particular skills can be used in the most time efficient way.

BCSA has a number of projects on the go and we now ask those of you who have particular skills and interest to join in on one of these projects. Here are some ways you can help.

PUBLICATIONS GROUP - we are planning to reproduce the content of the "Common Moths of the Adelaide Region" into a new book. We are also looking at reprinting the Butterfly Gardening book down the track and possibly producing a new poster on spiders.

DISPLAYS AND PROMOTION - from time to time we have display stalls at local shows and expos. Whilst there are a couple of members who offer regularly we need to put together a team who can be called upon to help out. Please don't leave it to just a few - put your name down as a person willing to spend an hour or so at one of our display stands and spread the load. It would also be good to have someone willing to write articles for various magazines to keep our profile active. Liaising with conservation agencies is another job for someone including Friends groups; schools and kindergartens; Landcare, Our Patch, Greening Australia etc.

MANAGEMENT COMMITTEE - yes every organisation has a committee, and ours is made up of the most wonderful people however we would like more members to offer so the management is not always left to the 'few'. David Keane in particular wishes to stand down as Chairman this year and our committee would benefit from new members with different skills to share.

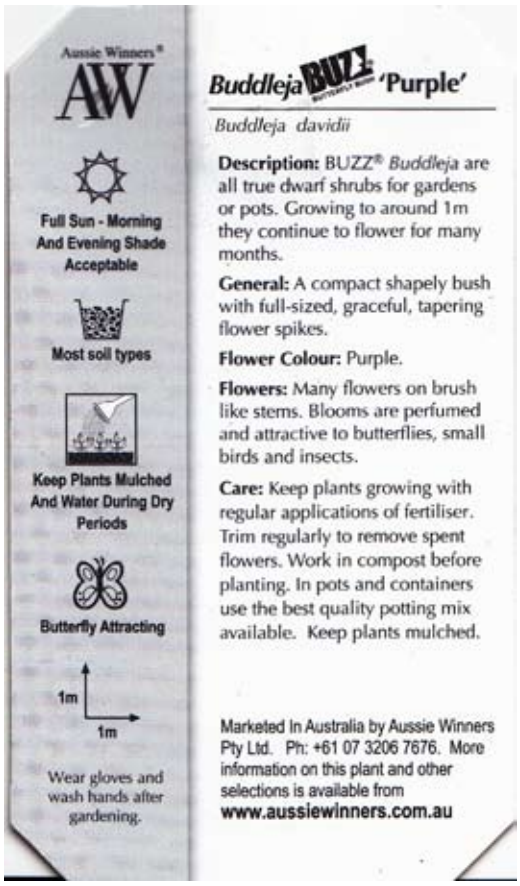
FUNDING OPTIONS - seeking funding is an ongoing task which includes seeking grants and writing up applications, identifying sponsorship opportunities and approaching these firms at the right time. No need to join the committee for this job, just be aware of opportunities available, follow up on contacts or agencies and report on progress.

Please contact Secretary Jan Forrest if you are willing to share your skills on some of the projects above. jan_forrest@bigpond.com

NEW DWARF BUTTERFLY BUSH (*Buddliea*)

Available at:

ADELAIDE PLANT GROWERS
594/598 States Road
Onkaparinga Hills SA 5163
Phone: (08) 8384 7176



LIGHT TRAPPING

This is an excellent collecting method to collect moths and many other species of insects including beetles, grasshoppers, lace wings, bugs wasps and flies. You can even find spiders lurking in the shadows looking out for a good meal!

Generally a UV globe or 'black light' is best for moths, the latter can be purchased as a tube. Different light frequencies can attract different insects. In the Great Victoria desert a particular scarab beetle is known to only be attracted to the kitchen gas light.

Hang a white sheet between trees or attach it to your vehicle, a second sheet at the bottom on the ground can also be used however sometimes ants on this sheet can be a problem. Make sure the light globe does not touch the sheet (as it can get very hot). On a good night hundreds of moths are attracted and over a hundred species may be present. Some appear at dusk, others after midnight or just before dawn, however generally the best time is when the evening is still relatively warm. Some species however only occur when it is a cold night - so you never know what you can attract until you try.

The best nights are calm, warm with no moon and if there is no wind many moths remain on the sheet until morning and may be gently moved to a nearby bush for photographing.

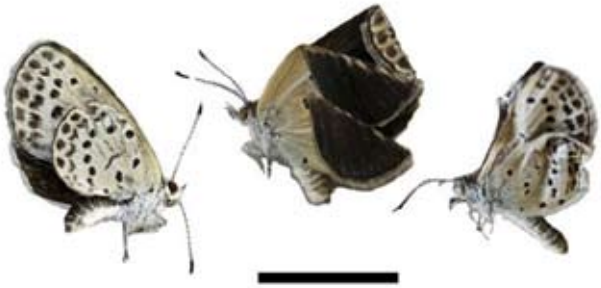
This is Peter Hudson from the SAMuseum at Maralinga in 2008. There were so many insects he had to wear safety ear plugs to ensure no insects were trapped in his ears. As usual the best night at the light always seems to be the last night of a trip when you are trying to pack up. This night was no exception.

Jan Forrest

SCIENTISTS SAY FUKUSHIMA CAUSED MUTANT BUTTERFLIES

Genetic mutations have been found in three generations of butterflies from near Japan's crippled Fukushima Dai-ichi nuclear plant, scientists said yesterday, raising fears radiation could affect other species. About 12 percent of pale grass blue butterflies that were exposed to nuclear fallout as larvae immediately after the tsunami-sparked disaster had abnormalities, including smaller wings and damaged eyes, researchers said. The insects were mated in a laboratory well outside the fallout zone and 18 percent of their offspring displayed similar problems, said Joji Otaki, associate professor at Ryukyu University in Okinawa. That figure rose to 34 percent in the third generation of butterflies, he said, even though one parent from each coupling was from an unaffected population.

The researchers also collected another 240 butterflies in Fukushima in September last year, six months after the disaster. Abnormalities were recorded in 52 percent of their offspring, which was "a dominantly high ratio," Otaki said. Otaki said the high ratio could result from both external and internal exposure to radiation, from the atmosphere and in contaminated foodstuffs. The results of the study were published in Scientific Reports, an online research journal from the publishers of Nature.



Butterflies near Fukushima, Iwaki, and Takahagi showed wing size and shape deformations.

Source: Taipei Times, Aug 15, 2012

Otaki later carried out a comparison test in Okinawa exposing unaffected butterflies to low levels of radiation, with the results showing similar rates of abnormality, he said. "We have reached the firm conclusion that radiation released from the Fukushima Dai-ichi plant damaged the genes of the butterflies," Otaki said.

The earthquake-sparked tsunami of March last year knocked out cooling systems at the Fukushima Dai-ichi nuclear power plant, causing three reactors to go into meltdown in the world's worst atomic disaster for 25 years.

The findings will raise fears over the long-term effects of the leaks on people who were exposed in the days and weeks after the accident, as radiation spread over a large area and forced thousands to evacuate. There are claims that the effects of nuclear exposure have been observed on successive generations of descendants of people living in Hiroshima and Nagasaki when the US dropped atomic bombs in the final days of World War II. However, Otaki warned it was too soon to jump to conclusions, saying his team's results on the Fukushima butterflies could not be directly applied to other species, including humans. He added he and his colleagues would conduct follow-up studies including similar tests on other animals.

Kunikazu Noguchi, associate professor in radiological protection at Nihon University School of Dentistry, also said more data was needed to determine the impact of the Fukushima accident on animals in general. "This is just one study," Noguchi said. "We need more studies to verify the entire picture of the impact on animals."

Researchers and medical doctors have so far denied that the accident at Fukushima would cause an elevated incidence of cancer or leukemia, diseases that are often associated with radiation exposure. However, they also noted that long-term medical examination is needed especially due to concerns over thyroid cancer among young people.

An undated photograph released yesterday by Joji Otaki, an associate professor of biology at the University of the Ryukyus, shows a mutated adult pale grass blue butterfly from Fukushima Prefecture, Japan.

debra

QUIZ NIGHT

COME AND TEST YOUR TRIVIA AND GENERAL KNOWLEDGE
AND RAISE FUNDS FOR **CARE, RESEARCH** AND **CURE** FOR THE
'BUTTERFLY CHILDREN'

QUIZMASTER – DAVID KEANE

When: Saturday 17 August 2013
First question: 7.15 pm Sharp

Venue: MODBURY BOWLING CLUB
50-97 JACK HIGH LANE, RIDGEHAVEN 5097
(BEHIND DRUMMINOR GARDENS, CEMETERY OFF GOLDEN GROVE ROAD)

TABLES OF 8 (max) @ $10 PER PERSON
BAR FACILITIES AVAILABLE (NO BYO ALCOHOL)
GREAT PRIZES

QUIZ BUFFS BOOK EARLY
PHONE: Laraine (08) 7423 6284

NO MOBILE PHONES TO BE USED

BENEFITS OF CONSERVING AND USING NATIVE GRASSES

This article is reprinted from the Native Grass Resource Group flyer and summarises much of what is so far known and practised in relation to the characteristics and uses of native grasses. The Native Grass Resource group members hope that this information will enable you to visualise and identify valuable potential uses for native grasses in your enterprise or field of interest.

Early European settlers were very impressed with the coastal plains and rolling hills that they found in *Terra Australis*. They wrote in glowing terms of the abundant grasses and widely-spaced trees, and of land that was fit for the plough.

Before many years had passed, rabbits, recurrent droughts, millions of hooved feet and, finally, the plough, had rapidly changed the landscape. European farming methods did irreparable harm to an environment that settlers did not understand. It is doubtful if, in the early days of settlement, any of the farmers or government officials would have realized that, in the long run, 94% of the continent would resist agricultural conquest.

Our Northern Hemisphere origins still strongly influence our land management practices. Unfortunately many of these practices are an impediment to truly sustainable land use.

We believe that one key to truly sustainable land management lies in the native grass component of grassy woodlands and tussock grasslands. Unwisely, we are still neglecting the agricultural, amenity and domestic potential of native plant species.

Actual and potential benefits of conserving and using native grasses.

REVEGETATION
- co-evolved with woody species from at least 5 million years ago
- most woodlands and shrubland have native grasses as dominant groundcover
- many regions were ‘naturally’ grasslands.
- they have aesthetic value as local ‘Aussies’
- they have a wildlife-habitat role
- many respond positively to fire i.e. improves their vigour; opens up growing sites for their seeds
- rehabilitation of remnant vegetation and start-up revegetation can be made easier by first establishing and managing native grasses.

WATER MANAGEMENT
- many are long-lived, deep-rooted perennials, features which assist water infiltration and stability of soil organic matter
- evolved in the Southern Hemisphere over 100’s of thousands of years of weathering and climate change
- growth spurts in spring and often autumn assist recharge and discharge processes
- growth spurts in response to rain or a good soaking, but not requiring regular watering
- sparse or fine-leaf or hairy blue-grey leaf indicative of transpiration control features
- help to maintain a low water table (in areas of potential rising salinity)
- available soil moisture used by some species at a slower rate than exotic grasses
- summer active species have drought survival features

LAWNS, PARKS AND GARDENS
- aesthetic appeal in form and colour
- many species available to suit different situations and demands
- low nutrient requirements in comparison to high needs of many exotic grasses
- occasional mowing needs or....
- no mowing ... the low shaggy look
- reduced water requirements for a number of species
- reduced maintenance costs, once established
- by growing your own native grasses for seed and/or subdivision you save $$$
- planted stands of native grasses will provide a seed bank for further plantings

GRAZING MANAGEMENT
- native grasses respond well to rotational grazing régimes
- ideally suited to lower input farming systems
- many persist as summer green fodder
- grazing can be targeted to favour perennial natives over annual weeds and withdrawn to ensure seed set and seed fall
- research data is available for Metabolisable energy, crude protein and digestibility/dry matter, grazing formulae have been published
- a mix of winter and summer active species promotes year-round available feed, even in a harsh season
- managed grazing of native grasses can deliver a conservation benefit
- some of the finest wool in the nation has been traditionally grown on native-dominated grass pastures

WEED MANAGEMENT
- can out-compete exotic grasses in poor soils but exotics dominate in high rainfall zones
- many have tolerance to commonly used herbicides
- many are suitable replacements for roadside weeds
- lesser fuel load in some species offers fire reduction potential
- many are low-growing and/or sparse-leafed
- reduced maintenance costs for Councils and Depts. of Transport
- minimal soil disturbance will encourage recruitment by native grasses

SOIL MANAGEMENT
- perennial grasses and companion plants are critical to the health of soils
- effective in drying out soils, thus reducing deep drainage and reducing salt discharge
- as many are long-lived perennials, soil disturbance is reduced and soil cover maintained
- provide soil cover in the critical end-of-summer breaking rains period
- mainimal to nil fertilizer requirements (fertilizer will cause dieback in many native grass species and favour growth of exotic species)
- fertilizer infiltration into waterways reduced
- approximately 141 summer active and 1431 winter active native grass species protect soil across South Australia

Need more information?

www.nativegrassgroup.asn.au

Butterfly Conservation South Australia Inc.

presents

a PUBLIC TALKS PROGRAM 2013

www.butterflygardening.net.au

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

VENUE:
At the Clarence Park Community Centre
72-74 East Avenue, Black Forest.

HOW TO GET THERE:
Bus route W91/W90: stop 10.
Noarlunga Train service: Clarence Park Station.
Glenelg Tram: Forestville stop 4, 9min walk south.

COST:
Entry by donation (minimum of $2).

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

FINISH TIME:
Meetings should conclude by 8.30pm.

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

Photo Robert H Fisher: Satin Azure *Ogyris amaryllis*

BUTTERFLY CONSERVATION SA INC.
c/- South Australian Museum, North Terrace, ADELAIDE
Further Information Secretary: Jan Forrest 8297 8230
Membership is $10pa

Websites:
Butterfly Gardening - www.butterflygardening.net.au
BCSA - www.chariot.net.au/~bcsa/index.htm

Resources for sale:
Our book ***'Attracting butterflies to your garden, what to grow and conserve in the Adelaide region'*** is available from the secretary. RRP $29.95 (at the talks program - $25ea).
New posters (set of two) "***Moths of the Adelaide Region***" $10 a set
A ***'Butterfly Gardening'*** DVD will also be available.

PROGRAM OF SPEAKERS

7th May: ***" South Australia's threatened flora: Are we recovering anything?"*** Tim Jury, Threatened Plant Action Group will provide an overview of our threatened flora and the steps we can all make to ensure their long term survival.

4th June: ***"Grass Wrens"*** A fascinating look into the world of these lovely little birds. Presented by SAMuseum Honorary Researcher Dr. Andrew Black.

2nd July: ***"Legless Lizards"*** Dr. Mark Hutchinson will trace the evolution of lizards with particular emphasis on those that have lost their legs and why.

6th Aug and AGM: ***"Aboriginal Canoes of the Fleurieu Peninsula and Kangaroo Island"*** Until recently it was thought that Aboriginal watercraft were not in use west of Victor Harbor in SA and east of Esperance in WA. Recent research indicates that watercraft were used on the Fleurieu Peninsula. The implications of this for Aboriginal occupation on KI is considered. This talk by Dr Keryn Walsh will commence at **7.00pm** following a short BCSA AGM at **6.30pm.**

3rd Sept: ***"Using stick-nest rat middens to study climate change in the Flinders Ranges"*** presented by Honorary Researcher at the SAMuseum Graham Medlin, this will be of interest to all fascinated by the climate change debate.

1st Oct: ***"Saline groundwater dependant ecosystems"*** BCSA member Peri Coleman is an environmental consultant. She will provide a fascinating insight into coastal sabkhas and dolines found on the Eyre Peninsula and some of the unusual plants and animals that occur in them.

5th Nov: ***"Moths and their value to the environment"*** Dr. Peter McQuillan from the University of Tasmania has studied moths all his life. His talk will provide an overview of these rarely understood insects (and their caterpillars), with particular emphasis on their evolution and biodiversity niche.

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

Butterfly Gardening

NEWSLETTER IN COLOUR

In order to keep the membership fees low newsletters posted to members are printed in BLACK.
Electronic copies of the newsletter however are in colour.
If you presently receive a posted copy it means we do not have your up-to-date email address.
Please provide your email address to Secretary Jan Forrest to receive your newsletter electronically.

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 $5.
"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 $10.

POSTERS ***"Common Moths of the Adelaide Region"*** Published by BCSA 2012 - set of two $10 plus postage $10. (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 depending on options chosen. Includes postage. If you would like an order form please contact Secretary. A wide range of colours are available.

HISTORIC BOOKS - see Newsletter number 47. As no-one put in a bid for these two wonderful old books they will be held until the end of May, and if still no interest they will be returned to the hospice store. Please contact Secretary Jan Forrest

BUTTERFLY CONSERVATION SA Inc.

Chairman: David Keane dkeane@iweb.net.au
Secretary and Newsletter Editor: Jan Forrest OAM C/- South Australian Museum, North Terrace, ADELAIDE, 5000 ph H (08) 8297 8230.
email < janforest@hotmail.com> or <jan_forrest@bigpond.com>
Treasurer : 5 Oakleigh Road, MARION. 5043 S.AUST.

OUTREACH PROGRAM

The full exhibition and AO size panels from the Exhibition "Where have all the Butterflies gone?" are available from Jan Forrest at the South Australian Museum for use by Landcare and other Conservation groups at seminars, conferences and workshops or just for display. Included are five introductory panels, and seventeen panels from seven habitat areas.

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 Secretary Jan Forrest.
PUBLIC TALKS PROGRAM 2013: first Tuesday March - Nov., Clarence Park Community Centre 6.15pm for a 6.30pm start to 8.30pm.
Next talk: **7th May:** Hear Tim Jury from the Threatened Plant Network "***South Australia's threatened flora: Are we recovering anything?"***

WEB SITES

"Butterfly Gardening" - www.butterflygardening.net.au
'Butterfly Conservation SA Inc.' http://www.chariot.net.au/~bcsa/index.htm
'South Australian Butterflies' (Roger Grund private site)
- http://www.sabutterflies.org.au
'Butterfly Watch' and '**Butterfly Challenge**' - SAMuseum website www.samuseum.sa.gov.au then click on 'Whats On' then 'online exhibitions'.
Teacher Resources (Jackie Miers) - http://www.teachers.ash.org.au/jmresources/butadelaide/Butterflies_of_Adelaide.html

WELCOME TO NEW MEMBERS:

Ingrid Kilpatrick
Margaret Bungey
Bernadette Johnson
Bordertown Girl Guides
Margie Barnett
Anna de Lawyer
Jen Light
Beverley Frances Lane
Linda Zschorn
Kathleen Camac

MEMBERSHIP RENEWALS WILL BE DUE AT THE END OF JUNE $10pa

You may pay three years in advance
Life Membership $200

Butterfly Conservation South Australia Inc.