BUTTERFLY CONSERVATION SA INC.

NEWSLETTER

No. 30: April, 2008.

REARING YOUR OWN MONARCHS… IT'S CHILDS PLAY

Photographs of David Keane's six year old twin daughters breeding monarch butterflies at home in Inglewood. The caterpillars are fed on two milkweed species which are found in the area along roadsides. They are bred in an aquarium where the plants are grown in pots or fed from branches. The girls bred over 40 this year and can tell which are the males and females. The males have the black spot on the hind wings. Many different butterflies have been visiting the garden.

IN THIS ISSUE

BUTTERFLY CONSERVATION SA. INC. for membership enquiries and annual membership payments ($10):
Treasurer: 20 Thornton Avenue, KENSINGTON

FRIENDS OF PARKS 2008 AWARDS
There will be two awards this year and nominations close on 6th June 2008.
Best Heritage Project - $500 Award from the Heritage Branch, DEH.
Best Biodiveristy Project - $500 Award sponsored by the Nature Foundation SA.

FRIENDS OF PARKS AGM
To be held on Monday 5th May, 2008 at Farrell Flat (between Clare and Burra in the mid north). If you would like to attend to represent BCSA please contact Secretary Jan Forrest and further details of how to register can be provided to you. A bus is available and a tour to Martindale Hall is being arranged after lunch.

DEH VOLUNTEER OHS&W TRAINING
One representative from BCSA is able to attend this training 'In Safe Hands'. Places are still available for Wed 23 April at Aldinga Comunity Centre 9.30am - 3.30pm and on Sat 21 June at Belair National Park Information Centre 10am - 4pm also at some regional locations.

TREES FOR LIFE WORKSHOP
'Introductory Bush for Life Workshop' a one day workshop covers topics such as the values of and threats to remnant vegetation, strategic approaches to bush restoration, maximising biodiversity outcomes and practical minimal disturbance techniques. Free for members of Friends of Parks through Butterfly Conservation.

- Wed. 16th April Belair
- Sat. 3rd May Gawler
- Thurs. 15th May Clare
- Sat. 24th May Mt. Barker
- Tues. 3rd June Brooklyn Park
- Wed. 18th June Playford
- Sat. 21st June Burnside
- Thurs. 26th June Murray Bridge
- Wed. 2nd July Aldinga/Seaford
- Sat. 12 July Mitcham
- Thurs. 17th July Strathalbyn
- Sat. 26th July Tea Tree Gully
- Tues. 5th Aug. Coromandel Valley
- Sat. 16th Aug. Belair
- Sat. 27th Sept. Victor Harbor
- Tues. 14th Oct. Mt.Barker

Details on the Trees for Life website: www.treesforlife.org.au or call the Trees for Life office on 8406 0500.

FREE SEMINAR ON ANIMAL HEALTH
At Mt.Barker Tuesday 29th April.7.30 - 9.30. Phone Claire Stephenson on 8391 7504 or 0418 826799.

KNOWING, GROWING and MARKETING NATIVE PLANT FOODS.
One day seminar Sat May 3rd 9.30 - 4.30
Urrbrae Campus.
Cost $75, SANFA members $35, Students $30.
Registrations close 25th April, 2008 to Neville Bonney 0419 803 189 or nbonney@senet.com.au

MOORUNDE WILDLIFE RESERVE 40th ANNIVERSARY OPEN DAY
Sunday 8th June, 2008, 11.00am at the Reverve.
This will be a family event. There will be a car tour of the new sections of the reserve after lunch. Morning Tea will be provided but BYO lunch.
To get there take the Halfwayhouse Road which runs north/south between Sedan and the Sturt highway. Turn East into Moorundie Road and prceed along Moorundie Road as far as you can until you reach the public entrance of Moorunde Wildlife Reserve.
Contact: Peter Clement W8161 6700, H8449 4651, The Natural History Society of South Australia Inc.

FREE TRAINING OFFERED BY VOLUNTEERING SA
Details may be found at www.vo.unteeringsa.org.au
To register phone Volunteering SA on 8221 7177 or email to training@volunteeringsa.org.au

CHAINSAW COURSES
Funded by an Enviro Fund grant received by Friends of Parks Inc. Two courses are available. Three Wednesdays 7 May, 15 May and 28 May at TAFESA Urrbrae Campus 9.00am - 4.00pm. Fri 13 June, Sat 14 June at Para Wirra Recreation Park 8.00am - 5.00pm. Places are limited.

FRIENDS OF PARKS 2008 FORUM
15th - 17th August 2008 at Old Wilpena Station Flinders Ranges National Park. Hosted by Friends of the Flinders Ranges.
Further information from flindersfriendsforum.org.au

Further information, application forms etc. for all of the above can be obtained from BCSA Secretary Jan Forrest.

BLACK FOREST PRIMARY SCHOOL GARDEN 'OPEN DAY'

In the February newsletter we brought you images from the launch of the Black Forest Primary School Butterfly Garden, now, just six months later all the plants are growing well and at an 'Open Day' the parents were all very impressed with the garden.

Correction to last newsletter's -'what's in a word' under German "The "schmetterling name was given to a WW2 rocket' not www2 ricket!

ANNUAL GENERAL MEETING of Butterfly Conservation SA Inc. will be held on Monday 11th August, 2008 at the Urrbrae Resource Centre Cross Roads Urrbrae Guest Speaker to be advised

WHAT THE KANGAROO ISLAND BUSHFIRES MEAN FOR THE BUTTERFLIES.

As was widely reported, in November 2007 "devastating" bushfires burnt large sections of Kangaroo Island. These fires were sparked when a line of dry thunderstorms swept through the west and south of the Island, with at least fifteen lightning strikes causing a line of ignition points. While many of these fires were contained due to the quick work of locals, four fires burned out of control. These were in Flinders Chase National Park, in the Western Rivers Conservation Park, in the Harriet River catchment north of Vivonne Bay and at the Seal Bay Conservation Park/ Cape Gantheume Wilderness Area. While the fires were undoubtedly large, with the one at Flinders Chase National Park burning around 95,000 hectares, the impact on the Islands assets was relatively small. A shack was lost at Vivonne Bay, much fencing and National Parks assets were also lost or damaged, and stock and crops were affected. Unfortunately a man's life was lost in association with the Vivonne Bay fire, but on reflection it was extremely lucky that more people weren't injured or killed.

Now the fires have been extinguished and people have had some time to think, a number of opinions have come forward regarding the anticipated effect of the fire on the wildlife of the Island. Some are claiming that as the destruction of the parks were so wholesale, especially in Flinders Chase, all the animals that couldn't run or fly away from it must have been killed. If this is so, then the more sedentary colonies of butterflies in the burn zone should all be expected to have been devastated and this would certainly be a huge loss- not only for K.I., but also for the state. Many of the known, stable colonies of insects such as the skippers *Hesperilla chrysotricha*, the Golden-haired Sedge-skipper and *Hesperilla idothea*, the Flame Sedge-skipper, were found within the burnt area of Flinders Chase. Much of the potential habitat of the rare *Ogyris idmo halmaturia* or Large Brown Azure is within the parks area as well. Many more widely distributed species including *Neolucia agricola*, the Fringed Blue; *Ogyris otanes*, the Small Brown Azure and *Antipodia atralba*, the Black and White Sedge-skipper were also found within the various burn zones.

So what outcomes should we anticipate in terms of the various butterfly species on Kangaroo Island? An interesting fact is, that while reports made directly post-fire and from more recent air-based surveys tended to suggest the destruction of understorey plant species was almost total in large areas during the "hot" burns, ground based surveying I have carried out in several areas of Flinders Chase in the past few weeks suggests that this picture was possibly a little exaggerated. Several of the effected butterfly species are very host plant specific. As the stands of these various host plants have to a large extent been burned, then a negative short-term population effect will most probably be apparent. On the other hand, many of these species also appear to be quite resilient in overall terms to fire impact, with explosions in the numbers of otherwise relatively rare insects having been noticed post-fire in the past. A final observation in the context of the fires and the potential for impacts on butterfly populations is that all the species known to be affected have at least one stable colony outside of the burned areas. The only exception to this is the Large Brown Azure, which hasn't been recorded on Kangaroo Island since 1934 and may possibly be extinct in this region.

What would I expect to see in the coming years in the affected reserves, regarding the former populations of the various butterfly species? I am very hopeful that there will be a "flush" of activity from the various butterfly species, in particular the skippers and the rare, ant-dependant species of *Ogyris* blue butterflies. The Black and White Skipper and the Small and Large Brown Azures are all species that are noted to have a positive response to fire. The Large Brown Azure has been noted in numbers after fire on the mainland, then dwindles to a background population after several years post-fire. The *Hesperilla* species are a little more problematic. However, as long as a small area of their *Gahnia* foodplant remains, from which these species may expand and recolonise the regrowth of other areas of foodplant, they should also do well. As I observed an unburned *Gahnia* next to the creek-line in a very short time spent at the Breakneck River, and as other burned *Gahnia* clumps were re-shooting very vigorously whenever encountered, I am extremely hopeful the three species of *Hesperilla* present in the parks will all recover to a greater or lesser extent. It is also worth remembering that fire events such as the one on Kangaroo Island have a controlling effect on the parasites that control the various butterfly population, and that until the parasite numbers build up again, these populations have a capacity to expand, both in numbers and in range.

To briefly summarize: I believe that, while the bushfires on Kangaroo Island this year were certainly a major ecological event, they are not historically unprecedented. In the past, with the whole Island covered in bush, no Aboriginal burning activity and similar dry lightning storms moderately common, huge fires, often burning for months, would have been a relatively regular occurrence. All native species on the Island, including the butterfly species, will have had to recover from much lower bases than those currently observed in the past. This would have been both in terms of population numbers and in retained foodplant habitat. I would expect that from the point of view of this fire event, it is doubtful if there will

Coastal heathland Kangaroo Island A.Young

SHOWTIME FOR BUTTERFLIES

GARDENING EXPO

Mt PLEASANT SHOW

continued from page 3.

be any long term impacts on the overall populations of the known butterfly species of Kangaroo Island.

On the other hand, a very valid point was made to me the other day by David Paton. It was that we are seeing two influences that are different from this historical picture, and have not been encountered on K.I. in the recent past. These may alter the ability of species to cope with fires and fire recovery into the future. One of these is the fragmentation of the landscape due to human settlement and agricultural demands. Who knows where the important refuges for species during past fires were and whether the, albeit slow, urbanisation of Kangaroo Island might encompass some of these areas? The second factor is that of climatic change. If the Island becomes drier than it has been by historical standards, and weather events such as the dry-lightning storms become more frequent and severe, then large-scale bushfires may become a more frequent event. The cumulative effect of these influences into the future is an unknown. The possibility that they may be extremely influential on the populations of the various native and non-native plants and animals, including butterflies, is one that should be exercising all of our minds.

Andy Young, Vivonne Bay, K.I.

ANIMAL EXPO

some of our activities include:

ABC GARDENING EXPO

Date: 29/2/08 - 2/3/08 - 68 Books Sold, 53 New Members - Funds Raised $2060

Helpers: Jan Forrest, Maria Johns, Roger Grund, David Keane, Beth Keane, , Gil Hollamby Bill Rowlands, Penny Paton, Lyn and Gabrielle Thompson.

CHANNEL 7 ANIMAL EXPO

Date 8-9/03/08 - 9 Books Sold, 6 New Members - Funds Raised $273

Helpers: Jan Forrest, Carolyn Prime, Gil Hollamby, Judith Eley, Trevor Rowe, Roger Grund, David Keane

Mt.PLEASANT SHOW

Date: 15/3/08 - 7 Books Sold, 6 New Members - Funds Raised $205.00

Helpers: David Keane, Gil Hollamby and Jen Light

ABC CARPARK CAPER

Date: 15/3/08 - 7 Books Sold, 2 New Members - Funds Raised $210.00

Helpers: Jan Forrest

Sincere thanks to all our helpers and accept our apologies if we have missed out acknowlegding anyone.

Salmon *Correa* and Wedge-leaved *Pomaderris* - Kangaroo Island A.Young

MISTLETOES

Mistletoes are parasitic plants that attach themselves to branches or roots of host trees and shrubs for their survival. The word mistletoe derives its name from 'bird lime' or 'mistle', which is a sticky 'viscous' substance, prepared from the bark of the holly tree. The 'toe' derives from 'tan' meaning twig, hence a 'sticky twig'. The substance was used in the middle ages to capture birds. They were caught in the sticky glue where they would alight. The genus *Viscum* in the Viscaceae family was derived from the word 'stickiness'. The mistletoe *Viscum album* was traditionally used in Europe at Christmas festivities and as a palliative treatment for cancer.

Amyema pendula R.Grund photo

Mistletoes are dicotyledonous, having 2 seed leaves. The berries or seed are mostly distributed by the mistletoe bird. Seeds are digested and regurgitated on branches where they develop threadlike roots and tap into the sap of the tree. Mistletoes differ from other plants in the fact that the twigs are able to 'snap' into two, unlike normal plants that are more pliable.

There are two plant families in the world that contain mistletoes, Viscaceae and Loranthaceae. Both are represented in South Australia.

There are 7 genera and 550 species in the world. There is only 1 species of Viscaceae in South Australia's far north, namely *Korthalsella japonica* f. *japonica*, the "jointed mistletoe". The closely allied family Santalaceae, the quandongs comprise many root-parasitic plants and they are also host of several butterflies such as the most spectacular "Fiery Jewel", Small Brown Azure and the Wood White.

The Loranthaceae family is related to the Olacaceae, the American Hog Plum and African Walnut family. The Loranthaceae family contains 73 genera and about 900 species throughout the world. All the species that occur in Australia are native to Australia. There are 4 genera and 17 species in South Australia. The genus *Amyema* is an important food plant for butterflies in South Australia.

There are over 100 *Amyema* species in the Malaysia, Philippines and the Western Pacific regions. In South Australia the genus *Amyema* contains 12 species all of which are food sources for butterflies. *Amyema* in South Australia commonly host on *Acacia, Grevilleas, Hakea, Casuarina, Melaleuca, Senna* and *Eucalyptus*. Some are exclusive hosts on particular genera. The *Ogyris* or Azure butterflies rely on *Amyema* for their survival as a larval food source, along with the Wood White butterfly, *Delias aganippe*. *Muelleriana eucalyptoides* "Creeping mistletoe" from the south east is the foodplant for the dark-purple Azure *Ogyris abrota.*

The remaining South Australian mistletoe species are *Diplatia grandibractea* "Coolibah Mistletoe" from the far north that is not a known food source for butterflies in South Australia.
In South Australia the genus *Lysiana* contains 3 species. These mistletoes are known as the "Harlequin mistletoes" due to their bright red and yellow flowers. This genus is widespread on various host plants, including garden plants.

Threats to the mistletoe and parasitic native plants

The mistletoes have a bad name and their role in the landscape is much misunderstood. They are all indigenous to various parts of Australia, they are not weeds. It is often said that 'they kill trees': yes, they can, eventually. With the continuous breakdown of our natural ecology, living organisms are on the brink of disappearing for ever. If the health of the natural system is sick then it cannot support itself, or be sustainable. Mistletoes are often seen as the final nail in the coffin for trees because the natural system is sick and unable to repair and support a healthy ecosystem. The reason for the loss of trees under mistletoes is a much broader one: if the trees are weak then they will suffer, it's the same when a flu strikes, it's the old and sick that suffer first. The question that needs an answer is "Why are the trees so weakened?" We often see areas in the agricultural regions where mistletoes have been removed from vegetation. Why? Because they are considered a killer of the trees. When a native plant is removed it has consequences for the whole local ecosystem, especially insects which rely on it for nectar and food. The answer is not to destroy what is left, but to restore the natural system so it can become more sustainable. There are other options to explore before we remove another element of the natural environment.

continued on page 6.

I can remember a farmer breaking off mistletoe from his trees with a backhoe and saying that it was necessary to save the trees. This act was carried out in mallee country over run with cows. In fact it is the presence of stock and the activity of heavy disturbance that lead to downfall of the natural ecosystem, not the presence of mistletoe. The appearance of too much mistletoe is a consequence of theste types of activities.

The main causes of mistletoe loss may be attribited to:

- Declaring mistletoe as a weed
- Indiscriminate removal of all mistletoe on sight
- Having little regard for the natural world
- Clearance of native habitat
- Clearance of vegetation
- Loss of sustainable environment
- Misunderstanding and ignorance of the role of natural systems
- Ignorance in pursuit of short term economic gain

David Keane

SALE OF OUR BOOK "***Attracting Butterflies to your Garden - what to grow and conserve in the Adelaide Region"***

Sales are going well with nearly half of the original 3000 copies already sold. Members are entitled to one book at the discounted price of $20 and may purchase ten or more books for $25 (RRP $29.95).

Please support your committee by helping to sell more books and to ensure the butterfly gardening message is out into the community.

BUTTERFLY CONSERVATION SA Inc.

Chairman: David Keane
Secretary and Newsletter Editor: Jan Forrest OAM C/- South Australian Museum, North Terrace, ADELAIDE, 5000 ph (08) 8207 7503.
email < forrest.jan@saugov.sa.gov.au > or <forrestjan@adam.com.au>
Treasurer : 20 Thornton Avenue, KENSINGTON

OUTREACH PROGRAM

The full exhibition and AO size panels from the Exhibition "Where have all the Butterflies gone?" are available from Jan Forrest at the South Australian Museum for use by Landcare and other Conservation groups at seminars, conferences and workshops or just for display. Included are five introductory panels, and seventeen panels from seven habitat areas: Coastal, Grasses, Mallee, Urban, Migration/ Vagrant, Eucalyptus Forrest/Woodland, Arid, Wetland and Lower South East.

DIARY DATES

MEETINGS - Committee meetings are normally held bi-monthly (usually the second Monday of the month) at 6.00pm in the Urrbrae Wetlands Resource Centre, Cross Roads, Urrbrae. All members are welcome to attend. If you would like further information or receive an agenda please contact Secretary Jan Forrest.
Next Meeting: Monday 9th June, 2008 at 6.00pm.

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.chariot.net.au/~rgrund/index.htm
'Butterfly Watch' - SAMuseum website
www.samuseum.sa.gov.au then click on 'Media' then 'online exhibitions'.
Teacher Resources (Jackie Miers) - http://www.teachers.ash.org.au/jmresources/butadelaide/Butterflies_of_Adelaide.html

WELCOME TO NEW MEMBERS:

BEV SULLIVAN
BRIANNA DALL
S. TANZER
FERN RAINTREE
KAYE LUDWIG
JANET MILL
KL PAYNE
ELIZA SCRYMGOUR
JILL BOWDEN
BARBARA MCCUBBIN
PHILIPPA EDMONDS
CATHERINE KLINGNER
J. JOHNSON
CATHY THIRY
MARILYN FRESHNEY
NATHANAEL WISEMAN
PAUL FRANCIS
B.F.RICE
ANDREW ALLANSON
JENNIFER WATCHMAN
KERYL CODRINGTON
YVONNE SCHMERLAIB
KAARIN WILKINSON
JENNIFER STACKHOUSE
ALAN BETTERIDGE
STEVEN MUDGE
PHIL BAGUST
LYNDA TOUT-SMITH
KATHERINE COLE
LINDY BROOKER
MARGARET CHALK
RUTH IRVING
ANN-MARIE PURVIS
THE VIRTUE FAMILY
ANITA CHAPLIN
ALICE WILSON
DEBORAH MORAN
LIDDY and IAN DOLMAN
BRIDGET BOOTH
DAVID WOOD
ANN REELE
KAY CAMPBELL
FRANCES MOWLING
LOUISE and JAMES HOLLO
PATSY and DAVID LOVE
LAUREN SARANTOU
BEE ROBERTS
LEE CRIGG
JULIE GATES
MARIE NOBLE
MARGARET THOMPSON
ANN JENKINS
SUZANNE SMITH
GEOFF SMITH
CHRISTINE ROBERTSON
JOHN SULLIVAN
STEPHANIE LINE
HEATHER CREED
CHRISTIAN CUMMING and TERESA PRIOR