



BUTTERFLY CONSERVATION SA Inc.

NEWSLETTER

No. 11: August 2002

Fiery Jewel *Hypocrysops ignita*

The Fiery Jewel is now very rarely seen in South Australia, however, with knowledge of the butterfly host plant and association with ants, landcare groups working in areas where the butterfly is known to occur can assist with its survival. The full fact sheet on this butterfly may be viewed on Roger Grund's website "Butterflies of South Australia", here is a summary.

Interesting aspects: Although small, this is a very pretty butterfly with red and yellow markings edged metallic green on the wing undersides, while the upper sides are purple in the males and either purple or metallic blue in the females. The adults have yellow coloured, cat like eyes.



Larval food-host: Larvae are polyphagous and have been documented to eat numerous foodplants from a variety of families (presently estimated at 17 families Australia wide). Those foodplants which can be found in South Australia include *Cassinia* spp, *Olearia axillaris* (coast daisy-bush) (Compositae/Asteraceae); *Brachyloma daphnoides* (daphne heath) (Epacridaceae); *Acacia* spp incl. ****A. decurrens** (queen wattle), **A. leiophylla** (smooth-leaf wattle), **A. longifolia longifolia** (Sydney golden wattle), **A. mearnsii** (black wattle), **A. pycnantha** (golden wattle), ****A. saligna** (golden-wreath wattle) (Leguminosae/ Mimosoideae); ****Agonis flexuosa**, *Eucalyptus* spp (Myrtaceae); *Banksia* sp, *Grevillea* sp (Proteaceae); *Pomaderris* sp (Rhamnaceae); **Prunus* sp (plum), ornamental **Rosa* sp, **Rubus "fruticosus"* (blackberry) (Rosaceae); *Camellia* sp (Theaceae), ***Choretrum glomeratum*** (berry broombrush or common sour-bush), **C. spicatum** (spiked sour-bush), ***Exocarpos aphyllus*** (stiff cherry), ***E. cupressiformis*** (native cherry) (Santalaceae); ****Alectryon (Heterodendrum)** spp, ****Cupaniopsis anacardioides** (tuckeroo), *Dodonea* spp incl. **D. humilis** (dwarf hop-bush), **D. viscosa angustissima (attenuata)** (narrow-leaf hop-bush) (Sapindaceae), *Brachychiton* sp (Sterculiaceae).

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ANNUAL GENERAL MEETING:
9th September, 2002 at Urrbrae Wetlands Resource Centre
7.30pm. Guest Speaker : Lindsay Hunt
'Butterflies of the Centre and NW of Australia'

Continued on page 4.

“Talk to the Butterflies” or “How long does a butterfly live?”

On my arrival at the Edwardstown Primary School I was greeted by the eager little faces of sixty 8 and 9 year olds. Their teachers, Fiona Picton and Bronwyn Hawkins, had asked me to talk to the students about butterflies as this semester they are studying insects.

I am not an entomologist or an expert, I just have a love of butterflies and my aim is to tell children about the wonderful world of these beautiful creatures. I have a small net-work of like-minded friends who grow the host and food plants. We swap and help each other collecting eggs and caterpillars from the field. We have concentrated on the Wanderer as these are plentiful and robust.

On the day of my visit to the school I happened to have caterpillars feeding, several pupae and live butterflies – one emerged in the classroom as I was speaking – exciting stuff! I also played an extract from an American video showing the life cycle of the Monarch (which is what they called the Wanderer).

“How long does a butterfly live?” My answer to this is – not long in captivity, perhaps 3 weeks, but in the field maybe 6 months. It depends on the weather and the availability of the host plants and food source. If the conditions are right with plenty of sunshine, they can mate and produce eggs several times in a season, laying up to 400 eggs!

The children were very attentive and seemed pleased to take home a piece of butterfly wing. I have been collecting “fallen angels” for sometime. I would be pleased to receive any butterfly wings/ specimens surplus to your requirements to help with my talks to children.

To finish my talk, we released 5 butterflies. This was a magical experience for children and the butterflies obliged us by fluttering around the school yard for a short time.

The children took up a collection and presented me with a container of coins totally \$40.75. for the BCSA along with a bouquet of flowers. Thanks so much.

I have since received 25 letters of thanks from the children, all of them little gems.

A week later I gave a similar talk to Jenny Needham’s class at Mitcham Junior Primary School.

Lois Hasenohr (May 2002)

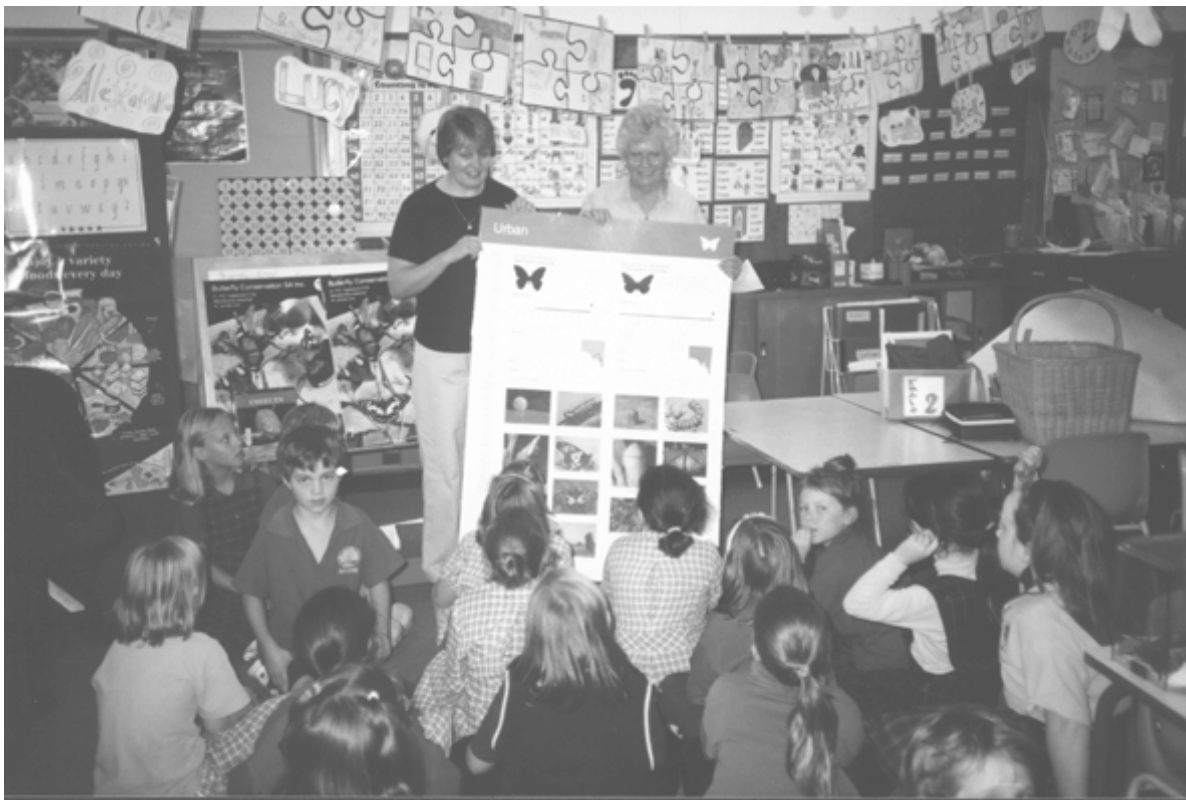
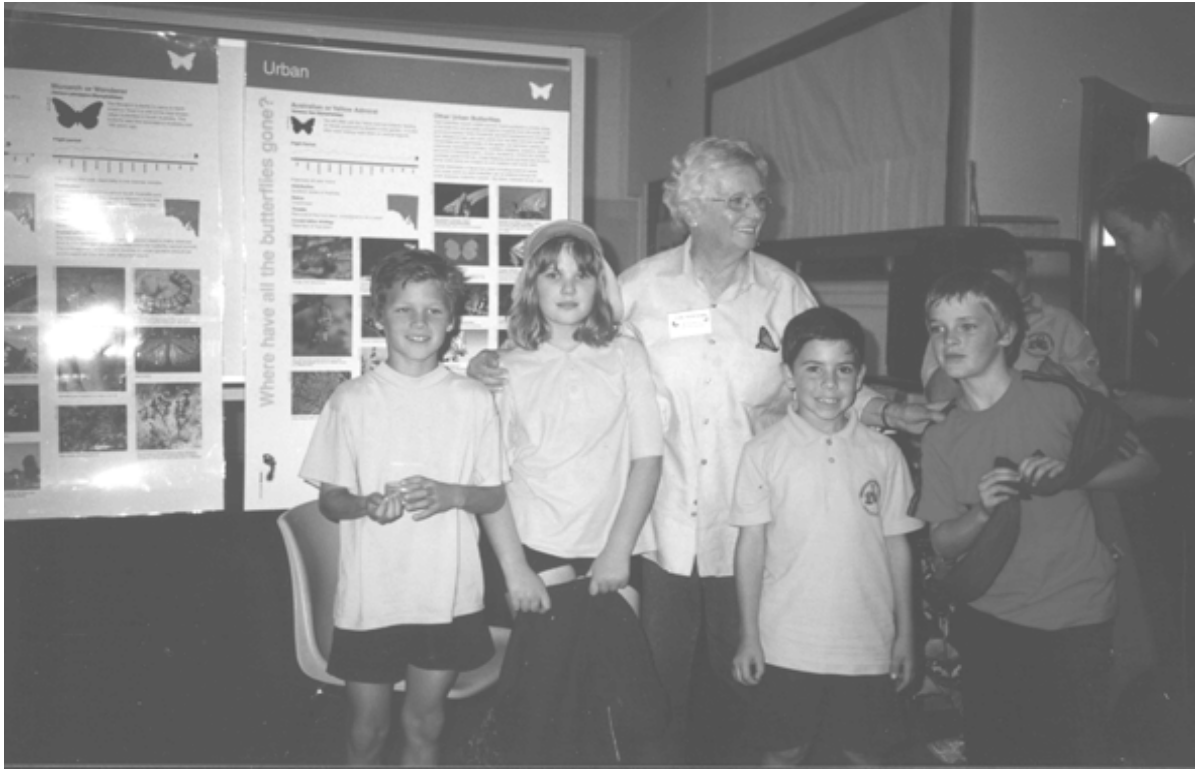
Dear Mrs Hasenohr
 Thank you for coming and talking to us about butterflies. It was very interesting. I liked the bit where we got to see the butterflies emerged. That was great. I liked getting a butterfly wing.
 Now I can tell a butterfly to a Math when it emerges out of the egg.
 We have been making cellophane butterflies.
 from Jessica.



Dear Ms Hasenohr
 Thank you for bringing butterflies to show us and I like it when you let go the butterflies. I like the video too. I really liked when they saw the butterfly come out of the cocoon and I hope we see you again.

from Nicholas.





EXCURSION: to St.Kilda on Saturday 21st September. Meet at the Mangrove Boardwalk at 2.00pm. We will visit the Bitterbush Blue plantings then the Yellow Sedge Skipper *Gahnia* sites with Peri and Faith (see article last newsletter). Please contact Jan Forrest 08 82978230 to register your interest. If you would like to visit the Boardwalk at St.Kilda prior to our excursion it takes 1.5—2 hours and opens at 10.00 am.

Fiery Jewel continued from page 1.

In South Australia the documented foodplants are few. On Eyre Peninsula the foodplant is *Choretrum glomeratum*, on Yorke Peninsula the foodplants are *Acacia leiophylla*, *Choretrum glomeratum*, *Dodonaea humilis* and *Exocarpos aphyllus*, near Adelaide they used to use *Acacia pycnantha*, while in the Upper Southeast and adjacent parts of western Victoria they have been recorded on *Brachyloma daphnoides* and *Choretrum spicatum*.

The larvae usually eat the leaves and soft stem parts of the foodplants, and eat by scouring the cuticle surface such that the underlying parts of the plant eventually die and turn brown, causing the grazing area to look withered and burnt, or in the case of large leaved *Acacia* cause the leaves to become skeletonised.

Larval attendant ant: In South Australia, larvae are attended only by a small dark-brown ant *Papyrius* sp (*nitidus* group). It is a byre-building ant with a distinctive coconut smell. The ants themselves do not live in the byres, which are made of matted fine vegetal debris, but which are constructed by the ants about the base of the larval foodplant to house and protect the larvae and pupae of the butterfly from predators during the day.

These semi-permanent byres can cover just a portion of the foodplant base, or sometimes can be extensive, surrounding the entire base of the foodplant at heights of 20 cm or more, sometimes even extending as narrow extensions up the trunk of the foodplant, and in extreme cases can spread as branching extensions away from the foodplant for over a metre or more over decaying logs and other vegetal material on the ground.

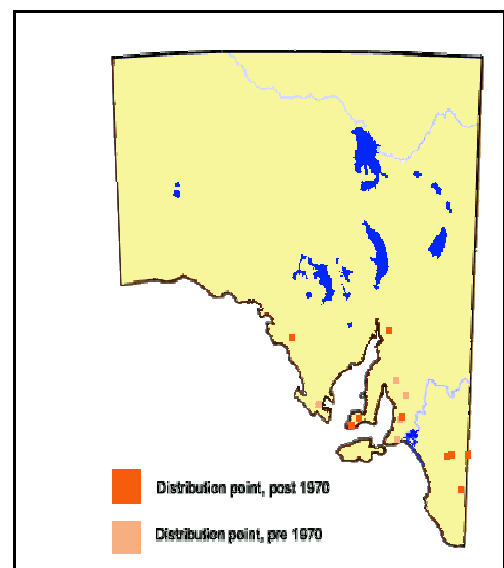
The ant nest occurs deeper underground or removed from the foodplant. The gap between the byre and the trunk of the foodplant is usually not much wider than the thickness of the mature larvae and pupae. The byres are not always present, but can be quickly constructed by the ants after eggs are laid by the female butterfly, to accommodate the subsequent emergent larvae. There are several ants that construct byres in S.A., some of which can sting, but the small *Papyrius* ant is harmless and has a characteristic coconut oil smell that is irresistible to cats.

As for the *Ogyris* butterflies there is a symbiotic relationship between the ants and the early stages of the butterfly. The ants provide accommodation and some protection for the early stages, while the larvae provide liquid food for the ants from a special nectary gland (Newcomer's organ) situated at the posterior end of the larvae.

Flight period in S.A.: The butterfly flies throughout the warmer months, with records from late October to early May. The main flight is late spring to early summer, with a later secondary flight in late summer and early autumn. Butterflies flying after mid-summer produce larvae that over-winter.

Distribution: The butterfly used to occur in most areas of the southern agricultural belt having average annual rainfall in excess of about 300 mm. It occurs in discrete colonies, which in SA are usually very limited in size. It has not been seen on Kangaroo Island. There used to be one colony in a conservation park in the Adelaide Hills where it had been breeding continuously on *Acacia pycnantha* over an area of about one hectare for 40 years. Sadly this colony became defunct in the mid-1970's. The local nominotypical subspecies of the butterfly also occurs in similar higher rainfall woodland habitat in the eastern mainland states, usually within 200 km of the coast. Four other similar subspecies occur in southwest WA, northern Australia and southern Papua New Guinea.

Continued next page



NEW WEBSITE ADDRESS: 'Butterflies of South Australia'
(produced by Roger Grund) <http://www.chariot.net.au/~rgrund/index.htm>

Continued Fiery Jewell

Threats: This butterfly is unable to adjust to agricultural and urban disturbances. Butterfly collectors frequently target it, and the manner of collection is often terminal for the colony. Hilltops in urban fringe areas are often used for housing and communication towers and the butterflies are therefore likely to suffer. Its main threat in conservation areas is likely to be bushfires. It is totally dependent on the one species of ant, which is itself quite rare, and usually dependent on undisturbed habitat. Burrowing animals such as rabbits, bandicoots and echidnas (and probably also mice during their periodic plagues) have the potential to destroy larval colonies at the base of the host trees. **Friends of native vegetation may also mistakenly destroy the byres and larval colonies, thinking them to be affecting the vegetation (which they are), but the plants they affect are much more common than the butterflies.** (The ant byre should not be confused with byres produced by borer beetles and moths, as these byres are very small in area and occur higher up on the plant.) Opening up the byre exposes the early stage larvae and pupae to predators, particularly parasitoids and other ants, which will quickly destroy the colony. The attendant *Papyrius* ants cannot fully protect the early stages once the byre has been opened.

Member Profile—Marcus Pickett

As is typically the case, my interest in insects started at an early age—instilled and fostered by my father, a professional entomologist with the Tasmanian government for over 40 years. I collected butterflies keenly in Tasmania from about the age of 10. I learnt a great deal from the late, great, Tasmanian lepidopterist Len Couchman, who introduced me to the wonders of the ant-butterfly association. Interested in rearing butterflies, I purchased eggs and pupae of mainland species from the Queensland Butterfly Company. Rearing species such as Wanderers, Lesser Wanderers and Orchard Swallowtails from eggs was very satisfying stuff back then!



I joined the Australian Army in 1978 and my interest in butterflies waned somewhat, although the passion persisted—one vivid memory is of being deployed to a position atop a prominent hill in Queensland where I spent many hours watching a myriad of species hill-topping. I caught a few examples with my hands—Big Greasy, Blue Tiger, and Blue Triangle—to show to my main interest in life at the time, my girlfriend (Merryn, now my wife) back home in SA.

When I left the army in 1984 I took-up the interest again, in earnest—focussing on Mount Lofty Ranges species, rearing many from eggs, larvae or pupae. I met with Bob Fisher, from whom I gleaned a wealth of knowledge. Graham Lipp, from the Murray Bridge Butterfly House, in its heyday, gave me eggs and larvae of species I'd only ever dreamt of rearing—various triangles, Cairns Birdwing, Cruiser, Common Eggfly, Red and Orange Lacewing, and more—most of the successful results being returned for release in the butterfly house. Over the years I met up with fellow enthusiasts and founding BCSA members Mike Moore, Roger Grund and Lindsay Hunt.

I studied environmental science several years ago, following 10 years in the timber industry, and now work mainly in the area of conservation biology. I am the project ornithologist for the Mount Lofty Ranges Southern Emu-wren Recovery Program, and I also work on threatened wattles and road reserve management for Alexandrina Council.

I rarely collect butterflies these days, maintaining the interest but preferring to generally observe instead. I encourage my children, Belinda and Sam, to look and learn without the need to collect. Having said this though, the huge contribution that amateur collectors have made to the discipline cannot be denied. It's not that I have developed an aversion to butterfly collection per se; rather, I'd prefer to avoid any unnecessary or unconscious promotion of butterfly collection as a hobby.

The formation of BCSA is timely, and I see a fruitful future ahead. With a quarter of the approximately 80 species in SA threatened, there is much to do in the way of habitat and population management. BCSA is taking a leading role, especially in terms of education. SA butterflies are now gaining unprecedented broad recognition as key components of biodiversity, and as indicators of general ecosystem integrity. Lets keep it up!

MEMBERSHIP RENEWAL

Membership of BCSA is \$10 per annum and fees are now due. Enclosed is a reminder notice. Renew for 2003, join up a friend and know that you are helping to conserve our unique Australian Butterflies.

Fragments from a book called *Butterflies* by E.B.Ford - 1945 article by David Keane

Some interesting early facts about the names and history of British Butterflies.

1666 – First book published which exclusively describes British butterflies. (The Great Fire of London begins in Pudding Lane).

1720 – First publication with coloured illustrations of 15 British butterflies. (The Old Haymarket Theatre opens in London).

1735 – Carl Linne published his *Systema Naturae* which introduced the binomial system of scientific nomenclature which is used today.

Some of the early names given to butterflies were: Vernon's Half-mourner, now called the Bath White; Enfield Eye, the Speckled Wood; White Dullidge Fritillary, the Glanville Fritillary; Dandridge's Black Fritillary, the Marsh Fritillary; Handley's Small Brown Butterfly, the Dingy Skipper.

Other names include: The Tortoiseshell Fly, the Admirable, the Peacock Fly, the Marmoress or Marbled White, the Grand Surprise or Camberwell Beauty, and the Dishclout or Greasy Fritillaria. Some Skippers were called "Hogs" e.g. the Small, Large, Cloudy and Spotless Hogs.

In early days entomologists were themselves called "Aurelians", the name deriving from the golden (aureolus) chrysalis of some butterflies. The popular publication "*The Aurelian*" by Moses Harris in 1766 describes even more obscure names for British butterflies. The origin of the word "butterfly" has a couple of derivations: a) From the word "Flutterby", which by the way is an anagram of butterfly. b) From the colour of some butterflies being "butter coloured" e.g. the Brimstone butterfly. This is probably where "butter and fly" became connected as one name, rather than being known as a coloured fly. Hopefully the present names will stay as they are beautiful in their own right and relate to the wonderful English countryside.

BUTTERFLY CONSERVATION SA Inc.

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Fundraising: Lois Hasenohr

Committee members: Marcus Pickett, Beth Keane, Lindsay Hunt, Mike Moore, John Hunwick, Trevor Rowe, Tim Gudgeon and Bob Edge

Honorary Member: R.H. (Bob) Fisher OAM

OUTREACH PROGRAM

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

The full exhibition is also now available. It includes full sized panels, model and butterfly specimens. Contact Senior Exhibition Officer, at the SAMuseum for further details.

DIARY DATES

MEETINGS -

AGM 9th September Urrbrae Wetlands Resource Centre 7.30 pm Guest Speaker Lindsay Hunt 'Butterflies if the Centre and NW of Australia'

Committee meetings are held 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 the Secretary Jan Forrest at the address above.

WEB SITE (produced by Roger Grund)

'South Australian Butterflies' <http://www.chariot.net.au/~rgrund/index.htm>

We welcome the following new members:

MICHAEL BRABY
MAX MOULDS
RUTH PICTON
ANDREW HARRIS
PAULINE HANCOCK
ANNE MAGTENGAARD
HELEN MESSENT

EXCURSION:

to Glenshera CP Swamp near Mt. Compass on Sat 26 October. at 10am
Contact Marcus Pickett on 85387008 or 0417550190 for details of meeting place. Bring your lunch and gumboots!

