# Castlemaine Naturalist Aug 2007 Vol. 32.7 #346



**Gilbert White - Founding Father** – Chris Morris After lunch in Hampshire it seemed like a good idea to take in the cottage of Jane Austen just outside Alton. The very table at which she wrote her classics was enough to bring to life the intervening years and we were in the mood for history. This led us to Selborne only a few miles away. There was something about this place name that rang a bell and once there it came to light! It was the home and museum of *Gilbert White* the foremost naturalist of the 18<sup>th</sup> Century.

What Charles Darwin had done for evolution Gilbert White had done for natural history – brought it into every ones homes.

White's old house 'The Wakes', albeit extended, still stands set in over 20 acres of garden and parkland and surrounded by the countryside that he loved and which inspired his writing. This was too good to pass over so we booked ourselves into the 'Selborne Arms' to take in what he had written about over 200 years ago and what little had changed.

The Rev. Gilbert White (1720- 1793) author of the world famous 'Natural History of Selborne' was the founding father of modern day scientifically based field studies.

Selborne may be a shrine these days and his house a museum, but it does not take away from the time when this clergyman rode and walked observing and describing the plants and animals of the Downs and Beechwoods known to this day as the hangers towering over the village. The church built in 1180 contains stained glass windows depicting the birds mentioned in White's natural history.

All his observations of natural history were made in and around the village at a time and long afterward, when the gun was the prime tool of observation, whereas White was the pioneer who used field observation for characteristics and behaviour and song to distinguish species. #

# Club Development Workshop - Hans van Gemert

Instead of the usual Saturday excursion in July, a Club Development Workshop was held to discuss future directions and policies for our Club. It was held in the Chewton Community Centre and went all day with lunch and morning and afternoon refreshments provided by members of the Chewton Senior Citizens Centre. The workshop was attended by 36 members and facilitated by Maurie Crooke who has conducted this type of function for many other organisations. Some members not able to attend had provided written input.

First, a brainstorming session was held by everyone in order to compile a list of issues of concern to our members. A list of over 80 items was produced after which the individual items were grouped and sorted under several main headings. Each participant was then given the opportunity to prioritise the three most important areas and the three most important items in each area. This then produced an ordered list in which some items clearly stood out as requiring action.

After spending some more time on producing a Mission Statement and a general discussion about the process, it was intended to start producing action plans. Instead it was decided to appoint a champion/convenor for each of the main heading and to allow that person to set up a small group to draw up action plans at a later stage. The main areas selected with their convenors were:

- 1. Effective Administration (George Broadway/Hans van Gemert)
- 2. Our Conservation Role (Chris Morris/Hans van Gemert)
- 3. Membership (Natalie de Maccus)
- 4. Promoting Relationships (Helen Morris)
- 5. Capturing, Storing and Distribution of Data (Alison Rowe)
- 6. Facilitation of Learning (Zoe Thomas)
- 7. Communications (Geraldine Harris/Bruce Donaldson)

Since the workshop, the Committee has met and appointed a working party comprising all of the people above to oversee the implementation of the workshop findings.

It is expected that the implementation will take up to 12 months. Periodic reviews will be held with a full review in a year's time. All of the participants expressed the opinion that the exercise was worthwhile and will strengthen the Club. We are grateful to Maurie Crooke for giving us his time and expertise and to all the members who contributed. #

# Tony Morton - A Moth Beginner 8/6/07

At our June meeting Tony, whose area of expertise is butterflies, showed stunning slides and talked about his new area of interest - local moths. Most of the moths photographed were attracted to a mercury vapour light at his home at Vaughan. A "most unsporting" method, Tony confessed, but the moths come all night long. Members were surprised at the variety and beauty of these creatures and afterwards were further treated to a look at Tony's beautiful mounted specimens.

#### What is the difference between a moth and a butterfly?

In the Lepidoptera family there are 140 branches of moths and five of butterflies. Both moths and butterflies have a coiled proboscis and scaly wings. Moths usually have antennae that are pinnate or feathery while butterfly antennae always have a club at the tip. There are some day-flying moths that have a club at the tip (eg Castniidae – Sun Moths). Most moths have a hook-and-bristle system that keeps the forewings and hindwings functioning together in flight; butterflies have a large overlap instead. The one exception to this rule is the male Skipper butterfly *Euschemon rafflesia* which has clubbed antennae and a hookand-bristle. Males usually have thicker antennae.

The best time to find moths is on a good summer night when the moon is obscured.

### Local moths that Tony has collected include:

Family HEPIALIDAE Swift Moths, Ghost Moths. (approx 120 Aust sp) Local species collected: Abantiades labrinthicus, Bardi/Pindi

# Example of larval food plant: (Eucalyptus)

Frequently seen on a wet autumn night, the adults live for only one day and cannot feed or drink. Hindwing may be suffused with pink, red or mauve. The larvae live underground feeding on leaf litter and roots. The pupal shells protrude from holes in the wood and soil when the moth emerges.

# Family OECOPHORIDAE (over 2300 named Aust species)

Local species: *Maroga melanastigma* eg larval food plant(*Acacia*, fruit trees) Hugely diverse with varied habits, they typically make shelters by using leaves. They have lanceolate hind wings with simple antennae held back along the leading edge of the wing at rest.

# Family COSSIDAE Wood Moth (24 Australian species)

Local species: Xyleutes durvillii eg larval food plant (Acacia)

These Wood Moths hang from branches and trees from which they have just emerged after 2-3years spent there as a wood boring grub. The larvae bore into the centre of trees and move out to feed on the bark and sapwood. They bore outwards closer to the surface to pupate and ready to emerge as moths after 2-3 years. The pupal shells protrude from the wood after the moth has emerged. Often broadly referred to as 'witjuti grubs' and considered a delicacy by aborigines.

# Family CASTNIIDAE Sun Moths (24 species named in Australia)

Local species: Synemon plana Golden Sun Moth

eg larval food plant (Wallaby Grass)

They are the only moths that have clubbed antennae. They fly by day. They are usually grey or brown with red or yellow spots on the hindwing. The larvae feed underground on the roots and rhizomes of grasses and sedges.

Tony found his specimen in the Castlemaine Botanical Gardens car park. He also once saw scores of them at Central Springs, Vaughan but never since.

### Family ZYGAENIDAE Foresters, Burnets, Emeralds (43 Aust species)

Local species: *Pollanisus viridipulverulenta* eg larval food plant (*Hibbertia*) The beautiful little emerald green moth found last year on field trip to Morgans Track belongs in this group. The antennae are held at a 45-degree angle in front of the head, the forewings are shining green, copper or black or sometimes wasplike in orange and black or white and black. The moths are active by day and the larvae often feed at flowers or on the leaves.

# Family LIMACODIDAE Cup Moths

Local species: Doriferata spp. Chinese junks/ Stinging Joeys (Eucalyptus) Short broad wings held steeply roof-wise over body, antennae held back along leading edge of wing at rest, body short and stout and long hair scales on body. They pupate in a neat cylindrical cocoon spun on twigs.

### Family GEOMETRIDAE Emeralds, Loopers, Inchworms (1300 Aus sp) Local species with examples of larval food plants:

Gastrophora henricaria (Eucalyptus), Nicetaria macrocosma (Eucalyptus), Plesanemma fucata (Eucalyptus), Cyneoterpna wilsoni (Eucalyptus), Thalaina clara (Acacia), Melanodes anthracitaria (Eucalyptus), Monoctenia smerintharia (Eucalyptus), Oenochroma vianaria (Grevillea, Hakea), Xenomusa sp. (unknown laval food plant)

Varied and beautiful, they often have intricate pattern of wavy parallel lines. The larvae move by looping, feed on leaves and adopt twig-like poses.

### Family SATURNIIDAE Silk/Emperor Moths (15 Australian species)

Local species: Opodiphthera Helena Emperor Gum Moth

eg larval food plant (Eucalyptus, Pepper Tree)

Very large moths, furry body small for size of moth, broad straight feather-like antennae, tip of forewing often broadly extended and both wings have either a triangular window or an eyespot in the middle (some hindwings have just a dot) and no hook-and-bristle mechanism between the wings.

### Family LASIOCAMPIDAE (70 Australian species)

Local species: Entometa fervens eg larval food plant (Eucalyptus) Large furry moths with wings held roof-wise over body when resting, feather-like antennae often gradually bent in middle and held back under wings at rest, hindwings usually much smaller and plain.

#### Family SPHINGIDAE Sphinxes, Hawk Moths

Local species with examples of larval food plants: Hippotion celerio Convolvulus Hawk Moth (Vines etc) Hippotion scrofa (Cissus, Epilobium etc)

Smooth scaled head and body, very long prominent proboscis, relatively narrow wings held back against body but extended outwards and flat, antennae simple and held outwards from head and very agile flyers and hoverers and voracious feeders. Larvae usually have a large, stiff, erect horn projecting from near the rear end. They pupate in litter or soil and have distinctive 'jug handle' shaped pupa case.

## Family NOCTUIDAE (Over 1000 Australian species)

Local species with examples of larval food plants:

Dasypodia selenophora Old Ladies Moth/Granny's Clothes Moth (Acacia) Phalaenoides glycinae Vine Moth (Vines, Hibbertia)

Agrotis ipsilon Black Cut-worm (many vegetable and field crops)

A very diverse and the largest family of Lepidoptera. Simple antennae and kidney shaped spot on wing. Many of these are serious pests including Cutworms, Army Worms and Earworms and they eat clothes, destroy crops.

# Family NOTODONTIDAE (about 90 Australian species)

Local species with examples of larval food plants:

Hylaeora dilucida (Eucalyptus), Hylaeora bicolour (Eucalytus)

Difficult to distinguish. Subfamily Thaumetopoeinae have very hairy larvae such as the processionary caterpillar that live communally in a silk bag in the tree or at the base of the trunk. Both larvae and bags can cause irritation. While subfamily Notodontinae are not hairy but have grotesque shapes.

## Family THAUMETOPOEIDAE

Local species: Marane melanospila eg of larval food plant: (Myrtacae)

#### **Geraldine Harris**

References:

Morton, T. Some of the Moths collected from September '06 to April '07 at mercury vapour light. Tin Shed, Vaughan, (Unpublished)

Zborowski P and Edwards T, 2007. A guide to Australian Moths, CSIRO Publishing, Collingwood, Victoria.

Notes taken at the June Meeting by Geraldine Harris

# **Observations**

- A marvellous array of fungi in the Copper Butterfly area of the Botanical gardens. Rita Mills
- Three Yellow-tailed Black Cockatoos in the Botanical gardens and, in Kaweka, an unusual bird call turned out to be that of two male Mistletoebirds in Wire-leaf Mistletoe Amyema preissii on Whirrakee Wattle Acacia williamsonii. George Broadway.
- Golden Wattle Acacia pycnantha in flower at Taradale. Penny Garnett
- Unusual sighting of a lone bird at Glenhope, between Kyneton and Heathcote, was eventually identified as a White-browed Babbler, despite thinking that they don't usually come this far south. Three months later it's still there and two nests have been found. The closest other known family 15 km away. Also Austral Indigo Indigofera australis in flower where we live. Clare Claydon
- Acacia pycnantha in flower in the bush; Tall Greenhoods Pterostylis melagramma in flower in the National Heritage Park; and a wombat seen crossing the track in the Wombat State Forest and sighted again a later in July. Musk and Rainbow Lorikeets very active in flowering eucalypts in Sunshine. Richard Piesse
- Large flock of Yellow-tailed Black Cockatoos over Maldon in June. Wendy French
- Natasha Harris bought along an intact emu egg for members to feel how heavy it was, before she took it home to make an omelet!
- Enid Chapman reported with delight that the Muckleford Creek is definitely flowing near where she lives!
- And the creek is flowing from the Poverty Gully/ Eureka Mine Area to the back of CampbellsCreek too! Richard Piesse
- On cold, snowy day in July, Chris Morris went out looking for signs of life in his garden and found a Grey Shrike-thrush, a female Golden Whistler, Weebills, Eastern and Crimson Rosellas, Yellow-tailed Black Cockatoos and a Common Bronzewing.
- Amelia and Alison Rowe flushed out a Brown Treecreeper from under their verandah at Muckleford South when leaving to go out for the evening.
- Pair of Silvereyes in garden. Hans van Gemert
- Moved turtle from roadway on way home from Lake Fyans. N Harris

# **Newsletter Articles Please!**

Send your articles, reports, questions, observations etc to Geraldine Harris, P O Box 703, Castlemaine, 3450 or Ph 54742244 or gedharris@castlemaine.net. If you found it interesting, others will too.

# Global warming and what we can do about it – 13/7/07 Speaker: Terry White, Central Victorian Greenhouse Alliance

Viewed from space our Earth is an emerald planet swathed in cloud. It looks very different from images of the moon because of the atmosphere surrounding it - which brings up the miracle of atmosphere and the evolution of life on Earth, as we know it. Plants existed before humans. Plants created the atmosphere. Life creates life in more and more complex forms and humans are part of the upwards spiral of life leading to more life. But since industrial revolution we have been unravelling.

Each year 8 million tonnes of CO2 is being emitted into the atmosphere. 2 Million tonnes is absorbed by the oceans.

2 million tonnes is absorbed by the land.

4 million tonnes remains in the atmosphere warming the planet.

This imbalance in the atmosphere is what is warming our planet.

What are the world's glaciers and icesheets telling us about climate change? In the past 25 years the global average temperature has climbed by 0.6 degrees Celsius. Melting of sea ice has increased dramatically and glaciers are in retreat worldwide. This century the global temperature may rise between 1.4 and 5.8 degrees C. Just how much will depend on energy policies made today.

Glaciers of the Tibetan Plateau - the largest area of ice outside the polar regions is being reduced by 50% every decade. Many of the continent's greatest rivers rise on this plateau and this melting threatens to disrupt water supplies over much of Asia.

In China alone 300 million people depend on these glacial flows for their water. There has been a blossoming of human populations based on fossil fuels and they are all dependent on water. China and India are industrialising at a rapid rate.

In the Southern Ocean – floating sea ice near Antarctica has shrunk 20% since 1950. In March 2000 an iceberg named B-15 measuring 10,000sq km calved off Ross Ice Shelf. In May 2002 another section measuring 31km wide X 200km long broke away. The Larsen Ice Shelf has shrunk by 40% in the last decade - Since the A section broke off in 1995 and the B section disintegrated in 2002, melting of the nearby land-based glaciers has more than doubled.

In the Northern Hemisphere The Arctic has lost about 20% of its sea ice since the late 1970's. Scientists fear that the Arctic has now entered an irreversible phase of warming. Sea ice naturally melts in summer and reforms in winter but this annual rebound has ceased to happen. Sea ice

reflects up to 80% of sunlight keeping a cap on the frigid water and keeping it cold. Without the ice, the dark ocean is exposed to the sun's heat so that its heat increases leading to the loss of yet more ice. It's the 4<sup>th</sup> year in a row that the sea ice in August has not frozen (The Independent, Fri 16 Sept, 2005)

What is the Siberian permafrost telling us about global warming? In Western Siberia - an area of permafrost, the size of France and Germany combined, has started to melt for the first time since it formed 11,000 years ago at the end of the last ice age. Once a barren expanse of frozen peat, now there are ripples in the permafrost and lakes are appearing. Climate scientists are alarmed that as the permafrost thaws, the bare ground that is revealed will heat more quickly causing temperatures to rise and an even more accelerated rate of thaw. Siberia's peat bogs produce methane which is 22% more potent than CO2 and if it is released it could produce about 700 million tonnes of carbon into the atmosphere a year, in effect doubling the present atmospheric levels produced from wetlands and agriculture. This would lead to a 10-25 % increase in global warming. (The Guardian, London, Aug 12, 2005)

What are the coral reefs telling us about global warming? Coral has a small tolerance for rises in sea temperatures. A rise of one degree means that the tiny algae that live in the coral polyps are expelled, leaving the coral white or "bleached". If this happens repeatedly, or for long periods, the coral dies. In 1998 16% of the world's coral died after rising sea temperatures caused mass bleaching on almost every reef. (Melissa Fyfe, The Age, Feb. 12, 2005). In some tourist areas in Queensland shade cloths on floats are being used to try to keep coral areas cool.

All our lives are inexplicably linked.

"We must be the change we wish to see." Mahatma Ghandi

We have based our lives around some habits that are problematic. We must do some fast, creative, and zestful redesigning of the way we live.

### What we can do.

'One bit at a time', do one thing for the environment today, tomorrow another, and slowly and steadily change the way you live.

As families we can set some greenhouse goals. Download and Australian Greenhouse Calculator from the EPA website. Join one of the programmes (Castlemaine 500, Carbon Audits). Start with friends and decide to become carbon neutral together. <u>Ready</u> – Make a list of all the sites of energy consumption in your home. <u>Set</u> – a target, eg last week in August

<u>Go!</u> – Turn off lights and electrical equipment not in use. By the first week in September reduce energy consumption by 15%, see if you can hold this level for 12 months; then reduce by 30%, then 60% and then by 120%. By this time you will be taking CO2 out of the atmosphere.

Castlemaine is leading the way regarding the state of awareness about climate change. Under the direction of the Mt Alexander Sustainability Group (MASG), twelve schools, the Uniting, Anglican, and Catholic Churches, local businesses, and the neighbourhood house, are getting involved. The Council is aiming at 30% by 2010 and zero emissions by 2020.

Find partners, with an "everyone has to invite one " policy, eg a business invites another business, a timber yard another timber yard, etc. Link small schools with small, and big schools with other big schools, and compare strategies – for example planning periods of activity interspersed throughout the day's lessons to use the students' own body heat rather than conventional heating.

By demonstrating what can be done to other towns we can get them involved in change too. We could turn the street lights off at midnight - moths and migratory birds might benefit and so might we!

We could change from climate damaging to climate neutral or friendly!

What Field Naturalists can do. Work with your interests and act! Study and record impacts on flora and fauna.

Provided information about changes in our ecosystems.

Look at expected changes in temperature and apply to what we know of the bush. Start with Alan Reed's Timelines - record and enrich this knowledge.

10% of all mammals, birds and amphibians are threatened with extinction. Land literacy as a survival prerequisite is needed more than ever before Field Naturalists could take their knowledge of the natural world and the local environment into classrooms.

It is no longer sufficient to be observers. There needs to be a partnership between humans and other species eg providing wildlife corridors to enable movement on a north south axis. We need to get professionals and amateurs together and become very sophisticated in the way we undertake ecology. It is time for creativity with a flare for hope and not

Geraldine

denial. Harris

# From the Business Meeting 26/7/07

\* New Committee Positions: Natalie de Maccus has accepted the position of Club President and Noel Young has joined the Committee.

\* Workshop (see separate article on page 2.)

\*CFNC Representatives to attend:

**1. DSE - Shaping our Forests Future:** Bendigo Forest Management Area (FMA) Proposed Forest Management Plan. Meeting: Fri Aug 3, 2-4pm, C Creek Com Centre, and Viewing Fri Aug 17,2-4pm, Market Building). Members encouraged to attend. Closing date for submissions: Fri Sept 7, 2007.

www.dse.vic.gov.au or ph 136 186

2. Central Victorian Landscape Restoration Project (Norman Wettenhall Foundation) Next meeting in September (details later). Chris Morris to resume acting as club representative.

3. Management of Castlemaine Diggings National Heritage Park (CDNHP) Meeting, Sept 17 -with other local groups assist in determining priorities.

\* The Great Dividing Trail - future club project surveying and compiling a plant list.

\* Additional committee members: Please give some serious thought to becoming a committee member – all members are welcome to attend – so come along and check us out. You will be very welcome and all you need bring is an interest in the Club.

# SEANA Autumn Camp 7-10 March 2008

Hosted by Naracoorte Lucindale Field Naturalists

Based at the Caves Wirreanda Camp Ground – explore behind the scenes at these world heritage caves and experience a mix of full and half day tours. Extend your stay and visit the Limestone Coast.

Registration and Payment of \$30 per person due by 20<sup>th</sup> September.

Total cost per person for weekend less than \$125.

Accommodation: The Wirreanda Complex (or motels and hotels)

Booking: The Narracoorte Caves National Park (mention that you are part of the SEANA group). Early Bookings appreciated.

More Information: Geraldine Harris 5474 2244.

**Disclaimer:** The opinions expressed in this newsletter are those of the contributors and not necessarily those of the club.

# CFNC Programme, October - December 2007

### OCTOBER

Wed 3. Wednesday Evening Walk 3 Wed 10. Wednesday Evening Walk 4

Fri 12 Meeting (speaker to be decided)

Sat 13. The Long Forest - Bacchus Marsh. Bruce Donaldson/Marilyn Hewish Wed 17. Wednesday Evening Walk 5

Fri 19, Sat 20, Sun 21. Weekend in the Grampians – Dadswells Bridge. Geraldine and Geoff Harris.

#### NOVEMBER

Mon 5. Festival of Gardens Walk – Morgans Track. Leader: Rita Mills Fri 9. Conserving Natural Values on Private Land - Phil Collier and Robin Garnett,

Sat 10. Field Trip.

Roadside Cleanup

### DECEMBER

Sat 1 & Sun 2. Bird Challenge Count

Fri 14. Members Night.

Sat 15. Xmas Outing.

# **Extra Events for Members**

\* DSE - Shaping our Forests Future: Bendigo Forest Management Area (FMA) Proposed Forest Management Plan. Display Fri Aug 17, Market Building, 2-4pm. Closing date for submissions: Fri Sept 7, 2007. Further Information: www.dse.vic.gov.au or ph 136 186

\* Tue Aug 21. DSE Threatened Species Project Officer, Geoff Nevill will be speak about Endangered Orchids at Maldon Urban Landcare AGM. Maldon Hotel, 7.45pm

\* Mon Sep 17. CDNHP Management Plan Meeting (details later)

\* Sunday Oct 21. Bendigo Native Plant Group Bus Trip to the Cranbourne Native Gardens. The cost will be \$32 which includes bus, entry and guide. Contact: Ian O'Halloran if you are interested, ph 5474 2587.

# **Subscriptions for 2007**

Ordinary membership: Single \$22, Family \$30 Pensioner or student: Single \$19, Family \$24 The subscription includes postage of the monthly newsletter, Castlemaine Naturalist.

# Castlemaine Field Naturalists Programme August 2007

# **VISITORS ARE WELCOME AT CLUB ACTIVITIES**

General meetings - (second Friday of each month, except January) are held in the Uniting Church (UCA) Hall (enter from Lyttleton St.) at 8.00 pm. Field Trips - (Saturday following the general meeting) leave from the car park opposite Castle Motel, Duke Street at 1.30pm sharp unless stated otherwise. BYO morning and/or afternoon tea. Outdoor excursions are likely to be cancelled in extreme weather conditions. There are NO excursions on total fire ban days. Business meetings - fourth Thursday of each month, except December, at Broadways, 7 Wheeler Street, at 7.30 pm. <u>All members are invited to attend</u>.

Fri Aug 10. Seagrass Beds of Western Port Bay. Dr Graham Watson, Retired Professor of Zoology at Melbourne University. UCA Hall, enter from Lyttleton Street, 8pm. Contact: Geraldine Harris 5474 2244.

Sat Aug 11. Field Trip: Conglomerate Gully on the outskirts of Riddells Creek. NOTE EARLY START: 11am sharp from car park opposite motel in Duke St or meet at Riddells Creek Bakery at 12noon. Picnic or pie lunch at start of walk followed by a 3 km circuit, interesting plants and geological features. Joy will provide afternoon tea afterwards at her home.

Contact: Joy Wetherill 0417 554 954.

Thu Aug 16. August Broom Pull. Meet at corner of Mary St & Froomes Rd, Castlemaine. BYO morning tea and gloves. Contact: Geraldine Harris 5474 2244. Sat Aug 25. Roadside Cleanup: Meet near Tait's Decorative Iron, Pyrenees Hwy, Castlemaine at 9am. Gloves, garbage bags and red safety vests supplied. Wear sturdy footwear. Contact: Hans van Gemert. Ph 5472 1082.

Fri Sept 14. Bush Heritage Australia – Paul Foreman, UCA Hall, 8pm. Sat Sep 15. Orchid Walk (to be decided)

Wednesday Evening Walks: Depart from opp motel in Duke Street at 4pm sharp, return by 5.30pm.

Wed Sept 19. Walk 1 Wed Sep 26. Walk 2

### 2007 Committee

Natalie de Maccus (President) 5472 4499 Alison Rowe (Treasurer) 0408 899 283 Hans van Gemert (Public Officer) 5472 1082 Debbie Worland 5472 2474 Rita Mills 5472 4553 Chris Morris 0418 996 289 Richard Piesse 0448 572 867 Noel Young

George Broadway (Secretary) 5472 2513 georgebroadway@bigpond.com Geraldine Harris (Newsletter Editor) 5474 2244, gedharris@castlemaine.net Ern Perkins (Web Editor) 5472 3124, lperkins@netcon.net.au

Website: http://home.vicnet.net.au/~cfnc Castlemaine Field Naturalists Club Inc., PO Box 324, Castlemaine, 3450. Inc #A0003010B