



FIELD NATURALISTS ASSOCIATION OF CANBERRA INC.

OBJECTS: To foster an interest, an awareness and an understanding of nature

PRESIDENT: Jenny Bounds, Phone 887 802 (H)
SECRETARY: Kay Hahne, Phone 511 792 (H)
ADDRESS FOR CORRESPONDENCE: GPO Box 249, Canberra ACT 2601
NEWSLETTER CHANGE OF ADDRESS: Bob Ecclestone, Phone 414 512 (H)

Meetings are held downstairs in the Department of Botany, ANU, on the first Thursday of each month. Meetings commence at 8.00 pm and are followed by refreshments.

NEWSLETTER — JUNE 1989

JUNE MEETING, THURSDAY 1st

Vince Ford will speak and show slides on **The Natural and Unnatural History of Lady Musgrave Island**. This island off Bundaberg is the most southerly accessible island on the Great Barrier Reef. It is a coral cay with unique life and ecology, and is a national park. Vince is usually known for his astronomical pursuits and domination of the annual photo competition, but he is a great storyteller. This meeting should not be missed.

DUBBO TRIP, 10-12 June

This trip is fully booked. Members going should ensure pick-up point on the day has been arranged. See Jenny at the June meeting or ring her on 887 802.

Astronomy at Mt Stromlo: 26 and 27 June

We have booked the telescope for some star-gazing with our expert astronomer, Vince Ford. A choice of two nights is available on Monday or Tuesday. Viewing on either night will depend on weather conditions. You do not need to book, but please ring Vince on the day to check the conditions. You can ring Vince up to 15 minutes before meeting time (861 778 at home or 490 261 at Mt Stromlo).

Meet at the carpark near the Duffield Building at the Mt Stromlo Observatory off Cotter Road (NOT the carpark at the telescopes). Look for the FNAC sign. Please be there at 8.00 pm sharp. There is a short walk to the viewing area and Vince will not be able to wait for latecomers. Wear warm clothing. This outing is suitable for children.

PLEASE NOTE THE CHANGE IN DATES FOR THESE EVENINGS: THE DATES ANNOUNCED IN THE MAY NEWSLETTER HAVE HAD TO BE CHANGED DUE TO UNFORESEEN EVENTS.

MAY PHOTO COMPETITION WINNERS

The winners of the photo competition are listed on page 2 of the newsletter. We need a print of all winning entries for the club's album. Would all winners please give a print or their slide/negative to Jenny as soon as possible. Thankyou to all those who participated to make the May meeting so successful.

WINNING ENTRIES, FNAC 1989 PHOTO COMPETITION

	SLIDE		PHOTOGRAPH	
CATEGORY 1 - BEST PLANT				
C'tee	Fringed lilies	Vince. Ford	Spring in WA, and Fungi at Bundanoon	Bob Cruttwell Diana Ecclestone
M'ting	Fringed lilies	Vince Ford	Cycad (Taiwan)	Bob Ecclestone
CATEGORY 2 - BEST BIRD IN WILD				
C'tee	Pied Oystercatcher	Vince Ford	Swan and cygnets	M. Cruttwell
M'ting	Pied Oystercatcher	Vince Ford	Swan and cygnets	M. Cruttwell
CATEGORY 3 - BEST VERTEBRATE OTHER THAN BIRD				
C'tee	Brush-tailed Possums	Vince Ford	Bearded Dragon (Kermit pose)	P. Wingate-Hill
M'ting	ditto	Vince Ford	ditto	P. Wingate-Hill
CATEGORY 4 - BEST INVERTEBRATE				
C'tee	Wolf Spider with katydid for dinner	Vince Ford	Green caterpillar	Jan McKergow
M'ting	ditto	Vince Ford	Green ants nest	M. Cruttwell
CATEGORY 5 - BEST GENERAL NATURE (LANDSCAPE)				
C'tee	Fortescue River Pilbara, WA	J Vandermark	Beachscape at Hinchenbrook Is.	Jenny Bounds
M'ting	Landscape & Moon Winton, Qld	Jeffrey Clyde	Beachscape, and Waterfall, Scotland	Jenny Bounds L. Howes
CATEGORY 6 - BEST ARTISTIC PHOTO				
C'tee	The Olgas from Ayers Rock	Jenny Bounds	Storm brewing over a Perth beach	Jenny Bounds
M'ting	Tropic Sunset	Vince Ford	Cervantes Pinacles, Western Australia	Celia Crutwell
CATEGORY 7 - BEST CLUB ACTIVITY				
C'tee	What IS this man doing??	Jeffrey Clyde	Field trip at Ginini Flats	Sophie Caton
M'ting	ditto	Jeffrey Clyde	Looking for Corroboree Frogs	Jenny Bounds
CATEGORY 8 - BEST FUN PHOTO				
C'tee	Ricky with King Parrots	Vince Ford	Orangutang or "Organgutang-gram"	Celia Cruttwell
M'ting	ditto	Vince Ford	ditto	Celia Cruttwell

PROPOSED PROGRAM: JULY - DECEMBER 1989

MONTH	SPEAKER'S TOPIC	OUTING
July	Members Night	Westbourne Woods Ramble (9th)
August	Plants of Tasmania	Nursery Swamp Aboriginal Rock Art Site (20th)
September	Iceland geology	Bus trip to Pigeon House Mountain (24th)
October	Orchids	Black Mountain orchids
November	Reptiles	The Big Hole, Duea National Park Campout at Bundanoon
December	Xmas party	To be announced

CONTRIBUTIONS FROM FNAC MEMBERS

Have you seen any interesting plants lately or different birds, or unusual insects? If so, how about writing a couple of sentences for the Newsletter. It's your newsletter, and doesn't require great literary skills to contribute - only a healthy FNAC curiosity for the natural world around us and a willingness to share your observation with other members.

Perhaps you have been to a place that would make an interesting outing for the club. We are always looking for new places to visit, so how about suggesting something?

You can also contribute to our "Show and Tell" segment at meetings - pluck up your nerve and make a short, informal presentation of an item of natural history interest: you don't have to be a David Attenborough to try! No better time to start than next month (and also read on....).

MEMBERS NIGHT

Thursday, 6 July, is members share night, with the spotlight on YOU instead of on the animal in the tree. Members are invited to come along and listen to other members give a short talk - anything from 30 seconds up to 10 or 15 minutes - on a nature related topic of their choosing.

You might be able to upstage Jeffrey Clyde's talk on the sex life of praying mantises, or maybe you can tell us about an interesting place you visited over the last long weekend (even your backyard if its interesting!) or a funny story about all the things that weren't planned for the last camping trip but still happened...

If you would like to contribute, contact Maureen Bell (who is arranging the talk schedule) on 515 837 as soon as possible but in any case before 30 June (volunteer and you won't have your arm twisted!).

All this and more...

There will also be a display table for interesting "objets de nature" and for books. Are you still wondering what that strange blobby thing was that you found under that rock? Or even what the rock was? Perhaps you've recently bought a new book on birds, plants, insects or walks: would

you recommend it, or feel you'd like to point out its limitations? And what has just come into flower in your garden? - bring along a sprig or two. Label the specimens if you can (and put your name in your books!). Any unidentified objects, flying or otherwise, can be identified (we hope) by other members.

....and still more!

Members night will be a different, fun night, even more relaxed and informal than usual, with lots to see, hear and touch. Even taste and smell are catered for (as an added inducement to come along) with a tasty, aromatic supper of cheese and bikkies, gluhwein and fruit juice. Wow, such extravagance!

--- SEE YOU THERE ---

Maureen Bell

REPORTS

Beetles Talk

Jeffrey Clyde

On March 3rd Chris Reid spoke on studying beetles. He began with some details on classification, e.g. beetles are noted for their hard wing covers (called elytra). They pass through "metamorphosis" before reaching their adult form - compare cockroaches whose young resemble the adults right from the first moment. Beetles have chewing mouth parts compared with the sucking mouth parts of bugs (Hemiptera). There are 250 000 species of beetles world-wide, among the best known being the Jewel Beetles, Ladybirds and Christmas Beetles.

How and where do you find beetles? One of the best places is at the Telecom Tower notice boards on Black Mountain - the bright illumination at night attracts large numbers. You can use a net - grab your partner's panty hose and stretch over a coathanger! The professionals set up a mist net barrier with a long narrow tray containing alcohol, for the victims to fall into. Many are found under grass tussocks in winter (where it is warmer). Some fungi which smell like rotting meat attract them, as do eucalypt flowers. Beetles are found in rainforest but not among ferns.

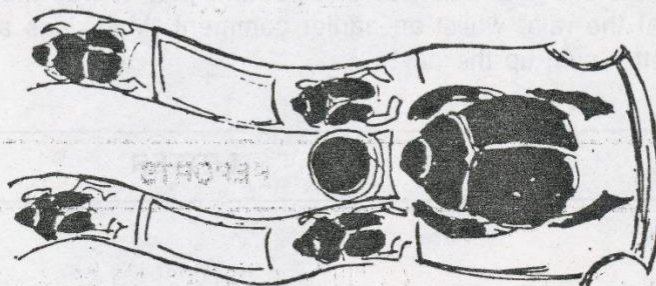
Most of the early specimens collected in Australia are in European museums. The English glued specimens to trays whereas US researchers used pins. These methods often lead to damage, e.g. one type specimen at Oxford had no head or legs. Here in Canberra the CSIRO has a huge collection of beautifully mounted specimens at the Division of Entomology. Chris demonstrated many microscope shots of the anatomy of larvae, taken through an electron microscope. The eggs are attached, e.g. to leaves, in many different ways. Females of the dung-beetle genus (*Scarabeus*) produce six to ten eggs, some leaf-beetles (*Chrysomelidae*) up to 400 and the blister-beetle (*Meloidae*) from 2000-10 000 eggs!

Beetle blood is usually yellowish or light orange. A number of species can squirt it out as a protective measure if disturbed and it may be charged with defensive substances which smell or taste objectionable, or are poisonous or corrosive. For instance, the Spanish Fly, also known as the Blistering Beetle or Cantharis, refers to the dried beetle *Lytta vesicatoria* (*Meloidae*). When applied to the skin it was used as a "counter-irritant" and "vesicant" for such conditions as pericarditis and pleurisy. That is, the material caused such irritation and discomfort (counter-irritation) at a new site that the original pain was forgotten! Carrying the idea one step further the production of blisters (by the application of Spanish Fly) drained the poison away, in the blister fluid, and enhanced the counter-irritation.

Martindale's *Extra Pharmacopoeia* of 1952 states that Cantharides has been employed internally as an aphrodisiac - Chris said it was applied externally "to the parts"! This would "elevate" blistering to an art form! Martindale goes on to say that it is inadvisable to use Spanish Fly

internally as an aphrodisiac owing to its powerful irritant action: "Burning pain in the throat and stomach with difficulty in swallowing, nausea, vomiting colic and bloody diarrhoea" may ensue. Still, one has to "keep up" one's enthusiasm somehow!

The dung-rolling beetle, Scarab, was to the ancient Egyptians a symbol of regeneration and spontaneous creation, as it seemed to emerge from no-where; in fact it came from eggs previously laid in the ground. Seals and amulets in scarab form were thought to possess magic powers. Notice the sketch of the Egyptian scarab necklace below where the large beetle is pushing the disc of the "new sun" (ball of dung) before him.



The walk to Emu Flat that Wasn't

Coral & Murray Dow

April the ninth was in the middle of the extremely wet spell of weather experienced in the ACT, and the twelve brave FNAC members who turned up for the outing to Emu Flat had to be content with an exploratory walk to the slopes of the Gibraltar Range from Woods Reserve by following the forestry tracks, at first through *Pinus radiata* and later in eucalypt forest.

The heavy rain had brought a bonus for fungi fans as there was an amazing number of species to observe. The pine forest, although quiet with birds and not rich in flowering plants, proved to be a good place for fungi. Of interest were those species introduced from Europe and found only where pines are growing. One such species is the Saffron Milk Cap (*Lactarius deliciosus*) which, as the name suggests, is edible. This species forms a symbiotic relationship with pines whereby the mycelia live near the tree roots and absorb sugars from the roots and in turn help the tree to absorb minerals from the soil.

The other species which provided pleasure for many in the group was the Fly Agaric (*Amanita muscaria*). This poisonous species was only known to some members as a toadstool in fairytale books and thus was a first for some! It was seen in all stages of growth including a beautiful bright red specimen complete with white "warts". The base of the stem of the Fly Agaric is enclosed in a volva (cup shaped) which is said to be a sign of a poisonous species. This is certainly a characteristic of another species, *Amanita phalloides* or Death Cap which is found growing under european trees, especially oaks (*Quercus* spp). Many other examples of agarics (fungi with gills) were found including the dainty yellow *Omphalia chromacea* and the red *Mycena viscido-cruenata*. We cannot find a common name for this species, but other *Mycena* species have names such as Pixie's Cap, Pixie's Parasol and Grey Bonnet, which are an indication of their size (most having a cap 1-2 cm across).

Other fungi types found were *Boletes* (those with sponge-like pores rather than gills), *Clavaria* (coral fungi), *Gasteromycetes* (puffballs) and *Thelepores* (bracket fungi).

Although the birds were not as obvious as usual a flock of 37 Yellow-tailed Black Cockatoos made their presence obvious as they headed over the pine forest. Later in the day a large mixed flock of

birds was observed feeding on eucalypts. This flock included Grey Fantails, White-naped and Yellow-faced Honeyeaters, Silvereyes, Striated Pardalotes and Brown and Striated Thornbills. The forest was predominantly a mixture of *Eucalyptus viminalis* and *E. dives*. In some of the wetter gullies *Acacia melanoxylon*, *Pomaderris* spp and the Musk Daisy Bush were growing. A large example of the latter proved to be *Olearia argophylla*. Mistletoe birds were heard, and evidence of their feeding on mistletoes berries (probably *Amyema* spp) was seen in Tidbinbilla valley.

The weather cleared enough at lunch to boil the billy at a rock outcrop and some tried in vain to dry themselves. We later walked at Gibraltar Rocks before returning to Woods Reserve somewhat soggy than when we left. Five people continued into the Tidbinbilla valley and back via Devil's Gap, which we recommend as a good circuit walk. One member who used the day to christen her new gaiters and raingear was heard to remark that "it was more fun than sitting at home all day looking out at the rain" whilst an earlier comment "Mad dogs and field nats go out in the midday rain" may better sum up the day!

LETTER

PO Box 1355
WODEN ACT 2606

Editor
FNAC Newsletter
GPO Box 249
CANBERRA ACT 2601

Dear Editor

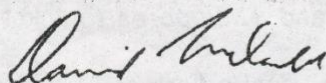
You may find the following note suitable for the FNAC Newsletter.

MORE ON FAIRY RINGS

Readers will recall Jenny Bounds' note in the February 1989 issue of the Newsletter in which she reported on our observation of 'fairy rings' -- mushrooms growing in neat rings -- in the Grassy Creek area of Namadji National Park last Spring. With Autumn now on us, and it being a particularly wet Autumn, the fungus are again evident. This has provided an opportunity to identify the species of fungus involved.

It appears to be *Marasmius oreades*, commonly (and appropriately) known as the 'Fairy Ring Mushroom', a member of the large order *Agaricales*, to which the common table 'Field Mushroom' also belongs. The Fairy Ring Mushroom is excellent, and safe, to eat, having a delicious nutty flavour, not at all like the earthy flavour of the Field Mushroom. It is also said to be a good prospect for drying, as it reconstitutes easily.

Yours faithfully



David McDonald
28 April 1989

WILDLIFE AND NATURE PHOTOGRAPHY**Kay Hahne**

We were extremely privileged to have Mr Graeme Chapman with us on our photo competition night on May 4th. He is very well known in the worlds of both photography and ornithology. Before our own members judged the winning slides and prints, he gave us a very informative talk about cameras, equipment, film, and helpful hints plus showing us examples of good and bad photographs.

I am not a camera buff myself - I just try to frame something nicely and push a button - so I hope I can accurately reiterate some of the important items Graeme mentioned.

First of all he recommends using a simple mechanical camera in lieu of a fancy, expensive, complicated electronic one with everything automatic. One with a good viewfinder which shows a clear picture of what you are looking at. Ideally the eyepiece should focus, but usually they don't. The rangefinder should not have a split image. It is very costly to repair a camera (approx. \$50 per hour), so if you have a relatively cheap one for family photos and it breaks down, throw it away and buy a new one.

Lighting is very important. Unfortunately film is designed for northern hemisphere lighting and not the harsh, bright tropical sunlight of Australia. Here the difference between full sun and shadow is 5 full stops, which means either the shadows are too black or the sunny parts are too washed out. So the rule is to put your camera away on a bright sunny day!! (Certainly not the rule many of us have been following!) It is best to have a soft scattering of white cloud, or the softer light of early morning or late afternoon. Don't always believe the light meter in your camera. It was not meant to measure light at a white wall, or on a light sandy beach, or in bright fields of snow. The standard is an 18% grey card. You can purchase one to carry with you.

Film is also very important. In his opinion the best slide film is Kodachrome 25, but it is difficult to find. It is guaranteed not to fade for 50 years (some others fade away in 10 years or less). Also Kodacolor Gold, Fuji 50 and Fuji 100 are good films. But it depends on who processes the film. If you have professional films it is best to pay more for quality control and not speedy, haphazard developing. Kodachrome 200 is a good fast film for capturing fast movements, and is good for bright light. Ectachrome 100 has the best colour fidelity and is the best film when the subjects are people. The flesh tones are excellent (but this is not applicable to nature photography). Ectachrome 100+ is equal to Fuji 100 and is good with brighter colours. Slow speed film is easier to use, as the exposure is not so critical. The worst enemy is the wind; for movement at slow speeds will cause blurring.

However, more often than not a blurry photo is due to camera movement, not subject movement. This is why a tripod is a must. A hand held camera is simply no good for excellent quality photos. The type of tripod you need depends upon your subject: what sort of terrain do you have to cover - will it be by foot or by vehicle? do you need it to be rugged or light? how low to the ground to you need to get? will you be in water sometimes? is it waterproof? "El cheapo" ones may be lightweight, but are they durable enough? And those plastic knobs will soon crack in the hot sun and fall to pieces. A wooden tripod with metal knobs is ideal.

Some general hints for good photographs are:

- You need the right equipment for the particular task, ie. first you must determine what your subject matter is to be - large, small, moving, still, close up, at a distance?

Don't wander aimlessly waiting for a photograph to happen. You need an objective, a subject in mind.

Know your subject well. Study, read all you can, ask friends, observe at all times of the day and throughout the year. Remember that animals are creatures of habit, eg. feeding or bathing at a certain time of the day. If you've seen it happen once, the chances are good that it will happen again at a similar time on another day (when you have your camera with you!).

If you are going to hand hold the camera, lean up against a wall or a fence, or at least dig your elbows into your body to help steady yourself.

Look at what is in the background - is it too busy, distracting, the wrong colour, etc? Don't take a black bird in a dark shadow, or a white flower peeking through the snow.

In close ups, create a depth of field by focusing on the subject. Then the background clutter will be out of focus.

In animal photography the eye must be in focus - otherwise throw away that photo for the subject will look too "dead".

Get down to the same level as your subject instead of being on top of it.

Try using the vertical format more often - perhaps at a ratio of about 3 horizontal to 1 vertical. Some photos are ruined because good vertical lines are put wrongly into the horizontal format. Vertical format sells well, especially for books.

To be a really good photographer, you shouldn't have to stop and think about what to do - it should be like driving a car or touch typing. An old motto comes to mind - "Practice makes perfect".

Thanks Graeme for making our evening a real learning experience. It gave us some guidelines for choosing the winning photographs in the competition immediately following. We were pleased with the response, but even more photos are needed for next year, especially slides. There are 'certain people' who need some stiffer competition!!

NEWSLETTER

Contributions to the newsletter can be handed in at the meetings or sent to the following address:

Rosemary Purdie
14 Dryandra St
O'Connor ACT 2601.

Deadline for the July newsletter is Friday, 23rd June .
