

FIELD NATURALISTS ASSOCIATION OF CANBERRA



OBJECTS: To foster an interest in, an awareness and an understanding of nature.
PRESIDENT: Rosemary Blemings, Phone 06/258 4724 (h)
SECRETARY: Joyce Weeks, Phone 06/296 2741
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MEMBERSHIP SECRETARY: Bob Ecclestone, Phone 241 4512 (h)

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

FEBRUARY NEWSLETTER - 1997

MEETING: February 6 - **John Womby** from the CSIRO's Wildlife and Ecology department at Gungahlin will present a slide evening on the 'Frogs of Australia'. Bring along a friend and stay for supper and a chat afterwards.

OUTING: Sunday 16 February - **Moonlight Hollow Road, Walk 8 in Above the Cotter** by Ian Fraser and Margaret McJannett. This is described as a pleasant and easy walk of 6.3k with car shuffle. I shall ignore the 90 min walk time as a previous walk described as 40 mins actually took us 2 hours, we looked at everything along the way. Please meet outside 89 Warragamba St Duffy (around the corner from the normal Cotter Road meeting place) at 9 am. Bring all the usual gear, lunch, water, appropriate clothing and shoes. Ring 254 1763 for more details.

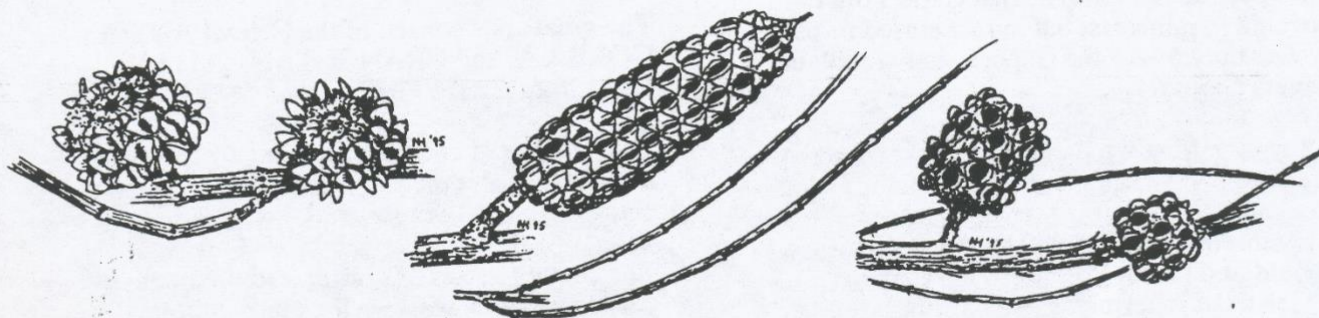
GREENUP DAY - Advance notice Sunday September 14. Bess Sledge asks organisations to devise a practical activity which will raise awareness of the Australian Natural Environment. Any ideas? Please give them to Rosemary Blemings or other committee member.

THANK YOU PAM FENNING for the years of dedicated work at the Natural History Shopfront. Pam has resigned from the rostered volunteers' team.

THANK YOU also to the stalwarts who consistently give to the raffle each week. If you have anything at home that you wish to donate, please bring it along to a meeting. Proceeds from the raffle pay for our contribution to the Natural History Centre.

CASUARINA CONES (She-oaks) in the Dubbo region.
FOOD SOURCE of the Glossy Black-Cockatoos.

Illustrations by Netta Holmes



Allocasuarina luehmannii |

Allocasuarina gymnanthera

Allocasuarina diminuta

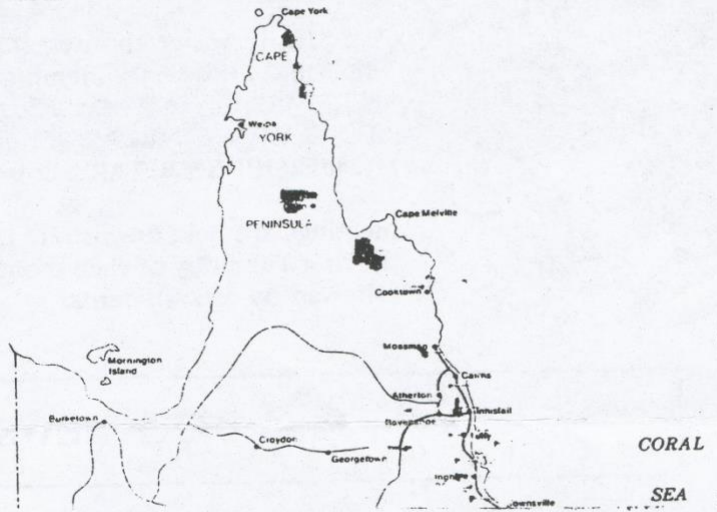
CAPE YORK EXHIBITION at ANBG by Phyl Goddard

An exhibition about Cape York Peninsula was launched on 18 December 1996 by Senator Margaret Reid acting for the Environment Minister. Both she and Dr Peter Bridgewater of Environment Australia Biodiversity Group (ex-ANCA) spoke of the need to conserve the diversity of flora and fauna on the Peninsula and indicated that \$40m from the Natural Heritage Trust (Telstra sell-off fund) is to be diverted to that end.

I attended the launch on behalf of FNAC and the following are a few of the facts gleaned from the exhibition:

- The Foxtail Palm Wodyetia bifurcata was discovered in 1975 and grows only in one small area of Cape Melville NP. The seed is very valuable - attractive to collectors - and the wild population is the target of "eco-pirates". A few seedlings grown at the Botanic Gardens from confiscated seeds were on display.
- Cape York was the most densely populated area before European contact, with several groups of Aborigines; 45 different languages were spoken. Aboriginal and Torres Strait Islanders account for over half of the present population of 18,000.
- There are many species of flora and fauna indigenous to the Cape. Descendants of Gondwanic plants and animals still occur; 41 vertebrates and 250 plants are found nowhere else. Significant wetlands on the west coast provide habitat for waterbirds. There are 168 species of orchid.
- It is popularly believed that Cape York is covered in rainforest but in fact closed forest covers only 6% of the Cape. Other woodland covers about 64%.
- Two well-known parrots are indigenous to the Cape: Australia's largest parrot, the Palm Cockatoo Probosciger aterrimus inhabits riparian forests in the north, and Golden-shouldered Parrot Psephotus chrysopterygius which nests in termite mounds. The latter is now seriously endangered, less than 500 pairs, all on private grazing land. Graziers are

cooperating with scientists to increase its chance of survival.



National Parks - North to South

Jardine River	»»»	Iron Range
Anchor Bend		Rokeby Creek
Cape Melville		Lakefield
Quinkin Nature Reserve		
Cedar Bay		Cape Tribulation
Daintree		Staaten River
Hahn Tableland		Bellenden Ker

ANSWER TO DECEMBER CHALLENGE: WHAT IS THE IMPORTANCE OF BONOBO?

Apes are PRIMATES, and of all primates, they are the closest living relatives to humans.

Two families of apes exist: the Pongidae, or great apes, and the Hylobatidae, or lesser apes. Until fairly recently BABOONS and MONKEYS were also considered apes, and they are still often but unscientifically so called.

The great apes consist of the CHIMPANZEE, GORILLA, and ORANGUTAN, and the lesser apes are the GIBBON and SIAMANG.

Two species of chimpanzee are known: *Pan troglodytes* and the rarer bonobo, or pygmy chimpanzee, *P. paniscus*.

The single species of gorilla is divided into two subspecies: the western lowland gorilla, *Gorilla gorilla gorilla*, and the mountain gorilla, *G. gorilla beringei*.

Only one species of orangutan exists, *Pongo pygmaeus*. (Four or five species of the gibbon genus, *Hylobates*, may be distinguished, according to different authorities, and two species of the siamang genus, *Symphalangus*.)

Apes are the only primates considered hominoid, or humanlike, in various characteristics. In general they are larger than the other primates: - they all have larger braincases, have opposable thumbs as humans do, and are tail-less. Anatomically, gorillas and chimpanzees resemble each other more closely than they do humans, but genetic data suggest that chimpanzees are more closely related to humans than to gorillas. Such data also suggest that gibbons and siamangs branched from the family line leading to humans about 20 million years ago, orangutans about 15 million years ago, and gorillas and then chimpanzees within the last 10 million years.

Appearance

Chimpanzees were described in the December issue of FNAC. The pygmy form, or bonobo, is much smaller and is now recognized as a distinct species.

Gorillas stand up to 1.7 m (5.5 ft) tall with the knees slightly bent. The span of the arms may be as great as 2.7 m (9.0 ft), and the circumference of the chest is often as much as 1.75 m (5.75 ft). An adult male weighs 180-270 kg (400-600 lb). Gorillas have short muzzles, large nostrils, and coarse, black hair. The male has a sagittal crest--a ridge of bone above its eye sockets. Old males have silvery hair on their backs.

The orangutan is about 1.2-1.5 m (4-5 ft) tall. The arms have a span of 2.3 m (7.6 ft). Wild adult males weigh 75-90 kg (165-200 lb). The hair is reddish-brown, and the forehead is sloping and high with no brow ridge. They travel chiefly by swinging through trees by the arms (brachiation).

Gibbons and siamangs are much smaller than the great apes but have relatively longer arms, hands, and feet. The height of the gibbon is about 0.6 m (2 ft) and the weight up to 8 kg (18 lb). The siamang is larger than the gibbon.

Range

Apes live in equatorial Africa and Southeast Asia. Their numbers are in decline. The chimpanzee appears to be holding its own after

having been pushed out of previous ranges. It inhabits tropical rain forests and woodlands in the Congo Basin and elsewhere in tropical Africa. Gorillas also inhabit African equatorial forests. The lowland gorilla is found near the Congo River, usually about 50 km (30 mi) from the coast. The mountain gorilla lives farther east at elevations of 2,300-3,500 m (about 7,500-11,500 ft). The orangutan lives only in Sumatra and Borneo; overhunting and expansion of agriculture have driven it into unsuitable habitats. The gibbon and the siamang are found in the rain forests of Southeast Asia.

Behaviour

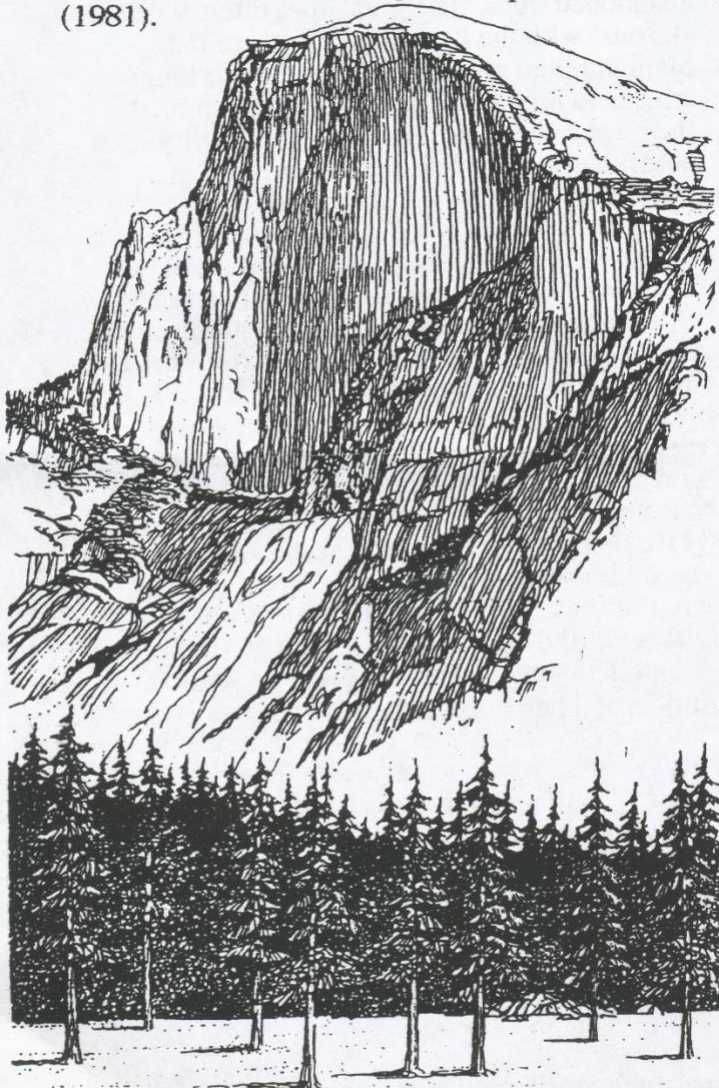
All apes sleep at night. The siamang and gibbon sleep sitting erect on tree limbs, and the other apes make platforms in trees or nests on the ground. Apes are herbivores, although the chimpanzee has been known to kill animals for food. Gibbons and siamangs are the most agile of mammals in the trees, swinging and leaping briskly from branch to branch. Chimpanzees spend more of their time on the ground, and gorillas have almost completely abandoned trees. The great apes often walk on all fours with the knuckles on the ground. Siamangs and gibbons walk with their long arms held high or to the rear. Apes can rotate their arms widely in the sockets, an ability possessed by only a few of the higher mammals.

Apes bear a single offspring or, rarely, twins. In general they have a dangerously low rate of reproduction given their dwindling numbers in the face of human encroachments. Apes travel in family groups of 30 to 40. They live 30 years or more. Siamang and gibbon young cling to their mothers' waists. Orangutans, gorillas, and chimpanzees carry their infants in one arm, much as a human mother does, or place them on their upper backs. Chimpanzees are curious and extroverted, whereas gorillas are cautious. Despite folklore, which has characterised male apes as ferocious, these animals are in fact placid. When threatened, however, male gorillas stand erect, roar, beat their chests, and display other such threatening behaviours. Apes are subject to many of the same diseases as humans. Albinism, Down's syndrome (with accompanying heart defects), and epilepsy have been observed, and both gorillas and orangutans may contract poliomyelitis. Apes may also have heart attacks and strokes. Apes and humans have similar blood types.

Learning and Intelligence

Ape intelligence is second only to that of humans. Chimpanzees and gorillas have demonstrated an ability to master a vocabulary of up to several hundred words in sign language. Some researchers believe that the orangutan is equally intelligent but less inclined to follow directions or to display its abilities to humans. Apes and monkeys are unable to talk because their vocal apparatus is not capable of it. Chimpanzees have been observed using simple tools such as sticks to pry termites out of the ground, leaves to sponge up food and liquid, and boxes to stack and climb upon in order to reach food. Some researchers claim that apes are capable of performing simple mathematical calculations.

Bibliography: Berger, G., *Monkeys and Apes* (1984); Premack, D. and A. J., *The Mind of an Ape* (1983); Savage-Rambaugh, E. Sue, *Ape Language: From Conditioned Response to Symbol* (1986); Tuttle, R. H., *Apes of the World* (1987); Yerkes, R. M., *The Great Apes* (1929; repr. 1971); Zuckerman, S., *The Social Life of Monkeys and Apes*, 2d ed. (1981).



TALL TREES AND WATERFALLS

Sequoia and Yosemite - May 1996
by Kay Hahne

Horst and I started our trip to the States on 20 May with a spectacular 10 days in California with good friends from Santa Rosa. They met us in Las Vegas, Nevada with their roomy van and we had 2 nights at the Carriage House. What a place - you have to go there once to believe it! Not so impressive by day, but does it ever come alive at night with all those millions of lights! Walked, peered, photographed, lunched at the Luxor, took in a night-time show of the Radio City Rockettes at the Flamingo Hilton, lost about \$5 each at the pokies in Ceasar's Palace. By day and by air you realize this glitzy place is smack in the middle of a desert - the southern reaches of the Mojave - very arid and prone to temperatures up to 41°C. Red Rock Canyon National Conservation Area lies just 20 miles west of Las Vegas. The interesting geological sight here is the 13 mile long Keystone Thrust Fault, consisting of grey limestone thrust up and over younger red sandstone 65 million years ago. The red band between the grey was very striking. The Visitor's Center enabled us to identify some of the plants and animals of the area: yucca, Joshua trees, mesquite, creosote bush, prickly pear and barrel cactus, box tortoises, wild burros and though we didn't see any, it was definitely Roadrunner country (beep-beep)! Where's that coyote?

Next we headed for California and north to Sequoia National Park, a protected 156,560 hectares, home of the giant Sierra Redwood or Sequoia *Sequoiadendron giganteum*, a conifer and member of the Bald Cypress family. Pockets of these trees are found on the western slopes of the Sierra Nevada range, between 5-7,000 ft elevation. They grow to a height up to 95 m, with bases 12 m thick, branches 2.4 m in diameter, bark nearly a meter thick and therefore resistant to insects and fire. Nor do they die of old age (some are thought to be over 3000 years old) but instead eventually topple over in a wind storm. The roots are quite shallow, but branch out over an acre. Luckily the trees are quite brittle and snap crosswise in several places along their trunk when they fall, as if neat cross-sections were sliced with a knife, therefore not so good for

lumber. Many individual trees are named, eg. General Sherman - found in the adjacent Kings Canyon National Park and the world's largest (not tallest) living thing with a circumference of 103 feet and height of 275 ft; General Grant was designated the Nation's Christmas Tree by Congress in 1926; General Lee (must represent the South as well as the North!) plus groups such as The Four Guardsmen, The Three Sisters, etc.

Below is a comparison between the Sequoias of the Sierras and the Redwoods of the northern California coast:

Giant Sequoia *Sequoiadendron giganteum*

Occurance: on w. slope of Sierra Nevada
75 groves, all in California
Elevation: between 5,000-7,000 feet
Height: to 311 feet
Age: to 3,200 years
Weight: to 2.7 million pounds
Bark: to 31 inches thick
Branches: to 8 ft diameter
Bases: to 40 ft diameter
Reproduce: by seed only
Seed size: like oat flakes
Cone size: like a chicken egg

Coast Redwood *Sequoia sempervirens*

Occurance: in narrow strip of n. CA coast
Elevation: from sea level
Height: to 367 feet
Age: to 2,000 years
Weight: to 1.6 million pounds
Bark: to 12 inches thick
Branches: to 5 ft diameter
Bases: to 22 ft diameter
Reproduce: by seed or sprout
Seed size: like tomato seeds
Cone size: like a large olive

The name Sequoia is thought to be derived from the Cherokee leader and scholar Sequoyah, born in 1766. He was the first to write down an alphabet and language for the Cherokee nation. Later he taught thousands of his own people to read and write.

Although we mainly saw golden mantled ground squirrels *Citellus lateralis*, Douglas squirrels *Tamiasciurus douglasii*, many Stellar's Jays and American Robins (a thrush in the genus *Turdus* as is the European Blackbird), other fauna found in the area are black bear, mountain lion (also known as

puma or cougar), bobcat, mule deer, grey fox, coyote, pine marten, raccoon, porcupine, skunk, rattlesnake, ticks (may carry Lyme fever) plus native rainbow and golden trout.

Both Sequoia and Yosemite National Parks were established in 1890 by an Act of Congress to save the magnificent giants from being logged and to save the splendor and natural beauty of the wilderness for future generations. Initially Abraham Lincoln reserved the Yosemite area as a California State Park in 1864. Many thanks go to John Muir, a Scottish immigrant who arrived in California in 1868 and who immediately fell in love with the Sierra Nevada. He was a naturalist, conservationist, and crusader for national parks and reservations who hiked extensively in the area with his mule. He did not like to see invasion by cattlemen, shepherds or land speculators. In 1892 Muir and his friends realized that people were the main threat to their beloved wilderness, so the Yosemite Defence Association was formed, which was incorporated as the "Sierra Club", of which Muir was a Charter Member and first President. And thus 100 years ago the fight was on to educate, conserve and preserve.

And thank goodness for that. To me, Yosemite is the most breathtaking, spectacular piece of natural beauty that I've ever seen anywhere in my travels - and all packed into a valley 7 miles long, 1 mile wide and 3000 ft high! We only had a 3-day glimpse, but in the late spring, with the waterfalls gushing after a winter of much snow and the dogwoods in bloom it was marvellous to behold.

We stayed just outside the Park in El Portal. The Merced River flows through the valley and right past our outdoor spa at the Lodge. No doubt there were many degrees difference in temperature between them! So we first entered the Park from the valley floor near El Portal. We saw everything from "ground level" first - looking up at Bridalveil Fall, 189 m (620 ft) with the early morning sun catching the rim from behind, creating a silvery gold halo; looking up at Yosemite Falls - the combination of the Upper Fall 1,424 ft plus Middle Cascade 675 ft plus Lower Fall 324 ft is the tallest falls in the US; looking up at Ribbon Fall 1612 ft - which turns to mist before it ever reaches the bottom. These falls seem to just flow out of the sky, but in reality each is formed as a river plunges over the precipice of a hanging valley. The lower valley of granite has been scoured

Interestingly the Shoalhaven Conservation Society says that the birds are "slow to mature and breed only every second year, producing one egg for a 30 day incubation period, and then feeding the chick for a further year." ² Graham Pizzey in a Field Guide to the birds of Australia has nothing to say on the frequency of breeding. Can anybody clear this up please?

Glossy Black-Cockatoos live in pairs or family groups in eucalypt forest with casuarinas, their favoured food source. 'Chewings' of casuarina cones under trees are a sign that Glossy Blacks have been around. Each breeding pair is thought to require about 4 hectares of casuarinas. They eat the kernel of the nut which is high in protein, and eat only new cones from some trees.² Because of changes to its habitat this species is classified vulnerable (schedule 12) as clearing of casuarina scrub and removal of old dead trees for grazing and crops, has reduced both food and nest sites.¹

Dead and mature eucalypts need to be protected. To encourage growth of hollow-bearing trees for the future, eucalypt seedlings should be fenced. Stands of trees rather than isolated specimens should be allowed to mature to hollow-bearing age, which could be 50 to 80 years. Along the coast Glossy Blacks also nest in eucalypts and angophoras which are 100 years old or more.



1. Dubbo Field Naturalist & Conservation Society Glossy Black-Cockatoo brochure
 2. The New Bush Telegraph Oct 1996
 Shoalhaven Conservation Society
 PO Box 404 Nowra

ODDS'N'ENDS

ACT Birdwatchers Hotline - Ring 247 5530 for a current 5 minute recorded message on meetings, outings, bargains, interesting, rare or migratory birds to be seen in our area. Leave your own message.
Tidbinbilla Nature Reserve - Walks, bird hides, picnic areas. Bookings essential for guided tours. Ring 237 5120 To join Friends of Tidbinbilla ring 237 5120 or collect registration form from Visitor Centre.
Murrumbidgee River Corridor - Ranger guided walks. To book ring 288 4930
Namadgi National Park - Bookings essential for popular walks. Ring 237 5222
Canberra Nature Park - Information Line 290 1057
ACT Government Shop Fronts - changing displays and pamphlets available on topical issues,

NEWSLETTER

Any contributions happily received large or small, reports or pictures, anything that may interest others. Do volunteer to write up meetings and outings.

Contributions can be handed in at meetings to:

Rosemary von Behrens
 121 Springvale Drive
 Weetangera ACT 2614

Telephone 254 1763 (H)** or 2056122 (W)

Deadline for the next Newsletter is two weeks before the next meeting.

FIELD NATURALISTS ASSOCIATION OF CANBERRA Incorporated

The Field Naturalists Association of Canberra was formed in 1981. The aim of the club is to stimulate interest in the natural history of the ACT through regular meetings and field outings. Meetings are usually held on the first Thursday of each month. Field outings are also planned each month and range from day outings to long weekends and camping. The emphasis is on informality and fun. New members are always welcome, especially family groups and young people. Information on activities is circulated in the monthly newsletter. If you wish to join FNAC, please complete the form below and send it with the appropriate subscription to:

The Treasurer, FNAC, GPO Box 249, Canberra ACT 2601

FAMILY NAME: FIRST NAME:
If a family membership, please include the first names of other members of the family

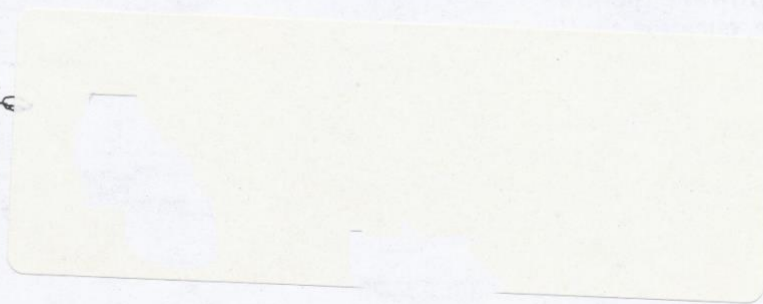
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