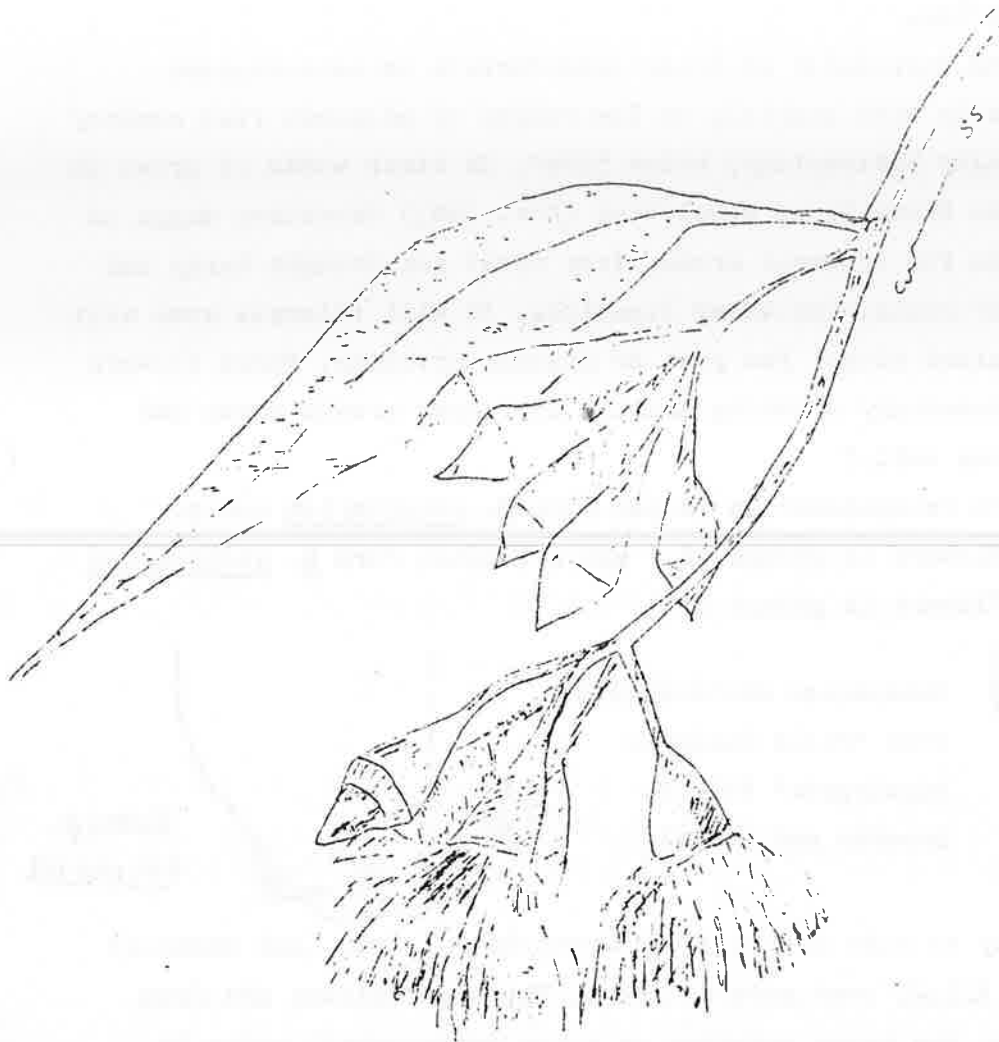


S.G.A.P. BIRDS AND NATIVE PLANTS

STUDY GROUP

Newsletter No. 6 May 1985



EUCALYPTUS SIDEROXYLON

Thanks again to Colleen for her drawing. It is not only us who appreciate Colleen. Colleen won first prize for drawing at the Easter Art Show at Port Macquarie and earnt a lovely cheque. Then in the Wauchope Show Colleen won a 2nd for drawing and a 2nd for 6 duck eggs. Says Colleen "I was really proud of my duck eggs and won 50cents." Congratulations to Colleen (and to her ducks).

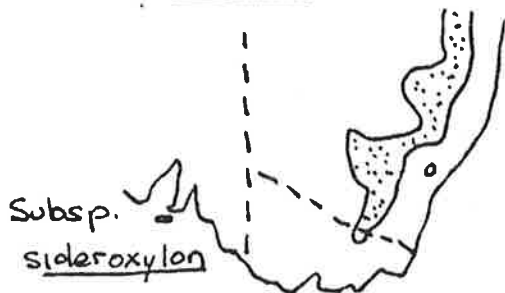
EUCALYPTUS SIDEROXYLON

Sideroxylon means "iron wood". The colour of the sideroxylon flowers may vary: white, cream, pink and red forms exist and so "mugga" is perhaps a more appropriate name for this tree than "red-flowering ironbark".

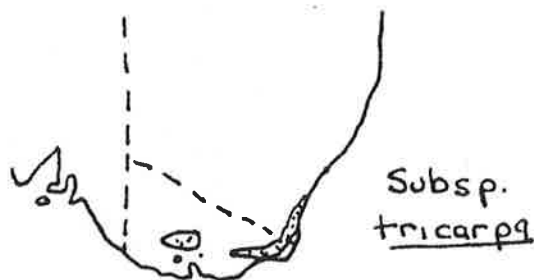
Mugga is a medium to large tree reaching up to 20m at maturity. Its typical ironbark trunk is deeply furrowed and a striking black colour. All but the smallest branches are covered by furrowed bark. Foliage is a dull grey-green; flowering extends from winter into spring.

Mugga is found growing "typically in drier open-forests on well-drained skeletal soils (often gravelly with quartz); on low ridges or adjacent flat country in undulating terrain (usually sedimentary) below 550m". In other words it grows in poorer areas. The Eucalyptus Study Group Newsletter (Nov. 1983) describes mugga as being "Probably not suitable for tropical areas. Very frost and drought hardy and adaptable to a wide range of soils, including limestone. It will tolerate some salt spray, but prefers well-drained sites. Few pest or disease problems. First flowers at about 4 years old. Supplementary watering usually increases growth rates and flowering intensity. Coppices well."

Two forms of mugga are recognised: an inland form E. sideroxylon subsp. sideroxylon which carries flowers in groups of 7 and a coastal form E. sideroxylon subsp. tricarpa which has flowers in groups of 3.



Subspecies distribution
from 'Field Guide to
Eucalypts' Vol. 1,
Brooker and Kleinig



We had the opportunity to make sporadic observations of birds (and mammals) utilising mugga near Bega, N.S.W. over several years. The observations are from trees in a bushland setting, the trees occurring on a dry sclerophyll ridge in Mimosa Rocks National Park. Put together the observations tell a story of many species interacting with the mugga in a variety of ways:

<u>BIRD</u>	<u>Activities recorded between July 1979 and August 1982</u>
Yellow-faced honeyeater	Probing flowers
	Hawking about live foliage
New Holland honeyeater	Probing flowers
White-naped honeyeater	Pecking at live foliage
	Probing flowers
Eastern spinebill	Probing flowers
	Probing flowers of the mistletoes <u>Muellerana eucalyptoides</u> and <u>Amyema miqueli</u> in the mugga
White-eared honeyeater	Pecking at live rough bark
	Pecking at live leaves and at trunk
Brown-headed honeyeater	Pecking at small live branches

BIRD

Activities recorded between July 1979 and August 1982

Spotted pardalote	Pecking at live foliage and at small dead branches
Striated pardalote	Pecking at live foliage
Mainland silvereye	Pecking at live foliage and at small, live branch
Crimson rosella	Pecking off flower with bill, holding in one foot, chewing and then dropping it
	Chewing green flowers and young shoots
Yellow robin	Pounce to burnt but live rough bark
Jacky winter	Snatch from live leaf
Golden whistler	Pecking at foliage and branches
	Snatching from live foliage
Grey shrike-thrush	Pecking at live foliage and trunk
Grey fantail	Sallies within foliage and near trunk
Brown thornbill	Pecking at live foliage
Striated thornbill	Pecking at live leaves, flowers and at young curled leaf extracting cobwebby material
Buff-rumped thornbill	Pecking at live foliage and branches
Varied sittella	Pecking at live rough branches
White-throated tree creeper	Pecking at live trunks and branches
Red-browed tree creeper	Pecking at live branches
Bell miner	Probing flowers and pecking at live leaves
Little lorriakeet	Feeding at flowers
Rainbow lorriakeet	Pecking and licking at flowers
King parrot	Pecking flower, chewing into side of it and then dropping it
White-bellied cuckoo-shrike	Pecking at live foliage
Rufous whistler	Pecking at live foliage
Red wattlebird	Probing flowers

And in July-August 1979 the mugga flowering was particularly prolific. At that time the brush-tailed possums, yellow-bellied gliders, sugar gliders and feathertail gliders were all observed visiting the flowers at night.

So, the mugga can be the centre of quite a bit of activity. The pink and red flowering forms are particularly attractive in the garden provided you have plenty of space. Being hardy it makes a good street or park planting but again it's size at maturity should be considered before planting.

A NEW LEADER

Would you like to be the new leader? Time seems to be getting away from me and leaving me behind lately so if you would like to take over as leader please speak up.

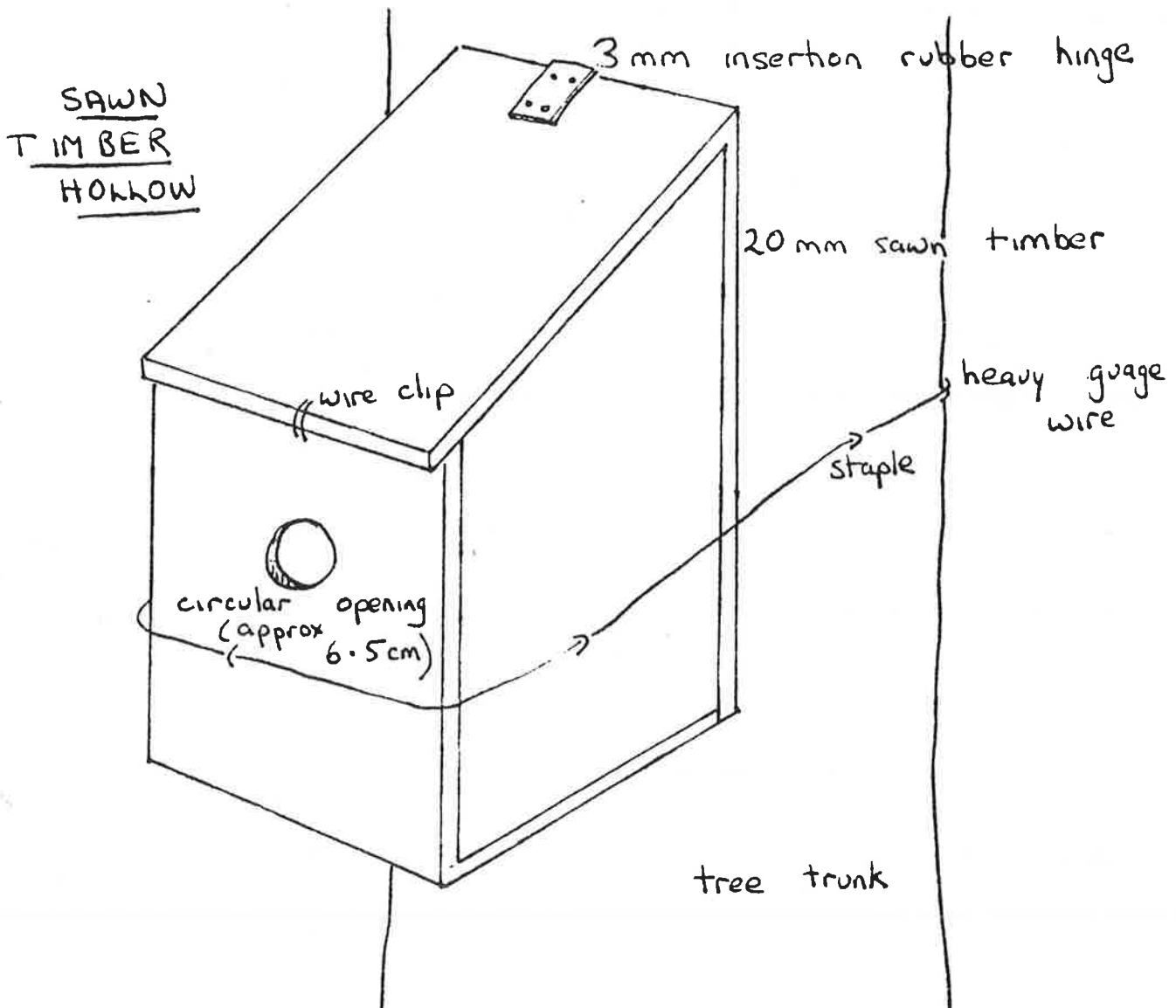
A number of Australian mammals, birds and reptiles use hollows as shelter and nesting sites. Cockatoos, parrots, rosellas, shrike-thrushes, pardalotes, kookaburras and owls as well as Indian mynas nest in hollows.

The process of hollow formation is undoubtedly a lengthy one. Estimates of the age at which eucalypts start to form hollows vary from 50 to 140 years. Different eucalypt species may vary in the age at which they start to form hollows and also in their tendency to do so.

Looking about the suburbs we have very obviously reduced the numbers of hollows. In forests where harvesting is carried out at intervals less than that required for hollow formation hollow reduction also occurs.

Any old hollow will not do any old bird. Birds have specific requirements or preferences regarding such matters as hollow entrance diameter, internal hollow diameter, shape of hollow, height of entrance above the base to mention a few.

In the absence of suitable natural hollows birds may use artificial hollows. There are no good instructions as how to make and place your own hollow - insufficient is known of the specific birds requirements. The following design was used in a study "Use of Artificial Hollows by Mammals and Birds in the Wombat Forest, Daylesford, Victoria" by Barry Golding. This particular hollow was used by the crimson rosella, owlet nightjar, white-throated tree creeper, sugar glider, feathertail glider, ringtail possum, Stuart's antechinus, forests bats and the tuan.



To illustrate some ways in which birds may use hollows I include the following table from Barry Golding's study:

NATURE OF USE OF ARTIFICIAL HOLLOWES BY BIRDS

<u>Species</u>	<u>Evidence in the Hollow</u>	<u>Presumed function of the hollow</u>
<u>Crimson rosella</u>	Hole pecking. Detachment of material from inside walls. Shredding of previous nests or debris. Cup prepared for egg laying. Chick droppings not removed.	Selection and maintenance of site well in advance of the time of egg laying for resident pairs. Seasonal nesting; one clutch per year.
<u>White-throated tree-creeper</u>	Addition of large amounts of fine stringybark, with lichen attached; lined with animal fur. Cup prepared for eggs. Chick droppings removed from nest. Droppings accumulate below roosts.	Seasonal nesting; one clutch per year. Seasonal nocturnal roosting.
<u>Owlet nightjar</u>	Addition of a thin layer of dead leaves and/or bark, without cupping or lining for eggs. Initial chick droppings placed to the side; subsequent chick droppings accumulate in the nest. Droppings in roost sites only in creche roost sites or when disturbed.	Seasonal nesting; at least two clutches attempted per year. Roosting all year round. Seasonal use as creches for recently fledged chicks.

The provision and use of artificial hollows is at this stage very much a matter of trial and error. Birds and mammals tend to choose a hollow whose entrance allows a tight fit. This may be a result of competition and avoidance of predators.

In areas where natural hollows have been removed or reduced in number then provision of artificial hollows could help maintain hollow-dependent species in that area. It may also be however that some species require mature trees not only to provide them with hollows but also to provide them with food.

Have you experimented with artificial hollows, have you had any successes? Failures no doubt greatly outnumber successes; if you have had failures have you any ideas as to why?

The Rainbow Lorrikeet (*Trichoglossus haematodus*), with its spectacular plumage of red and yellow, blue and green, is one of the most brightly coloured of all birds. It was the first Australian parrot to be painted - in Peter Brown's "New Illustrations of Zoology" in 1774 - and it remains a great favourite.

The species is widely distributed throughout eastern Indonesia, New Guinea the western Pacific and Australia. There are two forms in Australia: the typical Rainbow Lorrikeets of eastern Australia, and the Red-collared Lorrikeets of northern Australia.

Rainbow Lorrikeets are primarily birds of the coastal lowlands, though in Qld and northern N.S.W. they are not uncommon in mountainous regions as well. They frequent most timbered areas, including coconut palms on islands off the Qld. coast and mangroves. They also regularly visit heathlands to feed at flowering Banksia and Xanthorrhoea.

Rainbow lorrikeets are usually seen either flying very swiftly and directly, high overhead, or feeding amongst tree blossoms. In spite of their gaudy plumage, they can be surprisingly difficult to locate amongst the foliage. It is generally their calls that attract attention, for they are continually screeching and chattering. Whilst feeding greedily they may remain oblivious of observers. They gather together at night at their roost trees. At dawn they disperse to their feeding areas.

Movements are governed by the flowering of their food plants, In the south, particularly, they travel widely in search of blossoms and at times completely desert an area.

In eastern Australia Rainbow Lorrikeets breed from August to January. The nest is in a hollow in the trunk or limb of a tree, typically a eucalypt. Two, or sometimes three, eggs are laid on wood dust at the bottom of the hollow. Incubation takes about four weeks and it is only the female that incubates, although the male usually roosts in the nest hollow at night. Both parents feed the chicks, which leave the nest about eight weeks after hatching.

Pollen and nectar constitute about 87% of the Rainbow Lorrikeets diet, particularly in autumn and winter. At other times of the year, they feed also on soft fruits, seeds, young leaves and buds, and occasionally on insects and their larvae. Listed below are plants known to be important food sources in eastern Australia (from: Forshaw, 1981, 'Australian Parrots'; Cannon, 1984, *Emu* 84:16-22; and personal observations).

Flowers

Eucalyptus drepanophylla, E. gummifera, E. intermedia, E. longifolia, E. maculata, E. pilularis, E. platyphylla, E. propinqua, E. robusta, E. seeana, E. sideroxylon, E. tereticornis, E. viminalis, Amylothea dictophleba, Banksia integrifolia, Bletharocarya involucrigera, Callistemon salignus, C. viminalis, Costanospermum australe, Casuarina sp., Cocos nucifera, Erythrina indica (introduced), Grevillea robusta, Lonicera sp., Melaleuca quinquenerva, Persoonia corriflora, Schefflera actinophylla, Tristania conferta, Xanthorrhoea sp.

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LIST OF MEMBERS

Bob Bannon, Bray Park, Qld, 4500
Robyn Bigg, Castle Hill, NSW 2154
Martin Bouman, Ermington, NSW 2115
Norm Bone, Kialla, Vic 3631
Robyn Cummings, Umina, NSW 2257
Margie Cowan, St. Ives, NSW 2075
Bill De Belin, Winston Hills, NSW 2153
Wendy Evans, Adamstown heights, NSW 2289
Foothills Group SGAP
Jan Gorrie, East Malvern, Vic 3145
Janet Houghton, Roto, NSW 2745
Mrs E. Jeffreys, Canterbury, Vic 3126
Ida Jackson, Kingscote, SA 5223
Martin Kaveny, Rosebank, NSW 2480
Janet Lawson, Auburn, NSW 2142
Broondah Group SGAP
Val McConchie, Emerald, Vic 3782
Val Maher, Cranbourne South, Vic 3977
Plant Sciences Library, National Botanic Gardens
Jenny Rich, Eastwood, NSW 2122
Judy and Peter Smith, Blaxland, NSW 2774
Lola Smith, Mt. Riverview, NSW 2774
Shepparton and Districts SGAP
Sgap Canberra Region
Sutherland Group SGAP
Gail Thomas, Eastwood, NSW 2122
Margaret Tomalin, Springwood, NSW 2777
Victoria Region SGAP
Colleen Werner, Kinross, NSW 2446
Jo Walker, Queanbeyan, NSW 2620
Joan Wallace, Beecroft, NSW 2119

NEXT NEWSLETTER

The next newsletter will be in September. The bird of the newsletter will be the YELLOW ROBIN and the plant the Lilly Pilly ACMENA SMITHII.

If you can shed any light on these, or any other matter of interest please contribute by August 20.

Judy Smith
44 Hawkins Pde
Blaxland 2774

Fruits and seeds

Ficus sp., Morus nigra, Schefflera actinophylla, Shinus areira (introduced),

Solanum sp.

They also feed on mangoes, apples, pears and unripe maize and sorghum grains.

Leaves and Buds

Acacia saligna, Banksia integrifolia, Eucalyptus intermedia, Macaranga tanarius, Melaleuca quinquenervia

Rainbow Lorrikeets will also feed readily on bread soaked in a diluted honey solution. The large flocks fed each day at Currumbin in southern Queensland are a well known tourist attraction. The birds are commonly seen in urban parks and gardens. They are a delightful, if noisy, addition to any garden.

"FEEDING AND HUNTING".....According to Peter Smith

FEEDING ACTION

- Peck: take food off the surface of the substrate
- Probe: extract food from within the substrate
- Prise: pull the substrate apart to obtain food
- Hammer: rapid, repeated pecking or probing
- Hover: take food from the substrate while hovering beside it
- Pounce: fly from a perch to a substrate, catching prey after alighting
-flight short (less than 1m) or long (greater than 1m)? up, down or across?
- Snatch: fly from a perch to the substrate, catching prey after alighting
without alighting - flight short or long? up, down or across?
- Sally: fly from a perch into the air to catch a flying insect - flight short or long? up, down or across?
- Hawk: catch flying insects while in flight - flying up, down or across?
- Dash: quick movement across the substrate to catch prey - short or long dash?

HUNTING METHOD

- Flitting: moving rapidly over the substrate, which appears to be only briefly examined, the birds depending on insects being flushed
- Searching: moving more slowly and deliberately over the substrate, searching more thoroughly
- Locking: moving from perch to perch, locking around briefly at each one
- Watching: staying at the one perch and locking around