

The NORTH QUEENSLAND NATURALIST CAIRNS

Journal of

NORTH QUEENSLAND NATURALISTS CLUB
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OBJECTS: The furtherance of the study of the various branches of Natural History and the preservation of our heritage of indigenous fauna and flora.

MEETINGS: Second Tuesday of each month at Oddfellows Hall, Lake Street, 8.00 p.m.

FIELD DAYS: Sunday before meeting. Notice of place and time given in 'Cairns Post'.

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Each Author is responsible for the opinions and facts expressed in his or her article.

THE SHY AUSTRALIAN WATER RAT

The Australian water rat (*Hydromys chrysogaster*) is a native Australian creature of which most people know little. I must admit, before coming to North Queensland two years ago and meeting my husband who is studying diseases of feral rodents, I had never heard of, or ever seen a water rat, even though in Tasmania where I come from, they are common along the drainage systems from the highland lakes to the rivers, lagoons, swamps and seashore.

A shy creature, the water rat hides by day and emerges under the cover of darkness to hunt for food. This would explain why we had never sighted one on our many bushwalking trips around the state. He is a carnivore and feeds on shrimps, prawns, small fish, and sometimes even lizards and small birds. One very observant person in North Queensland observed water rats collecting mussels from the rocks and was interested in the means the rat used to prize the shell open, but the rats left the mussels on the rocks in the hot sun until the heat caused the mussel to open his own shell.

An adult water rat is about the size of a small cat. He has a beautiful coat of fur, which is brown and sparsely tipped with golden yellow on the back, and heavily tipped with the same golden colour on the flanks and belly.

The animal used to be trapped in large numbers and the fur pelts exported to countries such as South Africa, where fur coats were made from the beautiful skins, but it is now fully protected in most states. There is an annual open season during the winter months in Tasmania, but the numbers taken in recent years has not been great. The long tail is white tipped and the feet are webbed, which make him an excellent swimmer, as the hind feet are also used as paddles, which propel him speedily through the water.

A very stealthy creature, the water rat can move silently over the rocks and is often responsible for stealing a fisherman's bait, or even his catch of fish.

My husband John was interested in trapping a few water rats as they are sometimes known to carry the disease *Toxoplasma*. *Toxoplasma* can in rare cases be transferred to humans, and can have serious consequences if contracted by a pregnant woman, causing her to abort or give birth to a deformed baby.

We never had any trouble catching water rats around the waterfront in Townsville, using wire spring door traps and prawn heads as bait. Early in April we caught a large female rat, and were surprised three days later when she gave birth to three beautiful baby water rats. Our surprise was due to the fact that most of the literature we had read on water rats has said the breeding season was mainly in spring and summer. One book even stated 'during the late summer, autumn and early winter the female water rats are anoestrus'.

The babies were approximately three inches long and weighed about three quarters of an ounce. They were blind and hairless, and had smooth dark brownish black backs and pink abdomens. The pigment was missing from the tip of the tail, and this would later on give the characteristic white tipped tail appearance. The female water rat has two pairs of teats which are situated inguinally, and the average litter size is two or four. Our babies began to suckle very soon after birth.

On about their fourth day, the babies began to grow a few hairs on their backs, and by the end of the first week each had a sleek short black coat of fur. Small teeth began to appear at seven days, and the eyes opened after about two weeks.

We fed the mother rat a varied diet containing roast chicken, cooked and uncooked fish, raw meat and prawns. I observed the baby rats attempting to chew some raw meat eighteen days after birth, but the mother rat continually pushed them away from the meat with her hind foot. At this time they also began to lick at the dish of water, although they still suckled from their mother. Typical of any young animal the baby rats became very playful with each other, and curious of their surroundings.

The female rat is a very protective mother, and any time we got too close to the cage she quickly ushered her youngsters to the back of the cage, and growled a warning to us not to go any closer.

The water rat is capable of an independant existence at about thirty five days of age, and when our litter had reached this age they were released.

ROZANNE GLAZEBROOK.

SOME OBSERVATIONS ON BIRDS AROUND ARMIDALE, N.S.W.

We have recorded 107 species of birds on our small property just outside Armidale in the three years we have been keeping notes, and this year, in an area of about 3 acres, 14 species of birds have built 29 nests. Previously the area was part of the territory held by Noisy Miners but, with the retreat of these pugnacious birds and a favourable season, many birds nested close together in an open forest area which has a dense ground cover of native grasses and herbs.

Five female Rufous Songlarks were observed foraging in the grass and feeding their young while only one or two males were seen in the area. The Songlark nests were in dense grass and were about 10cm across, cup shaped, made from bark of the yellow box (*Eucalyptus melioidera*) and lined with fine grass stems. Many male White-winged Trillers were seen competing for territories and two succeeded one pair nesting 8 metres up in a completely dead tree, the other in a dense clump of leaves about 3 metres above our driveway. These songlarks and trillers produced most of the birdsong this season.

A pair of Orange-winged Sittellas built but abandoned a nest in the dead tree, after raising two previous clutches in two other nests nearby. The second of these was close to the nest of a pair of Fuscous Honeyeaters peacefully nested near the trillers and also near the nest of a pair of White-naped Honeyeaters, high in the dense canopy of a yellow box tree.

A pair of Dusky Woodswallows built an unusual nest - an untidy bundle of twigs among a few small branchlets about 5 metres up and proceeded to attack the pair of Black-faced Cuckoo-shrikes who had built in their tree two weeks previously. They also attacked the Willy Wagtail and Restless Flycatchers nesting nearby. Other woodswallows in the area have attacked many birds from Little Eagles and Brown Goshawks to Eastern Rosellas and Hooded Robins.

Two nest raids were noted in the area: a Noisy Friarbird tore apart the newly finished nest of a Fuscous Honeyeater and used the material in its own nest. That particular pair of Noisy Friarbirds raised one young but another pair half a mile away lost two fledglings on consecutive days to a male Brown Goshawk. No wonder goshawks receive a hostile reception from friarbirds and other species. One of the trillers nests was pulled apart by a Black-faced Cuckoo-shrike immediately after it was vacated by the fledglings, this nest material being just dropped to the ground.

Four nests of Diamond Firetails were seen in this area but only two were used. All were in the tops of eucalypt saplings about 3 metres tall and were composed of grass with significant amounts of yellow daisy plants. Other pairs have built nests in clumps of mistletoe high in large trees.

One pair of Restless Flycatchers raised two young in their first nest but abandoned two later nests. Similarly a pair of Willie Wagtails abandoned their second nest in the area, having raised three young in their first nest.

In the Season, one pair of Welcome Swallows built two nests under the eaves and raised a brood of three in each nest.

A pair of Hooded Robins built a nest less than a metre off the ground in the fork of a small sapling but the nest was destroyed by an unknown agent soon after two large olive green eggs were laid. The pair stayed in the area for some weeks after this but now are gone.

The season ended abruptly as the dry December gave way to an even drier January and by early February only the finches are still feeding nestlings.

The following 55 species of bird were observed breeding in the Armidale area during the season.

Birds seen breeding in the Armidale District 1974/75 session.

Coot *
 Horsfield Bronze Cuckoo *
 Black-faced Cuckoo-shrike**
 Black Duck **
 Musk Duck
 Wood Duck *
 Little Eagle *
 Grey Fantail **
 Doublebar Finch **
 Gold Finch
 Brown Flycatcher *
 Satin Flycatcher *
 Restless Flycatcher*
 Noisy Friarbird **
 Tawny Frogmouth **
 Brown Goshawk **
 Little Grebe *
 Crested Grebe *
 Whitefaced Heron *
 Fuscous Honeyeater
 White-naped Honeyeater **
 Yellow-faced Honeyeater **
 Sacred Kingfisher. **
 Magpie **
 Fairy Martin **
 Tree Martin *

** Mistletoe Bird
 * Dusky Moorhen
 Eastern Striated Pardalote
 Red-rumped Parrot
 ** Pee Wee
 * Pipit
 ** Spurwing Plover
 ** Hooded Robin
 Scarlet Robin
 * Crimson Rosella
 Eastern Rosella
 Orange-winged Sitella
 Rufous Songlark
 ** Sparrow
 Starling
 * Pied Stilt
 ** Welcome Swallow
 ** Eastern Swamphen
 ** Black Swan
 * Yellow-tailed Thornbill
 White-throated Tree Creeper
 ** White-winged Triller
 Speckled Warbler
 ** Rufous Whistler
 ** Dusky Wood Swallow
 Blue Wren

PETER METCALFE.

** These birds are known to breed also in North Queensland.

* These birds occur in North Queensland. Ed.

AUSTRALIAN FISHERIES, Sept. 1975 reports the death in Sydney on July 17 of GILBERT P. WHITLEY, former Curator of Fishes at the Australian Museum. ..

Mr. Whitley, who was aged 72, emigrated from England in 1921 and joined the Australian Museum the following year. He retired in 1964, but as an Associate of the Museum he continued an active role there. He worked throughout Australia and New Guinea and took part in more than 80 collecting expeditions, and was recognised as a world authority on sharks.

Mr. Whitley was also a valued member of our Club and over the years wrote several articles for this journal. News of his death has been noted with sincere regret.

EMBEDDING INSECTS & OTHER SPECIMENS IN CLEAR PLASTIC, by M. S. Moulds, published by Australian Entomological Press, 14 Chisholm Street, Greenwich, N.S.W. 2065. Price \$2.00 plus 30c postage.

Quoting from Introduction: "The process described here enables specimens to be embedded in clear plastic blocks, thus allowing good visibility even with the use of a microscope, while the specimen is protected from damage." Straight forward directions are given for the treatment of both dry and "wet" (fleshy) specimens. A book most useful for teachers and students of biology.

THE ORIGIN OF GENERIC NAMES OF QUEENSLAND RAINFOREST TREES, Part II
BY JAMES A. BAINES.

ERRATA: In the first instalment of this series (N.Q. Nat 166) the genus *Acronychia* is in the family Rutaceae, not in Cunoniaceae.

EDITOR'S NOTE: Letters inserted before certain names -

STCN= Standard Trade Common Name

PCN = Preferred Common Name (likely to become the standard name).

Aleurites Gk aleuron, wheaten flour; referring to the mealy substance with which the plant is covered. There is one native species in n.e. Q., *A. moluccana*, Candlenut. Tung Oil is obtained from *A. fordii*, and Japanese Wood-oil from *A. cordata* Fam. Euphorbiaceae

Alphitonia. Gk alphition, barley meal; in reference to the dry, mealy quality of the fruit pulp or mesocarp of these tall trees. *A. petriei* is White-leaf, White Ash, Red Ash, or Red Almond. STCN Pink Ash. Fam Rhamnaceae.

Alstonia. Named by Robert Brown after Dr. Charles Alston (1685-1760), professor of botany, Edinburgh University, 1716-1760. *A. scholaris*, White Cheesewood or so-called "Milky Pine", is not coniferous, but in family Apocynaceae.

Amorphospermum. Gk amorphos, without form; sperma, seed; from the shape of the single seed within the black, globular fruit. *A. antilogum* F. Muell. (1869) was placed in *Lucuma* by F. M. Bailey (1900), and in *Chrysophyllum* by Vink (1958). Vernacular names are Brown Pearwood and Silky Hornbeam. Sapotaceae. Accepted synonym is *Chrysophyllum antilogum* - STCN Plum Boxwood.

Anopterus Gk ana, upward; pteron, wing. There are only two species in this Australian endemic genus, *A. macleayanus* (s.e. Q. and n.e. N.S.W.) - STCN Anopterus - and *A. glandulosus*, Tasmanian Laurel. Fam. Escalloniaceae.

Antirhea. Gk. anti, against, opposite, rhea, flow. A.L. de Jussieu published the name given by Commerson, who may have been referring to a streamside habitat, rheos meaning stream (because it flows). Two species, fam. Rubiaceae.

Aphananthe. Gk. aphanes, invisible (from phanos, light); anthos, flower, alluding to the small flowers. (*a. philippinensis* is Q. "Native Elm", better called Axe-handle Wood or - STCN Grey Handlewood. Fam. Ulmaceae (from Ulmus, elm genus).

Apodytes. Gk apo, away from; dytes, burrower: presumably because the roots spread away from the base of the trunk, which is not buttressed; often coppice shoots and many branches arise from base of stem. *A. brachystylis* - STCN Buff Alder. Family Icacinaceae.

Araucaria. From Arauco, a province of central Chile, where the Monkey Puzzle Tree, *A. araucana* (syn. *A. imbricata*), was first discovered and is known as araucanos, as are the Indian tribesmen originally inhabiting the region. *A. cunninghamii*, Hoop Pine, and *A. bidwillii*, Bunya Pine or Bunya Bunya, are Q. species, commemorating respectively Allan Cunningham (1791-1839), Kew collector, explorer, Colonial Botanist and Superintendent of Sydney Botanic Gardens, and John Carne Bidwill (1815-1853), Director of Sydney Botanic Gardens from 1847. Fam. Araucariaceae, which includes the kauri pines.

Archidendron. Gk archi, first in time, primitive; dendron, tree. The prefix archi- can also represent archos, a chief (first in importance). Mueller named the genus, which is in family Mimosaceae. One of the N.Q. species is known as Salmon Bean

Archontophoenix. Gk. archon, archontos, a chieftain; phoenix, the date palm (*P. dactylifera*), from phoinix, purple-red; alluding to the majestic appearance of these palms. *A. cunninghamiana*, Bungalow Palm- PCN Piccabean Palm- is a Q. species. Palmae.

Argyrodendron. Gk. argyros, silver; dendron, tree; alluding to silvery sheen on underside of leaflets. *A. trifoliolatum* has many common names including Booyong, Hickory, Stave Wood, Crowsfoot Elm, Silky elm, Brown Oak and-STCH Brown Tulip Oak. Sterculiaceae.

Arytera. Gk. aryter, a ladle or cup; alluding to the concave valves of the fruit. *A. lautererana*, Corduroy Tamarind, has sapwood with a wrinkled surface resembling corduroy cloth, and fruit with pulp resembling tamarind in flavour, *Tamarindus* being in family Caesalpinaceae whereas *Arytera* is in Sapindaceae.

Atalaya. Gk. atalos, delicate. *A. virens*, whitewood, is Q. species. Sapindaceae.

Atherosperma. Gk ather, awn; sperma, seed; referring to the hairiness of the seeds. *A. moschatum*, Southern Sassafras, is common in rainforests of V. & N.S.W., and only reaches Q. in the Macpherson Range, close to the border where the related *Doryphora sassafras*-STCN yellow Sassafras-also occurs. Monimiaceae.

Austromuelleria: When C.T.White, Q. Government Botanist, wished to name this monotypic proteaceous genus after Baron von Mueller, he could not call it *Muelleria*, which was already a valid genus set up by Linnaeus' son (also Carl) for some Mexican and South American leguminous plants, so he prefixed Austro- to show that the Australian or 'southern' Ferdinand Mueller was honoured, not the earlier German botanist, J.Mueller of Aargau. White did the same thing in naming *Austrobaileya* after Frederick Manson Bailey, his illustrious predecessor, as *Baileya* was a valid genus of American composites. *Austromuelleria trinervia* is known as Mueller's Silky Oak.

Austromyrtus Q.'s species were originally described as *Myrtus*, derived from myrtos, the Greek name for myrtle, but were transferred to a new genus in 1941 by Burret, who prefixed Austro- because it is an Australian genus with close affinity to *Myrtus*. The best known species is *A. acmenoides*, Ironwood or PCN Scrub Ironwood. Fam. Myrtaceae.

Backhousia. After James Backhouse (1794-1869), a nurseryman who became a Missionary Friend (Quaker). He made noted journeys for this purpose in Tas., N.S.W & S.A., botanizing as he went. He published 'Esculents of Van Diemen's Land', and there is a 2 volume MS. 'Flora of N.S.W.' at Kew, where director, Hooker, named this genus after him. *B. arisata*, Ringwood or Aniseed Tree and *B. Citriodora*, Lemon Ironwood, - STCN Lemon-scented Backhousie - are 2 of at least 5 species in Q.Fam. Myrtaceae.

Baileyoxylon: Named after F.M. Bailey, author of 'The Queensland Flora' and 'Comprehensive Catalogue of Queensland Plants', with the Gk word -xylon, wood, added. C.T. White was the author of this name too. *B. lanceolatum* is an endemic monotypic species. Fam. Flacourtiaceae.

Balanops: Gk balanos, acorn; opis, appearance; because the brown, oval or globular fruits reminded Baillon, who named the genus, of acorns. There are 2 Q. species, including *B. australiana*, Pimpley Ash - STCN Pimplebark. Fam. Balanopsidaceae.

Baloghia: Named by Endlicher after Dr. Joseph Balogh. *B. lucida* - STCN Scrub Bloodwood - or Ivory Birch, is one of two Q. species. Fam. Euphorbiaceae.

RHODODENDRON LOCHAE F. v. M.

The genus *Rhododendron* occurs naturally in various regions throughout the world, but the places where it grows best are in the high mountainous areas of northern India, Northern Burma, Tibet and western China; subtropical regions with both high altitude and high rainfall.

A subgroup of the genus, the section *Vireya* or Malesian rhododendrons, grows mainly in mountainous regions of Malaya, Indonesia, Borneo and Papua-New Guinea, but with a few out-lying species, one of which, *Rhododendron lochae*, grows in the mountains of North Queensland.

In July, 1855, A. C. Gregory's North Australian exploring expedition in search of Leichhardt had as botanist Baron Ferdinand von Mueller. When von Mueller saw the rugged outline of Mt. Bellenden-Ker he speculated whether rhododendron, vaccinium, and quercus, which are plant forms characteristic of cool Malayan sylvan regions, would be found thereon. Subsequently Messrs. Sayers and Davidson, in 1887, first ascended the mountain and found a rhododendron and a plant closely allies to vaccinium.

In the Victorian Naturalist of March 1887, von Mueller described this rhododendron, which he named *Rhod. Lochae* after Lady Loch, in recognition of her patronage of Victorian horticulture and of rhododendrons in particular.

Sayer's account of the ascent of Mt. Bellenden-Ker appeared in the Victorian Naturalist of July, 1887. He wrote that beyond the ridge by which he had ascended, the top of the range was razor-backed with sides so high and sheer that rocks tumbling over could not be heard to fall. It was here that *R. lochae* was observed. When a Kanaka was asked to get it, he remarked, 'S'pose I fall, I no see daylight anymore; I go bung altogether.' So Sayers had to get it himself.

R. lochae was later collected on Mt. Bartle Frere by Kajewski in 1929 at 4700 feet, on Thornton Peak by Dr. L. Brass in 1932 at 3500 to 4500 feet, and on Mt. Finnegan by Dr. Brass in 1948. It has also been found on Mt. Spurgeon where it is very common and grows in association with a vaccinium, mostly as an epiphyte on large *Eugenia* trees.

In the Rhododendron and Camelia Year Book of the Royal Horticultural Society, 1966, Mr. B. Menalaus of Victoria wrote that, on a visit to North Queensland, he had been led by Mr. Jack Wilkie towards the peak of Mt. Bartle Frere (5287 feet) There "*R.lochae* was not found as an epiphyte in the steamy forest, although its reported host, *Eugenia ventenatti*, was examined whenever possible. It has since been ascertained that that form of growth is peculiar to Mounts Spurgeon and Windsor..... where *Agapetes serpens* is usually associated with *R.lochae* as an epiphyte. .

'Our overnight camp was established in the shelter of a huge boulder, and at daylight we found a robust specimen of *R. lochae* close by at 4300 feet. This proved typical of the twenty plants subsequently found, each similarly rooted in a deep crack in or between boulders, with roots always cool and protected from sun, wind and collectors. The tallest plant reached 5 feet above its point of emergence and spread in loose straggling growth for about 5 feet. This straggly growth appears to facilitate occasional layering between surrounding boulders and may reconcile us to similar growth in other species, which receive assistance to survive from their not overtidy habits.'

Today, *R.lochae* is widely grown by rhododendron enthusiasts in Victoria, and to a less extent in other states.

R. lochae has scarlet flowers, which are tubular-funnel shaped and pendulous, in clusters of from two to seven. The peak flowering period in Victoria is in February and March, but a well grown plant will have some flowers throughout the year.

Papua and New Guinea has a large number of native rhododendron species, and it would appear that *R. lochae* migrated south along the mountain ranges at a time when Australia and New Guinea were joined in one land mass. Although *R. lochae* is the only rhododendron species to have been discovered in Australia, it is not impossible that other species, as yet undiscovered, exist in the mountains of North Queensland. Reports have come to Melbourne from unqualified observers, at first of a plant with yellow flowers and later of one with white flowers, but in other respects similar to *R. lochae*. Whether these plants are in fact rhododendrons, we do not know, but certainly further botanical exploratory work need to be done in the North Queensland mountains, where *R. lochae* has its home.

The late Dr. L.J.Brass shared my view. In a letter to me in 1967, he wrote that he thought it 'entirely possible' that rhododendrons other than *R. lochae* remained to be discovered on the mountain tops of far north-east Queensland. No doubt all or nearly all of these peaks have been climbed, but some still have to be ascended by botanists or people interested in looking for rhododendron. The reports of rhododendron-like shrubs with white and yellow flowers would be well worth investigation.

We already have a *R. brassii*, a species from New Guinea, but how wonderful it would be to find a new rhododendron species in North Queensland and name it '*R. fleckeri*'

R.M. WITHERS.