

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 Cairns Education Centre,
Cnr. Morehead and Lazarus Sts., Bungalow, 8.00 p.m.

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

SUBSCRIPTIONS: (Dues September 30th)

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

Seasons Greetings to all.

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THE CASSOWARY

by F. JORISSEN, El Arish.

We are migrants, have a small poultry farm and grow bananas. A big cassowary used to walk through the orchard and we left a few bunches of bananas to ripen for the bird. After a few months it came nearer to the house with two chicks which, as they were still striped, could have been about four months old. We were just feeding the ducks with a bowl of mixed fowl feed, and were surprised to see that, though the big bird did not come nearer himself, he apparently told his chicks to go and feed with the ducks. The little ones took his advice.

From then on the chicks came daily for their meal. So we were able to see them growing up and to study their habits.

The cassowary is mature at the age of about three years. There is no difference in colouring between male and female, but the female is bigger and more solidly built, and her helmet (casque as it is called by the scientists) is higher. The casque provides protection for their heads when they push their way through the rain forest with its many thorny shrubs and vines. Their "weapon" is a long, sharp-pointed nail at the inner toe of their large and powerful feet.

The female is "boss". Every cassowary, apparently, has a territory of its own. Barbara, as we named our female, had an area of approximately 60 acres or perhaps more, as the rain forest around our place is not very dense and might not provide enough food. In this area she tolerated two males that came to the house to be fed, one approaching always from the North, the other from the South-West. So apparently they also had their own special areas. But they never came at the same time. If they happened to arrive simultaneously, they each tried to frighten the other away by stretching their necks and raising their feathers, which makes them look even bigger than they are. One of the birds would then flee.

Only during their mating time, that is once a year, we have seen a male and a female bird coming together. At first the female pretends to chase the male away, but after a few days we have been feeding one of them with the left and the other with the right hand.

Barbara mated with both males but never simultaneously. After she had mated with one male and laid her eggs, the other male started courting her. When courting, the male follows his love wherever she goes, sometimes dancing a few steps around her, making a throaty noise. One of the males was Barbara's brother, the second chick of the old bird. The other male came a few years later as an adult bird with a chick.

After a courtship of about four weeks the male does not come to the house for about 2½ months. Then he comes again as usual, bringing one or two chicks about 2 weeks old with him. They are lovely little birds, dark brown and creamy white striped, which provides an excellent camouflage in the shade of the undergrowth, with big blue eyes. Even tiny wattles are present already. At about 5 months, the stripes gradually fade and the young bird becomes a plain brown; then the back changes to black, they get their beautiful colours around neck and head, and their wattles and casque start to grow. When the chicks are about 9 months old, their father (it is the male that incubates and rears the chicks) chases them away and they have to find a territory of their own.

While the chicks are still depending on his protection, the male cassowary is a devoted father. During the torrential rains of the wet season early last year, one of the males apparently considered it was

not safe enough for his chicks to return to the scrub some days, so camped at a more sheltered spot in our paddock. He lay down flat on his belly, spreading his tail feathers like a blanket, and the two chicks crawled underneath, only their little heads popping up.

Once we saw a fight between two males, both with a chick. After the usual stretching of necks and raising of feathers, they bent their heads right under their bellies and roared loudly. They did this several times, then hissed and charged, colliding heavily, kicking with both feet forward at once. After having been kicked, one of the birds - it was the one that came later - fled and was chased by the other one who kept kicking him. The poor bird made some mewling noises as if it were crying. After the fight both returned to their chicks.

Females also fight. Barbara remained queen of her territory for 12 years. Then during mating time another big female cassowary appeared. The ladies started their fight in the usual way by stretching necks and raising feathers and making loud rumbling noises. My husband drove the car between the birds in order to separate them and to frighten them away. With success; but what happened in the scrub we don't know.

A few days after this encounter Barbara did not come to the house any more. We keep wondering whether she has wandered off and found another territory or whether she got killed. Now Nova, as we called the new female, has replaced her.

Friends of ours who own a banana farm give us their reject bananas for the cassowaries. They feed on ripe fruit only. Pineapples have to be cut into pieces and so have pawpaws and big mangoes, but guavas and small mangoes are swallowed whole. We have also seen them eating mice and rats which we had caught in traps. Barbara even swallowed a big whitetail rat in the whole, without hesitating and with great appetite, so she must have known what it was and have eaten rats before. So cassowaries do not feed on fruit only.

At present one of the males, now 14 years old, is sitting on eggs again. The other one sadly was killed by dogs and, although we tried to feed his little chick and to rear it without its father's help, it died. Large areas of rain forest in our district have been cleared, so many cassowaries must have starved.

We do hope we can enjoy the company of these beautiful birds for many years to come.

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AQUARIUM ANTICS

by BARBARA COLLINS

The following are a few excerpts from my observations of our Marine Aquarium - a circus in miniature!

Shells of the family Muricidae are drillers, so it was no surprise one morning to find a specimen of Murex brunneus atop a Spondylus ducalis. It was strange, however, that it should move away after several days and apparently partially burrow in the sand. On investigation I discovered a large bivalve Periglypta puerpera there, and it was on this that the Murex had designs.

In the meantime another Murex took the opportunity to move onto the vacated Spondylus. This brought a violent reaction from the Spondylus, which "hiccupped" vigorously in an attempt to dislodge its attacker. This panic message was relayed to its attached mate and the pair caused quite a disturbance. It was a good show for bivalves that are normally

firmly attached to the substrate.

One evening our Shawl Crab, Atergatis floridus, seemed to be doing some extraordinary things. He was an attractive crustacean, shiny olive green carapace with white markings and black nippers. There he was, perched precariously on a branch of coral with a boulder as large as himself clasped firmly with his nippers. Beneath him was a very agitated pair of Pistol Shrimps, who believed their home was in danger and were snapping furiously at the crab. Oblivious, the crab ascended and descended the same coral branch several times, eventually becoming careless and dropping the rock, bringing reprisals from the shrimps. The crab set about retrieving his treasure and the shrimps attacked.

War was declared and the battle raged. The crab simply turned his carapace to a barrage of sand from the shrimps and dug in. Shrimps retreated and crab advanced. Shrimps attacked with pincers outstretched, snapping furiously; crab retreated, diverted his attention to the rear of the shrimps' sanctuary, but could not squeeze through the crevice. Shrimps still snapping; crab defensive and striking out. Shrimp charged, and crab on the run, grabbed unguarded rock and scurried off in the opposite direction. Shrimps, fiercely guarding both entrances to their hide, commenced building sand barriers against further attack.

Crab returned with a new strategy. Dragging boulder, he attempted to climb onto the coral outcrop above the shrimps' hideout. Shrimps again went berserk. Crab persisted in his labours, dropped the rock and hung upside down to retrieve it from the sand barrier. Amid constant harassment from the shrimps, he secured his rock on the coral rampart and then dragged himself, clutching the rock, backwards up the coral branch. Once there, down he came again, onto the sand and away, dragging the rock behind, now rolling it. Shrimps moved about cautiously checking the area and, satisfied the enemy had gone, set up vigil outside their burrow.

The crab now was away across the tank to an empty clam. Reprisals from shrimps beneath (what more!). Crab beat a hasty retreat from this error of judgement and discovered his clam - almost full of pieces of coral. He had been very busy. The tank thermometer had already been installed and partially buried. He dragged the rock over the side of the clam and deposited it carefully on top of the rest, and then slid in on top, King of his Castle. Later we saw him struggling with the damaged tank hydrometer and by morning it was secured neatly amongst the other treasures. Then later we saw empty nippers and carapace: our crab had moulted.

Then there was the tug-o'-war between the Mantis Squilla and the Shawl Crab over a prawn; the disagreement over a female between the Pagurus deformis (fascinating white hairy hermit crabs with the anemone Calliactis miriam smothered all over their shells); and a fascinating fight between an Olive and a Coastal Hermit Crab over a piece of fish.

The most humorous though tragic incident was that of the Camouflage Crab (species unknown) which attached bracelets of chopped squid to its legs. We found him next morning dismembered by the fish. As there was an abundance of material in the aquarium suitable for decoration of his person, we feel he was storing a supply of food to be available when required.

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N.B. Annual subscriptions are due once again. What, already? Incredible, but true!

TWO QUEENSLAND PALMS SUITABLE FOR INDOORS

by KEITH KENNEDY, Townsville.

Most bush-house and indoor plants cultivated in Queensland are exotics, very few are Australian. However there are two Queensland palms which are very suitable for the bush-house, also as table palms. They are the Alexandra Palm, Archontophoenix alexandrae, and A. cunninghamii, called Cunningham's Seaforthia. The specific name of the former was given last century by Baron von Mueller, director of Botanic Gardens, Melbourne, in honour of the then Princess Alexandra. That of the latter honours Alan Cunningham, the botanist and explorer, who discovered the Darling Downs and whose remains are buried under an obelisk in the Sydney Botanic Gardens.

In von Mueller's time the two species were considered as belonging to the genus Ptychosperma, found in southern Asia as well as in Queensland. Later the botanists Wendland and Drude gave them a genus of their own called Archontophoenix, made up of two Greek words, archon meaning a chief or king, because of their stately appearance, and phoenix, the date palm, and not the phoenix bird of mythology which was said to have the power to rise from its ashes. A now discarded name for A. cunninghamii, given by Sir Joseph Hooker, was Seaforthia elegans. Some nurserymen still call it the Seaforthia Palm.

Both these palms are feather palms. They can be easily identified by the pinnae of their fronds, which in A. alexandrae are glaucous on the underside, while in A. cunninghamii the underside is green.

A. alexandrae is mainly a tropical palm and becomes rare south of Mackay, while A. cunninghamii, although occasionally met with in the northern tropics, is common in southern Queensland and extends into New South Wales.

Propagation is by seeds. When juvenile the palms are slow growers and can be used as pot plants for several years. They can then be transplanted into containers and become porch plants for several more years. Eventually they have to be planted out in the garden or, if the authorities permit, in the street, to which they give a tropical effect. In the Musicological Museum gardens, Townsville, are some of these palms which have outgrown the indoor and porch stages but have not yet reached fructification stage, and are very ornamental.

Although they are endemic to Australia, E. Blatter, Professor of Botany, St. Xaviers College, Bombay, thought so much of these palms that he included them with illustrations in his book on "Palms of British India and Ceylon". For their cultivation in Europe he wrote: "A genus of elegant stove palms. The species thrive best in fibrous loam, leaf mould and sand. Thorough drainage and an abundant supply of water are important points in their culture." By stove palms he means hot-house palms.

In Townsville the potting mixture I have found successful is: equal parts garden soil, leaf mould, coarse sand, plus a handful of crushed shell grit and a few pieces of rusty iron. I find that watering twice a week is satisfactory.

- References: Bailey, 1902, Queensland Flora V. Brisbane.
Blatter, 1926, The Palms of British India and Ceylon. Oxford Press.
Wendland and Drude, 1875, Palmae Australasicae in Linnaea XXXIX.

A DAYTIME SIGHTING OF A LUMHOLTZ TREE KANGAROO.

by ROZANNE GLAZEBROOK

I never knew tree kangaroos existed until my husband and I accidentally hit one while driving between Millaa Millaa and Ravenshoe one cold drizzly night in 1975. Luckily the animal was not hurt and, after resting for a few minutes, disappeared into the rainforest beside the road.

In April this year we were again on the Atherton Tablelands, close to this same area. We went for a walk along an old disused logging track in the rainforest, looking for birds and photographing trees and plants. The track was fairly steep and overgrown with numerous gympie stinger trees. John stopped to photograph a staghorn fern high up a beech tree. As he looked up, he suddenly saw a beautiful tree kangaroo looking down at him.

We were thrilled to see a Lumholtz tree kangaroo, Dendrolagus lumholtzi, in broad daylight in its natural habitat, the mountainous tropical rainforest of north east Queensland. I had read that tree kangaroos are mainly nocturnal in their habits. I didn't expect to see one wide awake at five o'clock in the afternoon. The animal was 30 to 40 feet up a branch of a slender tree, perched on his back legs, with his tail, which was about three feet long, moving slowly from vertical to horizontal positions in an effort to maintain his balance. The tail was black on the underside and reddish brown on top, the last few inches of it having longer hairs than the rest.

The Boongary (Aboriginal name for tree kangaroo) had a grey back but beautiful warm reddish brown fur flanks. The undersurface of the belly was off-white. His face and nose were black, with a white band across the forehead. He had small ears which flicked backwards and forwards in different directions.

My neck began to ache as I sat on the ground looking up through the binoculars. The kangaroo continued to sit on his thin branch and stare down at me with his small bright eyes. John went back to the car for more film. The animal watched him go up the track.

When John was returning, the tree kangaroo strained his head forward, put his front paws on the branch, flicked his ears and bent forward several times as if about to leap to another tree. But he remained on his branch, appearing more stable now that he had all four feet on the limb, and the tail stopped moving. He kept his eyes on John coming down the track, but every now and again quickly looked back to check on me.

By 6.15p.m. it was beginning to get dark in the rainforest and we wanted to avoid any nasty accidents with the gympie trees. We left our friend wondering what strange creatures he had seen.

(See "Wildlife in Australia", Vol. 15, No. 2 - Winter 1978 - for more information on the "Boongary" from Rozanne Glazebrook. Ed.)

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Information Services in the Life-Sciences

The Australian National Scientific and Technological Library (ANSTEL), a branch of the National Library of Australia, has been established to improve the access of the Australian community to the world's scientific and technological literature. To this end, ANSTEL has developed a wide range of services based on computerized information retrieval systems.

One such service is the BIOSIS Previews data base. BIOSIS Previews is the magnetic tape equivalent of BioResearch Index and Biological

Abstracts. It covers over 8,000 serial and non-serial publications from over 100 countries and provides access to more than a quarter of a million articles per annum.

There are three ways to use the service. A current awareness search provides a subscriber with twelve computer print-outs per annum. Each citation is printed on a card which can be used to build up a subject file. Searches of this type can be amended at any time should the subscriber's information needs change. Secondly, a retrospective search can be set up to cover any period from 1969 to the present. The third type of service consists of monthly information bulletins; these are designed to provide general coverage of broad, and fairly popular, subject areas such as heavy metal pollution, pest control, population genetics, etc.

Yearly subscriptions to information bulletins and current awareness searches are \$10 and \$75 respectively. Retrospective search charges vary, ranging upwards from a base price of \$50.

ANSTEL also provides a back-up service. Articles can be obtained through the ANSTEL National Lending Service by the use of pre-paid photocopy/loan forms. Further information about BIOSIS Previews or any other ANSTEL service can be obtained by contacting the Chief Analyst, BIOSIS Previews, ANSTEL, P.O. Box E333, Canberra, A.C.T. 2600. Phone: (062) 621548.

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THE ORIGIN OF GENERIC NAMES OF QUEENSLAND RAINFOREST TREES Part VIII

by JAMES A. BAINES

Note: STCN = Standard Trade Common Name
PCN = Preferred Common Name

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Erratum: In Part VII, Claoxylon, Gk klao, appeared as Clacxylon, Gk klac.

Cupaniopsis. Gk opsis, appearance; Cupania, the genus honouring Italian botanist F.F. Cupani, in which these trees were first placed (as in Bailey's "Flora of Qld"). The new genus was set up by Radlkofer. Timber of C. foveolata is STCN White Tamarind or White Foambark, and C. anacardioides var. parvifolia is STCN Green-leaved Tamarind, Beach Tamarind or Tuckeroo. Fam. Sapindaceae (whereas the true tamarinds are leguminous trees).

Cuttsia. Named by von Mueller after J. Cutts, one of his many helpers whom he honoured in specific and, as in this case, in generic names. C. viburnea is a monotypic species native in Q. in the Macpherson Range and along the Logan River. Fam. Escalloniaceae.

Cyathea. Gk kyatheion, a little cup (from kyathos, cup); alluding to the cup-like spore-cases. C. leichhardtiana is Prickly Tree-fern. The specific epithet honours Ludwig Leichhardt, German-born explorer of N.Q.

Daphnandra. Gk andros (genitive of aner), a man, male; Daphne, the nymph Diana, said to have been turned into a laurel tree; because the anthers resemble those of Daphne, the fragrant garden shrub. D. micrantha, STCN Socket Sassafras, Socketwood or Canary Sassafras, and D. repandula, STCN Northern Sassafras, or Yellow Sassafras, are two of the species. Fam. Monimiaceae.

Darlingia. Bailey records that this genus was named after Sir Ralph Darling, Governor of N.S.W. from 1825 to 1831. Cunningham certainly named the Darling Downs, Sturt named the Darling River, and Stirling

named the "General Darling's", later shortened to Darling Range, east of Perth, after him. It seems that Mueller named the genus Darlingia after Sir Charles Darling, nephew of Ralph, who became Governor of V. in 1863 at the time Mueller was trying to classify the new plant. He first called it Helicia darlingiana, later Knightia darlingii, and finally set up a new genus for D. spectatissima; the valid name is now D. darlingiana because of the priority rules. It and the other species are known as Brown Silky Oaks. Fam. Proteaceae.

Davidsonia. Named by Mueller after J.E. Davidson. D. pruriens is known as Davidsonian Plum; it is a monotypic species, fam. Davidsoniaceae.

Decaspermum. Gk deka, ten; sperma, seed; because the fruit is ten-seeded. D. fruticosum is PCN Brown Myrtle or Grey Persimmon; the former name being preferable as it is in fam. Myrtaceae, whereas Diospyros (the persimmons sold as edible fruits) is in Ebenaceae.

Dendrocnicide. Gk dendron, tree; knide, nettle; i.e. tree nettle, an apt name; the common stinging nettles of the genus Urtica belong to the same family. Formerly known as Laportea, these virulent stingers were known to Aborigines as "gympie-gympie", hence the name of the city of Gympie. The generic name should be pronounced Den-droc-nid-e, in 4 syllables, with accent on the second. The best known species is D. excelsa (syn. L. gigas), Giant Stinging Tree. Fam. Urticaceae.

Delarbreia. Named by Vieillard after French botanist M. Delarbre, who explored the Massif Central botanically, and in 1796 published a Flora of Auvergne. His surname means, appropriately, "of the tree" (de l'arbre). D. michieana appears to have no common name. Fam. Araliaceae.

Denhamia. Named by Meissner after Capt. Dixon Denham (1786-1828), an English traveller in Africa, who had fought at Waterloo. With Oudney and Clapperton, he explored central Sudan, then the w. and s. shores of Lake Chad, which they were the first Europeans to see. He published a map of Kano, Nigeria. Oudney, botanist of the expedition, died from the privations of the journey. The genus has 4 species, all tropical Australian, including D. pittosporoides. Fam. Celastraceae.

Deplanchea. Named by Vieillard after Dr. Deplanche, who, like himself, was a French naval surgeon; they both made a study of the flora of New Caledonia, which has many affinities with that of tropical Australia. D. tetraphylla is known in the timber trade as Bignonia; the genus is in fam. Bignoniaceae. (The type genus, Bignonia, is now restricted to one N. American species; it honours the French abbé Bignon, who was elected to Académie des Sciences (1691) and wrote a book on botany.)

Dicksonia. Named by L'Héritier after James Dickson (1738-1822), F.L.S., an English nurseryman and botanist who wrote on British cryptogams, his mosses being in the herbarium of the British Museum. His phanerogams went to the Linnean Society. D. antarctica is Soft Tree Fern.

Dillenia. Named by Linnaeus after Johann Jacob Dillenius (1684-1747), who was born at Darmstadt, Germany, graduated M.D. at Giessen, came to England in 1721, and went to Oxford in 1728 as first Sherardian professor of botany. D. alata, known as Red Beech, is sole Aust. species, although the many species of Hibbertia (in fam. Dilleniaceae) were formerly classified in Dillenia.

Diospyros. Gk dios, divine; pyros, wheat; because it was imagined that the fruit of a European species (according to Francis) produced oblivion when eaten. Jaeger, also Smith and Stearn, agree with this derivation, but, as pyr, pyros, is also Gk for fire (of. pyrotechnics), one wonders whether Linnaeus did not have "divine fire" in mind rather than "divine wheat", as the fruits are nothing like a cereal grain. D. virginiana is American Date-plum, or Persimmon (accent on second syllable), which is a corruption of the name of the fruit in American Indian dialect of Powhatan. D. has at least 8 species, known as kinds of ebony or persimmon. Fam. Ebenaceae. (Diospyros also has the second syllable stress.)