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Irukandji Legends Of The Big Tree Near The Yarrabah Track, Brown Bay, North Queensland

As told by Dudley Bulmer, of the Ran bee (Blood Totem)

By DOUGLAS SEATON

In the dream time, there was a flood over the land and all that was showing above the flood were the branches of the tree. A few survivors of the flood were swimming about looking for some place to land when a sea gull guided them to the tree, where they stayed until the waters receded. They then came down to earth and started to people the earth again. The tree was taken as a totem by the people who camped nearby and the old men of the tribe named the tree YOO-KOO-KARRI and called out to all the people *Bundelu jarpooli* (do not cut this tree) or *Kondall koora* (we will kill you).

In the dream time, a man who could take the shape of a giant hawk lived in the branches of the tree. When he felt hungry he used to fly down and pick up one of the people and carry them up to his stick nest to eat them.

The tribesmen eventually got tired of the birdman eating the people and decided that he must be destroyed. None of the tribesmen could climb the tree, so they

called on a wallaby for help. The wallaby made several attempts to jump up to the top of the tree, but failed. Next a cassowary tried to jump up and also failed, then a barramundi (giant perch) was asked to try, but he also failed as he was too far from his native element.

Eventually, two brothers from a nearby country came along, accompanied by two sand goannas, who were men in disguise. The brothers told the people that they would destroy the bird man. The brothers secured spikes of grass tree and climbed the tree, one on the north side and the other from the south. They set fire to the bird man's nest, and in a short time the remains of the bird man who had changed into his bird form, fell to the earth in flames, and the goannas led the joyful laughter of the people at the destruction of the bird man. They all called out, you will destroy no more people, and all was peaceful throughout the land.

Notes On *Candalides hyacinthina josephina* var. nov.

By E. J. W. HARRIS, Kuranda

(For Description and Illustration see last issue of this Journal)

I first discovered this insect as larva when searching for larvae and pupae of the western race, *C. simplex*, at Stawell, Victoria. A large number (about 240) of larvae and a few pupae were shaken from a large, coarse-growing Dodder attached to scattered clumps of Mallee suckers. The pupae in this case were attached to dead Eucalypt leaves lying in the Dodder masses and

not on the Dodder as far as I could detect. More pupae, however, were found under the loose bark of saplings, under dead leaves on the ground, but always on an object of a similar shade of light brown.

I was unable to distinguish these larvae which were in all stages of development, from those of *C. simplex*, which I had bred on previous occasions from Kiata

(on the edge of the Little Desert, eighty miles to the north-west). I cannot find any evidence to show that these larvae differ from those of *C. hyacinthina*. (1).

The larvae were taken to Melbourne and fed without difficulty on smaller species of Dodder, common in the district. Development was rapid, but strong cannibalistic tendencies accounted for many of the larvae. After pupation of the survivors, two-thirds of them were given to my assistants with the collecting, Messrs C. McCubbin and W. Burt. When my butterflies started to emerge (2) in the latter half of December (3), they appeared to be a rather bright form of the typical race, but without the copper scaling in the male. I was somewhat surprised therefore, a few days later, to see what appeared to be a specimen of *C. simplex* resting in the breeding cage which caused me to think that I had bred *C. hyacinthina* and *C. simplex* from the same locality (4) and possibly the same food-plant. If this was correct it could be assumed that the two races were in reality two distinct species. However, as time passed I found that I had a series of females resembling both the typical and the western races as well as a number of intermediate forms and a series of males of a more or less constant shade of bluish purple.

An explanation of these peculiarities might well be found in the reasoning of E. B. Ford (5) who suggests that two strongly independent races that have arisen in isolation and have built up a balanced gene-complex suited to their respective environments, may eventually meet and produce hybrids. These hybrids, because of their inability to adjust themselves to the conditions of the parent races, exist only as small colonies in the borderline areas. They may be said to have formed a very sharp cline.

I feel that a lot more field work could be carried out to great advantage to our scientific knowledge, in areas to the south and south-east of the Little Desert, and that all clumps of Dodder should be investigated. The mid-season broods of *C. simplex* and *C. josephina* are

sharply defined, and the search for the larvae limited to the second half of November. Pupae are scattered and usually hard to find in sufficient quantity to be of use for research. Mr. K. Hately, of Kiata, has recorded a breed of *C. simplex* flying in late February and March, but these were probably a late emergence of the December brood. *C. simplex* has an early brood in September and October which corresponds with the typical race in this respect.

Many who have seen *C. hyacinthina josephina* consider that it should be given specific rank, but I can find no justification for this view before further field work and an examination of genitalia of all three races has been completed to establish definite proof. I feel that *C. hyacinthina* and *C. simplex* should stand as two well established races, and that *C. hyacinthina josephina* should at present be considered a hybrid race, possibly one of several along the fringes of the territories of the two main races.

NOTES

(1) Pupae of the three races are also indistinguishable.

(2) Emergence was complete by the end of December, except in one instance.

(3) One pupa held over until March produced a bright blue form of the female. (McCubbin had a similar experience).

(4) The total area of the colony was an acre in extent and no larvae could be found on the Dodder outside it. The nearest locality that I know of where the species is found is Gerang Gerung, seventy miles to the north-west. The race in this area is *C. simplex*. There must, however be many places in the wild Grampian country where the species will be found.

(5) E. B. Ford, "Butterflies," Ch.13, "Races and Sub-species," P.282-3. "A situation of this kind is not always separable from one in which two sub-species, which have arisen in isolation, have extended their range until they

have come into contact as they may do, for instance after an ice-age. There will not necessarily be any sharp environmental discontinuity along the line where they meet, which could ensure that the types adjusted to one region will be eliminated owing to their inappropriateness in the other. Yet, in such circumstances two sub-species may maintain their identity unimpaired, and produce a hybrid population only along a relatively narrow belt between them. It may well be asked why they do not turn into a cline once they can interbreed and the genes from one sub-species can flow freely over into the other. It is not hard to answer this question. The two

sub-species, having arisen in isolation, will have been adjusted independently to their environments where they will have evolved a distinct genetic constitution adapted to their particular needs and in which each will have built up a gene complex, balanced to give harmonious working. When the two meet and interbreed such a balance will be upset in the hybrids, which will therefore be at a disadvantage when compared with either of the selected types. Consequently, though such types will constantly be produced by crossing, they will be as constantly eliminated by selection and prevented from spreading far beyond the narrow belt where they are formed."

Notes On Australian Podomyrma

(Hymenoptera: Formicidae)

By DR. W. L. BROWN, Jnr.

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Harvard College, Massachusetts, U.S.A.

The ant described as *Podomyrma parva* by Crawley (1925, Ann. Mag. Nat. Hist. (9) 16: 592-593, worker) is a NEW SYNONYM of *Podomyrma elongata* Forel (1895, Ann. Soc. Ent. Belg. 39: 428, worker). Specimens collected and determined by J. Clark, original collector, compare satisfactorily with Forel's description of *P. elongata* (allowances made for the usual metric discrepancy) and with eastern Australian series of the latter. Series were examined from Western Australia: Armadale (J. Clark), Pemberton (W. M. Wheeler), South Australia: Lucindale (Feuerherdt), Adelaide (Wheeler). Victoria: Heathcote (W. L. Brown). Australian Capital Territory: several localities near Canberra (T. Greaves), Blundell's Creek (Wheeler). The colour varies inter- and intranidally from reddish-tan to blackish-brown, with the all-trunk often lighter than head and gaster. According to Forel, *P. elongata* ranges northward in Queensland to Atherton.

Podomyrma grossestriata Forel

(NEW STATUS) was described originally as a subspecies of *P. elongata* (Forel, 1915, Ark. f. Zool. 9 (16): 50, worker), but should now be regarded as an independent species. Two specimens from the Cairns district (A. M. Lea) before me resemble *elongata*, but have broader heads, shorter petioles, and very coarse, well-spaced costulate sculpture, in these features agreeing with Forel's description of the subspecies. The differences are very clearcut, and the two species may be sympatric in parts of the Atherton Tableland. Known localities for the two species are only a few miles apart in this area. *P. elongata* and the much more common *P. adelaidae* of Frederick Smith (*P. bimaculata* Forel) nest by preference in the galleries of small borers made in sound wood of living and dead trees, usually in woodlands of the moderate to low rainfall types. *P. adelaidae* is found even in very arid parts of South Australia where it frequents the red gums (*Eucalyptus camaldulensis*) along the dry creek beds.

Rambling Memories

By GORDON F. LEITCH, Radical Bay, Magnetic Island

(Continued from last issue)

BUZZARDS DESTROYING

EMU EGGS

And going on from here I recollect this was a very memorable trip for another reason. A few days prior to this incident, I was riding in company with the late Mr. F. L. Burney, when he pointed out a pair of black breasted buzzards (*Hamirostra melanosterna*) and told me he had actually seen them breaking emus' eggs by dropping gibbers on the nest. It seemed fantastic, and I had never heard of it before, though later the blacks confirmed it more than once.

Less than a week later, I had the very great privilege of seeing it for myself. My attention was drawn by the actions of a pair of buzzards rising and falling over a patch of grass. I rode over to investigate and I got quite close before the birds soared away to a great height, and saw very distinctly what they were doing. Sliding down with their very distinctive flight, each picked up a stone and flapping over the nest, dropped it. I noticed two stones had found their mark and three eggs were broken or cracked. But I also noticed that many stones had missed their mark although I doubt if any had been dropped from more than ten or twelve feet. The emus had retired and were circling a good quarter of a mile away. I would have liked to have seen the opening move, which must have meant the driving away of the parents.

I lately saw in some nature notes a description of the rifling of an emu's nest by the buzzards. It described the birds as using the stones as hammers. This was not so in the above incident, for they definitely dropped the stones from the air.

I think the use of an instru-

ment by birds, or by any animal except, perhaps, the primates, to obtain their food is very rare. I can only think of a not quite comparable instance of certain seabirds dropping shell fish on rocks to open them.

THE WEDGE TAILED

EAGLE

A very small boy in the middle eighties of the last century stalked along behind King Ber-ad-sa, the last reigning chief of the now vanished Gunbower Tribe on the River Murray. The laddie carried a set of miniature spears, a woomera and boomerang, and tried to imitate his friend and teacher of bush lore. Suddenly a large bird cleared the tree tops and sailed serenely ahead less than a hundred feet above us. I was that boy.

The aged aboriginal pointed upward and called *Argela*. *Argela* was the tribe's name for the Wedge Tailed Eagle, *Uroaetes audax*, and my first introduction to this noble bird. *Argela* is not far from the Latin *aquila*, eagle, probably derived from the rather plaintive call of many birds of prey. Since that date, I have seen, robbed and slain the wedge tail in all sorts of climates and terrain, the Southern Alps, the Grampians, in inland plains of the Murray Basin, Tasmania, Central Australia, and the North Western Downs of Queensland. He seems to flourish anywhere, but the bird of the north seems to lack much of the size and nobility of those of the southern ranges.

I have had to destroy, as overseer on a sheep property, many hundreds of them, and I think largely unnecessarily, for in one season, out of 73 young which I personally liquidated, only one nest was fed on lambs. But in and around that nest containing three lusty young birds, the re-

mains of twenty-nine lambs proved the parents' guilt. This is the rogue exception which so often condemns the race.

From these notes though, please do not brand me as an inveterate destroyer of argelas. The most pleasant memories are connected with the many hours spent on the rocky slopes of Pyramid Hill and Mount Hope, those rocky outcrops of the North Victorian plains, watching the planned hunting of a pair of enormous birds hunting hares. I say enormous advisedly, for I have seen a tape measure put across the wings of a big female at Pyramid Hill record ten feet three inches, and I understand that in this locality this has often been exceeded. In Northern Queensland and in Central Australia I have never measured one which would reach to seven feet.

However, coming back to our hunting.

EAGLES' ACQUIRED

TECHNIQUE OF CAPTURING

HARES

The acquisition of a craft by birds is a nice question, and could be debated at length, like the amazing skill of birds in building a nest, but is outside the scope of these observation notes, but I have repeatedly noted the retentive memory of birds of prey. The Wedge Tailed Eagle (*Uroaetes audax*) I have known intimately from childhood and I have watched the well reasoned hunting plans of a pair for months on end. These include the capture of hares using the wire fence, once the hare's refuge.

Now, this is an acquired technique, as not many generations of wedge tails have been accustomed to either hares or fence. But I am moving again from the notes of observation I stressed to discussion, but I would like to mention the memory and observation of one large wedge tail I knew in captivity.

He was a large old male in a good sized flight aviary in a Wild Life Sanctuary. I got to

know this bird by visiting him when the place was empty of people. I never fed him, but talked to him and made friends eventually to the extent of fondling his head and letting him mouth and nibble my hand, I won't say without bloodshed early in my acquaintance.

Later, I saw him at long intervals, and then only at week-ends with thousands of other people. If I passed his enclosure he would fly like a tornado to the wire and play with my hand with every appearance of pleasure. My last visit was after the lapse of a couple of years, and the greeting was the same. Otherwise, the bird eyed the crowd with lordly disdain and was much respected by his keepers. His observation and memory must have been acute to pick me from hundreds of other chattering featherless bipeds as they passed. I hope to see him again some day.

I had finished, but perhaps I should enlarge on the wedge tails and the hare. Sitting on the slopes of Mount Hope, a granite outcrop on the plains of Northern Victoria, I used to see this pair of wedge tails hunting hares on the open paddocks below me. The hare once alarmed, would make for the nearest wire fence, dodging the swoops of the birds as he went. Once under the sheltering wire he was safe, and the birds, after a flapping sortie or two, would leave to hunt elsewhere.

Later, they adopted other tactics. After the hare had reached the fence, one bird would continue to harry him, keeping him on the move. The second bird would drop like a stone and hop close to the fence ahead of the hare. The astonished animal would immediately swerve from the fence and frequently, in the silly way of hares, stop to see what this meant. That was the end of him for the active bird struck him like a shell and bowled him over. Of course, the birds were not always successful, but I have seen the ruse succeed many times. A hunting technique acquired in one generation!

And now I am going to see if I can find that kookaburra eating the snake.

Drongos Nesting

By GORDON F. LEITCH, Radical Bay, Magnetic Island

A pair of drongos, *Chibia bracteata*, have nested on our nesting tree together with two pairs of Southern Fig Birds, *Sphaeotheres vieillotii*, and two pairs of Little Friar Birds, *Philemon citreogularis*. This nesting tree is an isolated Moreton Bay Ash, *Eucalyptus tessellaris*, although within fifty feet of several similar trees on the edge of a belt of scrub, mostly Burdekin Plum, *Pleiogyne solandri*.

It is also near, and in full view of our lounge, and we pass under it many times during the day. Last year (1951) five pairs of birds built in it, and a pair of drongos started a nest, but abandoned it when near completion. This year, 1952, a pair of drongos have built and laid eggs, which we expect to hatch any day now.

The building of this nest is not the slap hazard, quick job of the fig birds, or the noisy, rushed construction of the friar birds, but a carefully planned affair, taking many weeks to construct. We watched them choose a site; this took at least a week, then they examined the fork, a square, stiff terminal, and cleared it of all leaves and twigs.

The next process was to weave a "ghost" nest. One bird for days went through the motions of weaving a nest using no material. She did everything except sit in it. In the meantime, the other bird got to work on the trunk of the tree. Above the rough black "mitten," the smooth, satiny bark was just showing signs of splitting and lifting. By seizing a loose edge and fluttering backwards, the bird tore off long strips of pinkish bark, which were dropped on the ground. In about a week he had the first six feet of the upper bole clear of all loose bark and all knot holes and irregularities cleaned up and polished.

Why did he do this? The old inhabitants explained that this was to keep snakes from climbing, but we said it was for insects.

Now was the time for building the nest. Carefully and very sol-

idly, the little round nest was woven hammock fashion across the fork. Every strand seemed to be turned at least once around the wood, and actually the identical motions of the "ghost weaving" were repeated. In about two weeks' time the nest was complete, though still transparent, eggs were laid and the birds began to sit.

To our disappointment they abandoned it in less than a week, due we think, to egg robbers, the butcher birds. We saw no sign of our attractive black rascals for a week or more, when they returned with another pair of friar birds. These at once started with unlimited chattering and fuss to build a nest within two feet of the drongos. These, with the greatest harmony, took up residence again and laid three eggs.

At the same time another pair of fig birds came along, threw a nest together, and the three mother birds sat in to hatch their respective families only a few feet apart.

In the meantime, to us a strange thing was happening. The drongos have been assiduously cleaning and polishing the bole of the tree. There is no question of insects now for there is no possible harbour for them. At the top of the rough black bark of the lower trunk, normally ragged and curling back, the bark has been smoothly bevelled back as though done with a rasp and finished with sand paper. Over this, only the myriad minute scratches of the birds' claws mar the perfectly smooth, satiny trunk.

Then they got to work on the bushes near the tree and removed every leaf and twig on the sides facing the tree for a distance back of about three feet. To cap the whole performance one bird tried desperately to remove some heavy K wire netting which was nailed to the base of the tree.

Is the old inhabitant right? Is it fear of snakes? Or is this an Asiatic tropical bird guarding against monkeys?

The drongos are not very trust-

ing birds, but one evening I was examining a large cicada which I was holding, when there was a snap and the cicada sailed away in the beak of a drongo.

We hope they will become more trusting, and that they will not take their young ones away too soon.

Check List Of North Queensland Orchids

ERRATA

It is regretted that several headings of Tribes and Subtribes have been inadvertently omitted.

Subtribe ix. *Gastrodieae* should read *Pogonieae*.

Above genus *Pholidota* insert Subtribe x. *Coelogyiniinae*.

Above genus *Liparis* insert Subtribe xi. *Liparidinae*.

Above genus *Malaxis* insert TRIBE STURMIINAE.

Above genus *Dendrobium* insert

TRIBE DENDROBIINAE.

Remove genus *Podochilus* to separate TRIBE PODOCHILINAE.

Author of *Bulbophyllum crassulifolium* (A. Cunn. ex Lindl.) Rupp.

Author of *Acriopsis nelsoniana* F. M. Bail.

Key to figs. of *Bulbophyllum evasum*. For "Flowers" read "Flower."

Book Review

27. DANGEROUS SNAKES OF AUSTRALIA, by Eric Worrell, 64 pp., coloured photographic cover, 32 photographic illustrations, Angus and Robertson, Sydney, undated. Couched in the simplest of language, void of any technicalities, notes are given on the possibility of attack, prevention, venom, venom apparatus, preparation of anti-venom serum, first aid treatment, etc. The snakes dealt with are the taipan, *Oxyuranus scutellatus*, three varieties of tiger snake, *Notechis*

scutatus, death adder, *Acanthophis antarcticus*, brown snake, *Demansia textilis*, and five other species of *Demansia*, including two whip snakes, the copper head, *Denisonia superba*, and two other species of *Denisonia*, the black snake, *Pseudochis porphyriacus*, and six other species of *Pseudochis*, two species of broadheaded snake, *Hoplocephalus*, and the rough scaled snake, *Tropidechis carinatus*. Sea snakes of the family *Hydrophidae* are also dealt with.

North Queensland Naturalists' Club

Meets at School of Arts, Shields St., Cairns, usually on second Tuesday in each month, at 8 p.m.

MEETINGS

11th Nov., 1952: Resolved that the various Shire Councils in North Queensland be written to suggesting the adoption of names of aboriginal tribes be adopted as place names as opportunity occurs.

Exhibits included the nest of the mistletoe bird (*Dicaeum hirundinaceum*), stag beetle (*Phalacrognathus muelleri*), *Cochlospermum*, etc.

4th December, 1952: A Christmas Social was attended by some fifty members and their friends, when subjects of natural history were replaced by musical numbers and other entertainment appropriate to the Christmas season, when all enjoyed themselves, Dr.

C. H. Knott showed some interesting Cinécolor movies.

9th December, 1952: Mr. Vlasoff spoke of the appalling destruction of the dugong, and even of some of the protected birds such as the bustard, as openly advertised in the sporting journals of the south. It was resolved to bring the matter under the notice of the Zoology Section of the A.A.A.S. at the next congress to seek some remedy and protection for these. Mr. C. J. Cantrill spoke on the origin of Christmas Day, and the date of same.

13th January, 1953: One of the Cubomedusae of the family Carydeidae was exhibited. It was thought that this might be the cause of the newly described Irukandji sting, but confirmation of this will have to await next summer season. Mr. Lionel Law is taking an active part in the investigation.

10th February, 1953: Issue of new edition of the Check List of N.Q. Orchids at a cost of 2/6 was announced. Mr. S. Dean reported

visiting the Melbourne Aquarium who desire assistance in stocking their tanks with tropical material.

EXCURSION

16th November, 1952: A delightful day was spent on Mr. Rijker's Farm, at Glen Boughton. Beyond the acres of pineapples, the primitive rain forest resembled somewhat a botanic garden in the richness and variety of vegetation. A homestead without any external walls but closed in by wire screens, was a most unusual feature.

NEW MEMBERS ELECTED

11th November, 1952: Wm. Hosmer, 45 Collinson St., Cairns; G. L. Williams, Archer Pt.; Mrs. N. Molesworth, Titirangi, Auckland, N.Z.

9th December, 1952: Sister Ruth Gibson, Herberton Hospital.

13th January, 1953: Lloyd Grigg, Box 285, Cairns.

10th February, 1953: Stanley F. G. St. Cloud, Moody St., Cairns.

PUBLICATIONS BY N.Q. NATURALISTS' CLUB

- 1. CHECK LIST OF NORTH QUEENSLAND ORCHIDS .. PRICE 1/-
- 2. MARKETABLE FISH OF THE CAIRNS AREA PRICE 1/-
- 3. CHECK LIST OF NORTH QUEENSLAND FERNS PRICE 1/-
- 4. EDIBLE PLANTS IN NORTH QUEENSLAND PRICE 2/-
- 5. LIST OF BIRDS OCCURRING IN NTH. QUEENSLAND .. PRICE 2/-
- 6. LIST OF AUSTRALIAN DRYOPIDAE PRICE 6d.
- 7. CHECK LIST OF NORTH QUEENSLAND ORCHIDS .. PRICE 2/6

