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A NOTE ON THE IDENTITY OF HELEIOPORUS SUDELLI LAMB
(Amphibia-Leptodactylidae)

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ABSTRACT: **Heleioporus sudelli** Lamb is synonymized with **Heleioporus pictus** (Peters). A small collection of frogs taken at St. George, S.W. Queensland are noted, and the possible trend of relationship in the **pictuscentralis - pelobatoides** complex is briefly discussed.

HELEIOPORUS sudelli Lamb was described in 1911, the type of which came from Warwick, S.E. Queensland. Since that time its status has remained indefinite, because of the vague nature of Lamb's text. Loveridge (1935, p.15) synonymized **sudelli**, together with **pictus**, under the name of **eyrei (Gray)**, and as such they remained until Parker (1940) revived the names and showed that **pictus** and **eyrei** were not conspecific. Having only the original description to guide him, Parker had difficulty in associating **sudelli** with **pictus**, and suggested that it was possibly based on a specimen of **Limnodynastes sp.**

At the suggestion of Dr. Parker, I have examined the holotype of **H. sudelli**, and have found it to be clearly referable to the genus **Heleioporus**, and conspecific with **pictus** (Peters). Lamb compared his specimen with **H.albopunctatus** Gray of Western Australia, which lacks a pigmented metatarsal tubercle, so it is curious that he omitted to state the color of the tubercle in **sudelli**, which is dark brown (in spirit). He was in error in stating the first and second fingers were equal, for the first finger, when measured along its mesial side, is noticeably longer than the second. The nostril is nearer to the eye than to the tip of the snout.

A series of **pictus** collected at St. George, S.W. Queensland in the summer of 1956 are of special interest in that they are not wholly typical. The horny sheath of the metatarsal tubercle is rather smaller in extent, and only pigmented dark brown at the tip, not shiny black all over as in southern examples. Further, they have a somewhat shorter snout, shorter limbs and digits. In some individuals the nostril is equidistant from the eye and the tip of the snout, though more usually it is nearer to the eye. The degree of wartiness of the dorsum is variable, and a few specimens are almost entirely smooth. In all examples, the lower eyelid is finely peppered with black on a yellow ground color.

The differences enumerated above indicate strong affinities with **centralis** Parker, which opens up the possibility of intergraduation between that species and **pictus**. In personal correspondence, Mr. Glauert, past Director of the Western Australian Museum writes, ". . . . on this side of the continent **H.centralis** seems to merge into **H.pelobatoides** Werner." It may yet be demonstrated, when sufficient samples of **pictus-centralis** and **pelobatoides** can be assembled by a single worker, that we are dealing with

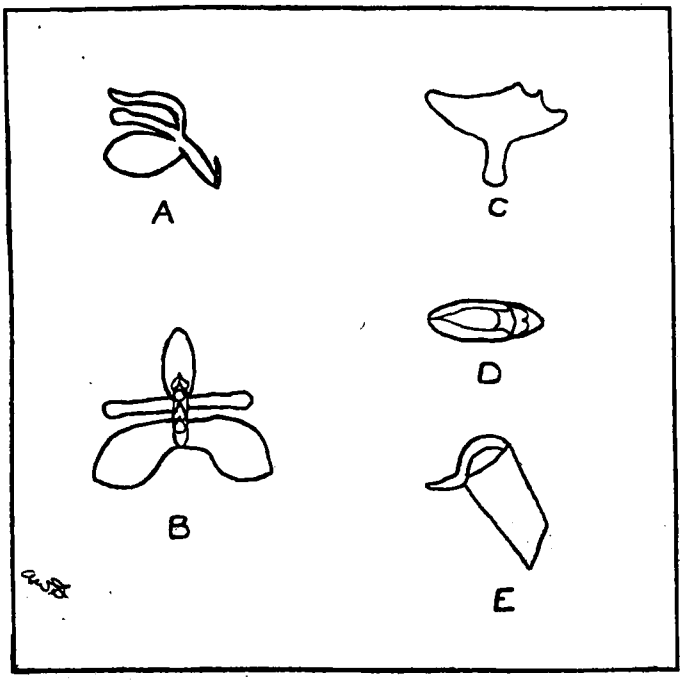
one species made up of adjacent populations, exhibiting a very gradual change of characters from east to west, forming a cline. Until this possibility can be tested, it may be preferable, in view of close relationship and apparent intergraduation, to treat **pelobatoides** and **centralis** as subspecies of **pictus.**

LITERATURE CITED

Lamb, 1911, Ann. Queensland Mus., No.10, p.26.
Loveridge, 1935, Bull. Mus. Comp. Zool., 78, No. 1, pp.1-60.
Parker, 1940, Novit. Zool., 42, No. 1, p.p.1-106.

SOME NOTES ON SACCOLABIUM SUBLUTEUM, RUPP (Orchidaceae)

IN FEBRUARY 1955, the author received from J. H. Wilkie, plants of a small **Saccolabium** collected on Mt. Bartle Frere. When these plants flowered in the following April, they did not appear to conform completely to the description of any known Australian species of genus. Subsequent to enquiries to S.F. St. Cloud, I received specimens from him in preservative with the assurance that they were **S.subluteum** Rupp, Nth. Qld. Nat.21: No. 105



Legend: A. Flower from side x 2
B. Flower from front, segments flattened x 2
C. Labellum from side x 4
D. Labellum from above x 4
E. Column from side x 8

(1953). It became immediately apparent that the original (holotype) specimen sent to Rev. Rupp by Mr. St Cloud must have been an immature and possibly "sick" plant, and not truly representative of the species, the plant of which assumes much larger proportions, and a much more usual (for the genus) appearance than its author was able to ascertain from examination of the single specimen.

The following description is prepared from the above mentioned 1955 material:— A small epiphyte with a stem up to about 3 cms. long. Roots comparatively few and rather thick. Leaves 3-6 up to 6 cms. long x 1.5 cms. broad, oblong-lanceolate, subacute, rather thick in texture. Racemes 1-2, very short and thick, 0.5-2.0 cms. long x 2 mm. diameter, elongating as the buds mature, and as few flowers are open at approximately the same time, and are not persistent after maturity, it is difficult to be sure of the number of flowers a raceme would have, but probably 3-10. Bracts subtending pedicels very small, broad, acute. Pedicels, plus ovary, about 3 mm. long. Flowers not widely expanding, perianth dull pale-yellow, labellum and column white. Dorsal sepal about 5 mm. long x 2.5 mm. broad, obovate tapering to a blunt point, somewhat concave.

Petals about 4m.m. long by 1m.m. broad, linear but slightly dilated at the apex.

Lateral sepals about 5 mm. long x 3 mm. broad, broad-oval, slightly falcate and slightly concave at the apex. Labellum about 4 mm. long, thick in texture, slipper shaped, trilobate but lobes minute; spur about 1.5 mm. long, cylindrical but slightly dilated at the apex, with a small valve inside the narrow-linear orifice. Column about 2 mm. long, cymbiform. Anther white, with an upcurved point. Pollinia 2, globular, translucent white. Capsule about 10 mm. long x 2.5 mm. broad, distinctly trilobate, the lobes very thin and prominent, almost wing-like.

—A. W. DOCKRILL,
Georges Hall, N.S.W.

WINNING ENTRY FOR 1958 H. FLECKER MEMORIAL NATURAL HISTORY MEDALLION

OBSERVATIONS ON THE BROWN TREE SNAKE

(Written by MISS VALDA LAWSON, age 19 years)

THE specimen of the Brown Tree-snake (**Boiga fusca**) under observation measured approximately five feet in length and exhibited the characteristic broad head, tapering neck and slender body of the species. In colour, it was copper, crossed with darker bands and had a cream underside. This species of snake varies, in colour, from copper to a dark brown and is crossed by corresponding, dark, irregular lines which are more distinct on some than on others. This variation in colour is probably due to different combinations of the pigment cells which include black or brown, yellow, orange or red. Many snakes have, in addition to these pigment cells, contained in the dermis (lower section of skin), guanophores, in which colour results, not from pigment, but from light diffraction by minute particles within the cells. However, I think the Brown Tree-snake possesses few, if any, of these cells, as I have viewed it in early-morning light,bright sunlight and electric light, and its colour seems to have little or no variation.

The body scales were long narow and they were arranged in 19 rows. The anal was single; the ventral scales numbered about 238 and there seemed

to be approximately 90 pairs of subcaudals. The head scales were large and well developed and numbered about nine. Like all other snakes, it sheds its skin several times a year. At the last sloughing, this particular specimen loosened the skin at the nose and managed to peel it back until it was folded across its eyes. For some reason, the snake did not appear to be able to move it any further. The folds of skin totally obscured its vision and it kept moving round the box, rubbing its head on every slight projection. At first glance, I thought the snake was throwing a fit as it was bending in all directions and was knocking itself from the wall to wall of the box, onto the water tin and stones in the box. It was rubbing its head on the projections with such force, it seemed as if it must injure itself. This "fit" lasted nearly an hour before the snake managed to peel the skin over its eyes. From then on, it settled down and had completely lost its skin in a week.

Being "cold-blooded," the Brown Tree-snake, like other reptiles, is influenced markedly by the enviromental temperature. Contrary to popular belief, reptiles cannot stand unlimited quantities of heat, and execssive temperatures will quickly kill them. The Brown Tree-snake exhibited this by sunning itself in the early morning and moving into the water tin or behind a bag hung over one end of the box, as soon as the sun became high in the heavens.

This species has vertical pupils since it is nocturnal in its habits. My specimen seemed to become most active about eleven o'clock at night, but was never particularly sluggish, even during the heat of the day. Several times during the day, I have seen it strike at the glass when people came close but it never attempted to strike when I had my hand in the box filling the water tin.

Locomotion in snakes is usually due to the backward pressure of lateral loops of the body against irregularities on the surface of the ground. Forward movement is accomplished by "hitching," part by part, the skin and body alternately, dragging the ventral scales on the ground, and producing a straight, smooth track. I placed my specimen on a smooth, clean sheet of glass and it was unable to move although it wriggled vigorously. When I placed it on a piece of wet concrete, it moved, but very slowly. However, as soon as I placed it on the ground, it moved very quickly.

Snakes are evolved from amphibians and, consequently, are almost all swimmers. The Brown Tree-snake seems to be a reasonably good swimmer. On two separate occasions I placed it on tubs of water, one cold and the other luke warm. It seemed to make better progress in the former, probably since, at the lower temperature, it needed less oxygen and the air in its air-sac would last longer.

This species is very fond of birds' eggs and birds, and will often squeeze through small mesh wire into a bird-cage, swallow some birds and be unable to get through the wire again. My specimen refused to eat a mouse or a lizard but made quick work of a tortoise's egg on one occasion and a small bantam's egg another time. Both of these were, of course, swallowed without breaking the shell.

The Brown Tree-snake is a back-fanged snake but only slightly venomous. The curved fangs are situated at the rear of the maxillary bone and my specimen seemed to have about two dozen small solid teeth in the front of the fangs and another two dozen on the lower jaw. The teeth, as well as the fangs, curve backward to prevent food slipping out of the mouth once swallowing has commenced.

I attempted to "milk" the Brown Tree-snake in the same way as the Taipan is "milked," by making it bite on the rubber-covered top of a medicine glass. This was not successful as the glass was too big to reach back to its fangs. I then used a small, thin test-tube covered with a rubber membrane. This reached the fangs and while it was biting on the rubber, I gently pressed on top of the poison glands and was successful in obtaining two small clear drops of liquid which were apparently venome. To see if this

venom had any visible effect on human blood, I pricked my finger and squeezed a drop of blood onto a glass slide and then dropped the venom onto it. There were no visible changes such as coagulation or precipitation.

Knowing that a Brown Tree-snake bite is not dangerous to humans, I allowed it to bite me three times on the arm, in order to ascertain whether the bite would have any ill effects. The bite was quite painless, just like the prick of a hyperdermic needle. An hour after the bite, I had a slight rise in temperature (1.5 degrees) and a very slight headache. After another hour, my temperature was back to normal and the headache had vanished.

Hence, I concluded that the Brown Tree-snake is absolutely harmless and it is unnecessary to treat a bite from one if its identity is certain.

CHECK-LIST OF BIRDS OF THE ATHERTON TABLELAND

(Continued)

By James Bravery, R.A.O.U., and John Orrell, F.R.G.S.A., R.A.O.U.

Column One: The local name of the bird.

Column Two: The Scientific name of the bird followed by names by which it is known in other parts of Australia.

Column Three: Numbers in this column indicate the page on which reference may be made in Cayley's "What Bird is That?"

27. CURLEW	Burhinus Magnirostris. Stone-plower, Stone-curlew, Thick-knee, Willaroo.	(161)
28. CURRAWONG, Pied	Streptina Graculina Pied Crow-shrike, Black Magpie, Mutton Bird.	(55)
29. DARTER	Anhinga Novae Hollandae. Snake-necked darter, Snake Bird, Shag Diver.	(233)
30. DOLLAR BIRD	Eurystomus Orientalis. Broad-billed Roller	(77)
31. DOVE, Peaceful	Geopelia Placidae. Ground-dove. Doo-doo	(85)
32. DOVE, Indian	Streptopelia suratensis. Spotted Dove.	(291)
33. DOVE, Diamond	Geopelia cuneata. Little dove, turtledove, Red-eyed dove	(86)
34. DOVE, Bar-Shouldered	Geopelia humeralia. Mangrove Dove	(86)
35. DRONGO, Spangled	Chibia brachteata. Red-eyed Blackbird (Cairns local name only).	(18)
36. DUCK, Black	Anas superciliosa. Grey duck, Australian wild duck, Brown duck Parera.	(246)
37. DUCK, White-eyed	Nyroca Australis. Hardhead, White-winged Duck, Barwing, Brownhead.	(241)
38. EGRET, Little	Egretta garzetta. Lesser Egret, Spotless Egret.	(236)

39.	EGRET	Egretta alba. Great Egret, White Crane.	(237)
40.	EGRET, Plumed	Egretta intermedia White Crane.	(236)
41.	EAGLE, Wedge-tailed	Euroaetus audax Eagle-hawk (Misnomer).	(215)
42.	EAGLE, White Breasted Sea	Haliaetus Leucogaster. White-bellied sea eagle, White-bellied Fish hawk.	(215)
43.	FALCON, Little	Falco longipennis. White fronted falcon, Duck-hawk, Australian Hobby.	(207)
44.	FALCON, Peregrine	Falco Peregrinus. Black-cheeked falcon.	(207)
45.	FALCON, Black	Falco subniger.	(208)
46.	FANTAIL, Grey	Rhipilura Flabillifera. White-shafted fantail, White shafted fly-catcher, Snapper, Madfan, Cranky fan, Devil bird, Land wagtail.	(67)
47.	FANTAIL, Rufous	Rhipidura rufifrons.	(23)
48.	FIG-BIRD, Common	Sphecotheres Veiloti. Mulberry Bird, Banana Bird.	(18)
49.	FIG-BIRD, Northern Yellow-Breasted	Sphecotheres Flaviventris. Yellow Fig Bird.	(18)
50.	FINCH, Banded	Steganopleurs bichenovii. Doublebar, White-rumped doublebar, White-rumped Banded Finch, Old-faced Finch, Bichino's Finch.	(196)
51.	FINCH, Chestnut-Breasted	Donacola castaneothorax. Chestnut Finch, Bullfinch, Barley Bird, Barley Sparrow.	(199)
52.	FINCH, Plum Headed	Aidemosyne modesta. Modest Finch, Cherry Finch, Plain-coloured Finch, Diadem Finch.	(198)
53.	FINCH, Red-Browed	Aegintha Temporalis. Redhead, Waxbill, Sydney Waxbill, Redbill, Temporal Finch.	(197)
54.	FLYCATCHER, Brown	Microeca Fascinans. Brown Flycatcher, Peter-Peter, Postboy, Postsitter, White tail, Stump Bird, Spinks, Jacky Winter.	(64)
55.	FRIAR BIRD, Little	Philemon Citreogularis. Little Leatherhead, Yellow-throated Friarbird	(84)
56.	FRIAR BIRD, Noisy	Philemon corniculatus Leatherhead, Monk, Four o'clock, Pimlico, Poor Soldier.	(84)
57.	FROGMOUTH, Tawny	Podargus strigoides. Tawny - shouldered Frogmouth, Tawny-shouldered Podargus, Mopoke.	(64)
58.	FLYCATCHER, Lemon-Breasted	Microeca Flavigaster.	(215)
59.	FLYCATCHER, Leaden	Myiagra Rubicula.	(73)
60.	FLYCATCHER, Boat-Billed	Machaerirhyncus Flaviventer. Yellow-Breasted Wherrybill.	(24)

GOLDEN BOWER BIRD "PRIONODURA NEWTONIANA"

DISCOVERED in 1882 at the head of the Tully River by Kendall Broadbent, collector for the Queensland Museum. The first specimen being a plain coloured immature male or female, and was named "Prionodura Newtoniana," Prionodura meaning saw-tailed, and Newtoniana, after a famous English Ornitholigist, Professor Newton.

THIS drab colored species at that time was hardly noticed and considered as just another bird until 1889 when Archibald Meston, M.L.A., while a member of a Government expedition to Bellenden Kerr Range, procured the lovely golden male bird at a height of 4800 feet, and for some time thought he had discovered a new species.

The lovely Golden Bower Bird is a resident of jungle-clad mountains and his range is approx. the ranges between the Bloomfield and Herbert.

The lovely golden bird builds a remarkable type of bower comprised of small dry sticks usually of a pyramid shape between two small trees and often connected by a vine the walls usually about five feet apart the edges are usually decorated with litchen and white flowers; at times the birds build a maypole type of bower well above ground.

For many years very little was seen or heard of "Prionodura" until a few years ago when well-known southern Ornithologist, Alex Chisholm, O.B.E., paid a visit to the Tableland and saw the golden bird and its unique bowers.

Mr. Chisholm was so enthralled by this beautiful species that he prevailed Mr. Norman Chaffer, famous wild life photographer, to pay a visit, and he was successful in taking the first black and white and also colored pictures of the bird in the reserves west of Atherton, and much publicity was given to the species in southern areas.

Having recently seen the Golden Bower Bird and bowers, twenty miles from Atherton, I can endorse all that has been published. As the bird preened his plumage and erected his crest he was truly a beautiful sight.

This unique bower bird never decends to low altitudes preferring the high jungle clad mountains.

—J. A. BRAVERY.

CLUB ACTIVITIES

IF, BY precept and example, Club members have raised their organisation to that standard whereby it is considered a privilege to be associated with "The Nats," then the past quarter can be counted a successful one. Membership continues to increase at a most satisfactory rate, and the President (not being superstitious) has welcomed thirteen new members during the past three months.

One can not qualify this upsurge of interest in Natural History by saying "Oh! Well, they like the field days, or enjoy the refreshments served after each monthly meeting." Field days can be enjoyed by anyone having a car, a bike, or even "Shank's pony," and a cup of tea can be obtained by more simpe methods than attending a Club meeting.

The interest in Natural History is a genuine one, and the Club's specialists have been hard put to in satisfying the demands for information coming from these new members. It may be stated here that the self-same "specialists" have had to keep well on their toes to give accurate information, because some of the new members are becoming well versed in their chosen science.

Already one new member (a year old in membership) has become a well-versed ornithologist; another lady member, recently joined, is well on

the way to becoming a competent arachnidologist, and the weekly column in the "Cairns Post" has received notes from other new members showing a remarkable aptitude for the naturalists' prime requirements—patience, observation, and an ability to link the two in a logical manner.

All of which can be summarised in brief: The Club, in addition to gaining quantity on the Membership Roll, is also gaining quality of a high order, which should carry it even further aolng the high road to success.

Field days have been well attended and members visited Pine Creek and Williams' Forestry Road (Babinda) in October and November, foregoing a country trip in December to foregather at the President's home and celebrate the seasonal spirit. This "Field Day" attracted sixty-odd members and their friends, not very many more than answer the roll for the normal monthly expedition.

Monthly Meetings have been well attended and the talks given have been greatly enjoyed. Mr. Masleh, of Babinda, took members on the ascent of Bartle Frere (aided by lantern slides); a lecture on entomology by Mr. J. G. Brookes, F.R.E.S., showed a remarkable depth of learning; and Mr. R. C. Harder's illustrated discourse on the tobacco industry from seed-bed to selling floor was enjoyed by all.

Due to the presistence of the Club's journalist, the indulgence of the editor of the "Cairns Post," and the co-operation of some of our more literary members the weekly "Nature Notes" continues to flourish, having extended to a column and a quarter from its original half column. Members are asked to send their notes in regularly for this useful part of the Club's activities as a regular supply of news means a regular column.

The President "beat the gun" this year with his personal organisation of the "Operation Chironex" campaign, and before the first northerlies began to blow had volunteer observation stations initiated from Rocky Point to Mission Beach. All members are confidently looking forward to a successful conclusion of the campaign during the coming "stinger season," particularly in view of the fact that in addition to his personal campaign, the President has arranged a programme of research work in conjunction with the British Medical Association and various laboratories in the South. Two problems have to be solved: What causes "Irukandji"? and "What is the substance with which Chironex Fleckeri stings?"

To summarise: Membership is increasing; interest is increasing—even our finances are increasing. Members are showing more than a passing interest in their chosen fields, and this issue of the "Naturalist" will give some indication of the standard of research reached by members. These results have been achieved by the willing co-operation of our active members. Who knows what goals would be achieved were every financial member also "actively active"?

—J.O.

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