

## Further Remarks, Measurements, etc. on the Lotus-bird

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In order to make exact measurement and to record anything of interest I might note, I persuaded Mr. Cobcroft, of Wilberforce (N.S.W.), to secure a specimen of the Lotus-bird (*Irediparra australis*), which he kindly accomplished—much against his will, I have no doubt, as he is a keen protector of all the birds in his neighbourhood and on his property. The specimen I received was in quite good plumage, although it was just after what seemed to be the end of the breeding season as far as we could judge by means of chicks, old nests and an egg that failed to hatch. As with the chick, what impresses one is disproportion of the feet of the bird to its body which in a sense gives one the idea of the bird being “overfooted” (to coin a word). The following measurements are as exact as I could make them, whereas those of the chick described by me in *The Emu* (Vol. XXXIII, p. 304) were only “rule of thumb”, being done in the field. Also as the growth would be quite altered in say a couple of weeks, less importance was thereby attached to the size, etc. Consequently I find that exact length of the bill in the chick could not be correct when put down as one inch, for that is the exact length of the bill in the adult (2.50 cm.).

In general appearance the bird is not unlike the “Plain Plover” (*Zonifer tricolor*) having, on the dorsal area, the general bronze-brown colour, and which probably accounts for one of the local names, viz., Painted Plover. Incidentally the flight brought back to my mind the English Lapwing Plover (Peewit).

The following are the measurements, etc.:—

Weight, 3 ounces 80 grains.

Length (Tip of bill to end of tail, in the flesh),  $10\frac{1}{2}$  inches (26.7 cm.).

Wing (Shoulder to tip) (approx.), 5 inches (12.50 cm.).

Tibia,  $3\frac{1}{5}$  inches (8 cm.).

Tarsus,  $2\frac{2}{5}$  inches (6 cm.).

Middle toe (approx.), 3 inches (7.3 cm.).

Hind toe,  $3\frac{1}{5}$  inches (8 cm.).

Hind nail (approx.),  $2\frac{1}{2}$  inches (6.3 cm.).

Comb (length),  $\frac{4}{5}$  inch (2 cm.).

Comb (breadth),  $\frac{13}{25}$  inch (1.3 cm.).

Comb (height),  $\frac{2}{5}$  inch (1 cm.).

The so-called “comb” is an interesting structure, in shape resembling an upturned boat with a deep keel as is seen in

some yachts. In the dead bird its colour is a pale chrome yellow, with just a suffusion of red or light scarlet through it. The edges have a distinct, thin, black marginal line. Mr. Cobcroft states that the bird's comb, when he shot it, was of a bright red colour, soon fading to yellow when it was killed. The whole structure is thin, soft and flexible.

That the bird has the quality or power to alter the colour of this structure is undoubted in my mind, and has been affirmed by other observers.\* Whilst watching the bird pass in flight quite near enough for one to determine colour through Zeiss glasses, I noted the colour was that of the dead specimen, viz., yellow. Others, observing the bird at the nest, recorded the colour as at one time red and another time yellow. As I possess native fishes that can vary their colour at will (Rainbow Carp or Carp Gudgeon, *Carassius compressus*, Striped Gudgeon, *Mogurnda australis*), and a small frog (*Hyla* sp.), it seems nothing extraordinary that the colour of this wattle changes. Also, we have, of course, the more familiar example of the turkey "gobbler".

The colour of the bill is yellow and black, the former being that of the basal or posterior half. As the colours are equally distributed on both upper and lower mandibles the effect produced is that of a black band and yellow band respectively. The iris is a pale lemon yellow.

The specimen was a male, with the reproductive organs of such dimensions as to suggest the probability of further breeding, although the nearness of the recent breeding time may account for this.

The stomach contained mostly small seeds of an oval shape, about the size of millet, the crop being empty and thus disappointing, as I expected to find remains of insects or at least water-snails or beetles. Perhaps the bird is mainly a seed-eater, with some insects as an adjunct. It will be remembered that the live chick tried, whilst I was handling it, to catch a small whitish-coloured moth.

The body was well nourished and had fat in plenty in the usual situations, making the skinning difficult to keep clean. Attention was specially directed to the respiratory apparatus (bronchial tubes, lungs, etc.) in order to ascertain if there existed any departure from normality (as seen in some of the diving birds), such as diverticula, or duplication or folding of the trachea either in the lungs proper or in the pectoral muscles, but everything was quite normal, or at any rate, usual.† The presence of these unusual structures enables some aquatic birds to remain under water for exceptionally long periods, and had such been present a confirmation of the statements that this bird can submerge itself for

\*See paper by K. A. Hindwood, elsewhere in this part.—Ed.

†*Anseranas semipalmata*—the Magpie-Goose—has a trachea 4 feet 8 inches long "duplicated" in this way.



Head of Jacana, showing the "upturned boat" appearance of the comb.



Unhatched Jacana Chick from a "dead" egg, showing the already special development of the feet.

many minutes would have anatomical support. As already stated, the examination revealed nothing of this nature.

I have given the measurements in both English and metric systems, as one can get more exactitude by the latter method.

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## The Jacana

By KEN. COBCROFT, Communicated by Dr. E. A.  
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This bird, as has already been told, has been in the Hawkesbury district several years, and from close observation this last season some very interesting facts have been established. The bird makes a floating nest about one foot across at the base, coming up to four inches at the crown, the nest being formed of nardoo and millfoil. It makes several dummy nests a few yards away from the one it occupies—this, I think, is to mislead enemies.\* Other kinds of water fowl do the same thing I believe. The Jacanas lay sometimes three, but usually four eggs, which take about four weeks to hatch. One clutch, observed when it comprised four eggs, took twenty-three days. Of course the bird may have been sitting a few days when I saw the eggs, but it is not likely that it had been brooding for long. Of this particular clutch two out of four eggs hatched on February 19, 1934. The two eggs that did not hatch I collected.

I saw three young birds (hatched out of another clutch) three or four days old, which the old one was carrying, two under one wing, and one under the other wing. The chicks would be carried this way, I would say, until they were two or three weeks old—then, being too big to carry, they would hide if disturbed. When the adult bird was carrying them she dropped them in different places a few yards apart if I got too close to her. During the first week they would sit still on the weeds, just level with the water, and would not move, not even the slightest fraction, while their mother was flying or walking around, about 25 feet away, and uttering the peculiar cry that she uses when she has young ones.

After the first week the young started to submerge on being approached, keeping just the heads out. They are then very hard to see. I caught one clutch of three twice, took some "snaps" of them, then let them go. Once I found them several yards apart, and I picked them up and placed them together. The parent bird came to them several times whilst I was sitting in the boat 20 feet away, but I had to wait three hours before she picked them up. The young will not move whilst the parent is uttering the particular

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