

*Addendum.* By Dr. A. GÜNTHER.

Col. Playfair has sent to the British Museum, besides the fishes described in the preceding paper, an example of a small Labroid fish, which he regarded as a new species of *Labrichthys*, requesting me to examine it also. It proves to be identical with *Labrichthys cyanotenia* of Bleeker; but it would have been difficult to recognize it from Bleeker's description, as he has omitted to say that the ground-colour of examples preserved in spirits changes into black. Beside an example sent by Dr. Bleeker as *L. cyanotenia*, the British Museum possesses an example of *Thysanochilus ornatus* of Kner. This I find is identical with the Zanzibar fish, although it appears really to be the type of a distinct genus closely allied to *Labroides*, for which the name proposed by Kner ought to be retained. The synonymy is:—

## THYSANOCHILUS CYANOTENIA.

*Labrichthys cyanotenia*, Blkr.

*Thysanochilus ornatus*, Kner.

Samoa Islands, Flores, Zanzibar.

Specimens in the British Museum:—

a.  $6\frac{1}{2}$  inches long. Samoa Islands. Type of *Th. ornatus*.

b.  $3\frac{1}{4}$  inches long. Flores? (*L. cyanotenia*.)

c.  $3\frac{1}{4}$  inches long. Zanzibar.

# 6. Notes on the Common Grey Hornbill of India (*Meniceros bicornis*). By C. HORNE, F.Z.S.

Dr. Jerdon, in his 'Birds of India' (vol. i. p. 244), has briefly sketched the habits of the Hōmrai, or Great Hornbill, and allusion is there made to its curious custom of building-up its mate in the hole of a tree for the purposes of incubation; and I observe that Mr. Wallace, in an interesting article in the 'Intellectual Observer' (June 1863), states that a similar habit has been observed in at least three species, including that under notice.

Dr. Jerdon also quotes Major S. R. Tickell as having "seen this with his own eyes."

The number of observers must of necessity have been very small who have had the opportunity of watching the process of nidification; and as I only last year was so fortunate, I have deemed the subject worthy of a note.

The beak, neck, and tail of this bird being long, and the wings comparatively short, its flight is rather undulating, accompanied by frequent flapping of the wings, as the bird traverses the short distance from grove to grove in search of its favourite food, the fig of the Peepul tree (*Ficus religiosa*). Moreover, as during its flight it often utters its harsh note, it is a bird which attracts the notice of the most casual observer. It often flies in threes; and a visit from

these birds is much to be dreaded in well-stocked fruit-gardens. It feeds on all kinds of fruit, but more especially on figs, whether cultivated or of the wild varieties. The bird, its beak, and its structure have been so often described, that I will confine my remarks to what I have myself observed.

During the year 1867 I was resident at Mainpuri, N.W. provinces, India, and was much troubled with these birds, of which I shot a dozen. This was an easy matter, as when in search of food they are very fearless. I observed its habit of climbing by the beak, somewhat as a Parrot does; and the way in which they cleared the trees of fruit and jerked the said fruit into their throats, after seizing it with the points of their beak, was very curious.

I had some very choice, large, loose-skinned oranges; and I often found apparently entire skins only still attached to the twig, the whole of the inside having been extracted, piece by piece, section by section, by this clever "Dhanēl," as he is there called.

In April 1868 I received intelligence of two nests, and found that both had been made in the trunks of "Seemal," or cotton-trees (*Bombax heptaphyllum*), the bird having dug out and enlarged with his bill holes in this soft wood which had been previously used by Parrots.

In each case I obtained three eggs; and the hole, at a great height from the ground, appeared to have been plastered up with cowdung, or something nearly resembling it. I could not, however, determine this positively, as in each case I had to go some six or eight miles, and so had no opportunity of observing the process. The bird which I took from one nest had lost many of her loosely put-on feathers, and appeared to be in bad condition. As, however, the natives wanted her flesh for medicinal purposes, I allowed them to take her.

I was, however, more fortunate at the close of the same month (April 1868). On my lawn, surrounded by other trees, stood a noble sissoo-tree (*Dalbergia sissoo*); and where the first great fork diverged was a hole, for the possession of which for purposes of incubation the Rollers and Parrots were always noisily contending. I had often wished the Hornbills to use this; and I was much pleased to see that, after great consultation and inspection, and vociferation by the Rollers, and screeching by the Parrots, they on April 28, 1868, made up their minds to use it. The hole was nearly a foot in depth, and roomy inside. On the 29th of April the female went into the hole, and did not again come out.

There was sufficient room in it for the female to draw in her head altogether when she wished to conceal herself or to bring up the ordure from below.

The hole being about 10 feet from the ground and opposite my verandah, I could watch everything perfectly through a glass. The tree was also very near to the house.

From the time the female went in, the male was most assiduous in feeding her, bringing generally the small Peepul-fig.

On April 30th I observed the female working hard at closing the

orifice with her own ordure. This she must have brought up from the bottom of the hole; and she plastered it right and left with the flat sides of her beak, as with a trowel.

I never saw the male bring anything but food; and I never found any fruit which had been rejected under the tree, and but very little ordure, which latter had apparently been thrown out by the female when the closing-work was finished.

The male bird would alight near, then fly to the hole, holding on to the bark by his claws, and knock with his beak. On this the points of that of the female appeared and received the fruit, when the male flew off.

I herewith beg to submit some of the substance with which the hole was closed up, which is manifestly what I suppose it to be, and when fresh, possesses great viscosity. It contains the remains of insects, which probably the female had eaten before she entered the hole—thus confirming Dr. Jerdon's statement as to their various diet.

The hole was at first perhaps 6 inches in height, and 3 or 4 wide. When closed up, the opening at the widest part was a little larger than would admit the finger. It should, however, be borne in mind that the bill opened upwards, and thus had 3 or 4 inches play. The plastering-operation took two or three days, after which the ordure was thrown out.

The third Hornbill used to hover about, watch proceedings, and sometimes quarrel with the accepted lord, but he never brought food to the female.

On May 7, thinking that I had given time enough for the female to lay her three eggs, which I wanted, I got a ladder, opened out the nest, and with some difficulty got out the bird, who was fat and in good condition, with the desired eggs (three). At first she could scarcely fly, but did so after a little time.

The natives, who know the habits of these birds well, told me that the female digs herself out directly her newly hatched young need food; and this is most probably correct.

#### 7. Notes on *Ploceus baya* and its Nest.

By C. HORNE, F.Z.S.

(Plate XVII.)

In submitting these notes upon *Ploceus baya* I do not suppose that I am narrating anything not previously observed, although I have never met with any account of the method in which this ingenious bird obtains its material.

I cannot solve the mystery of the lumps of clay found in the nests, although I have examined many at all seasons for the purpose. I may remark, however, that I have seldom, if ever, found a finished nest without them.