

MISCELLANEA

BIRDS.

A further note on the Red Jungle Fowl.

In our paper "On the proper name of the Red Jungle Fowl from Peninsular India,"¹ Mr. H. C. Robinson and I expressed doubt as to the wildness of the birds of Pulo Condore which Linnaeus cited under *Phasianus gallus* (*Syst. Nat.*, ed. 12, 1758, p. 270) because Mr. W. J. F. Williamson's bird-collectors, who visited the island last year, obtained no specimens.

I have, however, recently been looking up accounts of Pulo Condore and the following two passages show quite clearly that there is, or was, a Jungle Fowl on the island.

The first is from Dampier's "Voyage round the World." He visited the group in 1687 and wrote:—

"Here are many sorts of birds, as Parrots, Parakites, Doves and Pigeons. Here are also a sort of wild Cocks and Hens. They are much like our tame Fowl of that kind; but a great deal less, for they are about the bigness of a Crow. The Cocks do crow like ours, but much more small and shrill; and by their crowing we do first find them out in the Woods where we shoot them. Their flesh is very white and sweet."

The other is from the "Voyage of Discovery to the Pacific Ocean" (Captain Cook's Third Voyage), Vol. III, 1774, by Captain King, LL.D., F.R.S. He wrote (p. 463) of his visit in 1780:—

"Our sportsmen were very unsuccessful in their pursuit of the feathered game, with which the woods are well stocked. One of our gentlemen had the good fortune to shoot a wild hen; and all the shooting parties agreed that they heard the crowing of the cocks on every side, which they described to be like that of our common cock, but shriller; that they saw several of them on the wing, but that they were exceedingly shy. The hen that was shot was of a speckled colour, and of the same shape, though not quite so large, as a full grown pullet of this country. Monsieur Sonnerat has entered into a long dissertation, to prove that he was the first person to determine the country to which this most beautiful and useful bird belongs, and denies that Dampier met with it here."²

So there can be no objection to accepting Linnaeus' Pulo Condore birds as Jungle Fowl.

¹ *Rec. Ind. Mus.* XIX, pp. 13-15 (1920).

² Sonnerat, however, though writing about Jungle Fowl, was really dealing with another species—his "Coq Sauvage des Indes" (*Gallus sonnerati* Temm.) and not with the present one.

Nevertheless we cannot accept the *Phasianus gallus* of the "Systema Naturae" as the name for the Red Jungle Fowl for he had used it previously in the *Fauna Svecica* for domesticated European birds and it cannot be employed again for something else. This contention must hold whether names based on domesticated races are accepted or not. It refers to a domestic breed or is not available. There are several species of Jungle Fowl and, as Mr. Stuart Baker points out in his latest remarks on a form of *Gallus* (*Journ. Nat. Hist. Soc.*, Siam IV, 1920, p. 33), there is nothing to prove that Linnaeus' domestic fowl was unquestionably the direct descendant of the Red Jungle Fowl. The name *Phasianus gallus* therefore cannot properly be applied to this last: we cannot even regard it as a subspecies of *Ph. gallus*.

While our paper was being printed Messrs. Bangs and Penard published an article on "The name of the Common Jungle Fowl."¹ They discuss the synonymy of the species and, considering that *Phasianus gallus* is adequately described and can apply to none other than the Red Jungle Fowl, select Bengal as the "terra typica" restricted.

This finding I cannot accept, even if I accepted for a wild bird the *Phasianus gallus* of the 12th Edition. Even then it would not be available for the western race since the distribution given by Linnaeus is "India Orientali: Pouli candor, etc." India orientali merely means the East Indies as contrasted with the West Indies, not the eastern part of India, and we cannot regard Pulo Condore as other than a "terra typica" restricted by Linnaeus himself. Messrs. Bangs and Penard's selection of Bengal comes therefore too late.

There is no question as to the application of *Tetrao ferrugineus*, Gmelin (vide also Hartert, *Nov. Zool.*, IX, 1902, p. 218) so that the specific name of the Red Jungle Fowl is *Gallus ferrugineus* (Gm.), "terra typica" countries east of the Bay of Bengal, the eastern subspecies being thus *Gallus ferrugineus ferrugineus*. The western race was without a name until recently (a point on which Messrs. Bangs and Penard are in agreement) and this we have supplied by proposing as popular a name as possible: *murghi* (fowl) is perhaps one of the best known words in the Indian vernacular.

Mr. Stuart Baker is quite out of order in using *bankiva* as the specific name (*l.c.s.* and *Journ. Bombay Nat. Hist. Soc.* XXV, 1917 pp. 1-21) the more so in that he employs *ferrugineus* as a subspecific one (though crediting it to Blyth instead of Gmelin). *Tetrao ferrugineus* was proposed by Gmelin in 1788 (*Syst. Nat.*, ed. 13, p. 761), whereas *Gallus bankiva* was not published until 1813 (Temminck, *Hist. des Pigeons et des Gallinaces*, II, p. 87; Java and Sumatra: not, fide Baker, *Phasianus bankiva* Raffles, *Trans. Linn. Soc.*, XIII, 1822, p. 319; Sumatra).²

¹ *Proceedings of the New England Zoological Club*, VII, pp. 23-25 (1919).

² Mr. Baker commits another error, as what Raffles recorded was *Phasianus gallus*, Linn.

Messrs. Bangs and Penard also give Sumatra as the type locality of *bankiva* but Java must be taken, as the specific name is merely a slightly altered Javanese one. It is quite true, however, that the race occurs in Sumatra as well. I have lately seen in the Zoological Museum at Buitenzorg specimens from the south-west of that island though *f. ferrugineus* is found in the north-east.

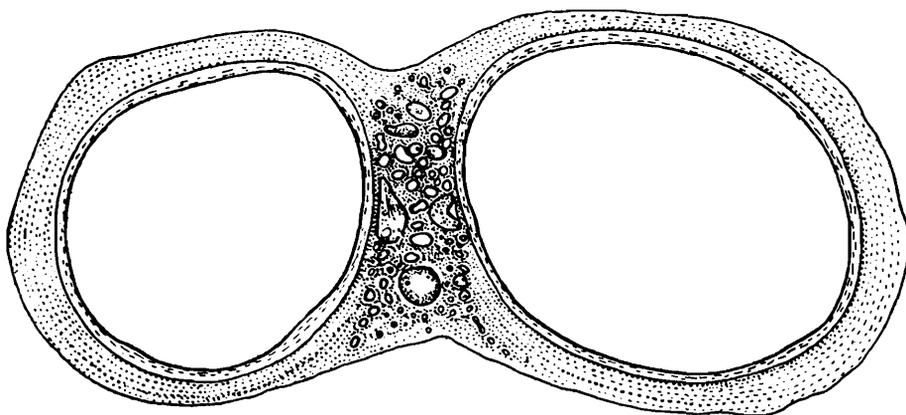
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BATRACHIA.

A short note on the structure of the Compound limb bones of *Rana*.

This short note is published with a view to record an observation on the structure of the bone of the common large frog of Lahore (*Rana tigrina*) that I made sometime ago. Owing to the pressure of other work, not having as yet a chance to elaborate the problem in detail, I wish to bring this observation to the notice of other workers.

In all accounts of the histological structure of the bone of frogs, the bony substance is described as compact, consisting of very thin lamellae superimposed on one another, and without any Haversian system of canals intersecting or passing through them.



Transverse section of the tibio-fibula of the frog *Rana tigrina*, $\times 16$.

For example, one may refer to the description given in Parker and Parker's "An elementary course of practical Zoology," pp. 116-117 and 125.

In one of the sections of the tibio-fibula prepared by me by the ordinary grinding method, however, I found a different state of things. The structure of the outer walls of the two component elements of this bone was similar to that of any other bone of the frog, but in the middle, where the two bones have fused together, one finds instead of the compact structure, a regular system of canals traversing this area as seen in the figure. Seen with a