

Total length of the lower jaw	0	6 $\frac{1}{2}$
Length of the dentinal series in the lower jaw	0	4
Breadth between the outer cusps of the two posterior molars	0	2 $\frac{3}{4}$
Breadth between the points of the lower canines	0	1

In summing up the characters of this singular species (which, as far as is known, is the sole representative of the genus), several affinities not usually associated are manifest. Thus in the form of the tail, and the way in which it perforates the interfemoral membrane, it bears strong resemblance to the genus *Taphozous*, whilst the strength and form of the hinder limbs, but more especially the form and implantation of the canine and incisor teeth, would seem to indicate an affinity with the genus *Molossus* (*Nyctinomus*), both of these genera being representatives of the family *Noctilionina*. Again, on examining attentively the forms of the ear and tragus, we shall be struck with the great resemblance which the latter bears to that of some of the examples of the genus *Vespertilio*, and the former, although differing considerably from the ear in *Vespertilio*, bears nevertheless a greater resemblance to it than perhaps to that of any other genus. But there is another peculiarity to which I have already alluded, which is deserving of especial notice—the presence of *four* bony phalanges in the second finger,—a peculiarity in which it resembles the *Phyllostomidæ* or Leaf-nosed Bats of the New World, that number being one of their characteristics; whilst in all the Old World genera, with the exception of the one now under notice, we find that that finger has only *three* bony phalanges*. There are, however, several characters present which appear to belong exclusively to the present genus, such as the form of the snout and nostrils, the singular markings on some of the membranes, and the peculiar quality of the fur.

MISCELLANEOUS.

Note on Elephant Remains from the Gravel near Ballingdon Hill, Essex. By JOHN BROWN, Esq., F.G.S., of Stanway.

To the Editors of the Annals of Natural History.

Stanway, near Colchester, Oct. 1, 1857.

GENTLEMEN,—In the eighth volume of the Magazine of Natural History, for the year 1835, p. 353, is an article which at that time I had the pleasure of sending to Mr. Loudon, the then editor of that interesting and very useful work, on some fossil remains (teeth and bones) found at that time in a gravel-pit at Ballingdon, Essex, near Sudbury. These remains consisted of tusks, teeth, and many bones of

* A similar peculiarity occurs in the genus *Centurio*, which, when first described by Dr. Gray, was thought to be a native of the Old World, but there was some doubt as to the exact locality from which it had been received. But other examples have been since obtained from the New World, and its near alliance with the tailless *Phyllostomidæ* has been satisfactorily established. The existence therefore of *four* phalanges in this finger in *Centurio* cannot be considered, as in *Mystacina*, as an exception to a general rule, but on the contrary as a further extension of it.

the Elephant, and bones and horns of a large species of Deer. Subsequently to that period, many fossils of the same kind have been met with from time to time in the same gravel-pit: some of these still remain in the possession of the proprietor of the estate, some are in the Museum of the Geological Society of London, and some have been sent to private museums in the neighbourhood.

Unfortunately, the Elephants' tusks found in former excavations in this gravel were so much decomposed as to baffle every attempt to remove them; they all fell to pieces when touched: an outer coat of ivory was left on the spot where one tusk had lain so long, and its strong curvature could be very plainly seen. In the year 1855 another tusk was found in the same bed of gravel,—broken, indeed, into several pieces, but not so much decomposed as former ones. In laying all these pieces out carefully according to their natural curvatures, they were found to form collectively a tusk seven feet in length on its outer curve, and it showed a curve that was quite as deep as that of a former tusk found here, viz. nearly a half-circle.

On a chord-line, the distance from the basal part to the extreme point of this fossil, which is fortunately preserved, is 3 feet 10 inches, and 21 inches from the chord-line to the upper surface of the tusk, in the position in which it is now mounted—its natural position,—a greater curvature than any I have before observed in tusks found in this county.

An Elephant's tusk, equally large, was found at Clacton, about sixteen years ago, but not so deeply curved as the tusks above noticed.

If we allow 3 feet to any Ballingdon tusk for that part which goes into the socket on the side of the Elephant's head (which I am told is not too much), we have a tusk altogether 10 feet long. The tusk found at Clacton was, when alive, 12 feet.

As the former discoveries of Mammalian fossils at Ballingdon are recorded in the Magazine of Natural History, this is also at your service, if sufficiently important.

The last tusk found at Ballingdon was only mounted last Monday week. It was found, as well as all the other mammalian fossils, 30 feet below the surface, in gravel of the glacial period.

I am, Gentlemen,
Your most obedient Servant,
JOHN BROWN.

Note on Bovine Remains, lately found at Clacton, Essex.

By JOHN BROWN, Esq., F.G.S., of Stanway.

To the Editors of the Annals of Natural History.

Stanway, Oct. 22, 1857.

GENTLEMEN,—On a visit to the freshwater deposit at Great Clacton, about three weeks ago, I fortunately obtained a beautiful pair of horn-cores of a large species of *Bos*; and, compared with the description given by Professor Owen in his Report to the

British Association for the Advancement of Science, for the year 1844, on "British Fossil Mammalia," these fossils appear to belong to *Bos priscus*, described in that work, page 234.

The Clacton freshwater deposit has from time to time, ever since its discovery in 1832, produced highly interesting remains of the Elephant and other large Mammalia, in great numbers, now to be seen in various museums; a long series of freshwater Mollusca has also been obtained from this deposit.

The horn-cores so recently obtained from the Clacton freshwater deposit are quite as large as any of that species heretofore found there: their entire length is 2 feet 9 inches from base to point upon the outer curve, 17 inches in vertical diameter, and $4\frac{1}{2}$ inches from front to back at their base. In these specimens we have also the graceful double curvature and the deeply impressed grooves usual in the horn-cores of *Bos priscus*, pointed out by Professor Owen in his Report above alluded to.

The curvature of these cores, on the inner side, is 7 inches from the chord-line to the inner surface.

Still larger specimens than the foregoing have been met with in the freshwater beds at Clacton; but as they do not possess the deep-grooved character, and are of greater dimensions, they may probably belong to a different species, and perhaps to *Bos primigenius*.

I am, Gentlemen,

Your obedient Servant,

JOHN BROWN.

Description of a new species of Pachyrhamphus. By P. L. SCLATER.

PACHYRHAMPHUS ALBO-GRISEUS, sp. nov.

♂. *Supra cinereus, pileo cum nucha nitenti-nigris: linea frontali inter oculos alba: alis nigris, tectricibus et secundariis extus late albo marginatis: subtus albus, præcipue apud latera cinerascens tinctus: cauda nigra, rectricibus omnibus, sed harum extimis præcipue, late albo terminatis: rostro plumbeo: pedibus nigris.*

♀. *Saturate castanea, subtus valde dilutior, cinnamomescenti-ochracea. (?)*

Long. tota 5.5, alæ 3.0, caudæ 2.4.

Hab. New Grenada, Bogota.

Mus. P. L. S.

I possess an adult male specimen, and what, I think, is probably the female of this Becard, which is a close ally of the two preceding species. It is, I suppose, the New Grenadian representative of the form; and, I confess, it is not without hesitation that I separate it specifically from *P. marginatus*. The differences are the further extension of the black over the nape of the neck, the entire want of black on the back, the more purely white colouring below, and the much deeper white terminations of the outer rectrices in the present species.—*Proc. Zool. Soc.* April 28, 1857.



Brown, John. 1857. "Note on elephant remains from the gravel near Ballingdon Hill, Essex." *The Annals and magazine of natural history; zoology, botany, and geology* 20, 396–398. <https://doi.org/10.1080/00222935709487940>.

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