

PHILOSOPHICAL
LETTERS

Between the late

Learned Mr. *RAY*

And several of his Ingenious

CORRESPONDENTS,

NATIVES and FOREIGNERS.

To which are added those of

Francis Willughby Esq;

The Whole consisting of many curious Discoveries and Improvements in the History of Quadrupeds, Birds, Fishes, Insects, Plants, Fossiles, Fountains, &c.

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18

262 *Sir Hans Sloane to Mr. Ray.*

Ungula or *Ungues*, they being round and blunt, and covering the very tops of his Toes.

B. N. April 15—92.

Sir Hans Sloane to Mr. Ray.

S I R,

London, May 20th. 1692.

I Have lately seen a Collection of *Petrifications* with Mr. *Beaumont*; amongst the rest is the *Lapis Astroites*, which is a sort of Coral generated in the Seas between the Tropicks; and it seem'd to be so clearly that, as nothing plainer. 'Tis turn'd to Flint, and the Interstices between the starry Pores are transparent. One of this kind he shewed to me was half petrify'd, the other half remaining, like a common Star Stone. He shew'd me likewise many Impressions of several Plants in *Slatt*, as *Ferns*, *Flags*, &c. very fair and plain, with several Stalks of Plants petrify'd and enclos'd in Flint, which he talks of publishing together with some Figures of, and reasonings upon them.

Mr. Ray's Answer to Dr. Robinson.

S I R,

I Receiv'd yours of *March 20th*, in an answer where-
to I can only tell you as to the first particular, about *Bisulc* and *Quadrisulc*, that the Reasons why I conjecture the *Rhinocerot* and *Hippopotamus* to be *4^{drisulc}* are, (what I intimated before) the bigness and position of the outward Hoofs, as they are represented in the Sculptures, not being set at that distance

as

Mr. Ray's Answer to Dr. Robinson. 263

as they are in Bifulc Animals; and the Authority of *Columna*, as to the *Hippopotamus* who (had the hind *Ungulæ* been like to, and situate in like manner, as in other Bifulc Animals) would never have made such a Remark upon it, *viz. that its Feet were Quadri-fulc.*

As to the second concerning the *Viper*, I believe that the Eggs have no Cohesion with the *Uterus*, neither the Young; I have easily turn'd the Eggs out. And in the Young, when ready for exclusion, I have indeed observ'd a Navel String; but it seem'd to be nothing but one single Membrane, which served only as an *Infundibulum* for the Yolk of the Egg into the Intestine of the young *Viper*; just as I have seen in young *Dog-Fish*, in the Belly of the old one, half, or a good part of the Yolk hanging out of the Body at the *Infundibulum*. It seems to me not at all likely that Creatures of the same *Genus* should have a different manner of Generation; and we see this hatching of Eggs, properly so call'd, in the Belly, exemplify'd in *Cartilagineous Fish*.

I have some reason to doubt of what *you* and *Dr. Tyson* write concerning *Adders* having no *Vesiculæ Seminales*. A Male that I dissected had a long *Vesicula* replete with Sperm, (as I took it to be) like the Milt of a Fish, extending the whole length of the Belly; but I did not carefully examine it, and therefore might be mistaken, and it might be nothing but fat.

B. N. June 1.—92.

Mr. Ray to Dr. Robinson.

S I R,

OUR principal Physician at *Braintree*, *Mr. Allen*, my Acquaintance and Friend, hath discover'd hereabouts *flying Glow-worms*; and I doubt not but they