

*Another Extract of a Letter written from Midleton in Warwickshire to the Publisher July 10<sup>th</sup>. by Francis Willughby Esquire; about the Hatching of a kind of Bee, lodged in Old Willows.*

**T**He Cartrages that I got at *Astrop*\* near a Twelfmonth ago, do now almost every day afford me a *Bee*; and I can hear them gnawing out their way before I see them: So that there is nothing irregular in the way of breeding of these Bees; But the contrivance of God and Nature in it is very admirable. Having shut their yong ones in those Cels with sufficient provision, they all, as well the uppermost as lowermost, before Winter come to their full growth, or are turn'd into *Nympha's*: in vvhich condition they are designed to lye all Winter, as the most of Insects do. The next Summer those must necessarily be first excited out of their *torpor*, and changed into flyers by the external heat and ayr, that lye next it. If any be laid so late, that they have not time enough to come to the state of *Nympha's* before Winter, they vwill most certainly dye; and then it is no loss nor inconvenience, though their Cells be perforated.

\* See two Letters concerning this matter, in Numb. 65. of these Transactions.

The *Scolopendra*, spoken of by the German Philosophers in Numb. 8. p. 2082. §. 31. of the *Transactions*, is that which is our *Bruchus*, described by *Muffet*, in the latter part of his Chapter *de Julis*, p. 202. I saw it in the Cloisters of *Trinity Colledge* in *Cambridge*, 12 or 13 years ago. It shall go hard, but I will send you some shortly. I am, &c.

*A further Account of the Stellar Fish; formerly described in Numb. 57. p. 1153; with the Addition of some other Curiosities.*

**T**His Account was communicated by the same Gentleman, that imparted the former, in a Letter written from *Boston* in *New England* Oct. 26. 1670. as followeth:  
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— Since my former, I found out the Fisher man, who brought that *stellar Fish* from Sea. I asked all the questions I could think needful concerning it. I understood from him, that he never saw nor heard of any but those few, that were taken by himself, which were not above six or seven in all, and those at several times, not far from the Shoals of *Nantucket* (which is an Island upon the Coast of *New England*,) when he was fishing for Cod, and such like Marchantable fish. This *stellar Fish*, when it was alive, and first pull'd out of the water, was like a basket, and had gathered it self round like a Wicker-basket, having taken fast hold upon that bait on the hook, which he had sunk down to the bottom to catch other Fish, and having held *that* within the surrounding *brachia*, would not let it go, though drawn up into the Vessel; until by lying a while on the Deck, it felt the want of its natural Element, and then voluntarily it extended it self into the flat round form, in which it appear'd when presented to your view.

What motion these fishes had in the water, could not be known to him, for the water was deep, & they could not be seen in any other form than so gather'd up together to hold fast the bait. The only use that could be discern'd of all that curious compofure wherewith Nature had adorned it, seems to be, to make it as a purlenet to catch some other fish or any other thing fit for its food, and as a basket of store to keep some of it for future supply, or as a receptacle to preserve and defend the young ones of the same kind from fish of prey; if not to feed on them also (which appears probable the one or the other;) for that sometimes there were found pieces of Mackerel within that concave: And he told me, that once he caught one, which had within the hollow of its embracements a very small fish of the same kind, together with some piece or pieces of an other fish, which was judged to be of a Mackerel. And that small one ('tis like) was kept either for its preservation or for food to the greater; but being alive, it seems most likely it was there lodged for safety, except it were accidentally drawn within the net, together

ther with that piece of fish, upon which it might be then feeding.

He told me further, that every one of those smallest parts\* had motion when it was alive, and a tenacious strength; but after it was dead and extended to a flat round, it was so brittle that it could not be handled without breaking some parts of it; but by careful laying of it to dry, it was thereby somewhat hardened.

\* See the Figure of this Fish in *Numb.* 57.

He added, that he had taken one of this kind of fish the latter end of this Summer, but had left it with a friend at another port where he had been. Mean time he promised to procure it for me when he should sail thither again, if it were not then broken or defaced. I hope I shall engage him for the future to take better notice of what may be remarkable about it. Upon occasion I have inquired of divers other Fishermen and Mariners, but can meet with none other that ever have taken any of these fishes. This Fisherman could not tell me of any name it hath, and 'tis in all likelihood yet nameless, being not commonly known as other Fish are. But, until a fitter *English* name be found for it, why may it not be called (in regard of what hath been before mentioned of it) a *Basket-Fish*, or a *Net Fish*, or a *Purse-net-Fish*?

I send you withal a little Box, with a Curiosity in it, which perhaps will be counted a trifle, yet 'tis rarely to be met with even here. It is the curiously contrived Nest of a *Humming-Bird*\*, so called from the humming noise it maketh whilst it flies. 'Tis an exceeding little Bird, and only seen in Summer, and mostly in Gardens, flying from flower to flower, sucking Honey out of the flowers as a Bee doth; as it flieth not lighting on the flower, but hovering over it, sucking with its long Bill a sweet substance. There are in the same Nest two of that Birds Eggs\*? Whether they use to have more at once, I know not. I never saw but one of those Nests before; and that

\* Of which see a notable Description in the *History of the Antilles* l. 1. c. 15. art. 17. where it hath the name of *Colibri*.

\* These Eggs were so small, that being weighed by the Publisher, the one weighed but about 5 grains, the other 3<sup>1</sup>: And the whole Nest weighed no more than 24 grains.

was sent over formerly, with some other Rarities, but the Vessel miscarrying you received them not.

*An Extract out of the 3d and 7th Venetian Giornale de Letterati, concerning the Formation of Fætus's.*

**T**HE Author of these Journals, proposeth in the *third* of them this Inquiry, *viz.*

Wherein consists the *causa formatrix* of the *Fætus*; whether in the native Heat, as the Ancients taught; or in Motion, as the Moderns are inclined to believe: And if the latter, whence that motion proceeds, and here it is diversified for the conservation of various Species's?

The Journalist having been informed, that Signor *Gieronimo Barbato*, publick Professour of Practical Physick at *Padua*, and Physitian in *Venice*, had written a Book upon that subject, and illustrated it with new Anatomical Diagrams, all ready for the Press; did, it seems, obtain the perusal of the Original Manuscript, and permission withal, to make an Extract thereof, which in this Journal he presents the Curious with, to stay their desire whilst the whole Dissertation is printing. This Breviate we thought fit to *English* here out of the *Italian*, as followeth;

The Author, Signor *Gieron. Barbato*, first delivers the chief Sentiments of the Ancients and Moderns concerning the *Formative Soul*; shewing that from variety of those Opinions there results nothing but darkness. He also mentions some others touching the use of the *Testicles*, whom he modestly refuteth, animadverting upon some Errors both of old and new Anatomists. Then he discourseth of some principal parts constituting the same, which he thinks have not been rightly observed hitherto: And beginning with the *vasa pampiniformia*, he affirms, that they are made up of a great many Arteries, and of one only Vein, and that this vein, being considerably big, is circularly scituate, that so it may the more conveniently unite it self, by a curiously contrived *anastomosis*, to those many Arteries. Then he describeth the *Use* of these *Pampiniform* vessels, informing us, That the said Arteries are not *directly* inser-

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