

Utah State University

DigitalCommons@USU

Ba

Bee Lab

10-28-1834

On a species of bee from the Brazils, found living on splitting a log of peach wood containing its comb.

H. Bigg

Follow this and additional works at: https://digitalcommons.usu.edu/bee_lab_ba



Part of the [Entomology Commons](#)

Recommended Citation

Bigg, H., "On a species of bee from the Brazils, found living on splitting a log of peach wood containing its comb." (1834). *Ba*. Paper 157.

https://digitalcommons.usu.edu/bee_lab_ba/157

This Article is brought to you for free and open access by the Bee Lab at DigitalCommons@USU. It has been accepted for inclusion in Ba by an authorized administrator of DigitalCommons@USU. For more information, please contact digitalcommons@usu.edu.



October 28, 1834.

Richard Owen, Esq., in the Chair.

Living specimens were exhibited of a species of *Bee* from South America, together with portions of its Comb, contained in the fissure of a log of wood. They were presented to the Society by Mr. Bigg, who stated, in a note accompanying the specimens, that they were found about three weeks since on splitting a log of peachwood from the Brazils for the use of a dye-house, on the premises of Mr. Applegath, a calico-printer at Crayford in Kent. The wood had been previously lying in the docks, and had been perhaps eighteen months from the Brazils.

Mr. Curtis, to whom specimens were submitted for examination, states that they belong to the genus *Trigona*, Jur., and form a very pretty and apparently undescribed species.

Mr. Yarrell exhibited preparations of both sexes of *Syngnathus Acus*, Linn., and *Syngn. Typhle*, Ej., in illustration of the following extract from the manuscript notes of the late John Walcott, Esq., author of 'A Synopsis of British Birds,' 'History of Bath Fossils,' and 'Flora Britannica Indigena.' This manuscript, which is voluminous, and relates wholly to British Fishes, was written during the author's residence at Teignmouth, in the years 1784 and 1785, and has been forwarded by his son William Walcott, Esq., of Southampton, to Mr. Yarrell, for his use in a projected work on 'British Fishes.'

"*Syngnathus Acus* and *Typhle*.—The male differs from the female in the belly from the vent to the tail fin being much broader, and in having for about two thirds of its length two soft flaps, which fold together and form a false belly. They breed in the summer, the females casting their roe into the false belly of the male. This I have asserted from having examined many, and having constantly found, early in the summer, roe in those without a false belly, but never any in those with; and on opening them later in the summer there has been no roe in (what I have termed) the female, but only in the false belly of the male."

The specimens exhibited of females of *Syngn. Acus* and *Typhle* had no anal pouch, and the opened *abdomen* exposed two lobes of *ova* of large size in each. The anal pouch is peculiar to the males, and is closed by two elongated flaps. On separating these flaps and exposing the inside, the *ova*, large and yellow, were seen lining the pouch in some specimens, while in others the hemispheric depressions from which the *ova* had been but lately removed were very obvious. In each of these the opened *abdomen* exhibited true *testes*.

Mr. Walcott adds: "They begin to breed when only between 4 and 5 inches long." A specimen of *Syngn. Acus*, nearly 16 inches long, was exhibited, indicating, probably, its extreme growth. A female

of the same species, only 4 inches long, was also shown, the *abdomen* of which contained two lobes of enlarged *ova*, which, to all appearance, would have been deposited in a few days.

Specimens of males and females of *Syngn. Ophidion*, Linn., were also exhibited. In this species neither male nor female possesses an anal pouch, but the *ova* are carried by the male in hemispheric depressions on the external surface of the *abdomen*, anterior to the *anus*. All the specimens examined having these external depressions proved to be males, with the *testes* in the *abdomen* very obvious: those without external depressions proved to be all females, internally provided with two lobes of enlarged *ova*. The males of this species, when taken by Mr. Yarrell from the sea, had one *ovum* of the size and colour of a mustard-seed fixed in each cup-shaped depression, but time and the effects of a long journey had removed them. Dr. Fleming in his 'History of British Animals,' page 176, states the length of *Syngn. Ophidion* at about 5 inches: some of Mr. Yarrell's specimens measured 9 inches.

Mr. Yarrell further stated that the males of *Syngn. Acus* carry their living young in the anal pouch, even after they have been hatched there. He had been frequently told by fishermen that on opening them they had found the living young within the pouch, which they called the belly; and that if these young were shaken out into the water over the side of the boat, they did not swim away, but when the parent fish was held in the water in a favourable position, the young would again enter the pouch.

It was observed by M. Agassiz, that the fact of the males of certain species of the genus *Syngnathus* carrying the *ova* in a peculiar abdominal pouch, after their exclusion by the female, had been noticed on the Continent by Eckström, Retzius, and Marcklin; and that he had himself made the same observation.

M. Agassiz exhibited drawings of several species of *Lepisosteus*, together with some of the details of their internal organization; and, at the request of the Chairman, explained his views with regard to their systematic arrangement and structure, as well as to their relations with various genera of fossil fishes, and the coincidence of some parts of their internal anatomy with that of *Reptiles*. He described two new species observed by him in the British Museum, taking his characters principally from the form and sculpture of the scales, the presence or absence of the short rays at the base of the caudal and other fins, and the variations in the form and disposition of the teeth. In reference to their internal structure, he particularly called the attention of the Meeting to the large and regular slit by which the swimming-bladder communicates with the *pharynx*; which he regarded as bearing even a closer resemblance to the entrance of the *trachea* of the pulmoniferous *Vertebrata* in general, than the aperture by means of which the lungs communicate with the *pharynx* in the *Perennibranchiate Amphibia*. He conceived, therefore, that the anatomy of these fishes offers a conclusive argument in favour of the theory, long since proposed, that the swimming-bladder of *Fishes* is

analogous to the lungs of the other *Vertebrata*. He spoke of the number of the cæcal appendages as greater in *Lepisosteus* than in any other fish which he had dissected; and referring to certain fossil bodies by which geologists have long been puzzled, and which have been regarded as fossil worms, he stated his opinion, from the close resemblance between the two, that they are in reality the cæcal appendages of the fossil fishes, in whose company they are generally found.

Mr. Gray exhibited young shells of *Argonauta Argo* and *Arg. hi-ans*, with the view of calling the attention of the Society to a new argument in favour of the opinion that the animal (*Ocythoë*) found in the shells of this genus is parasitic. This argument is founded on the size of what Mr. Gray has termed the *nucleus* of the shell, viz. that original portion of it which covered the animal within the egg, and which is usually found to differ in surface and appearance from the remainder of the shell formed after its exclusion from the egg. In the specimens exhibited Mr. Gray described the *nucleus* as blunt, rounded, thin, slightly and irregularly concentrically wrinkled, and destitute of the radiating waves which are common to the adult shells of all the species of this genus. These waves he stated to commence immediately below the thin hemispherical tips, and he therefore entertained no doubt that those tips constituted the *nucleus* of the shell, and covered the embryo of the animal at the period of its exclusion from the egg. Judging from the size of this portion of the shell, which in one of the specimens measured nearly one third of an inch in diameter, and was consequently many times larger than the largest eggs of the *Ocythoë* found within the *Argonaut* shells, Mr. Gray inferred that it must have been produced by an animal whose eggs are of much greater magnitude. The *Ocythoë* cannot therefore, he conceived, be the constructor of the shell, and its true artificer still remains to be discovered. Mr. Gray further remarked, with reference to Poli's statement that he had observed the *rudiment* of a shell on the back of the embryo of *Ocythoë* examined by him, that he has himself uniformly found, in all the eggs of *Mollusca* which he has examined, the shell well developed, even before the development of the various organs of the embryo. With respect to the argument derived from the want of muscular attachment, he observed that the animal of *Carinaria* (to which he considered it probable that that of *Argonauta* is most nearly related), although firmly attached to the shell while living, separates from it with the greatest ease when preserved in spirits, being from its gelatinous nature very readily dissolved. These circumstances, he conceived, might fairly account for the animal of *Carinaria* having been, until very recently, unknown, and for that of *Argonauta* still remaining undiscovered.

November 11, 1834.

Dr. Marshall Hall, in the Chair.

A specimen was exhibited of a species of *Monacanthus*, Cuv., remarkable for having on each side of the body, about midway between the pectoral and caudal fins, a bundle of long and strong spines directed backwards. The species was figured in Willughby's 'Historia Piscium,' and a description of it by Lister is contained in the Appendix to that work; but it appears not to have been noticed by subsequent observers, and to have been altogether overlooked or rejected by systematic writers. Lister's specimen of the *Fish* was preserved in the collection of William Courten, the founder of the museum which became subsequently the property of Sir Hans Sloane, and eventually formed the basis of the British Museum: that brought under the notice of the Meeting belongs to the Museum of the Army Medical Department at Chatham, and was exhibited with the permission of Sir James Macgrigor. It was accompanied by a description by Staff-Surgeon Burton, which was read.

MONACANTHUS HYSTRIX. *Mon. lateribus in medio 6—7-spinosis, spinis validis longioribus.*

Guaperva Hystrix, *List., in Will. Hist. Pisc., App. p. 21. Tab. S. 21.*

"Length 7 inches. Colour black. Skin crowded with rough grains; a smooth spot behind the gills; towards the tail assuming the character of rhomboid scales, but the granular form continued over the caudal fin. On the sides, about one third of its length from the tail, is fixed a cluster of six or seven strong free spines from $\frac{1}{4}$ to 1 inch in length, capable of erection and depression.

"Dorsal spine very strong, about $1\frac{1}{4}$ inch long, subtriangular, with serrated edges, and grained, except towards the point: when not erected it is lodged in a deep groove on the back. Extremity of the *pelvis* salient, and terminating in two sharp short spines. Second dorsal fin broad and 2 inches long; anal similar, but shorter.

"In front of the eyes a small *fossa* covered with a membrane, except in its centre, where it is perforated by a minute olfactory *foramen*.

"Teeth in the upper jaw eight, the two middle incisors placed directly in front of the second pair, in a groove of which they are lodged, so that no part of these last are visible externally, except a small process at the cutting edge; the outer teeth trigonal. The teeth of the lower jaw differ materially from the generic character, their number being only four, of which the two middle ones are by far the largest in the mouth. On this account, and also on account of the nature of its covering,—which partakes of the granular character of that of *Monacanthus* and *Aluterus*, Cuv., and of the rhom-