which I have given as representations of the first stage. On the third day after exclusion they had undergone no change; but on the fifth (I had no opportunity of examining them on the fourth) several of them had moulted; and on the sixth I had the satisfaction to observe two of them in the very act of shaking off their first envelope. The abdominal section was cast in one piece, the cephalothorax in a second, and the animals were struggling to divest themselves of their antennæ and legs. I looked at this interesting operation for a considerable time, and even made some attempts to assist them in their endeavours, but they appeared to be exhausted by their struggles, and in fact the following morning I found them dead. I thus lost the whole of them before they underwent their second change; however I was glad to find that these larvæ after their first metamorphosis had only one spine on the back of the cephalothorax, as is represented in fig. 3.

I have recently been making some observations upon Thompson's "opossum shrimp" (*Mysis Fabricii*, Leach). It is certainly a very interesting animal, but I rarely find one with a pouch, and only in one case have I yet found this pouch to contain the young.

I did intend, had I been able to go down to Newcastle, to take with me my specimens of different woods as they have been eaten by the *Limnoria terebrans*. I hope now to be able to show them to the naturalists at Birmingham. We are repairing our pier by substituting new piles covered with iron nails for those that have been destroyed by the ravages of that animal.

XXI.—*Notes on the Hairy-armed Bat* (Vespertilio Leisleri), *and on its occurrence in the Eastern part of Norfolk.* By Thomas Paine, Jun., Esq.

[With a Plate.]

When in Norwich a short time since I observed at a bird stuffer's shop in St. Giles some specimens of a bat which was unknown to me. Having procured one, it was found on examination to be the hairy-armed bat (*Vespertilio Leisleri*) of which a description and figure are given by Mr. Bell in his 'History of British Quadrupeds.' There were eight others

with it in the shop, all of the same species, and the information given respecting them was, that there were fourteen taken from an old hollow tree in a village in the vicinity of Norwich. The specimen described was the largest among them.

The *Vespertilio Leisleri* is smaller than the Noctule, and the membrane rather deeper in proportion to the size of the animal than in that species; the upper jaw projects considerably beyond the under, and rather more than appears in Mr. Bell's figure; the ears are hairy within, the tragus rounded, scarcely half the length of the ear; the tail is exserted very little, if any, beyond the interfemoral membrane.

The muzzle is naked and dusky; the ears horn-colour, edged with dusky. The head, neck, shoulders, and all the upper parts of the body are bright chestnut brown; the lower jaw nearly black, the throat of a dusky brown, and all the lower parts of a dusky yellowish brown; a ridge of hair runs all round the body of the bat both above and below on the interfemoral membrane, varying from two to six lines in width; along the fore-arm on the inner surface of the interfemoral membrane is a quantity of reddish brown hair, rather thinly scattered in the middle, but more close near the wrist, and nearly half an inch in width. The membrane is dusky, nearly approaching to black.

	inch.	line.
Length of head	0	10
——— of head and body	2	11
——— of ear	0	5½
——— of tragus	0	1¾
——— of fore-arm	2	0
——— from the knee to the extremity of the toes	1	2
——— of the tail	1	8
Extent of the flying membrane	12	2

From these measurements it appears that the present specimen is considerably larger than that described by Mr. Bell, which was said to be the only English occurrence of this species. His animal was probably a young one, as the colour of the under parts as given in the 'British Quadrupeds' is much darker than in this specimen.

It is said by Mr. Bell to frequent hollow trees, where it congregates in vast numbers unaccompanied by any other species.

As Mr. Bell's figure represents the front view of the animal, and as no coloured representation of it of which I am aware has yet appeared, the dorsal aspect has been chosen for the present figure, Plate X.*, which shows the bat of half the natural size.

By way of conclusion to this short notice I have only to observe, that the various species of bats are (in this neighbourhood at least) not sufficiently studied, and there is no doubt that by diligent research many of those species which are now considered rare would be found to be comparatively common, and to have been mistaken for those well-known species to which the greater part of them are closely allied.

Great Yarmouth, June, 1838.

XXII.—*New British Insects indicated in Mr. Curtis's Guide.*

By A. H. Haliday.

[Continued from p. 121.]

Diptera.

Culex detritus, C. 1137. 9^{b}.—Ent. Mag. i. 151.

This seems to be the original *C. pipiens* of Linnæus. The insect described by Meigen under that name is a very different species and not uncommon.

Bibio nigriventris, C. 1179. 4^{b}.—Ent. Mag. i. 157.

I have now ascertained that this is the other sex of *B. albipennis*.

Cordyla fulveola, C. 1174. 2.

This is the other sex of *C. fasciata*. The sexes in this genus differ both in the form of their antennæ and the number of joints, which also varies according to the species. There are two minute ocelli in all that I have examined, but they are easily distinguished from the *Mycetophilæ* by the enlarged basal joint of the palpi, on account of which Macquart has called the genus *Platypalpus*†.

* It being our intention, as will be seen in the notice on our wrapper, to give a supplement of plates at the end of our volume, we must reserve the present one for that opportunity.—Edit.

† The genus *Platypalpus* is separated from *Tachidromia* by Macquart, 'Diptères du Nord de la France.' *Platyp. Dolichop.* &c. p. 92.—E. Newman.