if not filled to the top with specimens, should have the empty space filled with crumpled pieces of paper, then filled with spirit, and tightly corked; all the bottles may then be packed into a larger one, or jar, also filled with alcohol and tightly corked.

In return for any specimens (few as well as many) kindly sent to me, I shall be happy (if wished) to return named specimens, or to give in return named British Lepidoptera, Coleoptera, Hemiptera, or Flowering Plants; or in certain cases I shall be glad to buy specimens.

Communications may be addressed to

DR. BUCHANAN WHITE, Perth, Scotland.

CORRESPONDENCE.

DEAR SIR,—

In ENT. for Nov., Mr. Lyman calls attention to an apparent discrepancy between a statement made by me as to the appearance of the sexes of butterflies and the facts as he has observed them. My statement had reference solely to the butterflies emerging from chrysalids of bred larvæ. No one has failed to observe in the field that the males of most butterflies are seen from several days to two weeks earlier than the females. I have repeatedly mentioned this myself. See notes on *ajax*, on *aphrodite*, and *pseudargiolus*, in Butt. N. A., vol. 1; also, on *cybele*, ENT., 6, 124. Nevertheless, in breeding I have found that either sex may first appear, or they will alternate irregularly until the whole brood has emerged. See mention of this on page 11, Butt. N. A., where of two broods of *ajax* the females first emerged. It is so with all *Papilios*, *Colias*, *Graptas*, etc., etc., that I have bred in any numbers. Of course when one or two butterflies of a brood only were raised, the result would be of no value. Thus a single *diana* and a single *aphrodite* emerged out of a large number of larvæ hatched of each. But in other cases I have bred the butterflies by scores and hundreds, and the result was as stated. In case of *clyton*, the behavior was different; see Butt. N. A., vol. 2. Why such differences between species of butterflies occur, or why bred examples should behave differently from those in the field, I do not attempt to explain.

W. H. EDWARDS, Coalburgh, W. Va.

ON THE HABITS OF AMBLYCHILA CYLINDRIFORMIS, SAY.

DEAR SIR,—

This beetle, usually considered very rare, is, I am satisfied, much more common than heretofore supposed.

I base this opinion on my own observations, and have a good collection to sustain it. Their peculiar habits are evidently the great cause of their rarity, and, once understood, I am positive they will become quite common.

Their geographical distribution is, so far as is now known, rather limited; yet there is now no reason to suppose that they will not eventually be found extending over a large portion of Kansas and Colorado.

The following is such as I have learned concerning them:

Nocturnal (Crepuscular) rarely being taken until after sunset, and occasionally in the early morning. Found usually along clay banks, where they live in holes generally made by themselves, where they find that seclusion so congenial to their nature. The state of the weather affects appreciably this insect. When cold and blustery they remain concealed, preferring a warm, balmy air; occasionally *a warm, cloudy afternoon* will entice them from their retreats, but this is rarely to be expected. Like the rest of the *Cicindelidæ*, they are predaceous. They also feed on effete matter. In many of their habits they are like *Asida*.

HARRY A. BROUS, Manhattan, Kansas.

ON CAPTURING CATOCALAS IN THE DAY-TIME.

DEAR SIR,—

According to promise, I give you my method of capturing *Catocalas* in day-light. I very seldom take my net with me when hunting them, as they are such lively insects when in the net that they are sure to injure themselves by rubbing the scales off the thorax, which spoils their appearance. I take with me a long blue beech sapling, a wide-mouthed wine-glass with the bottom broken off, a piece of pasteboard and a small bottle of chloroform. When on the ground where I usually hunt them, which is a wood of white oak and hickory, I commence by rubbing the blue beech stick quickly up and down the side of the tree. The *Catocalas* usually settle low down on the trees, and when disturbed by the noise made by rattling

the stick, they fly off to some other tree near at hand, where they settle with head down and wings closed. I then go quietly up and place the glass over the insect, and with the other hand push the pasteboard under the glass and secure it; a few drops of the chloroform having been poured on the pasteboard, the moistened part is slipped under the glass, and in a very short time the moth is quiet, when I pin it and put it in my box, and start for more game. In this way I rub every oak and hickory tree that comes in my way. I find that the insects prefer the trees of medium size and that some of the darker-winged varieties are oftener met with on the hickory and red oak; yet from the white oak I have obtained by far the greatest number of species and specimens.

The best time in the day for operating is, I think, from 1 to 4 p. m. As the evening advances the moths become more restless.and often alight so high up on the trees as to be out of reach. In such cases I have sometimes tied the glass to the pole, and when secured, have drawn them carefully down, rubbing the glass against the bark; this, however, requires to be done very carefully, or the insect will be injured. Sometimes the insects settle with their wings open and head pointing upwards, when they are much more difficult to approach, and if disturbed, will often fly upwards and settle high on the tree.

As to weather, I have succeeded best after a very warm day and night, with the wind southerly; if the wind is a little strong, so much the better, as the moths will not then fly so far when disturbed. They always sit on the north side of the tree, and when the wind is easterly or northerly very few will be found. I have tried the Cyanide bottle, but prefer the wine glass and chloroform, as I think that when treated in this way the specimens have a fresher look. When the weather is windy, I have often observed the black-winged varieties fall to the ground when disturbed, and hide themselves among the grass. In the manner thus detailed I have captured *Catocalas* for seven years past with much success.

WILLIAM MURRAY, 115 Maiden Lane West, Hamilton.

LARVA OF THYREUS NESSUS.

DEAR SIR,--

I am not aware that any description of the larva of *Thyreus (Amphion) nessus* has been given, so I send you the following extract from my notes:

Mature larva of *Thyreus nessus* Cram.—Two and a half to three inches in length, tapering gently from the fourth segment to the head. Color—uniform chocolate brown, thickly dotted over the body, and particularly along the dorsal line, with dark umber, of which color are also the eight lateral or stigmatal stripes. Anal horn on eleventh segment, very short, one-fifth of an inch in length. Very sluggish in its movements, showing none of the irritability of *T. Abbotii* when touched. When at rest, it stretches itself at full length along the leaf, or leaf stem, of the plant on which it feeds, never raising or retracting the anterior segments.

Pupa dark brown ; formed either among rubbish on the surface of the ground, or slightly beneath the surface. Tongue case internal, not visible

Feeds on fuchsia. Pupa 11th, 12th, 13th July. One imago on 8th August. Two others not yet emerged, and probably will winter in the pupa state. Notwithstanding the presence of the anal horn, and the difference in habit betwixt it and *Abbotii*, I regard *nessus* as a true *Thyreus* and recommend its restoration to that genus.

Parthenos nubilis Hüb.—I propose to substitute for the above generic name, which is also occupied by a genus in Rhopalocera (Hüb. Verz. bek. Schmett., p. 38, 1816), the generic name *Catocalirrhus*, reading thus : *Catocalirrhus* W. V. A., *nubilus* Hüb. My reason for changing the name in Heterocera instead of in Rhopalocera (no law preventing it), is on the ground of convenience, the butterflies having a majority of species in this genus. Furthermore, I feel certain that after a little more investigation we shall be able to refer *Catocalirrhus* to *Catocala*.

W. V. ANDREWS, 36 Boerum Place, Brooklyn, N. Y.

BLACK VARIETY OF P. TURNUS.

DEAR SIR,—

In answer to Mr. W. H. Edwards' query concerning the northern limits of the black variety of *P. turnus* ♀, I would say that at Omaha, in this State, the dark variety is more frequently met with than the yellow one. Here at West Point, the species is not so common on account of the scarcity of its food-plants ; however, we have both varieties in about equal numbers. The same can be said of this insect as far north as the Niobrara River, where the species seems to become quite scarce.

LAWRENCE BRUNER, West Point, Nebraska.