

mycelium. The signification of this fact is, at the present time, not understood: it is not known if those varieties in form are produced by variations in the mode of nutrition, and so far referable to those noticed by me as varieties or morbid productions, or if, as is possible, they are organs of dissimilar purpose, belonging to a particular species of Fungi and intended to carry out a sexual conjugation. In this latter case, it might be presumed that *Syzygites* is the prothallium of a more perfect form of Fungus.

The result of all these inquiries is, that all known species of plants possess, besides an asexual multiplication of individuals by cell-division or gemmation, a means of preserving the species by sexually developed germs, and that in these special reproductive organs a normal germ is never formed without the operation of a fertilizing material,—that, consequently, *parthenogenesis* never occurs in plants.

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XXI.—*Description of a new Species of Branchipus (B. eximius), from the Pool of Gihon in Jerusalem.* By W. BAIRD, M.D., F.L.S.

[Plate XII.]

IN the 'Annals and Magazine of Natural History' for Oct. 1859, I described five new species of Entomostraca, from the Pool of Gihon in Jerusalem. In that paper I mentioned that, in addition to those species forwarded to me alive by my friend Mr. Denny of Leeds, a pair of a species of what I then thought to be a *Chirocephalus*, from the same habitat, were kindly sent, but that they had died and become decomposed before I had the satisfaction of examining them. Since then, Mr. Denny has forwarded to me several specimens of the same Crustacean, also alive, reared from mud taken from the same pool at Jerusalem. A careful examination has proved them to belong to the genus *Branchipus*; and very elegant and beautiful little creatures they are. In their habits they closely resemble the *Chirocephalus diaphanus* found in this country, swimming chiefly on their back, and gracefully moving along, their numerous branchial feet being in constant motion. The females had their ovarian sacs full of ova, but they all died before these eggs were hatched. The following is a description of this interesting species:—

*Branchipus eximius.*

Body of a white colour. Tail fully the length of the body, and terminating in two lobes, which are beset with finely plumose setæ on their inner sides only. Outer edge showing a few (about twelve) short teeth near the base.



*Male.* About an inch long. Cephalic horns large, two-jointed; basal joint stout, of considerable length, and (as seen by a power of  $\frac{2}{3}$  rds of an inch) roughened all over with very short sharp prickles; terminal joint shorter, and bent in form of a hook. Antennæ rather long, terminated by two or three short setæ. Sessile eye small, somewhat lunate-shaped; compound eyes rather large and pedicelled. Mandibles largely developed. Caudal portion of body formed of seven segments. Male organ largely developed, composed of two portions: the basal portion having a strong tooth on its inner edge; the terminal portion straighter, and terminating in a flattened point with some toothed appendages attached to it.

*Female.* Cephalic horns much shorter than in the male, and consisting of only one joint. The basal portion is broad and flat; the terminal portion suddenly becoming narrow, and ending in a sharp point. Antennæ rather shorter than in the male.

In other respects the two sexes are nearly alike, except that the female is about a fifth smaller. Ovarian sac cylindrical and of considerable length. Eggs of an orange colour.

*Hab.* Pool of Gihon, Jerusalem.

#### EXPLANATION OF PLATE XII.

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| <i>Fig. 1.</i> Male.           | <i>Fig. 6.</i> Antenna.                          |
| <i>Fig. 2.</i> Female.         | <i>Fig. 7.</i> One of the branchial feet.        |
| <i>Fig. 3.</i> Head of male.   | <i>Fig. 8.</i> Tail.                             |
| <i>Fig. 4.</i> Head of female. | <i>Fig. 9.</i> Male organ.                       |
| <i>Fig. 5.</i> Mandible.       | <i>Fig. 10.</i> Terminating teeth of male organ. |

XXII.—*Descriptions of two new Species of Coleoptera from the Canary Islands.* By the BARÃO DO CASTELLO DE PAIVA, Professôr de Botannica na Academia Polytechnica do Porto.

Fam. Galerucidæ.

Genus CALOMICRUS.

(Dillwyn) Steph., Ill. Brit. Ent. iv. 293 (1831).

*Calomicrus Wollastoni*, Paiva.

*C. oblongus*, subopacus, subtilissime alutaceus, subtus pubescens, supra flavo-testaceus, capite (præsertim postice) rufescentiore, oculis, interdum mento, prosterno, mesosterno, metasterno abdomineque nigris; prothorace brevi, in medio transversim impresso (impressione in disco plus minus interrupta); elytris dense punctulatis; antennis testaceis, apicem versus paulo infuscatis; pedibus pallido-testaceis.

Long. corp. lin.  $1\frac{2}{3}$ — $1\frac{3}{4}$ .

*Habitat* in floribus foliisque *Cistorum* (sc. *vaginati*, Linn., et *Mons-*



