## A NEW AMPHLP（OI）CRUSTACEAN，（）RCIENTOIDEA BIOLLEYI，FROM CONT」 RIC」．

 Of lher Romal Norictl！．Lomblon．Lu！laml．

Before proceeding to describe a new speceies of Talitridie 1 wish to refer to a former paper on A mphipoda from Coste Riret，in which 1 figmed and described as new IYyalcha faxomi：＂pointing out its nean relationship to other forms earlier（lescribed moter varions names． Recently，in her very interesting paper cited below，Mise Wreckel has made $I I$ ．faxomi a syonym of the secies which in her opinion onght to be called $I I$ ．limicherborlichi（Bate）．The independence of $I I$ ． faxomi is not a matter of great moment；but the question remains an open one whether it maty not be more inconvenient than neren⿱亠⿴⿰丨丨⿱一一⿻上丨又期y to fuse mader one name the forms of $I I_{\text {gutell }}$ which have been dis－ tinguished as dentete and inermis．Supposing that a single name is required，there are three to choose from with claime prior to bate： lemekerbockeri．These are the obseme Ampithoe dentate siay，1815． Amphitoc catecus Saussure．18．5s．and Amphithoc andimu Philippi， 1860．The reader inclined to aceept a bias in a certain direetion may consult the notes on these names in the bibliography to the ＂Challenger Amphipoda，＂1888，as well as the references supplied by Das Tierreich in $1: 006$ ．

In the Amphipocta of Das Tierreich there is an inconsistencer be－ tween pages $\boldsymbol{r} 2 \boldsymbol{2}$ ？and $52 t$ ，the former aftioming that the palp of the first maxilla is one－jointed in the family Talitride，the latter that it is two－jointed in the gems．Tolitrms．The altermative character of ＂minutely two－jointed＂should have been added to the description of the palp in the diagnosis of the family．

## Fanily TALITRII）E．






## Genus ORCHESTOIDEA Nicolet.

1st9. (mehrstoidea Nicolet, in Gas, Ilist. ('hile. HI. p. 29!).

This genus agrees with both sexes of Talitmes and with the female of Talorehestia in having the first gnathopod simple, differing from the male of Tatorrhestin and both sexes of Orehestia in which the first gnathopod is subchelate. All the four genera have the second gnathoporl in the female feebly chelate, but in the male this is the case nnly with Tatitros, the second gnathopod of the male in the other three genera being powerfully developed. These distinetions do not (2mable us to separate a speces of Talorehestia or Orrhestoiden from one of Tafitms. when only female. nor yet an Orahestia from a Tolorehestia. when only male specimens are available. But as these animals are generally plentifnl, where they occur at all, any difficulty arising from the absence of one or other sex will not as a rule be of long standing moder the energy of modern reseatech.

ORCHESTOIDEA BIOLLEY1, new species.

## Ilitte N゙I.

Integment smooth and shining, but moler a high power showing the threespiked markinge often seen in this family. Fifth side-plate of peraon as deep as fourth. Postero-hateral corners of third pleon segment quadrate with minute projecting point.

Eyes large. dark, roughly rom ded. in the largest specimens separated only by a short pace at the top of the head.

First antemne very short third joint of peduncle rather the longest, equal to the little five-jointed flagellum. Second antenne in the male longer than the body. last joint of pedmele considerably longer than the preceding joint. flagellim 39-jointed, more than thrice as lomes as the peduncle: in the femate much shorter than the body, flagellum 23 -jointed. not greatly longer than the perluncle.

The month-organs are in close agreement with those of Tatitmes and Talonehestia. 'The minute palp of the first maxillae appears to be 2-jointert, with the second joint considerably shorter than the first.

The first ghathopods. in accord with the generic character. are simple in both sexes. but in the male the rather large fifth joint has at the distal end of the hind margin a transparent bulb or bubblelike expansion, which is wanting in the female.

The second enathopods of the male have the fifth joint very small and feebly separated from the strong ovoid sixth joint, the hind margin of which is characterized by having near the distal end a small transparent bulb, the distal end itself being rounded and tipped with a spine. Within this aper the strong finger closes into a
pocket, being fitted over a broad spinose curve of the palm, bet ween which and the hinge it inserts a squarish projection of its inner margin into a corresponding depression of the palm. The second gnathopod of the female is of the nsual membranaceous character, the secend joint expanded in the proximal half, the fifth joint. wider and a little longer than the sixth, which is rather strongly and not narrowly produced beyond the diminutive longitudinal finger, which lies in a setulose gap of the sixth joint's front margin. Tn the male specimen from which the detail figures have been drawn one of the gnathopods of the second pair is decidedly smaller than the other and is without the transparent process on the hind margin. In another specimen.


Fig. 1.- OrCHEstoidea biolleyi, Male.
probably abnormal, the apex of the sixth joint of the second gnathopod is laterally outdrawn, obscuring its ordinary character. Only one member of the pair is present, and the specimen is otherwise defective.

The first three peraopods are short. the second shorter than the first, with its finger more strongly notched. The third permopod has its second joint almost circular, much less in diameter than the length of the side-plate. The fourth and fifth perapods are very much longer, the fifth laving its second joint much witer than that of the fourth pair, and its total length somewhat greater. The fingers in these two pairs are long and slender, in all the pairs there is an obliquely pointed spine in adrance of the miguis. All the branchial
resicles are narrowly twisted. The marsupial plates of the female examined do not seem to be fully developed.

The slender pleopods have along the peduncles two rows of short spines and two coupling-hooks. The rami are about nine-jointed, and are scarcely as long as the pedimeles.

The first uropods have the peduncle longer than the subequal rami, one of which has conspicuons spines only at the apex. The second pair have one ramms much longer than the other, with the peduncle


FlG. *-ORCHESTOIDEA BTOLLEYI, FEMALE.
of intermediate length. The third pair have the ramus abomt equal in length to the perluncle. The telson is about as broad as long, distally tapering. with a dividing line ruming up some part of the length from the apex.

Length of male abont 10 mm .. of female about $\bar{i} .5 \mathrm{~mm}$.
Hubitut.-Sereral sperimens were collected in Febmary, 1907, at Punta Mrenas. Costa Rica (Pacific coast), in sand, under trunks of trees. by the late Professor P. Biolley, out of respect to whom the specific name has been given to this species.

Type-Cat. No. 38343. I'S.N.M.

## ENPLANATHON OF PLATE NH.

 from which the details have been figured.
a. x., a. i. Vlper amblower antemme of malle.
m.i. 1. First maxilla of male, the immer plate seom by transparence thought the onter: The scale of magnification higher than in the other fignres.
$g 7.1, g n .2, g m .1, q, g m .2, q$. First and second gnathopods of the mate and female, with portions of the same more highly magnified.
$m p .1,2,8,4,5$. The five permopods, with parts of the first, second, and fifth more highly magnified.
wrp. 1, 2, $\because, T$. The three mropods amd the telson, with the latter more highly magnified.

Two miform sates have been used for the lower and higher entargement of all the farts except the first maxilla.


A New Amphipod Crustacean.
For explanation of plate see page 244.

