

The Synonymy and Distribution of *Trichocorixa reticulata*  
(Guérin-Ménéville)  
Hemiptera: Corixidae

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It seems advisable to publish certain information concerning *Trichocorixa reticulata* (Guérin-Ménéville) in order that this name may be available for use in the manual of Hawaiian insects now being prepared by E. C. Zimmerman. This species is the only known representative of the family Corixidae in the Hawaiian Islands, where it has been reported by F. X. Williams (26,\* p. 195) as numerous in lowland streams and pools and "fairly swarming in salty pools separated from the ocean by a low sandbar and having a salinity . . . greater . . . than the sea itself." As is indicated by this note, as well as by many additional records, *T. reticulata* is among the few aquatic insects sufficiently adaptable to live successfully in both fresh and saline water. As might then be expected, it is an extremely successful species both in numbers and distribution. The inadequate state of the taxonomy of the Corixidae, as well as failure to comprehend possible distributional limits of so versatile a form, resulted in this species having been named four times from as many widely separated localities. In 1857 specimens from Cuba were named *Corisa reticulata* by Guérin-Ménéville. In 1859 specimens from California were named *Corixa wallengreni* by Stål. In 1877 Buchanan F. White named the Hawaiian representatives of this species *Corixa blackburni*, and in 1901 it was named *Corixa mariae* by Champion, this time from the Tres Marias Islands. In 1929 (12, p. 24) Lundblad correctly placed *blackburni* White, 1877, as a synonym of *wallengreni* Stål, 1859. In 1931 (16, p. 214) and again in 1939 (25, p. 284) Jaczewski suggested that *mariae* Champion, 1901, was also a synonym of *wallengreni*. As a result of studies of type specimens made by H. B. Hungerford in 1927 at the British Museum of Natural History and the Paris Museum of Natural History, the notes of which he generously made available for my use, I am able to place both *mariae* and *wallengreni* definitely by synonyms of *Trichocorixa reticulata* (Guérin-Ménéville, 1857). Because of confusion concerning the type specimen of *reticulata*, notes on the type series, written by Hungerford during his visit to the Paris Museum, are quoted here in their entirety.

\* Figures in parentheses refer to the bibliography at the end of this paper.  
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"*Corixa reticulata* Guérin. 5 specimens: Museum Paris, Cuba, Coll. Guérin-Ménév., ex-coll. A. Salle 1857.

"Here I believe are two species! Three specimens bear old written labels.—Two: a male and female are labeled '*Corixa reticulata* Guérin (type) Cuba male (or female).' In the same handwriting on the same sort of paper the third specimen is labeled '*Corixa reticulata* Signoret Manuscript. Male Cuba.' This third specimen is not the same species as the first male. It has a narrower interocular space and differently shaped strigil.

"I am placing a red label on the male marked *type* and designating it 'the holotype.' A specimen I have from Porto Rico, while a little darker in color pattern, seems to be identical and I am placing a compared with a type label on it.

"I think now that *C. (orixa) pygmaea* is also this species and that *wallengreni* and *blackburni* are also. They all have female pala shaped like the male somewhat."

Had this latter statement been entirely true, the name *reticulata* Guérin-Ménéville, 1857, would have fallen in favor of *pygmaea* Fieber, 1851; however, Lundblad, 1929,<sup>1</sup> published a redescription of Fieber's type in which he shows that *pygmaea* Fieber is a synonym of *verticalis* Fieber, the latter having page priority.

The problem was further complicated by Jaczewski (24, p. 338), who studied a specimen he obtained from the Paris Museum to which he refers as "co-type of *Corixa reticulata* Guérin, male from Cuba." This specimen he found to be identical with *Trichocorixa verticalis* (Fieber). If Jaczewski had designated the specimen that he studied the lectotype, it would then have been necessary to use *wallengreni* Stål, 1859, as the next available name. However, in view of Hungerford's notes, it is evident that Jaczewski did not study the specimen designated by Hungerford, in manuscript, as "holotype," but one which he mentions as "not the same species as the first male." Guérin-Ménéville's general description of *reticulata*, as well as the remark, ". . . mais elle en diffère par la forme réticulée des taches de ses élytres, surtout au delà du milieu, en arrière," in which he compares *reticulata* with *Corixa pygmaea* Fieber (now a synonym of *T. verticalis* [Fieber]), makes it clear that he was able to distinguish between these two forms. This evidence, supported by Hungerford's note concerning the identity of the specimen which bears the label "*Corixa reticulata* Guérin (type) Cuba male (or female)," makes it inadvisable to follow Jaczewski in placing *reticulata* as a synonym of *verticalis*. Had the entire type series been available to Jaczewski for study, it is probable that he would have arrived at a similar conclusion. It, therefore, seems proper to designate the specimen on which Hungerford placed the red label marked "type" as a lectotype. This definitely

<sup>1</sup> Arch. f. Hydrobiol. u. Planktonkunde 20: 312-317.

fixes *reticulata* Guér. as the name for that species of *Trichocorixa* having the nodal suture dividing the pruinose area of the embolar groove into apical and basal portions, the width of the synthlipsis exceeding the width of an eye along the hind margin as seen from above, and the length of the pala usually less than two-thirds the width of an eye along the ventral margin.

*T. reticulata* is primarily coastal and insular in distribution, ranging along the east coast of the Americas from New Orleans, La., to Dutch Guiana and including the West Indies, and on the west coast from San Francisco, Calif., to Lima, Peru. In the Pacific it is known from the Galápagos Islands and from the Hawaiian Islands. Lundblad has also recorded the species from Shanghai, China (12, p. 26).

The following list of references pertains to *Trichocorixa reticulata* (Guérin-Ménéville):

- (1) *Corixa reticulata* Guérin-Ménéville, 1857, in Sagra's Hist. de Cuba, 6: 423. (Cuba.)
- (2) *Corixa wallengreni* Stål, 1859, Kongl. Svenska Fregattens Eugenies Resa. Zool. 4: 268. Stockholm. (San Francisco, Calif.). **New synonymy.**
- (3) *Corixa blackburni* White, 1877, Ann. and Mag. Nat. Hist. 4[20]: 114. (Hawaiian Islands.)
- (4) *Corixa blackburni* White, 1878, Ann. and Mag. Nat. Hist. 5[1]: 366.
- (5) *Corixa reticulata*, Uhler, 1894, [London] Zool. Soc. Proc.: 224.
- (6) *Corixa mariae* Champion, 1901, Biologia Centrali-Americana, Rhynchota-Heteroptera, 2: 378. (Tres Marias Islands). **New synonymy.**<sup>2</sup>
- (7) *Arctocorisa blackburni*, Kirkaldy, 1910, Fauna Hawaiiensis, 2[6]: 554.
- (8) *Arctocorisa blackburni*, Perkins, 1913, Fauna Hawaiiensis, 1[6]: ccciii.
- (9) *Corixa reticulata*, Blatchley, 1926, Heterop. Eastern North America: 1084. (A synonym of *T. louisianae* Jacz.)
- (10) *Trichocorixa mariae*, Jaczewski, 1927, Ann. Mus. Zool. Polon., Warszawa 6[3]: 257.
- (11) *Trichocorixa blackburni*, Hungerford, 1928, Brooklyn Ent. Soc. Bul. 23: 174.
- (12) *Trichocorixa wallengreni*, Lundblad, 1929, Ent. Tidskr. 50[1]: 24-26, fig. 5, a-b; pl. IV, fig. 5. (Type material studied places *blackburni* as a synonym).

<sup>2</sup>The type of *Corixa mariae* Champion (6, p. 378) was studied by Hungerford at the British Museum in 1927, and in his notes he stated that it was "identical to the *reticulata* form." His sketch of the head and genital claspers confirms this view. Jaczewski, 1939 (24, p. 183), arrived at a similar conclusion, and placed *mariae* as a probable synonym of *wallengreni* Stål.

- (13) *Trichocorixa reticulata*, Lundblad, 1929, Arch. f. Hydrobiol. u. Planktonkunde 20: 317-320, figs. 23-27. (This treatment is a synonym of *T. naias* [Kirkaldy]).
- (14) *Trichocorixa wallengreni*, Jaczewski, 1930, Mitt. aus dem Zool. Staatsinst. u. Zool. Mus. Hamburg 64: 148.
- (15) *Trichocorixa wallengreni*, Jaczewski, 1931, Ann. Mus. Zool. Polon., Warszawa 9 [15]: 214.
- (16) *Trichocorixa mariae*, Jaczewski, 1931, Ann. Mus. Zool. Polon., Warszawa 9 [15]: 214. (Suggests that *mariae* is a synonym of *wallengreni*).
- (17) *Trichocorixa reticulata*, Jaczewski, 1931, Arch. f. Hydrobiol. u. Planktonkunde 23: 519. (A synonym of *T. naias* [Kirkaldy]).
- (18) *Trichocorixa reticulata*, Lundblad, 1931, Zool. Anz. 96[3-4]: 91. (Exclusive of citations other than Guérin-Ménéville, 1857).
- (19) *Trichocorixa reticulata*, Lundblad, 1931, Zool. Anz. 96[3-4]: 90, 91, 93. (A synonym of *T. naias* [Kirkaldy]).
- (20) *Trichocorixa mariae*, Lundblad, 1931, Zool. Anz. 96[3-4]: 91, 93.
- (21) *Trichocorixa wallengreni*, Lundblad, 1931, Zool. Anz. 96 [3-4]: 90, 91, 92.
- (22) *Trichocorixa wallengreni*, Hutchinson, 1931, Amer. Nat. 65: 573-574.
- (23) *Trichocorixa wallengreni*, Jaczewski, 1933, Ann. Mus. Zool. Polon., Warszawa 9 [21]: 337.
- (24) *Trichocorixa reticulata*, Jaczewski, 1933, Ann. Mus. Zool. Polon., Warszawa 9 [21]: 338.
- (25) *Trichocorixa wallengreni*, Jaczewski, 1939, Ann. Mus. Zool. Polon., Warszawa 13 [23]: 284.
- (26) *Arctocorixa blackburni*, Williams, 1944, Hawaii. Ent. Soc. Proc. 12 [1]: 195-196, fig. 16. (Excellent illustration of female; also valuable notes pertaining to habits).