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THE TAXONOMIC STATUS OF THE GENERA *SUPERLESTES* AND *CYPTOLESTES* WILLIAMSON, 1921. (ODONATA: LESTIDAE).

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In 1943 when searching for a genus in which to place a very elegant and large specimen of a new lestine species from Mexico, I first compared it with Williamson's male of *Superlestes exoletus* (Selys) and with the holotype and paratype males of *Cyptolestes tuberculatus* Williamson before checking it against males of *Archilestes grandis* (Rambur). The specimens of these four species were all very similar in general appearance, but were readily distinguished by color patterns and their abdominal appendages. The new species *regalis* seemed best placed in the genus *Archilestes* (Gloyd, 1944).

The monotypic genera Superlestes and Cyptolestes described by Mr. Williamson in 1921 were distinguished from Lestes and Archilestes primarily by a detailed study of the venation of one male of the former and three males and two females of the latter. In view of the venational variation of certain supposedly diagnostic generic characters noted in a series of specimens of several species of Lestes (Gloyd

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1944: 8), data on only four males and two females would hardly seem adequate to indicate how constant or reliable the differences in the area of wings distal to the nodus are. Although venational differences have been and still are used for the primary diagnoses of genera, we now know that some venational characters often employed as criteria may vary within a species as well as between species within a genus, or may be of specific value only. All this is well exemplified within the genus *Argia*. To give generic rank to species on venational data alone can give a false impression of the degree of evolutionary separation. Other characters may show a very close relationship indicative of generic unity.

A comparison of the abdominal appendages of the males of Superlestes exoletus (Selys), Archilestes grandis (Rambur), and A. regalis Gloyd shows a striking resemblance (see Williamson 1921, Pl. II, figs. 8-9 and Gloyd 1944, Pl. I, figs. 7-9). The appendages of Cyptolestes tuberculatus Williamson (1921, Pl. II, figs. 10-11) differ considerably from those of the above three species but the difference is not greater than that found among species of Lestes. The hamules (see Pl. I, fig. 7 for regalis Gloyd 1944), however, are very similar in all four species as well as in Archilestes californica MacLachlan.

In the females of Superlestes exoletus, Cyptolestes tuberculatus and Archilestes californica and grandis, the valves of the ovipositor are robust and the teeth on the lower margin of each are large, stout and few in number, unlike any I have observed in species of Lestes. The female of A. regalis, collected by George H. and Alice F. Beatty and as yet undescribed, also has large teeth as wide at base as high on the lower margin of each valve of the ovipositor according to information kindly provided by Mr. Beatty (in litt. May 15, 1980). Thus the females of these five species are similar in this respect.

In the species of Archilestes, Superlestes, and Cyptolestes, the proportions of the quadrangle of the wings (Williamson 1921, Pl. I and Gloyd 1944, Pl. I), the metallic coloration, the structural characters of both male and females noted above, and their large size all indicate a compact group. Accordingly, Superlestes Williamson 1921 and Cyptolestes Williamson 1921 are hereby designated new synonyms of Archilestes Selys 1862.

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Change tuberculatus to read tuberalatus on

page 1, paragraph 1, line 4

page 2, paragraph 2, line 5; and paragraph 3, line l

page 3, paragraph 1, next to last line.

Of the five species of Archilestes, A. grandis has the most extensive range of distribution and a record of recent expansion. For many years, in the United States it was known only from the Pacific Coast states of Washington and California, the southwestern states of Arizona, Utah, and east to Texas, Oklahoma and Kansas. The first record east of the Mississippi River was in 1927 when it was collected in Ohio by Mr. E. B. Williamson (1931) and it has now extended its range to states bordering the Atlantic coast, and to South Dakota. In Mexico it is known from Baja California and in the states of Chihuahua, Guanajuato, Guerrero, Jalisco, Michoacan, Morelos, Navarit, Nuevo León, Oaxaca, Tabasco, and Veracruz. In Central America it is known from Costa Rica, Guatemala, Honduras, and Panama. In South America it has been reported only from Colombia and Venezuela. A. california occurs only in the Pacific Coast states and south into Baja California. The other three species are each recorded in the literature from one locality only: regalis from San Luis Potosi, Mexico; tuberculatus from Carabobo, Venezuela; and exoletus from Santa Catarina, Brazil.

LITERATURE CITED

- GLOYD, LEONORA K. 1944. A new species of Archilestes from Mexico (Odonata: Lestinae). Occ. Pap. Mus. Zool. Univ. Mich. 483: 1-4.
- WILLIAMSON, E. B. 1921. Two new Neotropical genera of Lestinae (Odonata). Occ. Pap. Mus. Zool. Univ. Mich. 96: 1-9.
- WILLIAMSON, E. B. 1931. Archilestes grandis (Ramb.) in Ohio (Odonata: Agrionidae). Ent. News, 43: 63-64.

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