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THE GENUS TROPISTERNUS (Coleoptera hydrophilidae)
NEW NOTES AND A CLARIFICATION FROM THE TREATISE
ON THIS GENUS

(Le genre tropisternus - Coleoptera hydrophilidae)

(Notes nouvelles et mise au point de la monographie
de ce genre)

by

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NEW NOTES AND A CLARIFICATION FROM THE TREATISE ON THIS GENUS

by A. D'ORCHYMONT (Brussels)

Tropisternus (Pristoternus) salsamentus FALL.

Tropisternus salsamentus FALL., 1902 California: Redondo

Tropisternus californicus MOTSCHULSKY, 1859, California:

S. Francisco (not Leconte, 1855).

The Tropisternus californicus of northern California had already been mentioned by Motschulsky in 1853 (2), only in litteris however, but the name was not accompanied by a regular diagnosis until 1859 (3). In the meantime, in 1853, (4), Leconte described another Tropisternus also from San Francisco and from San Diego under the name of californicus. The identity of these names made the compilers of catalogues (Zaitzev and Knisch) give the references quoted here as marginal notes on the one and the same species.

(1) First Part: Ann. Soc. Ent. Belg., LXI, 1921, pp. 349-374

Second Part: id. LXII, 1922, pp. 11-47

Third Part: Bull. Ann. Soc. Ent. Belg., LXXVI, 1936, p. 11

Fourth Part: id., LXXVIII, 1938, pp. 433-438.

(2) Russian Hydrocanthares catalogued by Victor de Motschulsky, Helsingfors, B. Hydrocanthara Ruthenica, p. 10 (californicus n. (ini) Cl (= Northern California)

(3) Bull. Soc. Imp. Nat. Moscow, XXXII, second part, III, p. 122

(4) Proceed. Acad. Philadelphia, VII, p. 367.

Meanwhile, on rereading the said diagnosis of 1850, one distinguishes certain details which belong rather to T. salicamentus Fall (5). I quote notably: the elongated form, the pronotum distended towards the posterior, the wing sheath tapering towards the back and most of all the green tinge underneath. Evidently, as often with old descriptions, that of Motschulsky overlooks the principal characteristic, that which undoubtedly would have distinguished the species, that is to say the extent of waterproof pubescence at the base of the hind femurs which is wider in the Motschulsky than in the Leconte Californicus. It is true that Leconte was also silent on this point, but the tradition since Sharp (6) and the findings of north-American authors have established the diminished outspread in the Leconte. It is also true that I have only seen salicamentus in the southernmost parts of California (Redondo and Santa Barbara). Nevertheless, I am inclined to believe that the Motschulsky californicus is this last species and that one finds it in San Francisco in its appropriate biotope; (according to Fall/ from collections from littoral water with a higher salinity than that of the ocean itself).

(5) California Acad. of Sciences - Occasional papers, VIII, 1902, p. 214

(6) Trans. Ent. Soc. Lond. 1883, p. 109.

Tropisternus (Pristoternus) Californicus Leconte

Hydrophilus californicus Leconte, 1855 (California)

Tropisternus columbianus W.J. Brown, 1931 (Van Couver Isl.)⁽⁷⁾

The examination of a paratype T. columbianus which I owe to the generosity of the author has convinced me that this name is only a synonym of T. californicus Leconte. The specimen presents all the characteristics of this species, that is to say the reduced waterproof pubescent area of the hind legs confined to the lowest part and very finely continued up to the extremity of the trochanter, the lowest ventral segment hairily streamlined at the top, the spinigerous pores showing from the lower end to the extremity of the outer border of the wing sheath (the epipleural margin of Sharp), the unarched right metasternal spine which extends very little from the abdomen but which is finely caniculated longitudinally underneath, the intermediate and posterior tibia testaceous, and lengthwise bordered in black on the inside; the underpart of the middle femurs is sparingly spotted near the trochanter, the median lobe seen from the side hardly not reaches the gonopore. The labrum of the paratype is darker and almost untestaceous behind, but this could be only a variant, perhaps of a geographical nature. The sculpture of the wingsheath is slightly uneven towards the sides at the back, with coarser spots being blended with the fine deep set punctuation, but the larger spots have not the favorable design of those which can be observed in the same place

(7) The Canadian Entomologist LX III p. 117

in the following specimen, also they are not as numerous. Authentic californicus of California show the same punctuation doubled or diminished.

In the meantime, the author differentiates his specimen of californicus from others by (I translate) "the yellow parts of the middle and hind legs have less extension, the topside is not tanned, the spinigereous pores bordering the wing sheath are bigger and the spots on the sternal carina are a little more numerous". This californicus is not the one of Leconte but certainly the following new specimen, T. caligans, as I have ascertained from the study of a couple of specimens from California which the author submitted to me. The differences which he recognised are explained in this way.

Tropisternus (Fristaternus) caligans n. sp.

Hydrophilus (Tropisternus) californicus form SHARP, 1883
(8), (California)

Tropisternus californicus W.J. Brown, 1931 (California)
(not Leconte, 1855).

Commenting upon the H.C. Leconte, Sharp distinguished a less metallic, dark form showing a marked development in the fine deep-set punctuation of the sides and the extremities of the wing sheath, as well as additional coarse spots.

(8) L. c., p. 109

The author believes that there is probably a confusion of the same names for different species. The examination of specimens with double punctuation on the wing sheath enables me to affirm that it is so, and consequently, I refer to the form distinguished by Sharp without calling it by the name of californicus.

In addition to the marked double punctuation of the sides and the extremities of the wing sheath, the metasternal spine is longer than in the californicus, reaching and even going beyond the second ventral joint. It arches markedly and withdraws distinctly from the abdomen; it is also cuniculated underneath and beyond the posterior haunches. The waterproof pubescence at the base of the middle and posterior femurs is not as diminished, the punctuation below the middle femur is stronger and widely distributed, thicker nevertheless, towards the trochanter. The pubescence of the mesosternal part stretching from the lateral carina of the ♂ is also more densely punctuated and the spingerous pores of the outer edge of the wing sheath are bigger. As for the feeder of the males, it is stronger and the end of the median lobe seen from the side is twice as long as the gonopore in the californicus. A testaceous medio-transversal band lies between the dark labrum and a dark postero-median spot, partly hidden by the anterior edge of the frontal ridge. I have examined all male specimens except that from the Ottawa Museum as I no longer possess the layout.

This new species is classified next to the californicus, since it has the longitudinal black edging on the middle and posterior tibia. Also, it recalls E. modestus A. D'ORCHY-MONT,

1938, by the supplementary punctuation on the wing sheath. This, however, is denser and more evident in the californicus which is distinguished from the modestus right away by the medio-terminal carina of the 5th ventral segment and not by the detached and free-lying spine and the much reduced waterproof pubescence of the hind femurs which does not go beyond the extremity of the trochanter.

♂ Internal claws of the middle and posterior tarsus show a little serration. The mesosternal part stretching from the longitudinal carina is smoother, the pubescence is distinctly punctuated, the holes being rather scattered

♀ Non-serrated claws, mesosternal part stretching from similar carina is uneven, almost smooth and hardly punctuated pubescence.

Type. - California: Carmel on the sea, 24, ii. 1924 ♂ (californicus) Carr P.S. leg. & det., 9.5 x 5 mill.

Paratypes. - California: Carmel etc., like 2 ♀♀ Santa Barbara P.W. Winters leg., 2 ♂♂, 8 ♀♀, of which 1 ♀ californicus Knisch det. 1926 & coll., together with authentic californicus Leconte; Redondo, July 1 ♀ salsamentus Winters leg. & det.; without locality; 2 ♀♀ one of which subcavis Knisch det. 1926 & coll. - New Mexico; without locality, 1 ♂; californicus Knisch det. 1926 & coll.

Also, the couple from California (about which there was already a query when under the name of californicus Leconte) taken up by M.W.J. Brown from Ottawa in 1936 and sent back to the latter in the same year without naming them because

supplementary material was not available at that time (9).

* * *

After this fifth series of notes dedicated to the American species Tropisternus and the observation and diagnosis published elsewhere (10), I think that the time has come to show here the additions and corrections, typographical and otherwise which should go with my treatise on this genus (11) thus bringing it up to date.

Part I

P. 351. et seq. The name of the sub-genera Cynhostethus should be substituted throughout by that of Tropisternus (12).

P. 352, 3rd. Homostethus, Read: wing sheath tapering (Three species K. Falli, metallescens et Cordieri, n. sp.).

Same page, 6th line from bottom: Read: ... mixtus Leconte.

(9) These different names given to subjects from the same species by determinators who were not among the very first, shows how difficult the identification of these all too often similar Coleopteres can be.

(10) See enumeration in the footnotes (1), p. 1 (parts 3 and 4)

(11) Id. (parts 1 and 2)

(12) L. c., p. 311

P. 359. Read: T. Laevis Sturm, 1826 (Laevigatus....)

P. 360. T. Laevis mergus Say, 1835... Read: since 1914

I distinguished

P. 365. 11th line from the bottom. Read: thereiis
another.....

Part II

P. 11 et seq. the name of the sub-genera Cyphostethus
should be substituted throughout by Tropisternus.

P. 13, last line. Read: the unstretched carina

P. 14, 9th. Substitute ? T. Sublaevis by T. Glaber Herbst

Same page 6th line from bottom. Read: The mesostital
part of the carina is more coarsely punctuated, distinctly
pubescent in the ♂, more finely punctuated and almost smooth
in the ♀.

P. 15, 11*. Read: Punctuation above

P. 16, 15th line. Substitute T. Glaber by T. natator
(Say).

Same page. After T. mixtus insert T. modestus
A. D'Orchymont (13).

P. 17. Between T. californicus and 14* insert
T. caligans A. D'Orchymont.

Same page, 14*. Substitute T. xanthopus by T. sublaevis
Leconte.

P. 25. Substitute sub-title T. Sublaevis Lec. (? Glaber
Herbst, not Leconte), by T. Glaber Herbst, not Leconte
(Sublaevis A. D'Orchymont, not Leconte) (14)

Same paragraph, same page. Omit the following passages:

(13) L. c., p. 437

(14) L. c., p. 434

1st: "but this determination was exact" up to "that which regards Herbst's specimen."

2nd: "this last characteristic made me think" up to "of authentic Herbst Glaber."

3rd: "this seems to confirm the exactitude of my interpretations."

P. 26. After sub-title. T. galsamentus Fall add:

(californicus Motschulsky, not Leconte). Following line, Read: Redondo/California).

Note. The galsamentus specimen was received after the one from Santa Barbara (California)

Same page. Legend of Fig. 1. Substitute T. Glaber Lec. T. notator (Say).

P. 27. Substitute sub-title T. Glaber Lec. (not. Herbst?) by T. notator (Say). new name. (Glaber Leconte not Herbst) (15).

P. 28. The reference (2) at the bottom of the page should read: T. modestus A. D'Orchymont. not T. nixus (16).

P. 29. After 4th line insert sub-title T. modestus A. D'Orchymont.

Same page. Between paragraph T. californicus Leconte and T. xanthopus Sharp, change last sub-title to T. sublaevis Leconte (17) insert sub-title T. galigans A. D'Orchymont (18).

P. 40. After table of specimens insert: "Absence of green metallic streaks, even bronze black topside.... T. niger A. D'Orchymont.

(15) L. c., p. 436

(16) L. c., p. 437

(17) L. c., p. 434

(18) L. c., p. 438

P. 41. Between T. lepidus and sub-title T. striolatus Lec,
insert sub-title: T. niger A.D'Orchymont.

P. 24. Substitute sub-title T. collaris F by the following
T. Collaris Castelnau, 1840 (not Hydrophilus, Collaris
Fabricius, 1775, Olivier 1792 = sp. dub.) (19).

(19) Bull. Mus. roy. Hist. nat. Belg., XII, no. 23, 1936, p.
26.