REDEFINITION OF THE GENUS DORIDICOLA LEYDIG, 1853, SYNONYMY OF METAXYMOLGUS
HUMES & STOCK, 1972, AND ESTABLISHMENT OF A NEW GENUS, CRITOMOLGUS
(COPEPODA, POECILOSTOMATOIDEA, LICHOMOLGIDAE)

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ABSTRACT

The type-species of the genus Doridicola Leydig, 1853, D. agilis Leydig, 1853, has been re-examined. The armature of the exopod of the fourth leg of D. agilis is II,1,5, thus identical to that of the genus Metaxymolgus Humes & Stock, 1972. Metaxymolgus is synonymized with Doridicola. Those species formerly attributed to Doridicola but having an armature of III,1,5 on the endopod of the fourth leg, are placed in a new genus, Critomolgus.

The genus Doridicola was erected by Leydig in 1853 for his Doridicola agilis found on the nudibranch Doris lugubris at Trieste, Adriatic Sea. It has been reported many times since then from various nudibranchs in the Mediterranean Sea and northern Europe under several names (synonymy in Humes & Stock, 1973). The genus Metaxymolgus was proposed by Humes & Stock in 1972 to contain species previously placed in Lichomolgus Kossmann, 1877, sensu lato, but which possessed the armature II,1,5 on the segment of the exopod of leg 4. At that time Doridicola, with the type-species Doridicola agilis, was considered to have the armature III,1,5 on the third segment of the exopod of leg 4. The apparently accurate drawing of leg 4 of D. agilis by Canu (1892, pl. XXII, fig. 10) led (or misled) us to conclude that the true formula for this species was III,1,5, although other workers (Della Valle, 1880; Aurivilius, 1882, 1883; T. Scott, 1892; Sars, 1917; Monod & Dollfus, 1932) showed the exopod with the formula II,1,5.

Questions on the formula for the third seg-
ment of the exopod of leg 4 raised by Dr. Ju-
Shy Ho, to whom we express our thanks, have
prompted us to locate specimens of Doridicola
agilis for direct examination. We have been un-
able to discover type specimens, nor have we
been able to obtain specimens from Doris lugu-
bris in Trieste. However, examination of pre-
served material in the British Museum (Natural
History) and the Zoologisch Museum, Amsterdam,
shows that the true formula for the third seg-
ment of the exopod of leg 4 is II,1,5. Included in
this study were 85 females and 42 males of
Doridicola (= Lichomolgus) agilis from Ireland;
Scotland; Brest, Roscoff, and Banyuls, France;
the Netherlands; and Naples, Italy, all showing
without exception the formula II,1,5 for the third
segment of the exopod of leg 4. Although
we have not seen Leydig's types (if such exist)
or topotypes, it is difficult to believe that
the types would have a formula different from
II,1,5 found in widespread collections of D.
agilis from nudibranchs in Europe.

Accordingly, we propose the following amende-
ments:
1) Redefinition of the genus Doridicola Leydig,
1853, recognizing that it has the formula
II,1,5 on the third segment of the exopod of
leg 4; and synonymy of the former species of
Metazymolgus Humes & Stock, 1972, with Doridi-
cola. The following species are now included in
Doridicola, with synonyms given for those spe-
cies described in or since the 1973 revision of
the Lichomolgidae by Humes & Stock:
Doridicola agilis Leydig, 1853, type-species.
Doridicola aculeatus (Humes & Ho, 1968), n.
comb.
Doridicola antheliae (Humes & Stock, 1973), n.
comb.
Metazymolgus antheliae Humes & Stock, 1973:
222.
Doridicola botulesus (Stock & Kleeton, 1963),
n. comb.
Doridicola brevifurcatus (Ummerkutty, 1962), n.
comb.
Doridicola chlamydies (Humes & Stock, 1973), n.
comb.
Metazymolgus chlamydies Humes & Stock, 1973:
227.
Doridicola cincinnatus (Humes, 1975), n. comb.
Metazymolgus cincinnatus Humes, 1975: 16.
Doridicola cinctus (Humes & Stock, 1973), n.
comb.
Metazymolgus cinctus Humes & Stock, 1973:
232.
Doridicola claudus (Humes & Stock, 1973), n.
comb.
Metazymolgus claudus Humes & Stock, 1973:
236.
Doridicola commodus (Humes, 1964), n. comb.
Doridicola comparatus (Humes, 1975) n. comb.
Metazymolgus comparatus Humes, 1975: 11.
Doridicola confinis (Humes, 1982), n. comb.
Doridicola congoensis (T. Scott, 1894), n. comb.
Doridicola cuspis (Humes, 1964), n. comb.
Doridicola echinasteris (Humes, 1976), n. comb.
Doridicola grandipes (A. Scott, 1909), n. comb.
Doridicola ketaerius (Humes & Ho, 1968), n.
comb.
Doridicola hirsutipes (T. Scott, 1893), n. comb.
Doridicola inaequalis (Humes & Ho, 1966), n.
comb.
Doridicola inflatiseta (Humes & Stock, 1973),
n. comb.
Metazymolgus inflatiseta Humes & Stock,
Doridicola longicauda (Claus, 1860), n. comb.
Lichomolgus longicauda (Claus, 1860) in
Humes & Stock (1973: 193). Ho (in press) has
studied this copepod from Sepia at Plymouth,
England, and finds that it has characters of
the former genus Metazymolgus, with II,1,5
on the third segment of the exopod of leg 4.
Therefore, it is now placed in Doridicola as
redefined.
Doridicola lunarius (Humes, 1980), n. comb.
Doridicola micropus (Humes, 1973), n. comb.
Doridicola mimicus (Humes, 1975), n. comb.
Doridicola myorae (Greenwood, 1971), n. comb.
Doridicola patulus (Humes, 1959), n. comb.
Doridicola pertinax (Humes, 1982), n. comb.
Metazymolgus pertinax Humes, 1982: 64.
Doridicola praesongipes (Humes, 1975), n. comb.
Doridicola secundiger (Humes, 1964), n. comb.
Doridicola sensitilis (Humes, 1964), n. comb.
Doridicola sepias (Izawa, 1976), n. comb.
Lichomolgus sepias Izawa, 1976: 89.
Doridicola simplex (Thompson & A. Scott, 1903),
n. comb.
Doridicola singularipes (Humes & Ho, 1968), n. comb.
Doridicola spinulifer (Humes & Frost, 1964), n. comb.
Doridicola sunnivae (Humes, 1982), n. comb.
Metaxymolgus sunnivae Humes, 1982, n. comb.
Doridicola turmalis (Humes, 1982), n. comb.
Metaxymolgus turmalis Humes, 1982, n. comb.
Doridicola venustus (Humes, 1959), n. comb.

2) Establishment of a new genus, Critomolgus, to receive those species with 111,1,5 on the third segment of the exopod of leg 4 (species formerly in the genus Doridicola). Critomolgus includes the following species, with synonyms given for those species described in or since the 1973 revision of the Lichomolgidae by Humes & Stock:

Critomolgus astrophoticus (Humes & Stock, 1973), n. comb.
Critomolgus actiniae (Della Valle, 1880), n. comb.
Critomolgus audens (Humes, 1959), n. comb.
Critomolgus brevipes (Shen & Lee, 1966), n. comb.
Critomolgus buddhensis (Thompson & A. Scott, 1903), n. comb.
Critomolgus bulbipes (Stock & Kleeton, 1963), n. comb.
Critomolgus caelatus (Humes, 1982), n. comb.
Doridicola caelatus Humes, 1982: 25.
Critomolgus clylichnophorus (Humes, 1982), n. comb.
Critomolgus dunae (Humes, 1982), n. comb.
Critomolgus fishelsoni (Stock, 1967), n. comb.
Critomolgus fossi (Gurney, 1927), n. comb.
Critomolgus gemmatus (Humes, 1964), n. comb.
Critomolgus hispidulus Humes, 1982, n. comb.
Critomolgus isoawamochi (Ho, 1981), n. comb.
Critomolgus magnificus (Humes, 1964), n. comb.
Critomolgus paterellus (Humes, 1982), n. comb.
Doridicola paterellus Humes, 1982: 15.
Critomolgus penicillatus (Humes, 1982), n. comb.

The two valid lichomolgid genera under discussion may be briefly diagnosed as follows:

Doridicola Leydig, 1853

Synonym.—

With the generic characters as given by Humes & Stock (1972, 1973) but the third segment of the exopod of leg 4 having the formula II,1,5.

Type-species.—
Doridicola agilis Leydig, 1853.

Critomolgus, new genus

With the generic characters as given by Humes & Stock (1972, 1973) for their genus Metaxymolgus, but the third segment of the exopod of leg 4 having the formula III,1,5.

Type-species.—
Critomolgus astrophoticus (Humes & Stock, 1973).

Etymology.—
The generic name is a combination of the Greek words kritos, chosen or picked out, and molgos, a word often used in forming generic
names of the Lichomolgidae.

The generic redefinition outlined above necessitates a change in the last couplet of the key of the genera of the family Lichomolgidae as given by Humes & Stock (1973: 85). That couplet should now read:

Leg 4 with third exopod segment II,1,5

........................................ Doridicola.

Leg 4 with third exopod segment III,1,5

............................................ Critomolgus.

LITERATURE CITED

All papers prior to 1973 can be found in Humes & Stock, 1973.


-------, In press. Metaxymolgus longicauda (Claus), a copepod associated with the cuttlefish Sepia officinalis L.— J. Mar. biol. Ass. U.K.


