

PAUROPUS BAGNALLI VS. PAUROPUS LERUTHI: A DEBATE

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Abstract. The paper follows the history of the species *Pauropus leruthi* and argues based on this history and the ICZN, on the correct name as *Pauropus leruthi* (Remy, 1939).

Key words: Pauropoda, Pauropodidae, *Pauropus bagnalli*, *Pauropus leruthi*.

1. INTRODUCTION

The subphylum Myriapoda Latreille, 1802 includes four classes: Chilopoda Latreille, 1817, Symphyla Ryder, 1880, Pauropoda Lubbock, 1868 and Diplopoda De Blainville in Gervais, 1844 (TABACARU, GIURGINCA, VĂNOAICA, 2004; TABACARU & GIURGINCA, 2016).

They are terrestrial Arthropods, with mandible (Mandibulata), tracheal breathing (Tracheata), uniramous appendages (Uniramia), a high number of legs and lacking the second pair of antennae (Atelocerata) (TABACARU, GIURGINCA, VĂNOAICA, 2004; TABACARU & GIURGINCA, 2016).

In comparison with the other three classes of Myriapoda, the Pauropoda are almost unstudied in Romania and some taxa, described and up to the present endemic for Romania raise some taxonomic issues which we will address in our paper.

This paper is about a species of the genus *Pauropus* Lubbock, 1867 whose correct name, in our opinion, should be *Pauropus leruthi* (Remy, 1939).

2. A SHORT HISTORY OF PAUROPODAN STUDIES IN ROMANIA

TÖMÖSVÁRY (1883) is the first to mention a pauropod from Romania by describing the species *Trachypauropus margaritaceus*. Shortly thereafter, DADAY (1889A, B) records again the same species from Romania by citing Tömösváry.

In his two volumes concerning the fauna of Transylvania and the fauna of the kingdom of Hungary, he mentions the species *Pauropus huxleyi* Lubbock, 1867, *Trachypauropus glomerioides* Tömösváry, 1882 and *Eurypauropus cyclyger*, a synonym of *Trachypauropus glomerioides* (DADAY, 1889A, B).

However, the most consistent contribution to the research of the Romanian Pauropoda belongs to Paul Remy. In three papers (REMY, 1939, 1961, 1962), he records the presence of 18 species of the genus *Allopauropus* Silvestri, 1902, two species of the genus *Decapauropus* Remy, 1931, three species of the genus *Pauropus* Lubbock, 1867 and a species included today in the genus *Rabaudauropus* Remy, 1953, one species of the genus *Scleropauropus* Silvestri, 1902, three species of the genus *Stylopauropus* Cook, 1896, two species of the genus *Brachypauropus* Latzel, 1884, one species of the genus *Acopauropus* Cook, 1896 and two species of the genus *Trachypauropus* Tömösvary, 1882.

In his papers, reviewing the Pauropoda of Switzerland and Greece, SCHELLER (1976, 1977) mentions 13 species from Romania.

It is only in 2007, that Tabacaru recorded a list of 24 species of Pauropoda from Romania but without any details about the species and providing no locations (TABACARU, 2007).

In a subsequent volume, published in 2010, in a chapter dedicated to the Pauropoda, Tabacaru mentioned 36 species of pauropods from Romania but provides an identification key for only 13 of them (TABACARU, 2010).

In fact, in Romania, there are 37 species belonging to the order Tetramerocerata Remy, 1950 and included in four families:

(1) family Pauropodidae Lubbock, 1867 with the genera *Allopauropus* Silvestri, 1902 (*A. amaudruti* Remy, 1836, *A. brevisetus* Silvestri, 1902, *A. cordieri* Remy, 1938, *A. danicus* (Hansen, 1902), *A. furcula* Silvestri, 1902, *A. fuscifer* Remy, 1936, *A. gracilis* (Hansen, 1902), *A. gravieri* Remy, 1935, *A. helophorus* Remy, 1936, *A. helveticus* (Hansen, 1902), *A. hessei* Remy, 1935, *A. latistylus* Remy, 1939, *A. pediger* Remy, 1961, *A. pluriramosus* Remy, 1939, *A. racovitzai* Remy, 1939, *A. sabaudianus* Remy, 1935, *A. scutatus* Remy, 1939, *A. transilvanus* Remy, 1939, *A. vulgaris* (Hansen, 1902), *A. zerlingae* Remy, 1936), *Decapauropus* Remy, 1931 (*D. sequanus* (Remy, 1930), *D. cuenoti* Remy, 1931), *Pauropus* Lubbock, 1867 (*P. bagnalli* Remy, 1935, *P. furcifer* Silvestri, 1902, *P. huxleyi* Lubbock, 1867), *Rabaudauropus* Remy, 1953 (*R. cuspidatus* (Remy, 1939)), *Scleropauropus* Silvestri, 1902 (*S. lyrifer* Remy, 1936), *Stylopauropus* Cook, 1896 (*S. limitaneus* Remy, 1962, *S. pubescens* (Hansen, 1902), *S. pedunculatus* (Lubbock, 1867));

(2) family Polypauropodidae Remy, 1932 with the genus *Polypauropus* Remy, 1932 (*P. duboscqi* Remy, 1932);

(3) family Brachypauropodidae Silvestri, 1902 with the genus *Brachypauropus* Latzel, 1884 (*B. hamiger* Latzel, 1884, *B. superbus* Hansen, 1902) and

(4) the family Eurypauropodidae Ryder, 1879 with the genera *Acopauropus* Cook, 1896 (*A. hastatus* (Attems, 1895)) and *Trachypauropus* Tömösvary, 1882 (*T. glomerioides* Tömösvary, 1882, *T. latzeli* (Cook, 1896), *T. margaritaceus* Tömösvary, 1883) (GIURGINCA, 2025).

3. THE PROBLEM OF *PAUROPUS LERUTHI* (REMY, 1939)

One of the species described by Paul Remy in his 1939 paper (REMY, 1939) was *Pauropus bagnalli* Remy, 1935 var. *Leruthi* n. var. collected by R. Leruth from Valea Mare (left tributary of the Sebeş River, Alba County, Transylvania, Romania).

According to Remy, it is the anal plate that differentiates between the typical *P. bagnalli* from the Vosges and *P. bagnalli* var. *Leruthi*: it is divided into two parts by a deep median incision, each half being divided by a rounded notch, less deep than the median incision shaping two branches: a lateral, external, thin branch and an internal (sub median), larger branch with a distal appendage (REMY, 1939) (see FIG. 1). Each internal branch is sub-cylindrical and slightly enlarged distally while in a typical *P. bagnalli*, this branch is distally elongated into an acute apophysis.

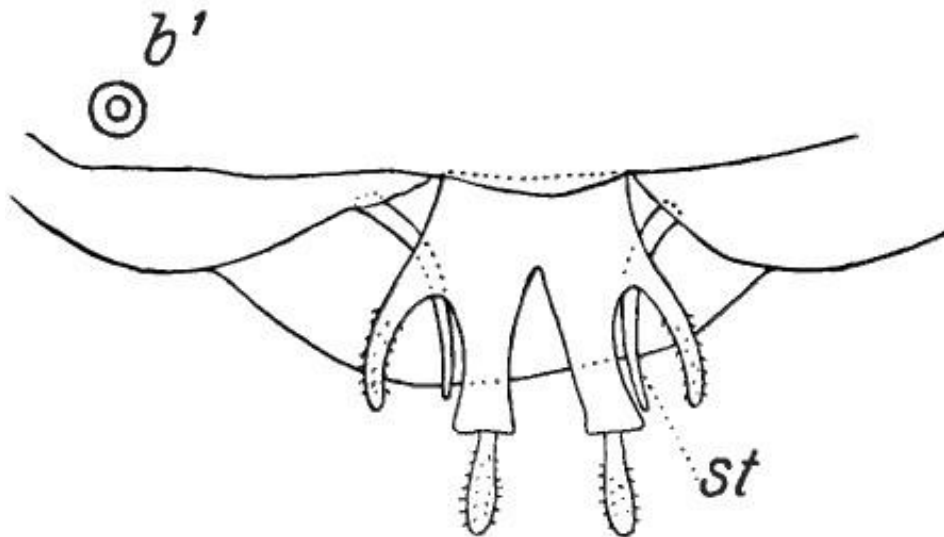


Fig. 1. *Pauropus leruthi*, adult female, Valea mare, Alba County, medial-posterior area of the pygidium, sternal view; st-stylus, b¹-seta from the pygidium (after REMY, 1939).

Also, at *P. bagnalli* var. *Leruthi* the appendage of the internal branches has the shape of a mace and its swollen posterior edge, is slightly pubescent, also, its internal edge is never on the extension of the internal edge of the branch; of contrary, at the typical *P. bagnalli*, the appendage presents a pointed shape, as long as the median incision of the anal plate and its internal edge is always on the extension of the branch (REMY, 1935, 1939).

Subsequently, in 1955, Remy considered the differences existing in the characters of the anal plate as strong enough to justify the elevation of *P. bagnalli* var. *Leruthi* to the status of a valid species, namely *Pauropus leruthi*.

This clearly contradicts the inclusion of *P. bagnalli* var. *Leruthi* in the species *Pauropus bagnalli* – for which see Millibase (Sierwald, Decker, Spelda, Millibase. *Pauropus bagnalli* Remy, 1935. Accessed on: 2025-08-28).

Also, if we accept the validity of *Pauropus leruthi*, it should be *Pauropus leruthi* (Remy, 1939) and not *Pauropus leruthi* Remy, 1945 – for which see Millibase (Sierwald, Decker, Spelda, Millibase. *Pauropus leruthi* Remy, 1945. Accessed on: 2025-08-28) (probably the year 1945, is just a *lapsus calami*), nor *Pauropus leruthi* Remy, 1955.

According to the ICZN (version 2000), article 45.6. 4 and 45. 6. 4. 1: “45.6.4. it is subspecific if first published before 1961 and its author expressly used one of the terms “variety” or “form” (including use of the terms “var.”, “forma”, “v.” and “f.”), unless its author also expressly gave it infrasubspecific rank, or the content of the work unambiguously reveals that the name was proposed for an infrasubspecific entity, in which case it is infrasubspecific [see also Art. 45.6.1]; except that

45.6.4.1. a name that is infrasubspecific under Article 45.6.4 is nevertheless deemed to be subspecific from its original publication if, before 1985, it was either adopted as the valid name of a species or subspecies or was treated as a senior homonym”.

As a consequence, the name *P. bagnalli* var. *Leruthi* Remy, 1939 becomes correctly *Pauropus leruthi* (Remy, 1939) and not *Pauropus leruthi* Remy, 1945 or *Pauropus leruthi* Remy, 1955.

4. CONCLUSION

We have, for the moment no strong opinion concerning the separation of *Pauropus leruthi* from *Pauropus bagnalli* although the characters provided by Paul Remy (REMY, 1935, 1939) seem valid. Perhaps, with fresh material from the type localities of both *Pauropus bagnalli* and *Pauropus leruthi* and analyzing the material left behind by Remy this situation can be cleared.

For the moment, we think the name used should be *Pauropus leruthi* (Remy, 1939).

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