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ACTACARUS MONNIOTAE n. sp. (= *A. ILLUSTRANS* SENSU MONNIOT 1968), AN ARENICOLOUS MITE (ACARI : HALACARIDAE) FROM THE MEDITERRANEAN REGION*

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SOMMAIRE

Actacarus illustrans sensu Monniot (Monniot 1968) est redécrit et renommé *Actacarus monniotae* sp. n. après l'examen d'une série de spécimens récoltés d'Argelès-sur-Mer. Une clé pour le genre *Actacarus* est donnée.

MONNIOT (1968) examined a series of specimens of *Actacarus* collected from the French Mediterranean coast near Banyuls-sur-Mer and at Giglio on the Corsican coast, and concluded that they probably were conspecific with *A. illustrans* Newell (1951). Based on MONNIOT's and NEWELL's descriptions, KRANTZ (1971) felt that MONNIOT's specimens represented a new species, distinguishable from NEWELL's species by differences in the median claw, in leg and palpal chaetotaxy, and in setal variations on the posterodorsal and genitoanal shields. TRAVÉ (1972) reached the same conclusion following examination of a series of 11 specimens of *A. illustrans* sensu MONNIOT from Greece. An opportunity to verify the validity of a new species status for *A. illustrans* sensu MONNIOT recently

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presented itself. Dr. J. TRAVÉ, Laboratoire Arago, Banyuls-sur-Mer, kindly sent a series of male and female specimens of *A. illustrans* sensu MONNIOT collected from beach sand at Argelès-sur-Mer (very near Racou, the original collection site). Dr. I.M. NEWELL, University of California, Riverside, generously provided me with a series of paratypes of *A. illustrans* Newell. The observations presented below are based on examination and comparison of these two series.

It was found that certain character differences derived from existing descriptions and presented in a key by KRANTZ (1971) are invalid. For example, the median claw of tarsus I of *A. illustrans* Newell is not unidentate as described originally, but rather bidentate as in *A. illustrans* sensu MONNIOT. The difficulty in defining the extremely fine leg and palpal setae of the two series has been found to detract greatly from the usefulness of appendage chaetotaxy as a source of key separation characters. These also should be discarded from the existing key. In addition to the remaining key character differences (number or position of genitoanal and posterodorsal shield setae, overall body size and geographic distribution), distinct dissimilarities have been noted in the structure of the epistome and in dorsal ornamentation of the two series. The epistome of MONNIOT's *A. illustrans* has a linguiform anterior extension (Fig. 1; ep) while that of *A. illustrans* Newell terminates in a rounded lobe (Fig. 2) which may be weakly divided distally. By way of contrast, no epistomal extension of any kind is found in *A. giganteus* Krantz (Fig. 3). Ornamentation of the basis capitulum and dorsal shields provides another basis for separation. While these structures are minutely punctate in *A. illustrans* Newell (Fig. 2), the ornamentation of MONNIOT's series is comprised of distinctly larger punctations similar to those of *A. giganteus* (Figs. 1, 3).

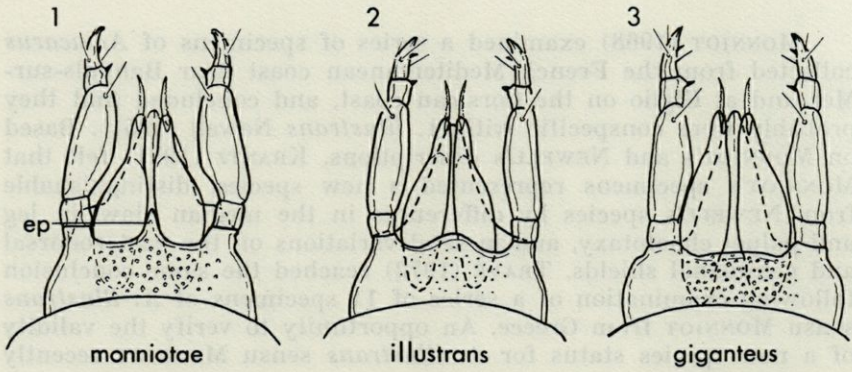

FIG. 1. — Basis capitulum and mouthparts of *Actacarus*. — 1. *A. monniotae* n. sp.; 2. *A. illustrans* Newell; 3. *A. giganteus* Krantz.

On the basis of differences cited, it is concluded that MONNIOT's *A. illustrans* represents a distinct species, for which I propose the name *Actacarus monniotae* n. sp. MONNIOT (1968) has provided an excellent description of *A. monniotae* which should be consulted for details not referred to above, or in the key which follows. A holotype female and allotype male have been chosen from a series of eight specimens labeled as follows : France, Argelès-sur-Mer; 7 February, 1970; ex beach sand (J. TRAVÉ, coll.). The holotype and allotype will be deposited in the collection of the Muséum d'Histoire Naturelle, Paris. Paratypes will be placed in the collections of the following institutions : National Museum, Natural History, Washington, D.C.; University of California, Riverside; Laboratoire Arago, Banyuls-sur-Mer (Pyr.-Orient.); Zoologische Museum, Hamburg; Oregon State University, Corvallis.

The following key to species of *Actacarus* is adapted from KRANTZ (1971), and includes the deletions and additions previously mentioned.

KEY TO KNOWN SPECIES OF *Actacarus* SCHULZ 1936

1. Minute (140-190 μ); palpal segment P-2 expanded medially and proximally, little longer than wide, P-4 with a median elongate spur lying flush with the segment and free distally. Europe (Baltic, Mediterranean), Africa (Mediterranean) .... *pygmaeus* Schulz

- Larger species; P-2 not as above, distinctly longer than wide (Fig. 1); P-4 with a medial erect spine 2

2. PE with 1 laterodorsal and 2 ventral setae; with a pair of ventral setae inserted mediad of PE and anterior to GA. Length ranges from 285-315 μ. Mexico (Caribbean) .. *giganteus* Krantz

- PE with 1 laterodorsal and 3 ventral setae, without ventral setae in integument mediad of PE 3

3. Epistome terminating anteriorly in a rounded or weakly bilobed protuberance; with fine punctate ornamentation on basis capitulum (Fig. 2) and dorsal shields. With only 1 pair of setae on GA anterior to genital valves; setae of PD with equidistant insertions. Length ranges from 227-246 μ. Alaska (1) .... *illustrans* Newell

(1) KRANTZ (1971) erroneously reported that NEWELL had collections of *A. illustrans* from Antarctica, Hawaii, Tahiti, and other localities in addition to Alaska. These collections represent diverse species of *Actacarus* rather than diverse localities for *A. illustrans*.

Epistome terminating anteriorly in a narrow linguiform extension; ornamentation of basis capitulum and dorsal shields comprised of larger punctations than above (Fig. 1). With 2 pairs of GA setae anterior to genital valves; anterior 2 pairs of PD setae with insertions separated by less than ½ the distance of that between 2nd and 3rd pairs. Length ranges from 250-270 µ. France (Mediterranean), Corsica, Greece .... *monniotae* n. sp.

SUMMARY

Actacarus illustrans sensu Monniot (MONNIOT, 1968) is redefined and renamed as *Actacarus monniotae* n. sp. on the basis of a series of specimens from Argelès-sur-Mer. A key to the genus *Actacarus* is included.

ZUSAMMENFASSUNG

Nach Material von Argelès-sur-Mer wird *Actacarus illustrans* sensu Monniot (MONNIOT, 1968) revidiert und neu benannt als *A. monniotae* n. sp. Ein Bestimmungsschlüssel für die Gattung *Actacarus* wird gegeben.

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