Bulletin S.R.B.E./K.B.V.E., 137 (2001) : 123-126

Redescription of *Nodele calamondin* Muma, 1964 (Acari Cheyletidae)

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Abstract

The species *Nodele calamondin* MUMA, 1964 (Acari Cheyletidae) is redescribed from specimens found in Northern Iran. The male of this species is described for the first time. *Nodele simplex* WAFA et SOLIMAN, 1968 is considered here as a synonym of *Nodele calamondin.*

Keywords : Acari, fauna, Cheyletidae, Iran

Résumé

L'espèce *Nodele calamondin* MUMA, 1964 (Acari Cheyletidae) est redécrite d'après des spécimens de l'Iran. Le mâle de cette espèce est décrit pour la première fois. *Nodele simplex* WAFA et SOLIMAN, 1968 est considéré ici comme un synonyme de *Nodele calamondin.*

Introduction

The mites of the family Cheyletidae (Acari: Prostigmata) have been poorly investigated in Iran. Up to now only 6 species have been recorded from this country, i.e. *Acaropsellina sollers* (KUZIN, 1940), *Cheletomorpha lepidopterorum* (SHAW, 1974), *Cheyletus malaccensis* OUDEMANS, 1903, *Neoeucheyla iranica* FAIN et ARDESHIR, 2000, *Nodele calamondin* MUMA, 1964 and *Zachvatkiniola reticulata* (CUNLIFFE, 1962) (ARDESHIR *et al.*, 2000; FAIN & ARDESHIR, 2000; ARDESHIR *et al.*, in press).

In the present paper we give a new description of *Nodele calamondin* MUMA, 1964. The male of this species is described for the first time. Furthermore, *Nodele simplex* WAFA et SOLIMAN, 1968 is considered here as a synonym of this species.

The nomenclature of the idiosomal chaetotaxy follows FAIN (1979).

Genus *Nodele* MUMA, 1964

Nodele calamondin MUMA, 1964

Nodele simplex WAFA et SOLIMAN, 1968 : Acarologia, 10 : 220. **syn. nov.**

Material examined : 15 females and 5 males found in grains, Gorgan Prov., Iran, X.1997. (Coll. F. ARDESHIR).

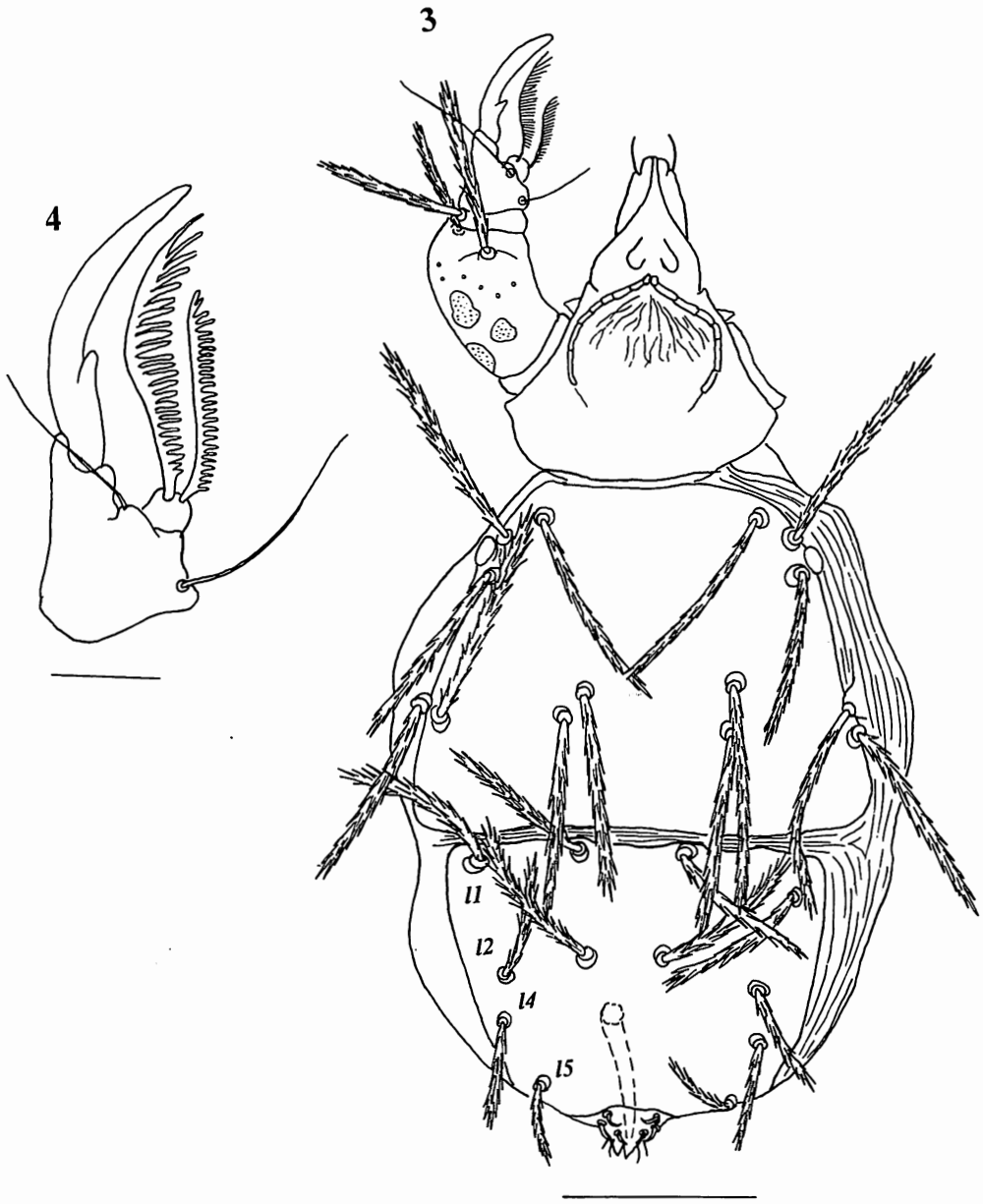
This species was described by MUMA (1964) from Florida citrus, USA. A few years later, WAFA & SOLIMAN (1968) described a new species *N. simplex* WAFA et SOLIMAN, 1968, only represented by a single female specimen found in dried leaves in Egypt. According to VOLGIN (1969), this species is not separable from *N. calamondin.* Its differential diagnosis was not given in the original description (WAFA & SOLIMAN,1968) and the holotype of *N. simplex* is not available. A comparative study of our specimens with the original descriptions of *N. calamondin* and *N. simplex* has revealed a total similarity of these two species and we consider, therefore that *N. simplex* is a junior synonym of *N. calamondin.*

Female (Figs 1-2, N=15). Gnathosoma 160-170 µm long, 135-140 µm wide. Palpal femur 55-63 µm long, 50-54 µm wide. Palpal claw with one tooth. Comb-like setae with numerous tines. Peritremes arch-like, with 6-7 pairs of links. Idiosoma 380-395 µm long, 260-270 µm wide. *Dorsum.* Propodosomal and hysterosomal shields fused, covering almost all dorsal surface of idiosoma. All dorsal setae, excluding *h*, are situated on these shields, they are thick and strongly barbed. The propodosomal setae, including *h*, are subequal in length 116-140 µm.

Figs 1-2. *Nodele calamondin* MUMA, 1964, 1 : female dorsally. 2 : anal region of female ventrally. Scale line 100 µm.

Propodosoma with two pair of median setae *d1* and N, their bases are set very close to each other. Hysterosoma with 5 pairs of lateral setae (*l1-l5*) and 4 pairs of median setae (*d2-d5*). Setae *l4, l5* and *d5* 100-107 µm long, 80-91 µm long and 98-103 µm long respectively. Length of other hysterosomal setae similar to the propodosomals. Posterior anal setae *a3* about 50 µm long, barbed and thicker, anterior setae *a2* nude about 40 µm long. Chaetotaxy of idiosomal *venter* and *legs* as in other species of this genus. Solenidion *ω1* situated slightly more apical than guard seta, 30-33 µm long, guard seta (*ft*) 60-66 µm long.

Male (homeomorphic, N=5, Figs 3-4). Gnathosoma similar to that of the female, 145-150 µm long, 125-130 wide. Palpal femur 65-68 long, 50-55 wide. Idiosoma 300-330 µm long. *Dorsum*. Propodosomal shield 155-160 µm long, distance between propodosomal and hysterosomal shields 8-10 µm. Chaetotaxy of propodosoma as in female, setae 165-170 µm long. Hysterosomal shield with 6 pairs setae : 4 lateral



Figs 3-4. *Nodele calamondin* MUMA, 1964, 3 : male dorsally. 4 : palpal tarsus and palpal tibia of male in dorsal view. Scale lines 100 µm (3), 25 µm (4).

and 2 medial. Length of hysterosomal setae : *l1* 83-100 µm, *l2* 58-63 µm, *l4* 50-58µm; *l5* 33-41 µm, *d3, d4* 63-74 µm. Penis 80-85 µm long. Solenidion *ω1* 43-45 µm long, guard seta 70-75 µm long.

Remark. The female of this species differs from *N. superba* KUZNETZOV, 1977 by the presence of 2 pairs of median setae on the propodosomal shield, it differs from *N. mu* HAINES, 1988 by the arc-like shape of the peritremes and from *N. coccinae* THEWKE et ENNS, 1968 and *N. philippinensis* BAKER, 1949 mainly by the shorter guard seta. In *N. calamondin* the guard seta is only 2 times longer than solenidion *ω1*, while in two latter species the guard seta is more than 3 times longer than the solenidion.

Acknowledgements

For this research Dr. A. V. BOCHKOV was beneficiary of a grant from the Belgian Federal Services for Scientific, Technical and Cultural Affairs.

References

ARDESHIR F., GEORGES-GRIDELET D.S., GROOTAERT P., TIRRY L. & WAUTHY G., 2000. - Preleminary observations on mites associated with stored grain in Iran. *Belgian Journal of Entomology*, 2 : 287-

293.
ARDESHIR F., GEORGES-GRIDELET D.S., GROOTAERT P., TIRRY L. & WAUTHY G., In press. - Habitat parameters in mites of storage facilities. *Journal of Stored Product Research.*
FAIN A. 1979. - Idiosomal and leg chaetotaxy in the Cheyletidae. *International Journal of Acarology*, 5(4) : 305-310.
FAIN A. & ARDESHIR F., 2000. - Notes on the genus *Neoeucheyla* Radford, 1950 (Acari: Cheyletidae) with description of a new species from Iran. *International Journal of Acarology*, 26 (4) : 329-334.
MUMA M., 1964. - Cheyletidae (Acarina: Trombidiformes) associated with citrus in Florida. *The Florida Entomologist*, 47 (4) : 239-253.
VOLGIN V.I., 1969. - *Acarina of the family Cheyletidae of the World.* Academy of Sciences of the U.S.S.R. Zoological male in dorsal view Institute. Fauna of USSR. Translated from Russian, 532 pp. (1987). Amerind Publishing Co. Prt. Ltd, New Dehli.
WAFA A.K. & SOLIMAN Z.R., 1968. - Five genera of family Cheyletidae (Acarina) in the U.A.R. with description of four new species. *Acarologia*, 10 (2) : 220-229.

Bulletin S.R.B.E./K.B.V.E., 137 (2001) : 126-127

Notes sur les Asilidae paléarctiques (Diptera Brachycera) (19) avec la description d'une espèce nouvelle de *Pamponerus* LOEW, 1849 de Grèce

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Abstract

The new species, *Pamponerus epirus,* is described from Greece. An identification key for the three known species of *Pamponerus* and one illustration of genitalia of the sp. n. is given.

Keywords : Asilidae, *Pamponerus,* genitalia.

Résumé

Une nouvelle espèce, *Pamponerus epirus,* provenant de Grèce est décrite. Une clef d'identification pour les 3 espèces de *Pamponerus* connues ainsi qu'une illustration des genitalia de la nouvelle espèce sont données.

Introduction

Le genre *Pamponerus* LOEW, 1849 renferme seulement 3 espèces. La première *P. germanicus* (LINNAEUS, 1758) couvre tout le centre de l'Europe et s'étend jusqu'en Mongolie, la deuxième *P. helveticus* (MIK, 1864) est citée uniquement de Suisse (LEHR, 1988 et WEINBERG & BÄCHLI, 1995). Quant aux genitalia de *P. germanicus* ils furent étudiés et illustrés par LEHR (1992-1996) et WEINBERG & BÄCHLI (1993). Il est à noter que les dessins de ces deux auteurs présentent une différence notoire au niveau du dististylus.

Le genre le plus proche, *Echthistus* LOEW, 1849, se sépare principalement des *Pamponerus* par un net raccourcissement des tarses. Les deux genres sont des habitants de prairies et de steppes, bien que *Pamponerus* soit associé préférentiellement aux lisières des forêts, clairières et rivières de vallée. L'aire de répartition d'*Echthistus* s'étend actuellement plus au Sud que celle de *Pamponerus* vu qu'elle comprend la Turquie d'Asie et Israël (LEHR, 1988 &1992).

Clef des espèces de *Pamponerus*

1 Moustache entièrement noire, fémurs noirs avec un anneau jaune à l'extrémité basale. Soies et épines des tibias et des tarses noires et jaunes ..... ***P. epirus*** sp. n
- Moustache bicolore **2**
2 Moustache noire à blanc-jaunâtre au centre et sur la partie inférieure. Fémurs noirs. Soies et épines des tibias et des tarses noires ..... ***P. germanicus*** (L.)
3 Moustache jaunâtre avec quelques soies noires