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New Eriophyoid Mites (Acari Eriophyoidea) from Italy. III*

ABSTRACT

A new eriophyoid species is described and illustrated, both with drawings and scanning electron micrographs. *Asetadiptacus salvifoliae* n. sp. (Diptilomiopidae, Diptilomiopinae) was collected in Veneto (Northern Italy); observed as a vagrant on the leaves of *Cistus salvifolius* L. (Fam. Cistaceae). New eriophyoid reports for the Italian fauna and new host plant records are listed.

An addendum to the checklist of the Italian fauna is given.

Key words: Actinedida, phytophagous, faunistic.

INTRODUCTION

Until now, both *Aceria cisticola* Roivainen and *Aculops cuneatus* (Roivainen) have only been found in Spain on *Cistus laurifolius* L. (ROIVAINEN, 1953). In addition, *Aceria rosalia* (Nalepa) and *Aculus? belianthemis* (Roivainen) have been found on other Cistaceae (AMRINE & STASNY, 1994). A new species found on *Cistus salvifolius* L. is here described and illustrated.

The composition of the eriophyoid fauna in Italy was recently reviewed by BERNINI *et al.* (1995) in their checklist of Arachnida. It brought together numerous fragmented data published by several authors and often published in minor journals that are not always available. Moreover, some new reports in the Italian literature (DE LILLO & FONTANA, 1996; TOMASI, 1996; CREDI *et al.*, 1997) and in international reviews (AMRINE, 1996; AMRINE & STASNY, 1996; HONG & ZHANG, 1997) have improved the knowledge of the systematics of this taxon. In the present contribution, new reports for the Italian fauna are listed.

* This research was partially supported by M.U.R.S.T. (quota ex 40%).

METHODS AND MATERIALS

Dried and living specimens were prepared using the usual methods applied for light microscopy (JEPPSON *et al.*, 1975) and scanning electron microscopy (NUZZACI & VOVLAS, 1976). Lindquist's terminology (1996) of the morphological details has been adopted. The measurements of mites were made according to AMRINE and MANSON (1996). The classification of the genus was made according to the keys published by AMRINE (1996) and HONG and ZHANG (1997).

Type materials are deposited at the Institute of Agricultural Entomology, Faculty of Agriculture, University of Bari, Italy.

DRAWING ABBREVIATIONS

AP1, internal female genitalia; CS, lateral view of the caudal region; DA, dorsal view of the prodorsal shield; E, empodium; ES, lateral view of tergite-sternites; GF, coxal and genital region of a female; LI, foreleg; SA, lateral view of anterior region.

Asetadiptacus salvifoliae n. sp.

FEMALE (Figs 1-3) - Body robust spindleform, colour yellowish, 192 (160-260, range of 10 specimens) μm long, 81 (78-83) μm wide and 63 (55-73) μm thick. Gnathosoma 52 (45-59) μm long projecting obliquely downwards, chelicerae 65 (62-71) μm long, seta *d* 12 (11-15) μm long. Prodorsal shield 30 (28-32) μm long, 57 (53-61) μm wide, subtriangular in anterior shape with anteriomedian lobe over gnathosoma base 3.5 μm long; shield pattern composed of a network of lines, with a median line, one admedian and some submedian and transverse lines forming cells on median fields. Tubercles *sc* are well ahead of the rear shield margin 20 (18-22) μm apart, without *sc* setae.

Foreleg 41 (37-43) μm long, tibia 11 μm long, tarsus 9 μm long, *w* 8 μm long, with prominent knob, empodium divided, 6 μm long, 6-rayed on each side. Hindleg 39 (36-42) μm long, tibia 10 μm long, tarsus 9 μm long, *w* 8,5 μm long with prominent knob, empodium divided, 6 μm long, 6-rayed on each side. Foreleg and hindleg without femoral seta.

Coxae ornamented by granules; *1b* setae 15 (12-16) μm long, *1b* tubercles 11 μm apart, *1a* setae 18 (16-21) μm long, *1a* tubercles 10 μm apart, *2a* setae 47 (42-53) μm long, *2a* tubercles 26 μm apart. Faint prosternal apodeme 10 μm long.

Opisthosoma with 63 (54-74) broad tergites with a single, weakly develo-

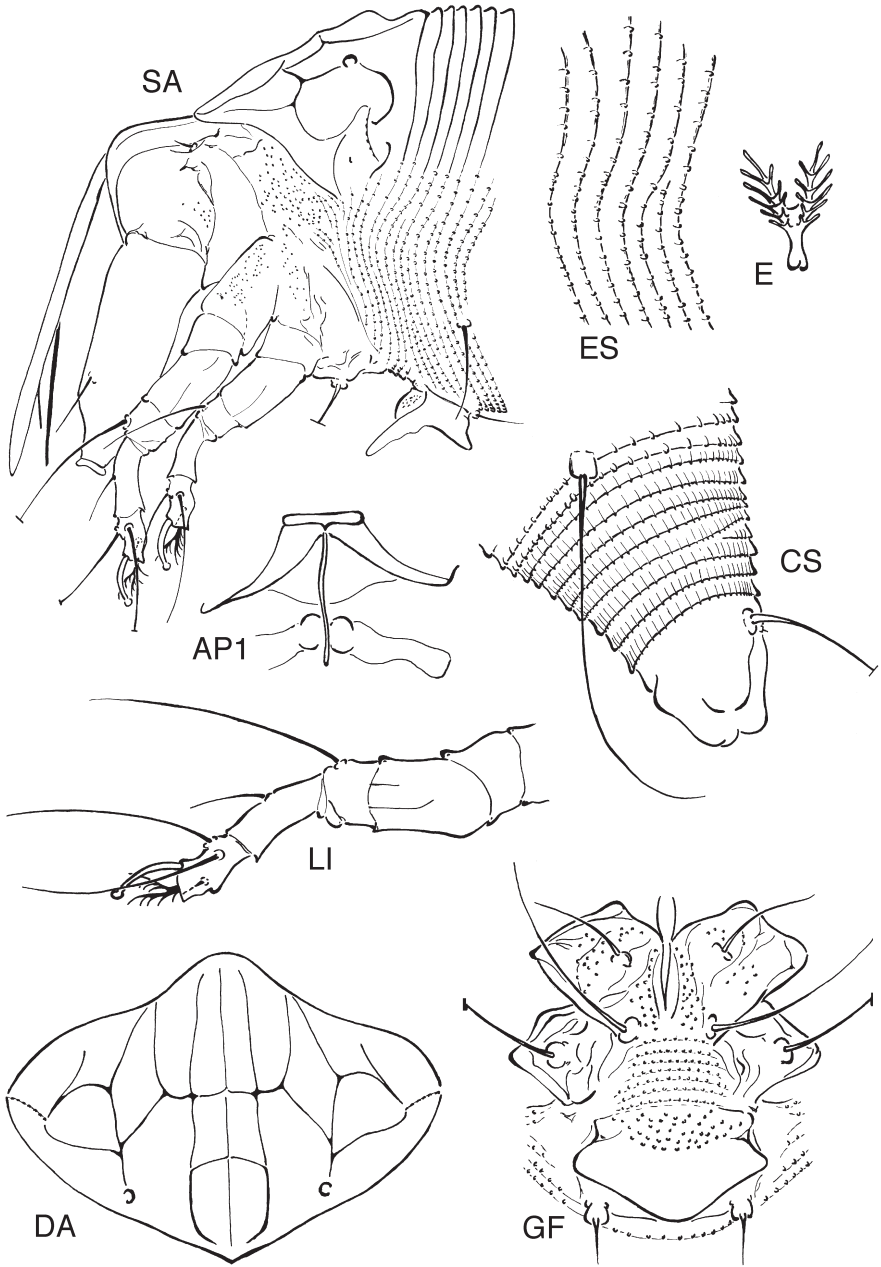


Fig. 1 - Semi-schematic drawings of *Asetadiptacus salvifoliae* n. sp.

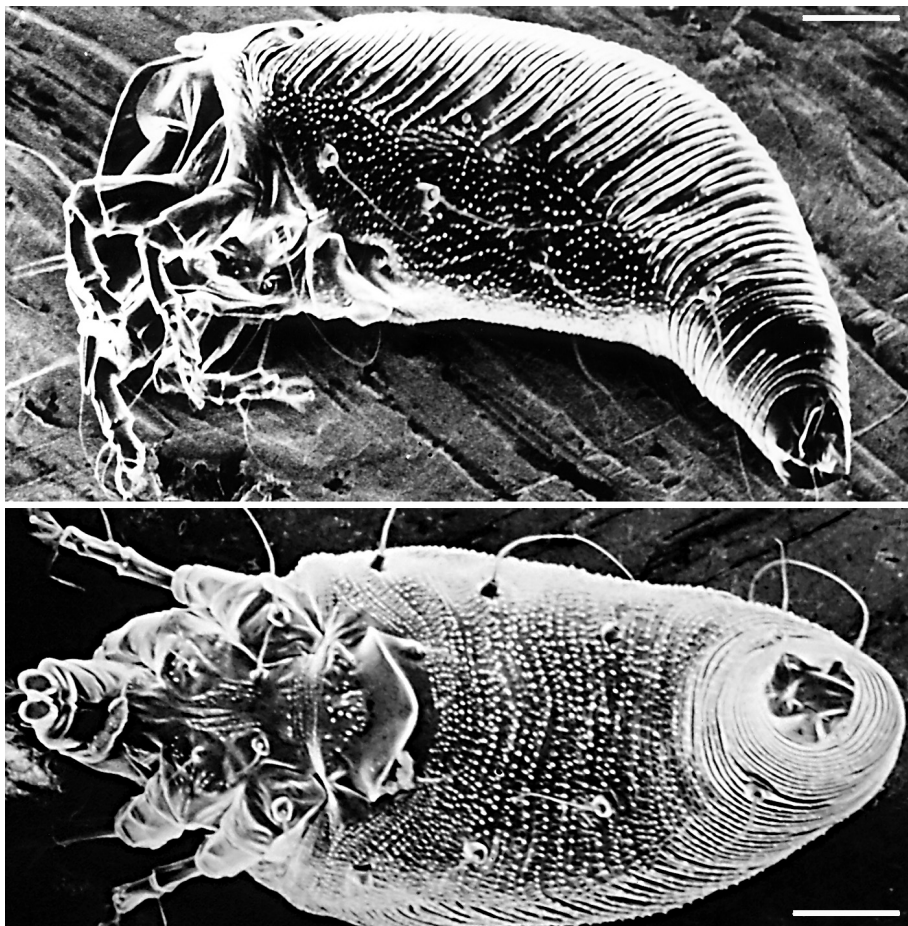


Fig. 2 - Scanning electron micrographs of *Asetadiptacus salvifoliae* n. sp.: sublateral view (above) and ventral view (below) of a female. Scale bars = 20 μm .

ped median ridge, and about 72 (71-80) narrow sternites. Microtubercles on the rear margins of sternites, slightly pointed over margins; tergites with sparse microtubercles and sternites with more appressed microtubercles.

Setae *c2* 38 (32-41) μm long on sternite 13 (12-15), *d* setae 50 (49-55) μm long very thin at the apex on sternite 27 (25-31); *e* setae 40 (35-42) μm long on sternite 44 (41-48); *f* setae 35 (32-40) μm long on sternite 63 (53-68). Last 9 annuli with elongated and linear tubercles. Setae *h2* 58 (54-64) μm long very thin at the apex, *h1* setae very short 1 μm long.

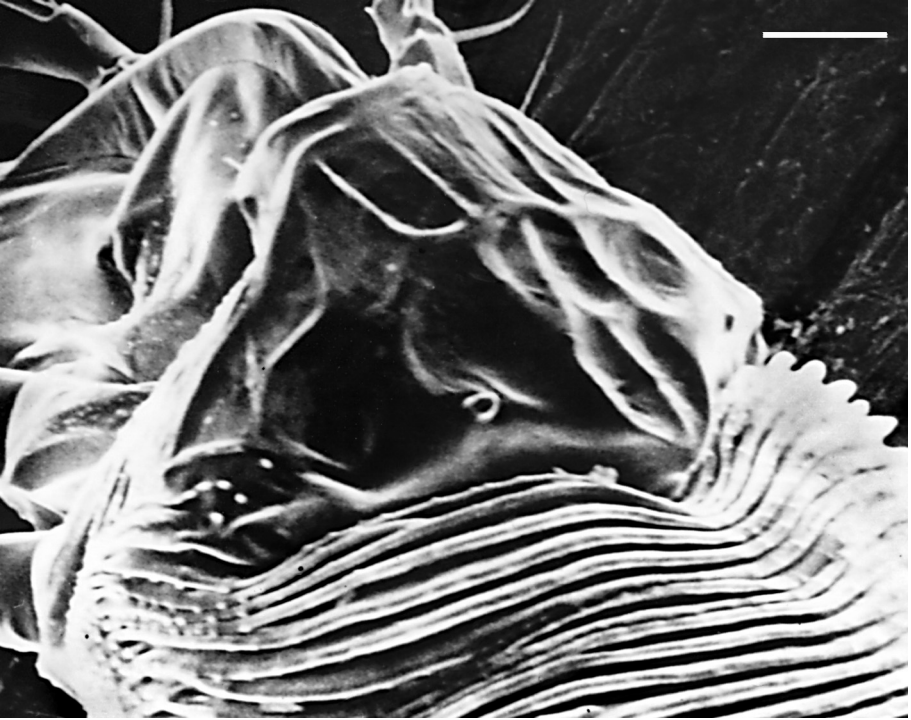


Fig. 3 - Scanning electron micrograph of *Asetadiptacus salvifoliae* n. sp.: detail of the prodorsal shield. Scale bar = 10 μ m.

Genitalia 12 μ m long, 23 μ m wide. Female genital coverflap smooth with faint minute granules, partly with transverse irregular lines, located at the base; *3a* setae 17.5 (16-19) μ m apart, 11 (9-12) μ m long.

MALE: 215 (178-280, range of 10 specimens) μ m long, prodorsal shield 30 (28-32) μ m long; *sc* tubercles 16 (15-17) μ m apart, *sc* setae absent; opisthosoma with 60 (52-63) tergites and about 71 (62-84) sternites. Genitalia 17 μ m wide.

Host plant - *Cistus salvifolius* L. (Fam. Cistaceae), a rock rose.

Type locality - Colli Euganei, Monte Rua (Province of Padova), altitude of 400 m a.s.l., facing south, Italy.

Type material - Holotype slide: 4 females and one male on slide, dated 14, April 1996; Paratypes: many slides prepared from material collected in the same locality on 11th of May and 16th of July 1996 and 26th of March 1997.

Collected by - Mazzon L.

Other material - Envelopes of dry stems and leaves and mummified mites from which the above slides were made.

Relation to the host - No particular damage was observed on the leaves. The mites were observed as vagrants on the leaf undersides.

The species belongs to the Family Diptilomiopidae, subfamily Diptilomiopinae. AMRINE (1996) puts *Pararhynacus* Kuang as a junior synonym of *Asetadiptacus* Carmona while HONG and ZHANG (1997) list the two as distinct genera.

NEW REPORTS

The eriophyoid mites reported below are new records for the Italian fauna:

Family ERIOPHYIDAE:

Acalitus essigi (Hassan)

ex *Rubus fruticosus* L., Tressilla (Piné) (Province of Trento), 9.9.1994; 7.21.1994; 3.23.1994; 7.28.1994; 9.7.1994; 8.30.1994; 10.4.1994, Pergine (Province of Trento), 3.20.1995; Val di Cembra (Province of Trento), 4.4.1995; 4.10.1995, legit Grassi A.

Aculus ballei (Nal.)

ex *Tilia cordata*, Pordenone, 6.1.86, legit Pellizzari Scaltriti G.

Aculus ligustri (K.)

ex *Ligustrum ovalifolium*, Padova, 6.1.88, legit Pellizzari Scaltriti G.; legit Conti M., Torino, 10.1.95.

Aculus tetanobrix (Nalepa)

ex *Salix* sp., leaf galls, Roccaraso (Province of L'Aquila), 8.16.1986, legit Pellizzari Scaltriti G.;

ex *Salix* sp., rolled leaf margin, Tursi (Province of Matera), 9.10.1986, legit de Lillo E.

This species was previously reported by Canestrini (1891) in Veneto and Trentino, Northern Italy.

Anthocoptes cornicola (Farkas)

ex *Cornus mas*, M. Ceva (province of Padova), 200 m S, 7.16.1996, legit Mazzon L.

Epitrimerus urbanus Liro

ex *Geum urbanum* L., Padova, 4.15.1997, legit Girolami V.

Eriophyes rubifolii Channabasavanna

ex *Rubus fruticosus* L., Colli Euganei, M. Rua (Province of Padova) 400 m S, 6.6.1996, legit Mazzon L. This is also a new host plant record. No damages were observed on the host.

Phyllocoptes gracilis sensu Nalepa

ex *Rubus fruticosus* L., Tressilla (Piné) (Province of Trento), 9.9.1994, legit Grassi A.

Tegonotus collaris Nalepa

ex *Fraxinus ornus* L., M. Mottolone (province of Padova) 300 m S, 6.6.1996, legit Mazzon L. Vagrant. This is also a new host plant record.

Tetra concava (Keifer)

ex *Ulmus* sp., M. Ceva (province of Padova) 250 m S, 7.16.1996, legit Mazzon L.

Tegolophus califraxini (Keifer)

was found earlier in Italy, but now vagrant on *Fraxinus ornus* L., M. Mottolone 300 m S, 6.6.1996, legit Mazzon L., a new host plant record.

Family DIPTILOMIOPIDAE

Asetadiptacus emiliae Carmona

ex *Ficus carica*, Bari, 9.1.1996, legit La Notte P.F.

Rhyncaphytoptus gracilipes (Nalepa)

ex *Fagus sylvatica* L., Colli Euganei (Province of Padova), M. Rua, 5.11.1996, legit Mazzon L., is found in Northern Italy for the first time.

Trimeroptes rubi Bagdasarian

ex *Rubus fruticosus* L., Pergine (Province of Trento), 3.20.1995, legit Grassi A. Vagrant. This is also a new host plant record.

ADDENDUM TO THE CHECKLIST OF THE ITALIAN SPECIES

(N, Northern Italy; S, Southern Italy; S, Sicily - according to BERNINI *et al.*, 1995)

Family ERIOPHYIDAE

<i>Acaphylla steinwedeni</i> Keifer	N	Rota & Lozzia, 1983
<i>Aceria biradiatus</i> de Lillo & Fontana	N	de Lillo & Fontana, 1996
<i>Aceria cephaloneus</i> (Nalepa)	N	Pellizzari Scaltriti, 1988 [Croce d'Anna (BL), 7.5.1987, pers. com.]
<i>Aceria persicae</i> (Di Stefano)	S	Di Stefano, 1966 - Originally listed as <i>Aceria phloeocoptes persicae</i> (Di Stefano)
<i>Aceria populi</i> (Nalepa)	N	Canestrini, 1891
<i>Aceria tosichella</i> Keifer	N	Credi <i>et al.</i> , 1997
<i>Aculus ambrosii</i> (Lombardini)	N	Lombardini, 1958 - In the past, this species was retained a junior synonymous of <i>Aculus fockeui</i> (Nal. & Trt.).
<i>Aculus salicisretusae</i> (Nalepa)	N	Nalepa, 1925 - <i>A. tetanobrix craspedobius</i> var. <i>salicisretusae</i> Nalepa, 1925; may be a valid species.
<i>Anthocoptes viticolus</i> (Pantanelli)	Si	Pantanelli, 1911 - May be the deutogyne of <i>Calepitrimerus vitis</i> (Nalepa); a flattened mite with large dorsal plates.
<i>Calacarus carinatus</i> (Green)	N	Rota & Lozzia, 1983
<i>Cecidophyes campestris</i> de Lillo & Fontana	N	de Lillo & Fontana, 1996
<i>Cecidophyopsis betulae</i> (Nalepa)	N	Canestrini, 1892
<i>Epitrimerus pyri</i> (Nalepa)	N, S	several reports
<i>Eriophyes exilis</i> (Nalepa)	?	Pellizzari Scaltriti, 1988
<i>Eriophyes villificus</i> (Thomas)	N	Thomas, 1885

Family DIPTILOMIOPIDAE

<i>Diptacus corni</i> de Lillo & Fontana	N	de Lillo & Fontana, 1996
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ACKNOWLEDGEMENTS

I wish to thank Prof. Girolami V., Prof. Pellizzari Scaltriti G. and dr Mazzon L., Institute of Agricultural Entomology, Padova, Italy, dr Grassi A., Agricultural Institute, S. Michele all'Adige (TN), dr La Notte P.F., Dept. Plant Protection, Bari, who collected part of the samples, and Prof. Amrine J.W.Jr., West Virginia University, U.S.A. for confirming the new species and reviewing the paper.

RIASSUNTO

ACARI ERIOFIOIDEI (ACARI ERIOPHYOIDEA) NUOVI PER L'ITALIA. III

Una nuova specie di eriofioideo è descritta e illustrata anche mediante l'utilizzazione del microscopio elettronico a scansione. *Asetadiptacus salvifoliae* sp. n. (Diptilomiopidae, Diptilomiopinae) è stata raccolta in Veneto come vagante su foglie di *Cistus salvifolius* L. (Fam. Cistaceae).

Vengono segnalate alcune specie di Eriofidi nuove per la fauna italiana.

In addendum viene aggiornata la checklist delle specie della fauna italiana.

Parole chiave: Actinedida, fitofagi, faunistica.

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