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NEW OPPIIDAE (ACARI: ORIBATIDA) FROM CENTRAL EAST ARGENTINA.

by P.A. MARTINEZ & J.G. PALACIOS-VARGAS (Accepted January 2006)

SUMMARY: Two new oribatid species belonging to Family Oppiidae Grandjean, 1951 are described from soils of central east Argentina (biogeographic Province of Pampa): Graptoppia (Graptoppia) alzueti n. sp. and Brachioppiella (Gressittoppia) incisa n. sp. Graptoppia (Graptoppia) pentagona is proposed as a new combination for Oppia pentagona Alzuet, 1981.

RESUMEN: Se describen dos especies nuevas de ácaros oribátidos de la Familia Oppiidae Grandjean, 1951, provenientes de suelos de la región centro-este de Argentina (Provincia biogeográfica Pampa): Graptoppia (Graptoppia) alzueti n. sp. y Brachioppiella (Gressittoppia) incisa n. sp. Se propone Graptoppia (Graptoppia) pentagona como una nueva combinación para Oppia pentagona Alzuet, 1981.

INTRODUCTION

The knowledge of oribatid mites from Argentina was reviewed by Martínez & Velis (2000), who list a total of 291 species, mainly described from Andes mountains, in the western region of the country. From the central eastern region of Argentina, only about twenty species are described. Soil fauna of this zone is poorly known despite of the importance of this soils for farming, and the risks of the loss of genetic diversity due to overexploitation or non conservative tillage practices.

Ophiids are considered typically microphytophagous, inhabiting moss, humus, litter and pastures (Krantz, 1978). They are well represented in Pampa’s soils, though only a small number of species have been described (Alzuet, 1981). We describe here two new taxa of the family Oppiidae Grandjean, 1951, from the mid-eastern Argentina. The descriptions are based on adult specimens.

MATERIAL AND METHODS

The central eastern part of Argentina is included in a biogeographic province called Pampeana (Cabrera & Willink, 1973) or Pampa (Morron, 2001), characterized by a low topography, temperate climate, rainfall around the year, decreasing from north to south and from east to west, ranging from 1200 to 600 mm/y; mean yearly temperature varies between 13 and 17°C. Vegetation cover is of the savanna type, herbs and bushes until 1 m height, xeric woods, flooded savannas and gallery forests along rivers;
Fig. 1: *Brachioppiella* (*Gressittoppi*) *incisa* n. sp., adult. A. Dorsal view. B. Ventral view. C. Lateral view. Scale bar= 100 µm.
main plant genera are: *Aristida, Bothriocloa, Briza, Bromus, Eragrostis, Melica, Panicum, Paspalum, Piptochaetium, Schizachyrium* and *Stipa*. A great portion of this Region is under extensive agricultural practices.

Samples were collected in pastures and reserved areas, near Mar del Plata City. Soils are Argiudols, with a deep organic horizon (0.80 – 1 m).

**BRACHIOPPIELLA (Gressittoppia) incisa n. sp.**

Material examined: One holotype and 5 paratypes were studied. The holotype is deposited in the Museo Nacional de Ciencias Naturales Bernardino Rivadavia (Buenos Aires, Argentina), four paratypes are deposited in the senior author’s collection and one paratype is deposited in the Laboratorio de Ecología y Sistemática de Microátrófodos, UNAM, México. All specimens are stored in ethanol. Dissected specimens mounted on slides for the observation of legs are in the authors’ collections.

Size, color, sex ratio: Body length: 274-298 µm; media: 287 µm; width: 137-156 µm; media: 145 µm. Size differences among sexes were not detected. Light brown colour. Of 6 specimens three were females and three males. Despite of small number of specimens, data suggests a sexual reproduction.

Prodorsum (Figs. 1A, C): Lamellar and interlamellar lines more or less conspicuous depending on specimen; interlamellar sigilla generally in two pairs, with a central one in some specimens, not very well marked, rostrum incised (Fig. 1A, B). Rostral area with a line posterior to insertion of setae ro and a pair of lines latero-internally to these setae. Sensilli clavate pectinate, head with six branches. Setae in (L = 5-10 µm) and le (L = 13-17 µm) with tiny barbules. Setae ro longer than those (L = 25-30 µm) and with conspicuous barbules.

Notogaster (Figs. 1A, C) Oval in shape, surface smooth. Nine pairs of setae, smooth or with one or a few barbules, pair cl absent. Setae length: 15-17 µm.

Ventral region (Figs. 1B) Epimeral setation: 3-1-3-3; genito-anal setation: 4-1-3-2. Fissures iad in inverse apoanal position; setae ad1 postanal and ad3 preanal.

Legs (Fig. 3A-B) Setation: I (1-5-2-4-19), II (1-5-2-4-14), III (2-3-1-3-13), IV (1-2-2-3-10). Solenidial for-
Fig. 2: Graptoppia (Graptoppia) alzueti n. sp., adult. A. Dorsal view. B. Ventral view. C. Lateral view. Scale bar = 100 µm.
Fig. 3: A, B. Brachioppiella (Gressittoppia) incisa n. sp., adult. A. Leg IV, right, antiaxial surface. B. Leg I, right, antiaxial surface. C, D. Graptoppia (Graptoppia) alzueti n.sp., adult. C. Leg I, right, paraxial surface. D. Tibia and tarsus IV, right, antiaxial surface. Scale bar A, B= 50 µm, C, D= 25 µm.
visible in lateral view. Nine pairs of medium long, smooth setae, pair cl absent. Clear spots (external marks of muscular attachment places) visible all around the posterior notogastral border; two pairs of these spots in central position: one pair between setae la and dm and the other near to h2.

Ventral region (Fig. 2B) Epimeral setation: 3-1-3-3; genito-anal setation: 5-1-3-2. Fissures iad in paranal position; setae ad1 postanal and ad3 preanal, near pair ag. Epimera 3 + 4 with a polygonal, incomplete, sculpture.

Legs (Fig. 3C-D) Setation: I (1-5-2-4-19), II (1-5-2-4-14), III (2-3-1-3-13), IV (1-2-2-3-10). Solenidial formulae: I (1-2-2), II (1-1-2), III (1-1-0), IV (0-1-0). Setae with broad barbules, appearing serrate. Setae a' in tarsi II and IV are widened and barbed.

Type Locality: Reserva Intangible de Laguna de Los Padres, south of Mar del Plata City, Buenos Aires, Argentina. Soil from 5-10 cm in an grassy area.

Material examined: One holotype and 14 paratypes were studied. The holotype is deposited in the Museo Nacional de Ciencias Naturales Bernardino Rivadavia (Buenos Aires, Argentina), thirteen paratypes are deposited in the senior author’s collection and one paratype is deposited in the Laboratorio de Ecología y Sistemática de Microarthropodos, UNAM, México. All specimens are stored in ethanol. Dissected specimens mounted on slides for the observation of legs are in the authors’ collections.

Etymology: This species is dedicated to Dr. ALCIRA BISCHOFF ALZUET, pioneer in the study of mites in Argentina.

**Discussion**

Considering characters as setae cl reduced, two pairs of interlamellar sigilla, clavate and ciliate sensilla and fissure iad paranal, we propose that the new taxon must be included in genus Graptoppia Balogh, 1983. The presence of five pairs of genital setae suggests a position in the subgenus Graptoppia (Graptoppia) Balogh, 1983.

Subias & Balogh (1989) list following species in this subgenus: Graptoppia (Graptoppia) paraanalis Subias & Rodriguez, 1983, from the Palearctic region, as type species, Frondoppia exigua Mahunka, 1983, from Brazil; Stenoppia italica quinquepilosa Morell, 1987, from Spain; Oppia nukusia Shantaeva, 1984, from South USSR; Oppia parva Kok, 1967, from South Africa and Spain and Oppia sundensis Hammer, 1980, from Java and Borneo. We propose to transfer Oppia pentagona Alzuet, 1981 to Graptoppia (Graptoppia) pentagona n. comb. This species was collected at Los Hornos, La Plata district, 400 km north of our study zone.

Graptoppia (Graptoppia) alzueti is similar to pentagona and sundensis in general body shape and prodorsum characters, except for a pair of interbothridial tubercles, (interbothridial protuberances, broadly present in oppiids, are not diagnostic at subgeneric level) and smooth prodorsal and notogastral setae in alzueti. A comparison of legs with those of the type species (Subias & Arillo, 1997, fig. 1) shows strong similitude in the shape of the articles, and in number and placement of setae; but tarsal setae a'II and a'IV are not widened in the type species.

Graptoppia (Graptoppia) alzueti is characterized by the hardly discernible lamellar lines, inconspicuous interlamellar line, and one pair of interbothridial tubercles.

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