Phyllodromica hungarica sp. nov., a new cockroach species from Hungary
(Insecta: Blattodea: Blattellidae: Ectobiinae)

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Abstract: Phyllodromica hungarica sp. nov., a new cockroach species from Hungary (Insecta: Blatto-
A new cockroach species, Phyllodromica hungarica sp. nov. (Blattellidae) is described. It has been
found only on the territory of northern Hungary (Bük mountains).

Key words: cockroach, Phyllodromica, Hungary, systematics, taxonomy.

Introduction

The genus Phyllodromica FIEBER covers about 80 species which are distributed in
Europe (about 40 species), West Asia, North Africa, the Azores, the Canary Islands and
Madeira (HARZ, 1976).

Studying the material of cockroaches from Hungary deposited in the Zoological
Department of the Hungarian Natural History Museum in Budapest (HNHMB) some
males and females of a new Phyllodromica species were found and described.

This new species is distributed practically on the same zoogeographical area as
Phyllodromica harzi CHLÁDEK, 1977 and Phyllodromica maculata marani CHLÁDEK,
HARZ, 1980, which were described from SE-Slovakia.

Description of the species

Phyllodromica hungarica sp. nov.
(Figs. 1-11,14,15)

Paratypes: 5f, Bük N.P., Szarvaskő, Tardos-hegy' - 350m above sea - level, 25.IX.1981,
Ádám, HNHMB; 1f, Hungary: Bük National Park, Szilvásvárad, Bacsó-völgy', 4.VI.1986,
Steinmann, H., HNHMB; 1m, Hungary: Bük N.P., Felsőtarkany, Lók-völgy', 6.VI.1984,
Steinmann, H., HNHMB.

hegy = mountain; völgy = valley

Description: Male: Head (Fig.1) with few setae, interocular width larger than the
ocular width (IW/OW index = 1.7-1.8). The interocular width (IW) and ocular width (OW)
were measured at the top of the head. Pronotum with short, thin setae, widest near the
hind margin (Fig.2). Front femur Type B (Prinicius, 1985); tarsal claws asymmetrical, arolia
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well developed. Tegmina (Fig.3), fully developed but reaching only the end of the seventh abdominal tergum; veins reduced but radial vein distinct. Hind wings (Fig.4) strongly reduced, distal ends bent to the middle at a 135° angle. Seventh abdominal tergum strongly modified, separated into two lobes which are directed towards each other. Glandular pit of tergum 7 (Fig.11) is hollowed beyond the margins of the opening. The hollows form a large, bilobed pouch. The footprint-like lobes are joined in the middle with a narrow strip. The anterior parts of lobes are evidently wider than the posterior parts. Unlike the species of the beatica group of Phylldromica, the pouch of Ph. hungarica sp. nov. lacks bristles (BOHN, 1992). Subgenital plate asymmetrical (Fig. 9). A single short stylus with few erect bristles is present only on the left side. Endophallic apodeme (L2vm) at the anterior end broadened. Near the posterior end of the endophallic apodeme there is the 'helmet sclerite' covered with small scales which was also found in the species of the sylvestris group of Ectobius STEPHENS (BOHN, 1989). Extensible and retractable hook (left phallomere; L3 of MCKITTRICK, 1984; Fig. 10) on the left side. Cleft sclerite (R2) and small R3 apodeme on the right side. Ceri composed of 9 segments, ventral side thin and dorsal side thick pubescent.

**Coloration.** Head black or dark brown except for pale labrum. Antennae with dark brown pedicel, the remaining segments pale. Disk of pronotum broad, in the front angularly rounded, brown, sharply set off from the transparent lateral and anterior borders. Tegmina brownish-black with yellowish spots (Fig.3). Abdominal terga dark brown, sterna entirely black. Legs brown with yellow bristles.

**Measurements** (mm). Body length 6.2 - 8.7; pronotum length x width 2.3 x 3.5; tegmina length x width 6.0 x 2.5; wing length 1.7.

**Female.** Head with few setae, interocular width greater than ocular width (I/W/OW index = 1.6-1.7). Pronotum as in male. Tegmina (Fig.5) shortened, slightly apically truncated. Hind wings (Fig.6) reduced, distal end straight or slightly bent to the middle. Genital structures as in figs. 14, 15.

**Coloration.** Head dark brown except for the pale labrum and the lower part of the clypeus. Antennae pale brown. Pronotum translucent white, the disk of pronotum dark brown. Tegmina yellow with big black spots (Fig.5). Hind wings translucent, apex of wings dark. Abdominal terga and sterna black with white lateral and hind margins. Legs and bristles yellow.

**Measurements** (mm). Body length 5.7-8.4; pronotum length x width 2.3 x 3.5; tegmina length x width 3.3 x 2.4; wings length 1.6.

**Etymology:** Named after the country, where the type locality is situated.

**Geographical distribution:** This species is found in the northern part of Hungary.

**Systematical remarks:** Phylldromica hungarica sp. nov. ranks among the species with the phallic sperm "helmet sclerite" and one small stylus. Into this group belong Phylldromica carpentana and relatives, Ph. chopardi, Ph. loorentae, Ph. maculata, Ph. palida and relatives, Ph. panteli, Ph. subaptera and the Sylvestris Group of Ectobius (BOHN, 1989). It is possible to include here also Ph. harzi CHLÁDEK and Ph. chladekii HARZ.
Figs. 1-4. *Phyllodromica hungarica* sp. nov. - male: (1) Head, (2) Pronotum, (3) Tegmina, (4) Hind wing.
Figs. 5-6. *Phyllodromica hungarica* sp. nov. - female: (5) Tegmina, (6) Hind wing.
Figs. 9-10. *Phyllostroma hungarica* sp. nov. - male. (9) Subgenital plate (sg; dorsal view) with 2 anterior apophyses (a), endophalic apodeme of left phallomere (ea), helmet sclerite (h), cleft sclerite (cs), apodeme of right phallomere (R3; hook removed) and stylus (s). (10) Hook (posterior end).

Figs. 11-13. Male tergite 7 with gland: (11) *Ph. hungarica* sp. nov. (12) *Ph. maculata marani*. (13) *Ph. harzi*. Scale in mm.
Figs. 14-15. Phyllodromica hungarica sp. nov. - female: Genital structures of female. Dorsal complex - supraanal plate (sa), cerci (c), paraprocts (pp), paratergites (pt), valves (v), arm of first valvifer (vf), posterior lobes of valvifer II (pl), laterosternite (l). Scale in mm.

Taxonomical remarks and distinctive characteristics: The present new species is similar to Ph. maculata marani (CHLÁDEK & HARZ, 1980) and Ph. harzi (CHLÁDEK & HARZ, 1977). It can be distinguished from Ph. maculata marani especially by the form and coloration of the rudimentary hind wings (see figs. 4 and 7, 6 and 8) and by the form of the tergal gland (see figs. 11 and 12). Ph. hungarica sp. nov. differs from Ph. harzi by tegmina coloration (Figs. 3, 4; see also CHLÁDEK & HARZ, 1977) and also by the form of the tergal gland (see figs. 11 and 13) and the hook.

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References

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Sühn: Phylodromica hungarica sp. nov., nový druh švába z Mađarska (Insecta: Blattodea: 
Blattellidae: Ectobiinae).
V práci je popísaný nový druh švába, Phylodromica hungarica sp.nov. z územia severného 
Mađarska. Druh bol popísaný na základe exemplárov uložených v Zoologickom oddelení Mađarského 
prírodovedného múzea v Budapešti.

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