

***Rhithrogena pontica* sp.n. (Ephemeroptera: Heptageniidae)
from Turkey**

by

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Rhithrogena pontica sp.n. (male imago and male subimago) from eastern Turkey is described and figured. The species belongs to the *sowai* species-group; its distinguishing characters are discussed.

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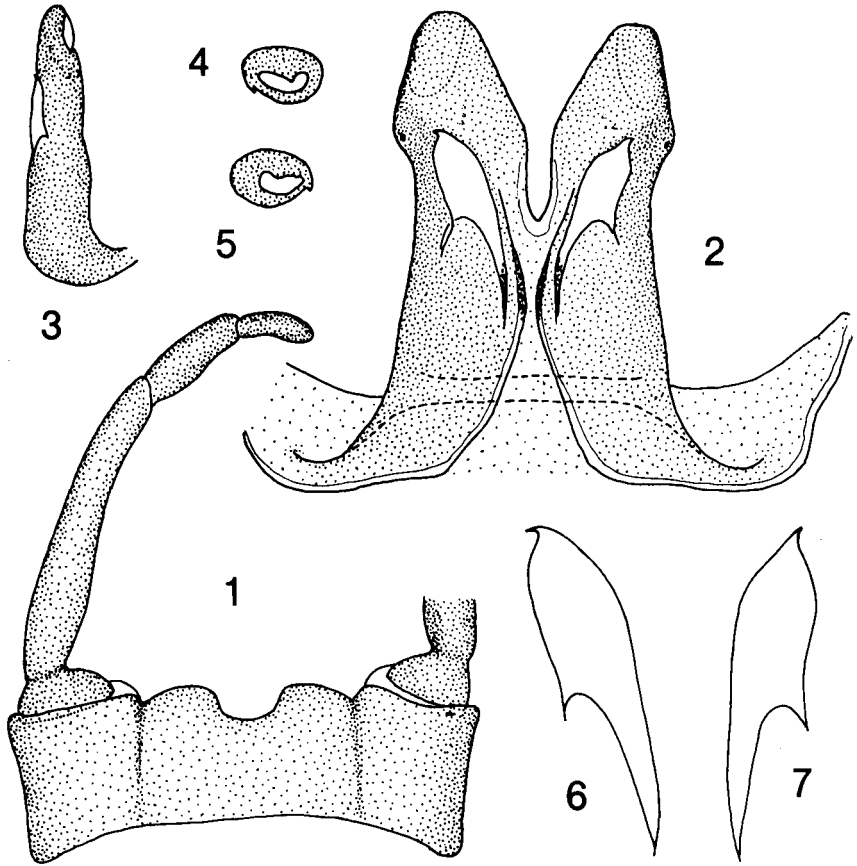
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In this paper, a new species of genus *Rhithrogena* from eastern Turkey, *R. pontica*, is described. Its relationships are discussed. Besides a single specimen caught by one of us (N. Kazanci), the material was collected by Dr. Peter Zwick of Schlitz during his excursion to Turkey in 1970. We would like to express our sincere thanks for providing us with the specimens.

***Rhithrogena pontica* sp.n. (Figs. 1-7)**

Male imago: Body length 12.0-13.5 mm; length of cerci 25-27 mm. Eyes grey, darker in basal part, with apparent longitudinal blackish band. Head and thorax dark brown, posterior part of mesonotum and metanotum pitch brown. Fore legs missing.

Middle and hind legs pale yellowish brown, tarsi darker, femora with conspicuous dark spots in middle; spots longitudinal, 1/4 - 1/5 of femur length. Fore wings translucent, light greyish, both longitudinal and cross veins of posterior part of wing dark brown, those of anterior part distinctly paler. Pterostigma brownish grey, with 14 - 15 simple cross veins. Veins of posterior half of hind wings colourless, transparent. Abdomen light brown or yellowish brown, paler than thorax. Terga unicolorous with 2 - 3 pairs of darker lateral spots, and darker and fused ones on the last terga. Tergum X with a pair of dark brown bands. Sterna unicolorous, with very inconspicuous markings of a pair of small paler spots and divergent bands. Ganglia colourless.



Figs. 1-7: *Rhithrogena pontica* male imago: 1 - styliiger and styli; 2 - penis, ventral view; 3 - lobe of penis, lateral view; 4 and 5 - apical part of penial lobes; 6 and 7 - titillators of penis.

Styliiger and styli light brown. Posterior margin of styliiger with a pair of asymmetrical projections, incurved in the middle in the form of a wide "U". Penis lobes nearly parallel, moderately convergent distally, with straight posterior margin. Gonoporus conspicuously oblique, nearly parallel with the body axis. Outer spine very small, accompanied by further 2 - 3 minute spines. Inner spine larger, well apparent in distal view, with several minute spines nearby. Titillators very wide ($\frac{1}{2}$ of penis lobe width), nearly symmetrical with convex, moderately divergent sides, and with a single bent tooth at apex. Cerci dark brown near the base, greyish apically, inconspicuously ringed.

Male subimago: Body length 11.5 mm; length of cerci 12 mm. Eyes grey, blackish in basal part. Head and pronotum light yellowish, meso- and metanotum slightly darker. Legs yellowish, femora with a dark brownish spot. Wings and longitudinal veins grey, cross veins dark bordered. Abdomen light brown,

slightly darker than thorax. Terga with a pair of pale spots near the sides, sterna with markings as in male adult. Cerci light brownish, unicolorous, not ringed.

Female imago and subimago and nymph unknown.

Material examined: male imago (holotype), 4♂♂ imagines, 1♂ subimago (paratypes), Turkey, stream 30 km S of Tortum, near Erzurum, 9°C, 20.v.1970, leg. P. Zwick. Holotype (in part on slides) deposited in the Department of Hydrobiology, Jagiellonian University, Kraków, Poland; paratypes there and in the authors' collection. 1♂, Turkey, Erzurum, 15.vi.1981, leg N. Kazanci.

RELATIONSHIPS

R. pontica sp.n. belongs to the *sowai* species-group which consists of *R. sowai* Puthz, 1972, *R. buresi* Sowa, 1973 and *R. daterrai* Sowa, 1984 (Sowa 1984). The arrangement of external genitalia is very characteristic and this species is not related to any species from Turkey and the Caucasus. Two *Rhithrogena* species known from Turkey and Iran apparently belong to different species-groups (Braasch 1981, 1983). *R. pontica* is related to *R. sowai* known from Romania and Bulgaria. It markedly differs from *R. buresi* and *R. daterrai* in the shape of penis lobes (straight posterior margin), position of gonoporus and shape of titillator (titillators band-like with parallel sides and several apical teeth in *R. buresi* and *R. daterrai*). *R. pontica* differs from *R. sowai*, which possesses simple pointed titillators as well, in the arrangement of apical portion of penis lobes (rounded in *R. sowai*), and especially in shape of both outer and inner spines (strongly developed simple spines in *R. sowai* - see Puthz 1972). The biology of *R. pontica* is unknown.

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REFERENCES

- BRAASCH, D. (1981): Eintagsfliegen aus Anatolien und Iran (Insecta, Ephemeroptera). – Faun. Abhandl. 8: 75-79.
- (1983): *Rhithrogena iranica* sp.n. aus dem Iran (Insecta, Ephemeroptera). – Ent. Nachr. Ber. 27: 69-70.
- PUTHZ, V. (1972): Eine neue *Rhithrogena* aus Südosteuropa (Insecta, Ephemeroptera). – Ent. Mitt. Zool. Mus. Hamburg, 4: 303-307.
- SOWA, R. (1973): Note sur quelques espèces paléarctiques de *Rhithrogena* Eaton (Ephemeroptera, Heptageniidae). – Bull. Acad. Pol. Sc. Cl. II, 21: 21-26.
- (1984) Contribution à la connaissance des espèces européennes de *Rhithrogena* Eaton (Ephemeroptera, Heptageniidae) avec le rapport particulier aux espèces des Alpes et des Carpates. – Proc. 4th Intern. Conf. Ephemeroptera, Běchyně, p. 37-52.
- THOMAS, A. (1968): Quelques *Ecdyonurus* et *Rhithrogena* européens de la collection Navás (Ephemeroptera). – Anns Limnol. 4: 209-218.