

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

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In this paper the male imago of a new titillatorless *Rhithrogena*, *R. anatolica* sp.n., from Middle, Eastern, and Southeastern Turkey is described and figured.

### *Rhithrogena anatolica* sp.n. (figs. 1–7)

*Male imago*: Length of body: 6–6,5 mm, Length of fore wing 6–6,5 mm, length of cerci 15–16 mm. Compound eyes olive green in living specimens but turning to light grey in alcohol. Prothorax light brown, mesothorax and metathorax black-brown, laterally white, mesoscutum light brown. Coxae light brown. Femora, tibiae and tarsi yellow without dark spots, tarsal claws light brown. Wings transparent with white venation. C, Sc, R light brown, cross-veins very light, hardly visible. Pterostigma opaque with 9 straight cross-veins. First segment of abdomen brown, segments 1–7 yellowish-brown and transparent, segments 8–10 light brown and opaque. Sternites and tergites without markings. Styliiger plate yellow, transparent, laterally light brown. Small, rounded lobes separated by a broad emargination with a small, median protuberance (fig. 1). Style yellow, obliquely truncated and divergent penis lobes do not have apical denticles and titillators. Their apical parts slightly and lateral parts, strongly sclerotized in abdominal view (fig. 2). In dorsal view almost the whole surface of penis lobes sclerotized and swollen beneath the genital orifices (fig. 3). Large genital orifices angular in caudal view (fig. 7). Cerci yellow without annulations.

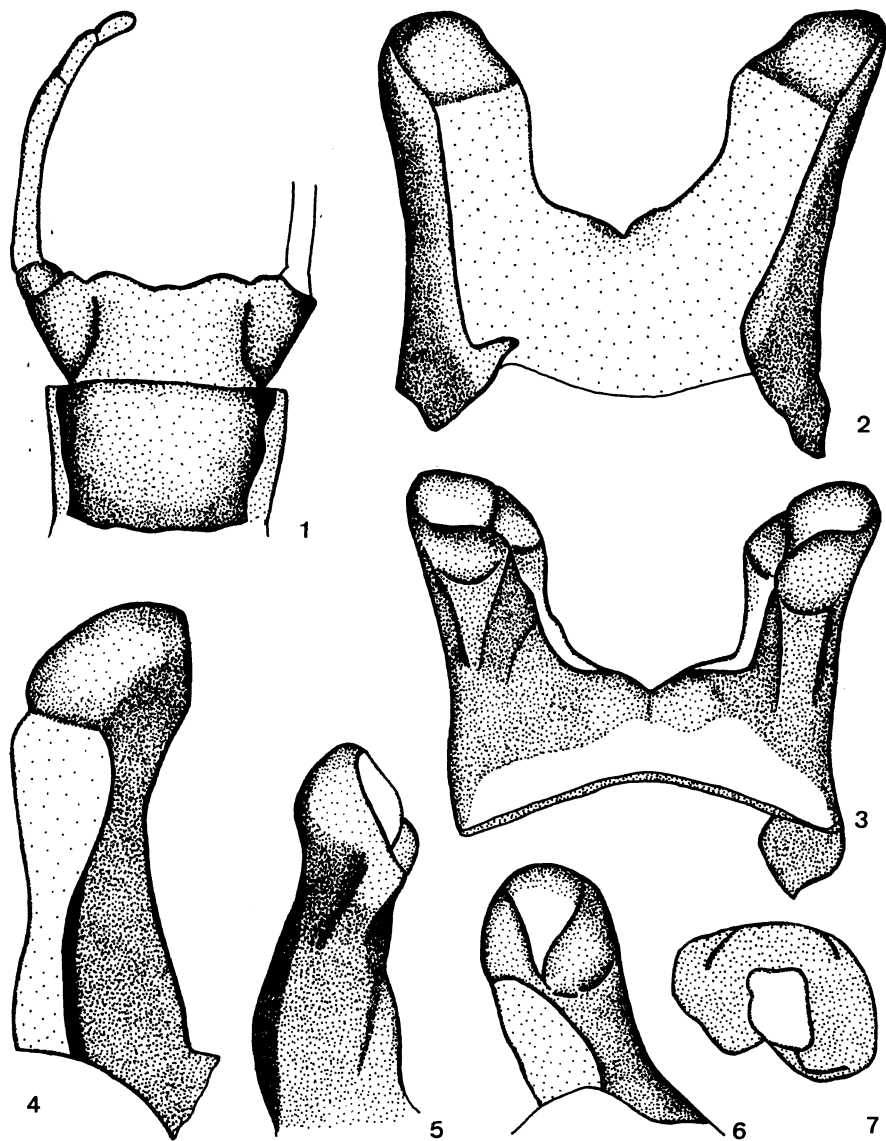
*Ecology*: Imagos of *Rhithrogena anatolica* sp.n. were collected surroundings of large rivers and streams having sandy beds and rocky banks. The flight period of this species probably lasts from the end of spring to early fall.

*Material*: Holotype ♂, Ankara: Kırıkkale, Kızılırmak River 750 m, 19.5.1983; Erzurum: Ilica 2000 m, 27.7.1981, 1 ♂ imago; Sivas: Zara: Suca Village, 1320 m, 25.7.1982, 4 ♂ imagos; Erzurum: Kandilli, 2000 m, 17.7.1984, 2 ♂ imagos; Siirt-Eruh Road: Zarova River, 400 m 22.7.1984, 25 ♂ imagos, leg. and coll. N. KAZANCI.

### RELATIONSHIPS

Genitalia of *Rhithrogena anatolica* sp.n. titillatorless and spineless like those of *R. tibiale* (ULMER, 1920) and *R. znojtkoi* (TSHERNOVA, 1938). *Ecdyonurus znojtkoi* TSHERNOVA, 1938 is included in genus *Rhithrogena* by THOMAS & DIA (1982) because of its nymphal structure. *Cinygma tibiale* ULMER, 1920 is included in genus *Epeorus* by TSHERNOVA & B (1982). KAZANCI & BRAASCH have recently removed *Cinygma tibiale* ULMER, 1920 from us to genus *Rhithrogena* (Some New Heptageniidae (Ephemeroptera) from Anatolia, received for publication in Aquatic Insects). By considering all of the above results, *Rhithrogena anatolica* sp.n. is included in titillatorless

form of the genus *Rhithrogena*. *Rhithrogena anatolica* sp.n. differs from *R. tibiale* (ULMER, 1920) and *. znojtkoi* (TSHERNOVA, 1938) in the shape of the penis lobes and in body coloration.



Figs. 1-7. *Rhithrogena anatolica* sp. n., male imago. 1: Styliger plate, ventral view. 2-7: Penis (2 ventral, 3 dorsal, 4 lateral, 5 latero-dorsal, 6 inner side, and 7 caudal view).

## RESUME

Le mâle de la nouvelle espèce *Rhithrogena anatolica* sp.n. est décrit ici. Les caractéristiques qui différencient cette espèce des autres sont l'absence des titillateurs et des épines peniales sur le penis. *Rh. anatolica* est apparentée à *Rh. tibiale* ULMER, 1920 et *Rh. znojkoï* TSHERNOVA, 1938 et se distingue de ces espèces par la forme des lobes peniaux et la couleur du corps.

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