

## RESULTS OF THE CZECHOSLOVAK-IRANIAN ENTOMOLOGICAL EXPEDITION TO IRAN 1970

### No. 7: Orthoptera, Tettigoniidae: A new species of Nephoptera Uvarov, 1929, from Iran

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In the genus *Nephoptera* Uvarov the following seven species are known: *N. tibialis* Uvarov, 1929 (Type species), *N. persica* (Uvarov, 1929), *N. robusta* (Bey-Bienko, 1951), *N. richteri* (Bey-Bienko, 1958), *N. bienkoi* Ragge, 1959, *N. sinica* Steinmann, 1966 and *N. dezfouliani* Mirzayans et Morales, 1969. The six species are distributed in Iran, one species, i. e. *N. sinica* Stein., is known from China (Prov. Kiangsi, Lushan-Gebirge). The subspecies *N. bienkoi afghana* Čejchan, 1969 was described from Eastern Afghanistan.

#### *Nephoptera dlabolai* sp. n.

Holotype: — Male: S. W. Iran, Fars, Kazerun, 5.—6. VII. 1970 (Loc. no. 45).

Diagnosis: — Male: Tenth abdominal tergite with very large median posterior projection, as in fig. 1. Subgenital plate as in figs. 1—2. Cercus as in fig. 1.

Female: Tenth abdominal tergite with median posterior projection, as in fig. 4. Ovipositor as in fig. 5.

Description: — Male: Pronotum without lateral carinae; anterior margin almost straight, posterior one slightly convex. Fore coxae with a minute spine. Fore tibiae with about 2—3 external spurs, including 1 or 2 apical ones. Middle tibiae fairly strongly swollen in basal half, with about 5—6 external spurs, including 1 or 2 apical ones. Hind femora unarmed. Hind tibiae with about 15—17 external dorsal spines, and 2 apical spurs on each side. Fore wings with distinct bifurcate  $R_s$ , which is free from MA. Hind wings extending beyond fore wings by  $\pm$  quarter length of latter.

Tenth abdominal tergite with very large median posterior projection, which completely covers supra-anal plate, as in fig. 1; on its upper side with a median longitudinal furrow, as in figs. 1, 3. Its apical part strongly broadened, as in fig. 3. Cerci relatively long, robust, and strongly curved, as in fig. 1; its apical  $1/3$  is dorso-ventrally flattened. Subgenital plate relatively short, in apical part narrower and bifurcate, as in fig. 2.

General coloration green, with dark brown spots on vertex, pronotum, tho-

racic pleurites, femora and abdominal tergites. Tibial spines and spurs with dark tips.

Female: Similar to male except for genitalia. Hind tibiae with about 21–24 external dorsal spines, and 2 apical spurs on each side. Tenth abdominal tergite with median posterior projection, as in fig. 4. Ovipositor as in fig. 5, with relatively large teeth in nearly two-thirds of its distal dorsal margin as well as in distal half of the ventral margin; basal folds large, as in fig. 5. Subgenital plate narrow, extending beyond posteriorly basal folds of ovipositor, as in fig. 5.

General coloration as in male.

#### Measurements (in mm)

	Males	Females	Means of ♀
Length of body <sup>1)</sup>	15 –17	15 –16,5	15,6
Length of pronotum	3 – 3,1	2,8– 3	2,9
Length of fore wing	18 –19	21,2–24,2	22,2
Maximum width of fore wing	4,2	4,5– 5	4,7
Length of exposed part of hind wing	4 – 5	4 – 6	4,8
Length of hind femur	11,5–12,8	13,4–15,2	14
Maximum vertical width of hind femur	1,7– 1,8	1,6– 1,8	1,7
Length of hind tibia	13,2–13,6	15 –17	16
Length of ovipositor	—	7 – 7,1	7

<sup>1)</sup> Abdomen in all specimens strongly shrunken.

This new species is named in honour of my friend Dr. J. Dlabola, CSc., Department of Entomology, National Museum (Nat. Hist.) in Praha.

Material examined: Holotype ♂, allotype ♀, paratypes 1 ♂, 2 ♀♀, S. W. Iran, Kazerun (found on *Quercus* sp.), 5.–6. VII. 1970, Loc. no. 45 (Exp. Nat. Mus. Praha). All type specimens are deposited in the collections of the Department of Entomology, National Museum (Natural History) in Praha-Kunratice.

Distribution: Known only from the type locality.

Discussion: The new species is characterized by the enormously enlarged and modified tenth abdominal tergite and by the shape of subgenital plate of the male and belongs to the group of species *N. bienkoi* Ragge and *N. dezfoulani* Mirzayans et Morales. To this clear-cut group belongs probably also *N. robusta* (Bey-Bienko) which is known only from the female sex. The posterior projection of the tenth abdominal tergite is present in all females of the four mentioned species. In the other four species known in the genus *Nephoptera*, i. e. *N. tibialis* Uvarov, *N. persica* (Uvarov), *N. richteri* (Bey-Bienko) and *N. sinica* Steinmann, the tenth abdominal tergite in both sexes is not modified.

This new species is closely related to *N. dezfoulani* Mirzayans et Morales, however it differs from it mainly in smaller size of male, in the shape of tenth abdominal tergite, in the longer cerci and in quite different subgenital plate; female differs mainly in the shape of ovipositor, especially in its basal folds, and in somewhat different median posterior projection of the tenth abdominal tergite.

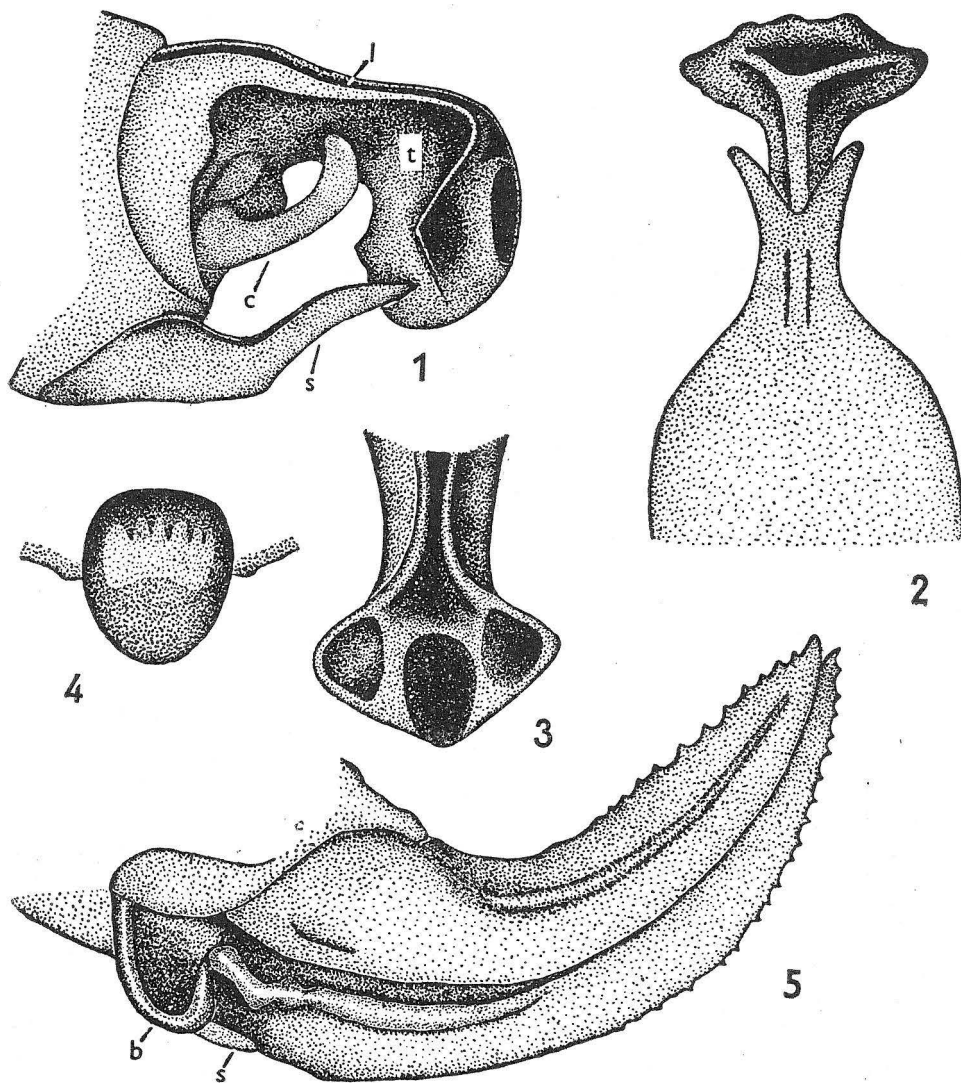


Fig. 1. Apical part of abdomen in male. Lateral view. t = 10th abdominal tergite; l = longitudinal furrow; c = cercus; s = subgenital plate.

Fig. 2. Larger part of subgenital plate and apical part of median posterior projection of 10th abdominal tergite in male. Ventral view.

Fig. 3. Apical part of median posterior projection of 10th abdominal tergite in male.

Fig. 4. Median posterior projection of 10th abdominal tergite in female. Dorsal view.

Fig. 5. Ovipositor in female. Lateral view. b = basal fold; s = subgenital plate.

## LITERATURE

- Bey-Bienko, G. Ja., 1954: Fauna of the U.S.S.R., Orthoptera, 2, Pt. 2. Phaneropteri-nae. Fauna Rossii (New Series), no. 59.
- Bey-Bienko, G. Ja., 1958: Tettigoniiden aus Iran (Orthoptera) (Ergebnisse der Entomologischen Reisen Willi Richter, Stuttgart, im Iran 1954 und 1956 — Nr. 14). *Stuttgart. Beitr. Naturk.*, no. 5:1—7.
- Čejchan, A., 1969: Beiträge zur Kenntnis der Fauna Afghanistans (Sammelergebnisse von O. Jakeš 1963—64, D. Povolný 1965, D. Povolný et Fr. Tenora, 1966, J. Šimek 1965—66, D. Povolný, J. Gaisler, Z. Šebek et Fr. Tenora, 1967). Tettigoniioidea, Orth. *Acta mus. Moraviae*, Sc. nat., Suppl. 54:221—228.
- Mirzayans, H. et Morales Agacino, E., 1969: Sur une Nouvelle Espèce Iranienne du Genre Nephoptera Uvarov 1929 (Orth., Tettigoniioidea). *Entomologie et Phytopathologie Appliquées*, No. 28:28—31.
- Ragge, D. R., 1956: A revision of the genera Phaneroptera Serville and Nephoptera Uvarov (Orthoptera: Tettigoniidae), with conclusions of zoogeographical and evolutionary interest. *Proc. zool. Soc. Lond.*, 127:205—283.
- Ragge, D. R., 1959: A new species of Nephoptera Uvarov from Persia, with a revised key to the species of this genus (Orthoptera: Tettigoniidae). *Eos*, 35:425—428.
- Steinmann, H., 1966: New Phaneroptera Serv. and Nephoptera Uv. species (Orthoptera: Tettigoniidae). *Acta Zool. Hung.*, 12:409—417.
- Uvarov, B. P., 1929: Studies in the Iranian Orthoptera. I. Some new or less known Tettigoniidae. *Ann. Mus. Zool. Acad. Sci. URSS*, 31:623—639.