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RESULTS OF THE CZECHOSLOVAK-IRANIAN ENTOMOLOGICAL EXPEDITIONS TO IRAN 1973

Iranotelmatoscopus hajiabadi gen. n., sp. n. (Diptera, Psychodidae) from the Palaearctic region

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The generic taxonomy of no family of Diptera is as unstable as the family Psychodidae. A collection of species initially described from all zoogeographic areas was included by many authors in Eaton's old genus *Telmatoscopus.* This heterogeneous taxon was later worked on by several famous pioneer-taxonomists of moth flies — e. g. Tonnoir (1933), Enderlein (1935), Satchell (1953, 1955), Quate (1959, 1962), Quate et Quate (1967), Duckhouse (1966, 1973, 1978) and Vaillant (1972, 1982) — and many new genera and subgenera were established as well as later synonymized. Nomenclatorical changes of some higher taxa of palaearctic Psychodinae were documented by Ježek (1984), where the conception of the genus *Telmatoscopus* Eaton, 1904 was narrowed within the framework of the tribe Paramormiini Enderlein, 1936 to mere a 26 species in the Palaearctic area. A new species collected by the II[nd] expedition of the National Museum in Prague to Iran, described in this paper, and two formerly described species are included here in the new genus *Iranotelmatoscopus* and, therefore, the conception of the genus *Telmatoscopus* Eaton, 1904 becomes more reduced and the system of moth flies more complicated. The mentioned expedition was arranged on the base of a joint programme of the Plant Pests and Diseases Research Institute (Tehran) and the Department of Entomology of the National Museum (Praha).

Iranotelmatoscopus gen. n.

Telmatoscopus sensu Satchell, 1955 (nec Eaton, 1904): 115, partim.
Telmatoscopus sensu Ježek, 1984 (nec Eaton, 1904): 164, partim.
Krekiella (invalid. subg. of the gen. Panimerus) Vaillant, 1972: 78, partim.
Krekiella sensu Salamanna, 1974: 60, partim.
Panimerus sensu Salamanna, 1974 (nec Eaton, 1913): 60; 1982: 183; 1983a: 48; b: 717; partim.
Panimerus sensu Vaillant, 1982 (nec Eaton, 1913): 297, partim.

Type-species: *Iranotelmatoscopus hajiabadi* sp. n.

Differential diagnosis: New genus has in contrast to the genus

Telmatoscopus Eaton, 1904 basal strengthened part of flagellar segments long, radial fork of wing behind medial fork, medial fork at a large distance behind end of Cu, end of R_5 almost in apex of wing (closely below apex), male copulatory organ long, conspicuously developed, with two paired external protuberances which are long and pointed. The genus *Telmatoscopus* Eaton, 1904 has basal part of flagellar segments short, bulbous, radial fork of wing a little before medial fork, medial fork a little before end of Cu, end of R_5 below apex of wing, male copulatory organ short, with two paired mostly short external protuberances.

Description. Male. Frons wide, antennae 16-segmented, scape approximately twice as long as pedicel. Flagellar segments pitcher-shaped, almost symmetrical; flagellar segments 1—3 without tufts of big spines, length of basal parts of flagellar segments larger than its width, distal flagellar segments with long necks, segment 16 with a long finger-like protuberance. Sensory filaments long, thin, simple, paired. Last segment of maxillary palpus annulate. Corniculi missing. Wings lancet-shaped, membrane bare, costal nodes distinct. Sc long, uninterrupted. R_{2+3} originating in a distal end to basal field. Both radial and medial forks complete. R_5 almost in apex of wing (closely below apex). M_3 and Cu without a connection on M_4. Medial wing angle 162—199.5°. Radial fork behind medial fork, medial fork a large distance behind end of Cu. Index of base of M_{1+2}, A to maximum width of wing approximately 2.2—2.5. Patagia and tegulae not developed. Basal apodeme of male genitalia in the shape of a groove, a little longer than male copulatory organ, long paired and pointed protuberances developed, furca missing. Length of harpagones twice as large as length of coxopodites from dorsal view. Harpagones long, thin, with pointed tips. Maximum span of coxopodites larger than length of copulatory organ including basal apodeme because of very long transverse bridge.

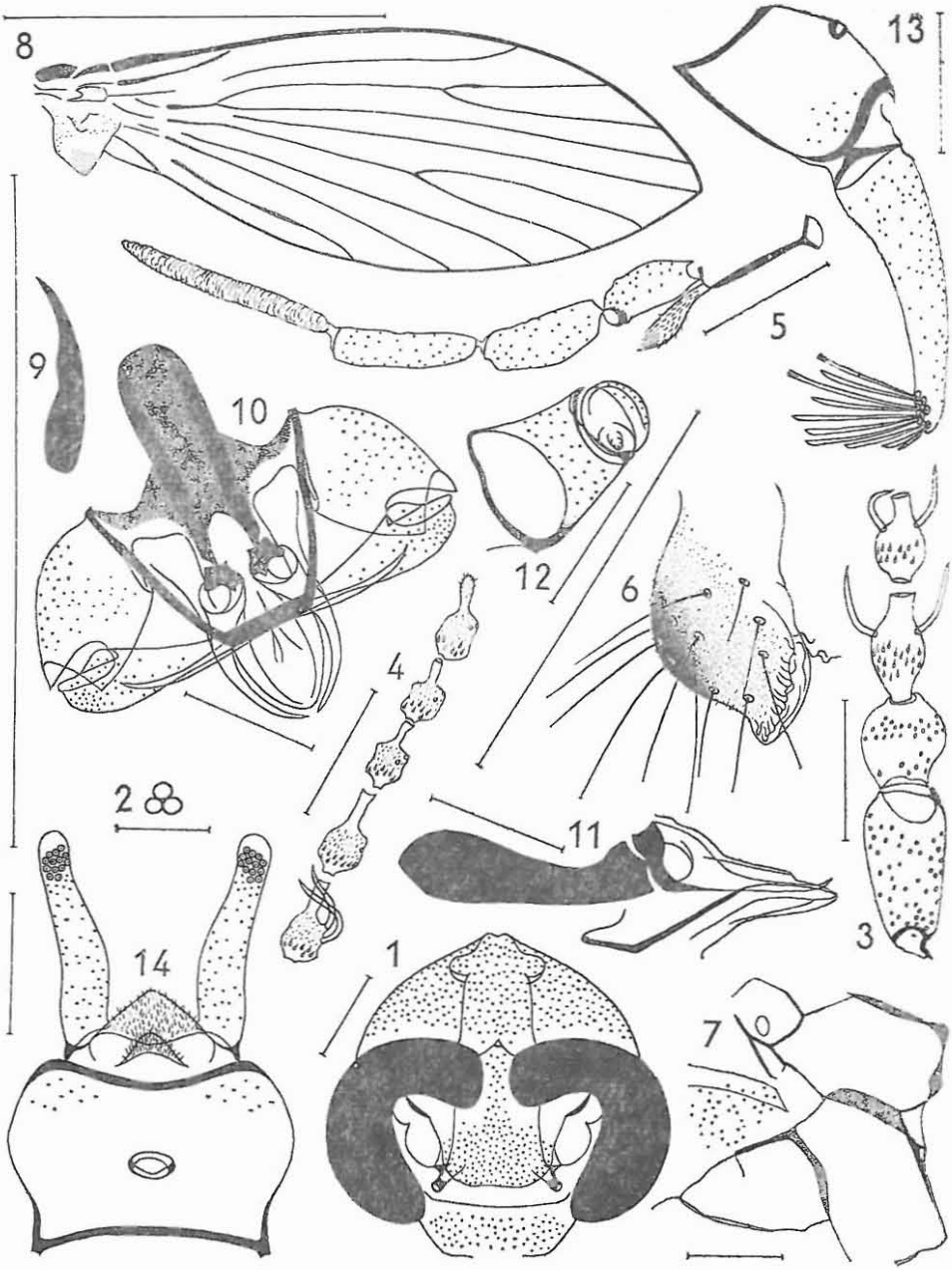
List of included species: *Iranotelmatoscopus hajiabadi* sp. n. (Iran); *I. bartolii* (Salamanna, 1974) comb. n. (Sardinia); *I. numidicus* (Satchell, 1956) comb. n. (Algeria).

Iranotelmatoscopus hajiabadi sp. n.

(Figs. 1—14)

Differential diagnosis. *I. hajiabadi* sp. n. differs from *I. bartolii* (Salamanna, 1974) comb. n. and *I. numidicus* (Satchell, 1956) comb. n. by medial wing angle almost 200°, pointed external protuberances a little longer than copulatory organ, number of retinaculi 12—13; *I. bartolii*

Figs. 1—14: *Iranotelmatoscopus hajiabadi* gen. n., sp. n., ♂; 1: head; 2: facets; 3: basal antennal segments; 4: apical antennal segments; 5: maxilla and palpus maxillaris; 6: terminal lobe of labium; 7: thoracic sclerites laterally; 8: wing; 9: claw of P, laterally; 10: copulatory organ, coxopodites and harpagones dorsally; 11: copulatory organ laterally; 12: coxopodit and harpagon laterally; 13: epandrium and cercus laterally; 14: epandrium and cerci dorsally (retinaculi omitted). Scales 0.1 mm., in fig. 8 1 mm.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(Salamanna, 1974) comb. n. has medial wing angle 162°, pointed external protuberances conspicuously shorter than copulatory organ, number of retinaculi 11. *I. numidicus* (Satchell, 1956) comb. n. has medial wing angle 165°, pointed external protuberances shorter than copulatory organ, number of retinaculi 15.

Male. Minimum distance between eyes equals a little more than diameter of one facet, maximum distance closely below frontal suture equals approximately twice its diameter. Index of distance of tangential points of eye's ends to minimum width of frons 5.8, to facet diameter 7.6. Frons haired. Antennae 16-segmented. Scape almost twice as long as pedicel and a little widened distad, length of scape 3.8 times larger than its width at base. Pedicel almost globular. Ratio of maximum width of pedicel to width of first and second flagellar segment 2.3 : 1.5 : 1.4. Index of length of first flagellar segment to length of second one 1.2. Basal flagellar segments pitcher-shaped, symmetrical, flagellar segments 1—3 without tufts of big spines, length of basal parts of flagellar segments larger than its width, distal flagellar segments with long necks, segment 16 with a long finger-like protuberance. Sensory filaments long, thin simple, paired. Ratios of lengths of segments of maxillary palps 2.8 : 3.3 : 3.8 : 5.9. Last segment of maxillary palpus annulate and connected basally with apex of preceeding segment. Ratio of maximum length of cibarium to length of epipharynx 2.6 : 1. Wings lancet-shaped, 1.9 mm. long, membrane bare, costal nodes distinct. Sc long, strengthened proximally and distally, uninterrupted, arched to strengthened basal field. R_1 S-shaped, R_{2+3} arched to C and originating in a distal end to basal field. R_{2+3} not strengthened in contrast to base of R_2. R_2 straight, R_3 a little arched to medial fork. Angle of base of R_2 and distal part of R_{2+3} larger than angle of base of R_3 and distal part of R_{2+3}. R_4 arched to radial fork as well as R_5, R_5 almost in apex of wing (closely below apex). M_{1+2} straight distally, medial fork strengthened, M_1 arched to radial fork, M_2 inconspicuously S-shaped. Angle of base of M_1 and distal part of M_{1+2} less than angle of base of M_2 and the same of M_{1+2}. M_3 inconspicuously arched to medial fork as well as M_4. M_4 a little swollen basally. Cu S-shaped, strengthened basally as well as in the middle part. M_3 and Cu without a connection on M_1. Veins r-r, r-m and m-m missing. Medial wing angle 199.5°. Index of base of M_{1+2}, A to maximum width of wing approximately 2.2. The length of halteres to its maximum width 2.6: 1. Ratios of length of femora, tibiae and first tarsal segments: P_1 = 11.5 (holotype) — 11.9 (paratype) : 12.0—12.5 : : 5.1—5.8; P_2 = 13.3—13.5 : 17.0—17.8 : 6.8—7.5; P_3 = 13.1—13.2 : 17.7— —18.9 : 6.9—7.8. Paired tarsal claws a little bent. Corniculi, patagia and tegulae not developed. Basal apodeme of male genitalia in the shape of a groove, a little longer than male copulatory organ from lateral view. Copulatory organ large, rounded apically, with two big sclerotized forms at the base of very long paired and pointed protuberances which are a little longer than copulatory organ; furca missing. Coxopodites without protuberances outside, length of harpagones twice as large as length of coxopodites from dorsal view. Harpagones with long thin pointed

tips. Epandrium with only one oval aperture, sclerotized remainders of 10th tergite and sternite inside of epandrium absent. Hypandrium narrow. Hypoproct largely triangular with rounded tops, haired, epiproct small, with dense hairs. Cerci a little curved from lateral view, inconspicuously S-shaped from dorsal view. Cerci 1.5 times longer than epandrium from lateral view, with 12—13 frayed retinaculi subapically.

Female: Unknown.

Material: Hototype ♂: S. Iran, Kerman province, 7 km. W. of Kahkom (28 12 N, 55 46 E), 20 km. S. W. of Hajiabad, Loc. No. 215, Exp. Nat. Mus. Pragae, 28. 5. 1973, Ježek lgt., Cat. No. 32984, Inv. No. 728. Paratype ♂: the same, Cat. No. 32985, Inv. No. 729.

Comments on the material: For illustrations of the characters the Specimens were dissected and mounted in Canada Balsam on microscope slides. All figures are based on holotype except antenna, thoracal sclerites and claw of P_1 which are from paratype.

Bionomy: Unknown. Two specimens (holotype and paratype) were collected on the gravel river-bed with grassy banks of the river Ganj (Fig. 17).

Summary

The description of *Iranotelmatoscopus hajiabadi* gen. n., sp. n. (Diptera, Psychodidae) from S. Iran is one of results of the II[nd] expedition of the National Museum in Prague to Iran. Differential diagnoses and descriptions of the mentioned genus and species are presented and important diagnostic characters are figured. Sardinian species *I. bartolii* (Salamanna, 1974) comb. n. and Algerian species *I. numidicus* (Satchell, 1955) comb. n. are discussed.

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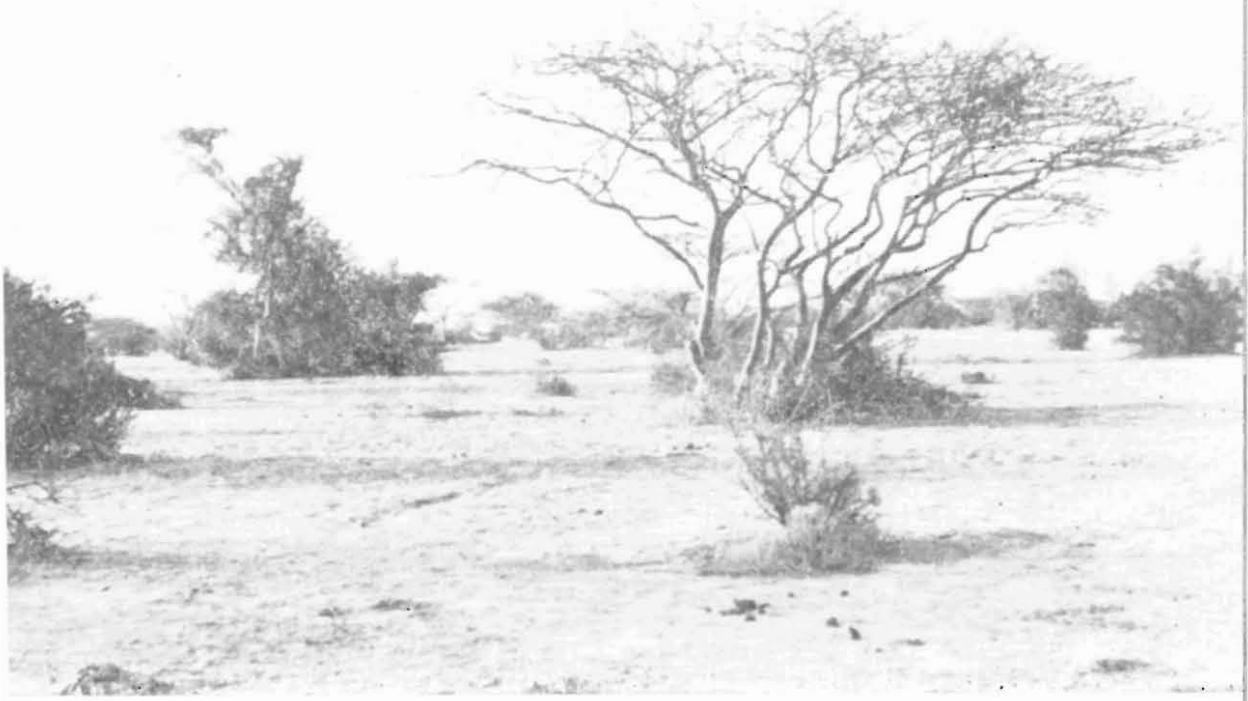

Fig. 15: Sandy coastal plain with dense savanna of Hormozgan, S. Iran (photo author).

Fig. 16: Erosion of landscape in Hormozgan near Jask. S. Iran (photo author).

Fig. 17: Gravel river-bed of the river Ganj near Hajiabad (Kerman province), S. Iran. Type-locality of *Iranotelmatoscopus hajiabadi* gen. n., sp. n. (photo Dr. L. Hoberlandt).

Fig. 18: Semi-desert in the environment of Minab in Hormozgan, S. Iran (photo author).