

**DESCRIPTIONS OF NEW SYCORACINE AND TRICHOMYINE MOTH FLIES (D/PTERA, PSYCHODIDAE) FROM THE PALAEARCTIC REGION**

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Abstract. 4 new species of *Sycoracine* and *Trichomyine* moth flies are described in the presented paper: *Sycorax caucasica* sp. n. (U.S.S.R.), *S. goutneri* sp. n. (Greece), *S. popovi* sp. n. (Bulgaria, Greece) and *Trichomyia kostovi* sp. n. (Bulgaria). Diagnoses of all of these species are given and detailed information about type-material as well as type-localities are included and all important morphological characters are figured. Genus *Sycorax* Curt. is new to U.S.S.R., Greece and Bulgaria and genus *Trichomyia* Curt. to Bulgaria.

Prior to the last four decades, we knew very little about the sycoracine moth fly fauna of the Palaearctic region [3 species only: *Sycorax silacea* Curtis, 1839 — Europe occ.; *S. scutigera* (Müller, 1927) — Switzerland; *S. similis* (Müller, 1927) — Switzerland]. Jung (1956), in reviewing previous studies by others and adding records of their own, reported 4 species from Europe [2 previous quoted species *silacea* and *similis*, as well as *S. feuerborni* Jung, 1954 — Federal German Republic and *S. tonnoiri* Jung, 1954 — Federal German Republic]. From 1954 to 1975 were added more descriptions from East Palaearctic, Balkan and Central Europe [*S. nipponicus* Tokunaga et Komyo, 1955; *S. trifida* Krek, 1970; *S. bicornua* Krek, 1970 and *S. slovacus* Halgoš, 1975] bringing the total to 9 species. In this present review 3 new species of *Sycorax* Curt. from Abchazia (Caucasus), Greece and Bulgaria are given: *S. caucasica* sp. n., *S. goutneri* sp. n. and *S. popovi* sp. n. These are the first records of *Sycorax* Curt. known from U.S.S.R., Greece and Bulgaria.

Until now, only 4 species of Trichomyiinae have been reported from the Palaearctic region (Wagner, 1982): *Trichomyia urbica* Curtis, 1839 — Europe; *T. itocoae* Tokunaga et Komyo, 1955 — Japan; *T. parvula* Szabó, 1960 — Central Europe; *T. malickyi* Wagner, 1982 — Greece. While working on a rather large collection of palaearctic Sycoracinae I was interested to discover a single male of a new species of *Trichomyia* Curt. — *T. kostovi* sp. n. taken in South-West of Bulgaria. This is the first record of *Trichomyia* Curt. known from Bulgaria.

The four new species described below represent part of the results obtained by the author during research project of the National Museum in Prague (Bulgaria), a holiday visit to the U.S.S.R. and during the expedition Ellas 1986 of the Primary organization of Czechoslovak union

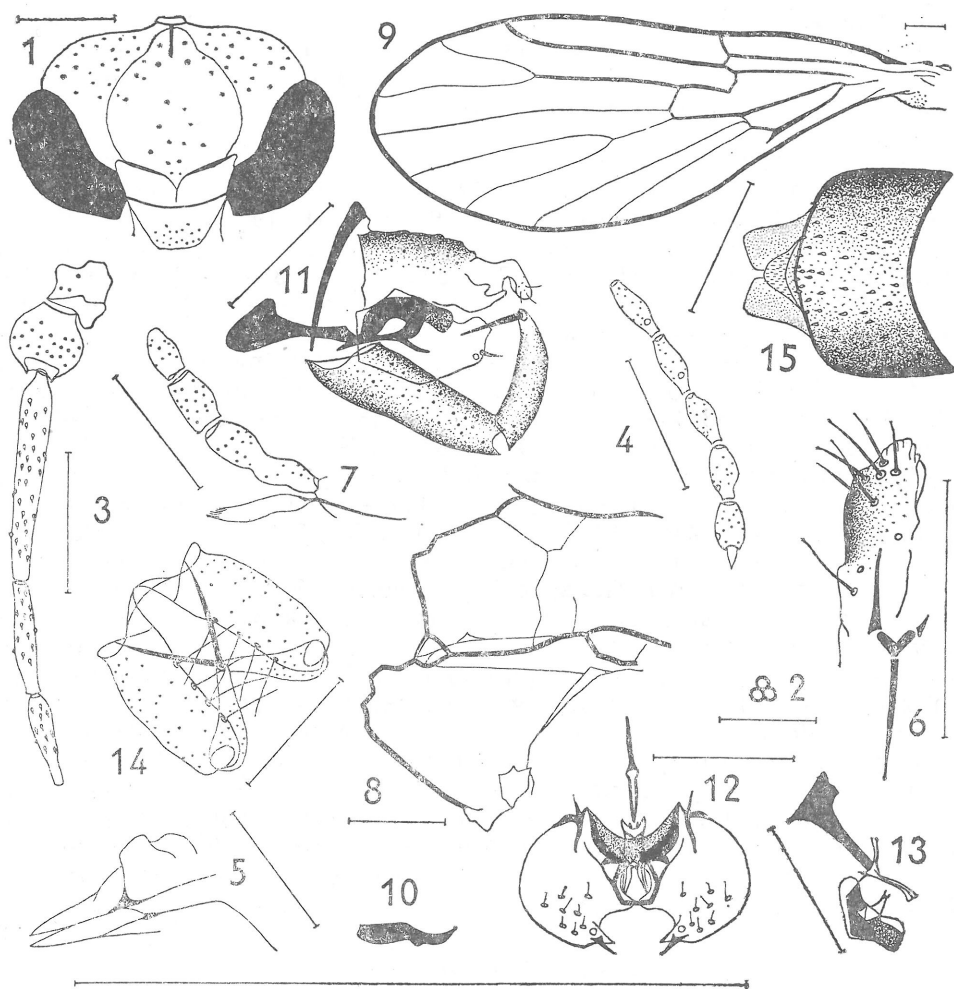
of nature preservation c/o National Museum in Prague to Greece. All material was collected by author, dissected and mounted in Canada Balsam on microscope slides as well by him and the collection is deposited in the National Museum (Nat. Hist.), Praha.

***Sycorax caucasica* sp. n.**

(Figs. 1—15)

**Diagnosis.** Head of male of *S. caucasica* sp. n. is very broad from frontal view. Maximum length of wing field limited by forked Sc, R<sub>1</sub> and C 1.6 times larger than distal part of R<sub>2+3+4</sub> limited by r—r. Male copulatory organ very short and characteristic inside from dorsal view. Parameres very broad at base, without a split in the middle and with a short spine subapically, epimeres not developed. Epandrium without aperture, cerci blunt and without a reduction outside.

**Male.** Head very broad from frontal view. Eyes separated by very broad frons with very divergent margins towards vertex and pointed between antennae towards mouth parts. Median thickening on vertex conspicuous, long. Eyes rather flat. Frons haired as figured. Ratio of distance of tangential points of eye's ends to facet diameter 9.3:1. Antennae 16-segmented, scape of irregular shape, shorter than pedicel, pedicel almost globular, only slightly asymmetrical, flagellum with basal segments cylindrical, progressively decreasing in length towards tip of antenna. Index of length of scape to pedicel 0.9. Ratio of maximum width of pedicel to width of first and second flagellar segments 2.0:0.9:0.6. Sensory filaments of flagellar segments not developed however a small orifice on each segment presented. Index of length of first flagellar segment to second one 1.9. Apical antennal segments very short, pitcher-shaped, 16th segment with a big terminal spine. Ratios of lengths of segments of maxillary palps 3.3:1.5:1.4. Last segment of maxillary palps not annulate, connected basally with top of the preceding segment. Terminal lobe of labium long, with apical folds. Ratio of maximum length of cibarium to length of mandibulae 1.2:1 (paratype Inv. No. 1461). Wings lancet-shaped, 1.6—2.0 mm. long, clear, basal costal nodes well visible. Many longitudinal veins as well as cross-veins in basal area of wing strengthened in contrast to R<sub>2+3</sub>, R<sub>4</sub>, R<sub>5</sub>, M<sub>1+2</sub>, M<sub>1</sub>, M<sub>2</sub>, M<sub>3</sub>, M<sub>4</sub>. Sc forked distad. Angle of distal part of Sc to upper branch of Sc more than 90°. Maximum length of field limited by forked Sc, R<sub>1</sub> and C 1.6 times larger than distal part of R<sub>2+3+4</sub> limited by r—r. Angle of distal part of R<sub>2+3+4</sub> and base of R<sub>4</sub> a little larger than the same of R<sub>2+3+4</sub> and R<sub>2+3</sub>. Angle of distal part of M<sub>1+2</sub> and base of M<sub>2</sub> larger than the same of M<sub>1+2</sub> and M<sub>1</sub>. Index of base of M<sub>1+2</sub>, A to maximum width of wing 2.3. Ratio of length of haltere to its width 5.2:1. Ratios of lengths of femora, tibiae and first tarsal segments: P<sub>1</sub> = 7.9:9.3:4.4; P<sub>2</sub> = 9.2:11.3:5.0; P<sub>3</sub> = 10.1:11.1:4.7. Paired tarsal claws of P<sub>1</sub> almost straight at base, bent distad, with a conspicuous protuberance dorsally. Corniculi, patagia and tegulae not developed. Basal apodeme of male genitalia almost straight from lateral view, conspicuously widened proximally. Male copulatory organ very short and



Figs. 1—15: *Sycorax caucasica* sp. n. ♂. 1: head; 2: facets; 3: basal antennal segments; 4: apical antennal segments; 5: mandibles; 6: terminal lobe of labium; 7: maxilla and palpus maxillaris; 8: thoracal sclerites laterally; 9: wing; 10: claw of  $P_1$  laterally; 11: hypopygium laterally; 12: copulatory organ and parameres dorsally; 13: copulatory organ laterally; 14: coxopodites and harpagones dorsally; 15: epandrium and cerci dorsally. Scales 0.1 mm.

characteristic inside from dorsal view, parameres very broad at base, bent, subapically with a short spine and a small circular insertion. Coxopodites almost straight, outside without protuberances, harpagones a little longer than coxopodites from dorsal view [measured with spines]. Co-

xopodites with a row of setae on internal side. Epandrium without apertures, the sclerotized remainders of 10th tergum and sternum inside of epandrium missing. Epiproct very short, hypoproct longer, triangular, with rounded tops. Hypoproct haired. Cerci a little longer than hypoproct from dorsal view, bent from lateral view, without retinaculi.

Female unknown.

Material: U.S.S.R., Abchazia. Holotype ♂: Caucasus occ., Saken, 8. VII. 1983, Cat. no. P5 — 33131, Inv. No. 1429. Paratypes: 58 ♂♂. 5 ♂♂ — Caucasus occ., Azgara env. Levyj Ptyš, 16., 21. VII. 1983, Cat. No. P5 — 33132—33136; Inv. No. 1461—1462, 1479—1480, 1485. 2 ♂♂ — Caucasus occ., Južnyj Prijut, 7. VII. 1983, Cat. No. P5 — 33137—33138; Inv. No. 1441—1442. 1 ♂ — a hill promontory of Caucasus occ., Mercheuli env. Suchumi, 5. VII. 1983, Cat. No. P5 — 33139; Inv. No. 1440. 6 ♂♂ — the same as holotype, Cat. No. P5 — 33140—33145; Inv. No. 1430—1432, 1466—1467, 1481. 18 ♂♂ — Caucasus occ., Saken-narzan, 9., 12. VII. 1983, Cat. No. P5 — 33146—33163; Inv. No. 1433—1434, 1445, 1448—1450, 1457—1460, 1470—1473, 1477—1478, 1482—1483. 8 ♂♂ — Caucasus occ., Serbista env. Levyj Ptyš, 17.—18. VII. 1983, Cat. No. P5 — 33164—33171; Inv. No. 1443—1444, 1455—1456, 1446, 1474—1475, 1484. 14 ♂♂ — Caucasus occ., Zemo-Ažara, 10., 14., 15. VII. 1983, Cat. No. P5 — 33172—33185; Inv. No. 1435—1439, 1451—1454, 1463—1464, 1468—1469, 1476.

Bionomy: Unknown. The species was mostly collected along the central Caucasian crest of Abchazia. Adults were taken flying from under a fallen, rotting trees in moist places, on the banks of torrents, brooks and rivers, on the moist rocks and rock walls nr. glaciers, near waterfalls, in moist hollow ways, spring areas, swamps and moist pasturelands. It is a typical species of mountains at an altitude of about 2000 m., however is known (see above) also from area of small hills (300—400 m. a.s.l.). Localities were shaded by *Alnus*, *Fagus*, *Picea*, *Juglans*, *Acer*, *Corylus*, *Rhododendron*, *Myrtha* and *Sambucus*, undergrowth with *Musci*, *Hepaticae*, *Lycopsidea*, *Pteropsida*, *Equisetum*, *Scirpus*, *Juncus*, *Petasites*, *Polygonum*, *Impatiens*, *Ranunculus*, *Fragaria*, *Heracleum*, *Geranium*, *Rubus*, *Trolium*, *Rumex* and *Urtica*.

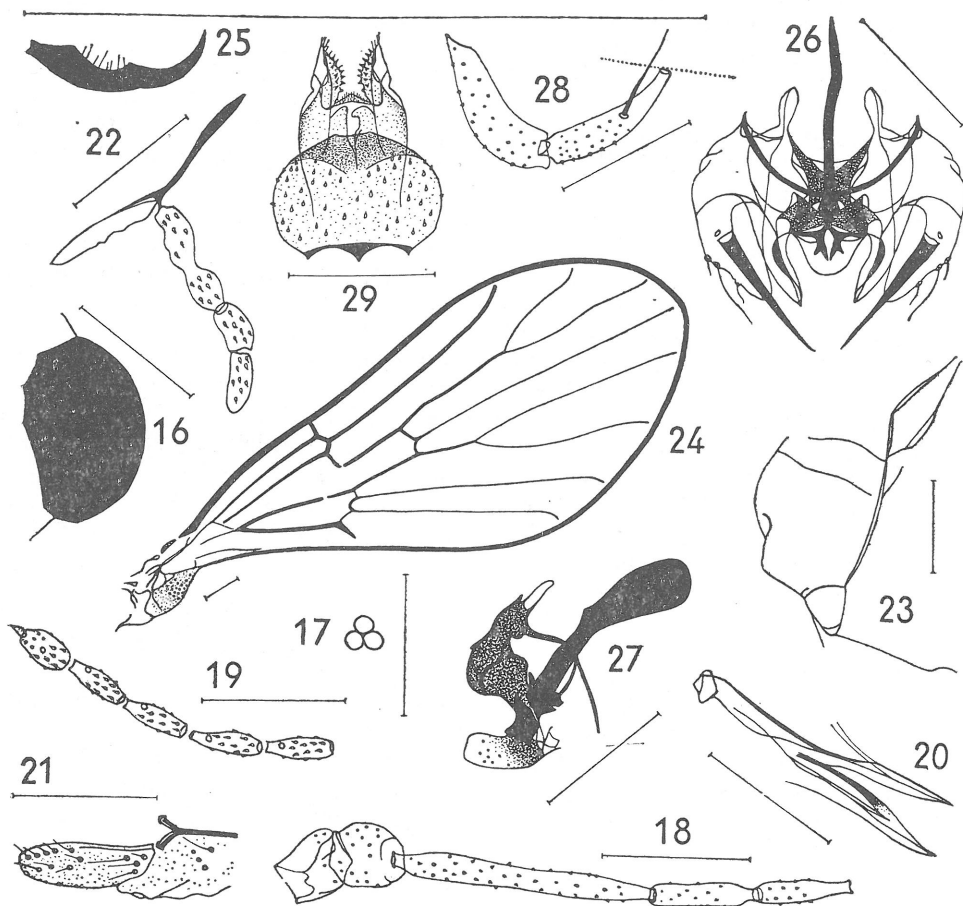
### ***Sycorax goutneri* sp. n.**

(Figs. 16—29)

Diagnosis. Head of male broad from frontal view. Maximum length of wing field limited by forked Sc, R<sub>1</sub> and C 1.8 times larger than distal part of R<sub>2+3+4</sub> limited by r—r. Male copulatory organ short, basal apodeme divided distad in two small forks caudally. Epimeres conspicuous, strong, pointed apically, of the same length as parameres. Epandrium without an aperture, cerci of complicated form, long, with numerous spines on the inner sides.

Male. Head broad from frontal view. Eyes separated by broad frons. The margin of eye as well as size of facets as figured. Antennae 16-segmented, scape short, cylindrical, of the same length as pedicel. Ratio of maximum width of pedicel to width of first and second flagellar seg-

ments 1.7:0.8:0.7. Index of length of scape to pedicel 1.0. Ratio of maximum width of pedicel to maximum width of first and second flagellar segments 1.7:0.8:0.65. Sensory filaments of flagellar segments not developed, only a small orifice on each segment presented. Index of length of first flagellar segment to second one 2.4 Apical antennal segments pitcher-shaped, the last segment short, oval, with a small terminal spine. Ratios of lengths of segments of maxillary palps 3.1:1.4:1.6. The first segment long, composed



Figs. 16—29: *Sycorax goutneri* sp. n. ♂. 16: eye; 17: facets; 18: basal antennal segments; 19: apical antennal segments; 20: mandibles; 21: terminal lobe of labium; 22: maxilla and palpus maxillaris; 23: thoracal sclerites laterally; 24: wing; 25: claw of  $P_1$  laterally; 26: copulatory organ, parameres and epimeres dorsally; 27: copulatory organ laterally; 28: coxopodit and harpagon laterally; 29: epandrium and cerci dorsally.  
Scales 0.1 mm.

from two nearly fused segments. Last segment of maxillary palps not annulate, connected basally with top of the preceding segment. Terminal lobe of labium long, without apical folds. Ratio of maximum length of cibarium to length of mandibulae 1:1.2. Wings as figured, 1.8 mm. long, clear, basal costal nodes well visible. Many longitudinal veins as well as cross-veins in basal area of wing strengthened in contrast to  $R_{2+3}$ ,  $R_4$ ,  $R_5$ ,  $M_1$ ,  $M_2$ ,  $M_3$  and  $M_4$ . Veins don't reach up to margin of wing in spite of Sc. Sc forked distad. Angle of distal part of Sc to upper branch of Sc  $90^\circ$ . Maximum length of field limited by forked Sc,  $R_1$  and C 1.8 times larger than distal part of  $R_{2+3+4}$  limited by r—r. Angle of distal part of  $R_{2+3+4}$  and base of  $R_4$  larger than the same of  $R_{2+3+4}$  and  $R_{2+3}$ . Angle of distal part of  $M_{1+2}$  and base of  $M_2$  larger than the same of  $M_{1+2}$  and  $M_1$ . Index of base of  $M_{1+2}$ , A to maximum width of wing 2.1. Ratio of length of haltere to its width 3.6:1. Ratios of lengths of femora, tibiae and first tarsal segments:  $P_1 = 12.5:15.3:7.0$ ;  $P_2 = 16.2:19.0:8.4$ ;  $P_3 = 17.1:19.4:7.9$ . Paired tarsal claws of  $P_1$  bent, with a big tooth ventrad. Corniculi, patagia and tegulae not developed. Basal apodeme of male genitalia arched from lateral view, hockey-stick-shaped proximally. Male copulatory organ short, characteristic from dorsal view, basal apodeme divided distad in two small forks caudally. Paramere rather narrow at base, bent, subapically with a very long spine. Epimeres conspicuous, strong, pointed apically, of the same length as parameres. Coxopodites bent from lateral view, harpagones larger than the length of coxopodites from dorsal view (measured with spines) with a long spine subapically. Epandrium without an aperture basally, the sclerotized remainders of 10th tergum and sternum inside of epandrium not developed. Epiproct short, triangular, haired, hypoproct compounded from two long tongue-like parts. Cerci longer than hypoproct from dorsal view. Cerci of complicated form, longer than hypoproct from dorsal view, with numerous spines on the inner side.

Female unknown.

Material: Holotype ♂: Greece, Peloponnese, Taygetos Mts. nr. the Motel Taygetos (highway Sparta — Kalamata), 16. VII. 1986, Loc. No. 12, Cat. No. P5 — 33186, Inv. No. 1517.

Derivatio nominis: This new species is dedicated to Dr. Vassilis Goutner, University of Thessaloniki, Greece.

Bionomy: Unknown. Single male was collected on the shaded impenetrable bank of a stream 100—200 m. below a saddle-back with *Platanus*, *Hedera*, *Urtica* and *Pteropsida* around (approximately 1600 m. a.s.l.).

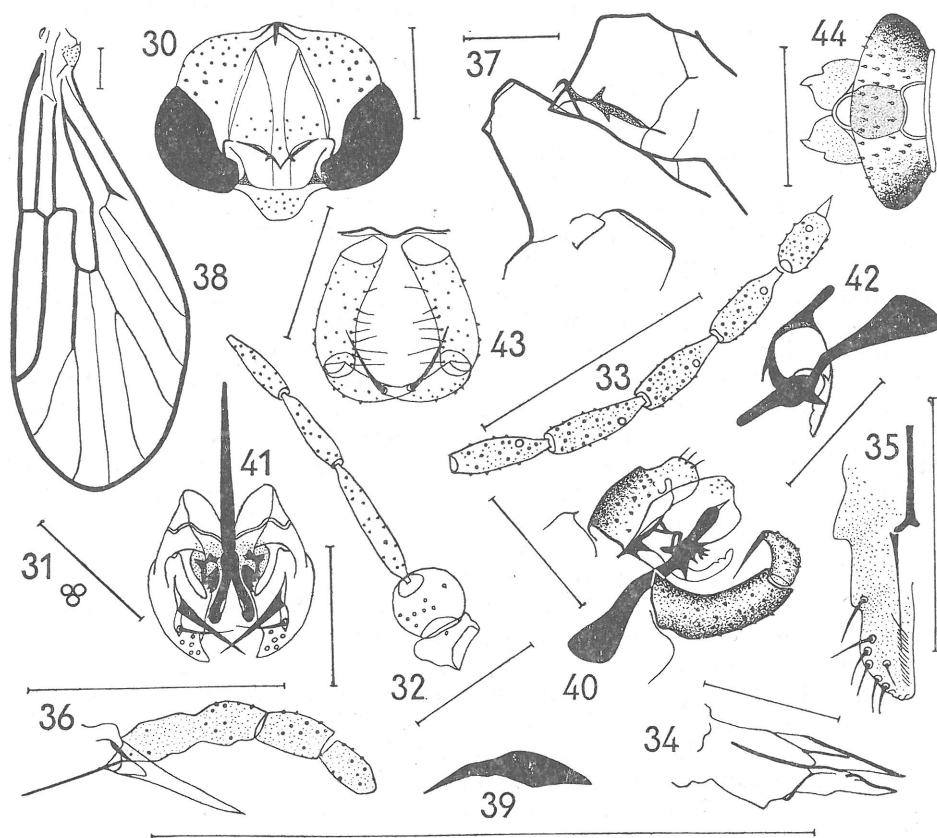
### **Sycorax popovi sp. n.**

(Figs. 30—44)

Diagnosis. Head of male of this species is narrow from frontal view. Maximum length of wing field limited by forked Sc,  $R_1$  and C 2.1 times larger than distal part of  $R_{2+3+4}$  limited by r—r. Male copulatory organ very long and characteristic from dorsal view, in a shape of a conspicuous fork. Parameres narrow at base with a split in the middle provid-

ed by long spine, epimeres developed. Epandrium with an aperture, cerci pointed and reduced outside.

Male. Head rather narrow from frontal view. Eyes separated by broad frons with divergent arched margins towards vertex and pointed between antennae towards mouth parts. Median thickening on vertex short, thick. Eyes rather puffed out. Frons haired as figured. Ratio of distance of tangential points of eye's ends to facet diameter 15.5:1. Antennae 16-segmented, scape of irregular shape, shorter than pedicel, pedicel globose, flagellum with basal segments cylindrical, progressively decreasing in length towards tip of antenna. Index of length of scape to pedicel 0.8. Ratio of maximum width of pedicel to width of first and second fla-



Figs. 30—44: *Sycorax popovi* sp. n. ♂. 30: head; 31: facets; 32: basal antennal segments; 33: apical antennal segments; 34: mandibles; 35: terminal lobe of labium; 36: maxilla and palpus maxillaris; 37: thoracic sclerites laterally; 38: wing; 39: claw of  $P_1$  laterally; 40: hypopygium laterally; 41: copulatory organ, parameres and epimeres dorsally; 42: copulatory organ laterally; 43: coxopodites and harpagones dorsally; 44: epandrium and cerci dorsally. Scales 0.1 mm.

gellar segments 2.0:0.6:0.6. Sensory filaments of flagellar segments not developed, however a small orifice on each segment presented. Index of length of first flagellar segment to second one 1.5. Apical antennal segments very short, bottle-shaped, terminal flagellar segment oval, with an big apical spine. Ratios of lengths of segments of maxillary palps 4.1:2.0:1.7. Last segment of maxillary palps not annulate, connected basally with top of the preceding segment. Terminal lobe of labium long, with apical folds. Ratio of maximum length of cibarium to length of mandibulae 1.1:1 (paratype Inv. No. 1428). Wing lancet-shaped, 1.2—1.9 mm. long (Bulgarian population 1.2—1.5, Greek population 1.6—1.9), clear (inconspicuously dark clouded in Greek specimens), basal costal nodes well visible. Many longitudinal veins as well cross-veins in basal area of wing strengthened in contrast to  $R_{2+3}$ ,  $R_4$ ,  $R_5$ ,  $M_{1+2}$ ,  $M_1$ ,  $M_2$ ,  $M_3$ ,  $M_4$ . Sc forked distad. Angle of distal part of Sc to upper branch of Sc 90°. Maximum length of field limited by forked Sc,  $R_1$  and C 2.1 times larger than distal part of  $R_{2+3+4}$  and base of  $R_4$  a little larger than the same of  $R_{2+3+4}$  and base of  $R_{2+3}$ . Angle of distal part of  $M_{1+2}$  and base of  $M_2$  a little larger than the same of  $M_{1+2}$  and  $M_1$ . Index of base of  $M_{1+2}$ , A to maximum width of wing 2.3. Ratio of length of haltere to its width 3.6:1. Ratios of lengths of femora, tibiae and first tarsal segments:  $P_1 = 9.9:11.8:5.8$ ;  $P_2 = 13.0:14.8:6.6$ ;  $P_3 = 13.5:14.7:6.0$ . Paired tarsal claws of  $P_1$  irregularly bent. Corniculi, patagia and tegulae not developed. Basal apodeme of male genitalia long, straight and conspicuously widened proximally from lateral view, bent distad. Male copulatory organ very long and characteristic from dorsal view, in the shape of a conspicuous fork. Parameres rather narrow at base, bent, subapically with a long spine and seta placed in a split. Between paired rather long inconspicuous epimeres paired sclerotized forms with several teeth. Coxopodites almost straight, without protuberances outside, harpagones approximately of the same length as coxopodites from dorsal view (measured with spines). Coxopodites with a row of small setae on internal side. Epandrium with one large aperture basally, the sclerotized remainders of 10th tergum and sternum inside of epandrium developed. Epiproct short, hypoproct as figured. Cerci a little shorter than epandrium from dorsal view, without retinaculi. Cerci pointed on apex, a little reduced outside.

Female unknown.

Material: Holotype ♂: Bulgaria, Sandanski, 7. VIII. 1981, Cat. No. P5 — 33187, Inv. No. 1426. Paratypes: 31 ♂♂. 11 ♂♂ — the same as holotype, Cat. No. P5 — 33188—33198; Inv. No. 1427—1428, 1488—1496. 20 ♂♂ — Greece, Peloponnese, Taygetos Mts., the Motel Taygetos (highway Sparta — Kalamata), 15.—16. VII. 1986, Loc. No. 12, Cat. No. P5 — 33199—33218; Inv. No. 1497—1516.

Derivatio nominis: This new species is dedicated to Dr. Alexi Popov of the Bulgarian Academy of Sciences (Museum of Natural History), Sofia, Bulgaria.

Bionomy: Unknown. Numerous males were collected on the banks of a brook shaded by *Salix* and *Populus*, in undergrowth *Rubus* and *Mentha* [approximately 200 m. a.s.l.] or on the shaded impenetrable bank of



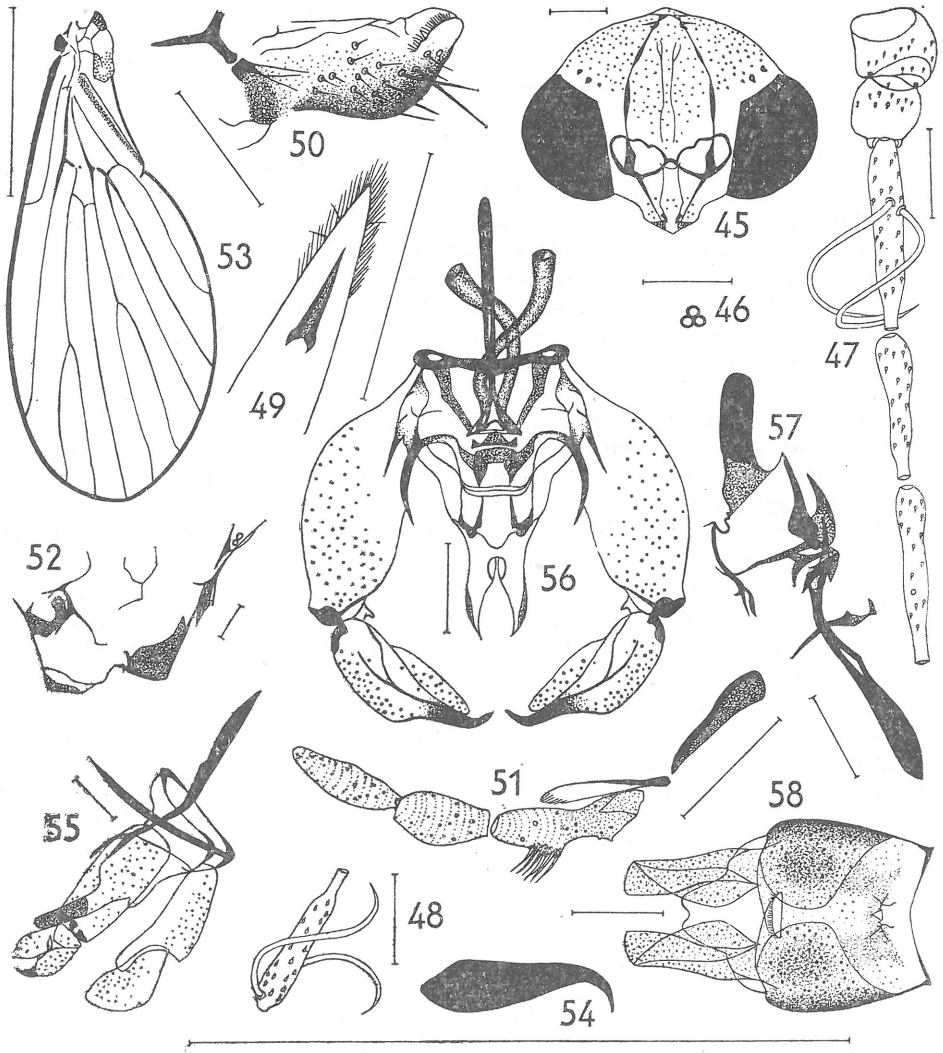
a stream 100—200 m. below a saddle-back with *Platanus*, *Juglans*, *Hedera*, *Urtica* and *Pteropsida* around (approximately 1600 m. a.s.l.).

***Trichomyia kostovi* sp. n.**

(Figs. 45—58)

Diagnosis. Palpus maxillaris of male of *T. kostovi* sp. n. three-segmented, Sc on wing not divided distad, proper male copulatory organ very complicated, forked apically in two protuberances; harpagones long, conspicuously two-armed, longer part pointed in a very sclerotized bent hook apically, shorter part with a rather blunt top.

Male. Head with eyes small and vertex proportionately large. Eyes separated by distance equal to almost 14 facet diameters, median eye margins at level of antenna straight, however sharply arched in the upper last third of eye margin. Antennae probably 16-segmented (however only 12 antennal segments presented in holotype), scape and pedicel a little asymmetrical. Index of length of scape to pedicel 1.1. Ratio of maximum width of pedicel to width of first and second flagellar segments 1.8:0.9:0.9. Flagellar segments almost bottle-shaped, index of length of first flagellar segment to second 1.3. Sensory filaments of antennae paired, very long, thin and pointed, S or S shaped, conspicuous and well visible. Ratios of lengths of segments of maxillary palps 4.3:2.5:3.2. Last segment of maxillary palpus inconspicuously annulate as well as second and upper half of first segment. Last segment connected basally with top of the preceding segment. First segment enlarged near base on median surface and conspicuously diminishing in size from enlargement to apex as well as to base, conspicuous shallow pit on inner side almost at center of segment, with a cluster of long sensory rods, their tips curving forward. Second segment in the middle as wide as first segment in area of sensory rods, almost barrel-shaped. Third segment elongate, more than two thirds as wide as second (measured at central part of segment). Terminal lobe of labium as in Fig. 36. Ratio of maximum length of cibarium to length of labrum 1.1:1. Wings broadly lancet-shaped, 2.7 mm. long, inconspicuously clouded, covered by inconspicuous minute hairs. Basal costal node well visible. Some of longitudinal vein as well as cross-veins in basal area of wing strengthened:  $R_1$ ,  $r-r$  to  $R_1$ ,  $M_{1+2}$ ,  $M_1$ ,  $M_2$ ,  $m-m$ . Sc very long, ending in C.  $R_1$  almost straight, arched only inconspicuously to C in the middle and to  $M_{1+2}$  in a connection with  $r-r$ , which is interrupted to  $R_{2+3+4}$ ,  $R_{2+3+4}$  arched to C as well as  $R_{2+3}$ ,  $R_4$  almost straight. Angle of base of  $R_{2+3}$  and distal part of  $R_{2+3+4}$  a little lesser than angle of the same of  $R_3$  and  $R_{2+3+4}$ .  $R_5$  ending in apex of wing, forked proximally to  $R_{2+3+4}$  as well as to  $M_{1+2}$ , arched in the middle to radial fork.  $M_{1+2}$  arched to  $R_5$  in distal part as well as to  $R_1$  in proximal part.  $M_{1+2}$  bent to strengthened connection of  $M_3$  and  $M_4$  in a strengthened point,  $m-m$  interrupted near  $M_{1+2}$ .  $M_1$  as well as  $M_2$  asymmetrically S-shaped. Angle of base of  $M_1$  and distal part of  $M_{1+2}$  larger than angle of the same of  $M_2$  and  $M_{1+2}$ .  $M_3$  bent to medial fork.  $M_4$  almost straight. Cu S-shaped, connected by a cross-vein with the connection of  $M_3$  and  $M_4$ . Details of base



Figs. 45—58: *Trichomyia kostovi* sp. n. ♂. 45: head; 46: facets; 47: basal antennal segments; 48: 12th antennal segment; 49: labrum and epipharynx; 50: terminal lobe of labium; 51: maxilla and palpus maxillaris; 52: thoracal sclerites laterally; 53: wing; 54: claw of  $P_1$  laterally; 55: hypopygium laterally; 56: copulatory organ, coxopodites and harpagones dorsally; 57: copulatory organ laterally; 58: epandrium and cerci dorsally. Scales 0.1 mm., in Fig. 53. 1 mm.

of wing as figured (Fig. 53). Medial wing angle  $147^\circ$ . Indexes of wing  $AB:AC:AD = 4.5:5.3:6.0$ ;  $BC:CD:BD = 1.7:2.5:4.1$ . Index of base of  $M_{1+2}$ , A to maximum width of wing 2.0. Ratio of maximum length of haltere to its width 4.1:1. Ratios of lengths of femora, tibiae and first tarsal segments:  $P_1 = 18.9:23.5:14.4$ ;  $P_2 = 22.5:30.8:14.9$ ;  $P_3 = 23.6:34.9:13.8$ . (Length of tibia measured always with tibial scale.) Paired tarsal claws of  $P_1$  thick at base, narrowed distad, conspicuously bent apically, pointed. Corniculi, patagia and tegulae not developed. Basal apodeme of male genitalia straight proximally from lateral view, a little widened subapically, narrow and bent distad, divided. Male copulatory organ with two strong spines on each side, proper organ long, very complicated, forked apically in two characteristic protuberances. Coxopodites swollen in the middle, harpagones conspicuously two-armed, longer part pointed in a very sclerotized bent hook apically, shorter part with a rather blunt top. Coxopodites more than 1.6 times longer than harpagones from dorsal view. Epandrium with an aperture distad, the sclerotized remainders of 10th tergum and sternum inside of epandrium developed but hardly visible. Hypandrium narrow. Epiproct very small, inconspicuous, haired; hypoproct conspicuous, wide at base, narrow and bilobed on the top. Cercus a little shorter than epandrium from dorsal as well as lateral view. The top of cercus without a bifurcation and retinaculi.

Female unknown.

Material: Holotype ♂: Bulgaria, Sandanski, 7. VIII. 1981, Cat. No. P5 — 33219, Inv. No. 1425.

Derivatio nominis: I take pleasure in naming this species in honor of Acad. Ivan Kostov of the Bulgarian Academy of Sciences (Museum of Natural History, Sofia) who strongly supported my entomological research in Bulgaria.

Bionomy: Unknown. Single male was collected on the bank of a brook shaded by *Salix* and *Populus*, undergrowth with *Rubus* and *Mentha* (approximately 200 m. a.s.l.).

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