

## New species of *Tychus* from Greece and Turkey (Coleoptera, Staphylinidae, Pselaphinae)

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**New species of *Tychus* from Greece and Turkey (Coleoptera: Staphylinidae: Pselaphinae)** - Six new species of *Tychus* Leach, 1817 are described: *T. triumphator* Sabella sp. n. from Lesbos Island (Greece) and *T. meybohmi* Brachat sp. n. from central Turkey (*dalmatinus* group), *T. nothus* Sabella sp. n. from central Turkey (*lederi* group), *T. assingi* Brachat sp. n. from Turkey (*rhodopeus* group), *T. moecha* Kurbatov sp. n. from Lesbos Island (Greece) (*florentinus* group), and *T. sellarius* Kurbatov sp. n. from Turkey (*incertae sedis*). The females of *Tychus sodalicus* Kurbatov, 2011, *T. spurius* Sabella, 2011 and *T. grassator* Sabella, 2011 are described for the first time and their antennae and genital plates are illustrated. The genital plates of *T. latebrosus* Besuchet, 2011 and *T. altivagus* Besuchet, 2011 are also illustrated for the first time. New localities are reported for *T. latebrosus* Besuchet, 2011, *T. olor* Sabella & Kurbatov, 2002 and *T. balcanicus* Reitter, 1902.

**Keywords:** Taxonomy - Greece - Turkey - *Tychus* - new species.

### INTRODUCTION

This study is a further contribution to the revision of the Palaearctic species of *Tychus*. Six new species are described. The previously unknown females of *Tychus sodalicus* Kurbatov, 2011, *T. spurius* Sabella, 2011 and *T. grassator* Sabella, 2011 are described based on the material collected in the same locality and at the same date of the respective holotypes (Sabella *et al.*, 2011). The genital plates of *T. latebrosus* Besuchet, 2011 and *T. altivagus* Besuchet, 2011 are illustrated for the first time. New localities are given for several species.

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### MATERIAL AND METHODS

The depositories of the material examined in this study and their acronyms used in the text are as follows:

MHNG Muséum d'Histoire Naturelle, Genève, Switzerland

PCVB Private collection of V. Brachat, Geretsried, Germany

The body length is measured from the anterior clypeal margin to the posterior margin of the last visible abdominal tergite. The head length is measured from the anterior clypeal margin to the posterior margin of the neck; the head width includes eyes; the elytral length is measured along the suture and the elytral width is the combined maximal width. The abdominal segments are numbered from the first visible segment onwards, i.e. from the first tergite (fourth segment) and first sternite (third segment). The nomenclature follows that proposed by Chandler (2001) for the external morphology and Kurbatov & Sabella (2008) for characters of the aedeagus.

## TAXONOMY

Following characters shared by all *Tychus* species examined in this study are listed below:

Pubescence consisting of long and flattened golden setae on head and pronotum; other setae shorter, yellowish and suberect, very sparse on sides of pronotum and dense on elytra, especially on its sides and apex, and on abdominal tergites. Tuft of dense setae on neck.

Body smooth and shiny; only elytra with some large punctures.

Head widest at eyes, narrowest posterior to antennal tubercles, tubercles separated by medial longitudinal sulcus, more or less long and impressed. Vertex separated from frontal rostrum by shallow transverse depression with very fine punctures. Pair of vertexal foveae between and close to eyes. Front with small tooth on each side. Tempora rounded. Antennomere III narrowed at the base, antennomere VIII shorter than previous antennomeres, club consisting of three antennomeres broaden progressively from IX to XI. Antennomere IX transverse, distinctly wider than funicular antennomeres; X transverse, wider than IX; terminal antennomere longer than wide and longer than antennomeres IX and X combined.

Pronotum wider than head, widest near middle, more clearly narrowed and rounded anteriorly than posteriorly, with seven small basal pits, median pit larger than lateral ones. Pair of antebasal foveae present.

Elytra wider than long and longer than pronotum. Two basal foveae on each elytron; sutural fovea joined to shallow sutural stria, latter reaching elytral apex.

Abdomen with first tergite longer than following combined, discal carinae of first tergite very short and very weakly defined; surface between discal carinae with pubescent basal impression variable in width. First abdominal tergite with pair of basolateral foveae, first abdominal paratergite with pair of antebasal impressions, second abdominal sternite with pair of antebasal foveae.

*Male*: Metaventricle with median impression. Abdominal sternites not modified.

## NEW SPECIES OF *TYCHUS* LEACH, 1817

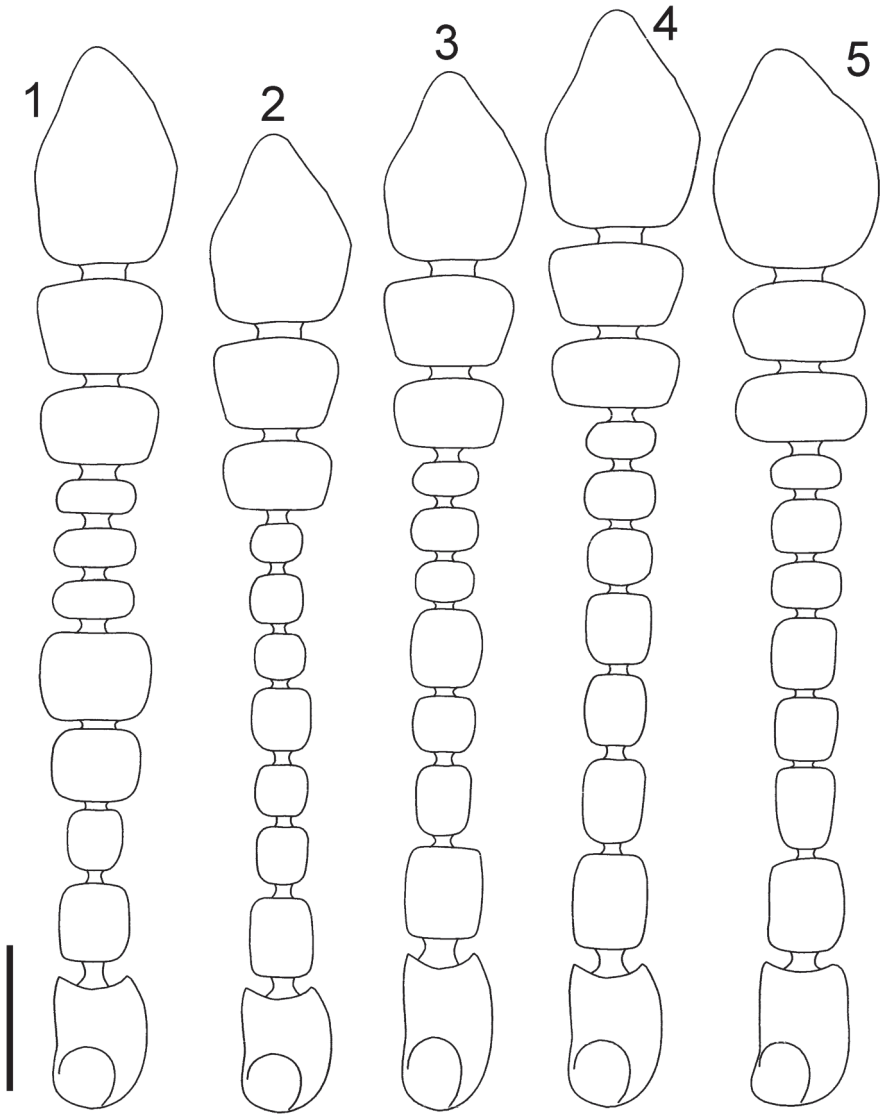
### *Tychus dalmatinus* species group (Besuchet & Sabella, 1996)

#### *Tychus triumphator* Sabella sp. n.

Figs 1-2, 11-12, 23

HOLOTYPE: MHNG, ♂; Greece, Lesbos Island, Labou Mili, 110 m, 39°08'06"N 26°23'18"E; 19.03.2005; A. Lompe & H. Meybohm.

PARATYPES: MHNG, 1♂ and 1♀; Greece, Lesbos Island, same data as holotype; A. Lompe & H. Meybohm.- PCVB, 1♂; same data as holotype; A. Lompe & H. Meybohm.- PCVB, 1♂; Greece, Lesbos Island, Pigi, 90 m, 39°10'58"N 26°26'05"E; 21.03.2005; A. Lompe & H. Meybohm.



FIGS 1-5

Antennae of *Tychus*. (1) *T. triumphator*, holotype. (2) *T. triumphator*, female paratype from Labou Mili (Lesbos Island). (3) *T. meybohmi*, holotype. (4) *T. nothus*, holotype. (5) *T. nothus*, female paratype from Kadirli (Kahramanmaraş). Scale bar 0.1 mm.

DESCRIPTION: Length 1.45-1.50 mm. Winged. Body dark brown in male, lighter brown in female, with reddish elytra and antennae, abdomen black, legs yellowish and palpi yellow.

Head slightly wider (0.275-0.285 mm) than long (0.250-0.260 mm), frontal rostrum 0.135-0.140 mm wide and 0.080 mm long. Eyes well developed (24-28 facets). Apical segment of maxillary palpi 0.150 mm long and 0.075 mm wide.

Pronotum wider (0.330-0.350 mm) than long (0.300 mm) with lateral antebasal foveae in well marked impressions.

Elytra wider (0.600-0.610 mm) than long (0.500-0.525 mm) with humeri slightly protruding. Discal fovea joined to discal stria, latter reaching elytral mid-length.

Abdomen with first tergite 0.175-0.180 mm long, basal impression extending on about over half of tergal width.

*Male:* Antennae (Fig. 1) 0.725-0.740 mm long, club 0.290 mm long; scape distinctly longer than wide; antennomeres II and III slightly longer than wide; IV wider than III and distinctly wider than long; V wider than IV and strongly wider than long; antennomeres VI, VII and VIII strongly wider than long, VI and VII subequal. All femora and tibiae slightly thickened, posterior margin of mesotrochanters prolonged into long and sharp median spines, mesotibiae each with small subapical tooth, metatibiae each with evident apical spur. Aedeagus (Figs 11-12) 0.315-0.325 mm long.

*Female:* Antennae (Fig. 2) 0.665 mm long, club 0.275 mm long; scape and antennomere II distinctly longer than wide; III slightly longer than wide; IV as long as wide; V wider than IV and VI and slightly wider than long; antennomeres VI, VII and VIII wider than long, VI shorter than VII. Genital plate as in Fig. 23.

COMMENTS: *Tychus triumphator* sp. n. is similar to *T. rhodensis* Sabella, Bueckle, Brachat, 1998. Males of both species are easily distinguished by the shape of the antennae with antennomeres IV-VIII, especially IV and V, which are strongly thickened in *T. triumphator* (not thickened in *T. rhodensis*), by all abdominal sternites not modified in *T. triumphator* (first and second sternites modified in *T. rhodensis*), and by the different shape of the apex of the ventral portion of the aedeagal median lobe. Females of both species are distinguished only by the shape of the genital plate, which has more rounded sides in *T. triumphator* sp. n.

***Tychus meybohmi* Brachat sp. n.**

Figs 3, 13-14

HOLOTYPE: MHNG, ♂; Turkey, Kahramanmaraş Prov., NO Kadirli, 12,5 km NO Andirin-Geben, 1.500 m, 37°39'14.2"N 36°26'27"E; 03.05.2005; H. Meybohm & V. Brachat.

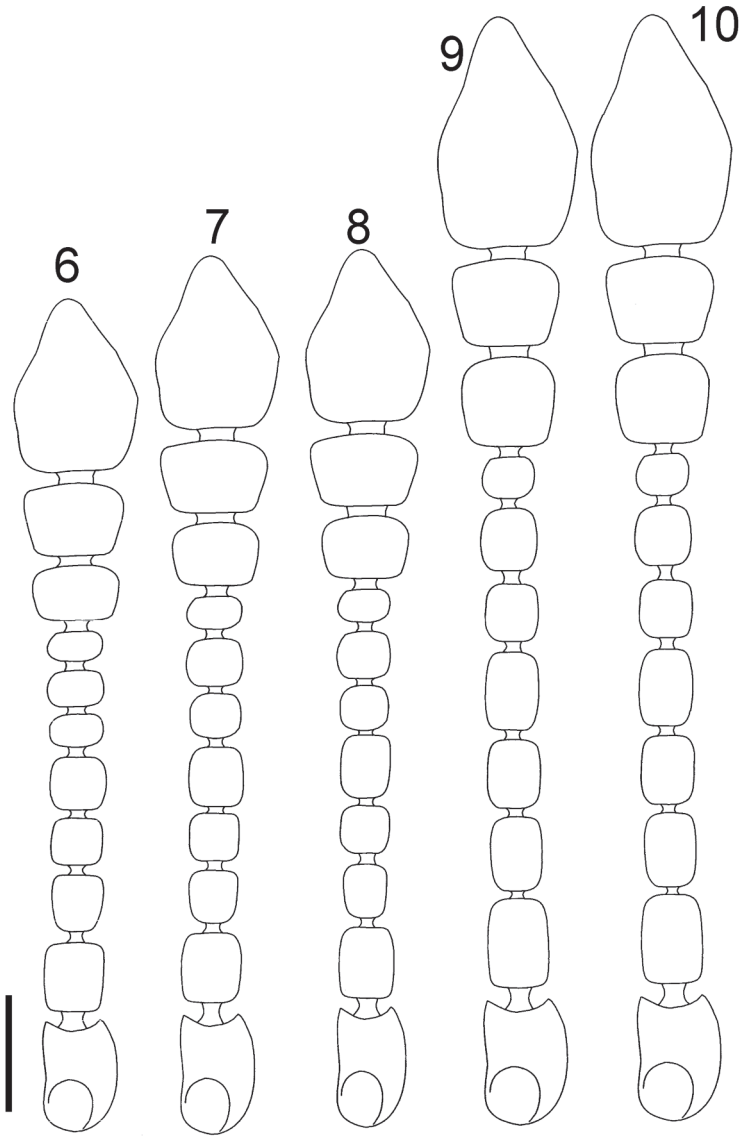
DESCRIPTION: Length 1.35 mm. Winged. Body brownish with abdomen black, antennae reddish, legs yellowish and palpi yellow.

Head as long as wide (0.275 mm), frontal rostrum 0.125 mm wide and 0.070 mm long. Eyes well developed with 24 facets. Apical segment of maxillary palpi 0.175 mm long and 0.075 mm wide.

Pronotum wider (0.325 mm) than long (0.275 mm) with lateral antebasal foveae in shallow impressions.

Elytra wider (0.600 mm) than long (0.500 mm) with humeri slightly protruding. Discal fovea joined to discal stria, latter reaching more than elytral mid-length.

Abdomen with first tergite 0.190 mm long, basal impression extending on more than third of tergal width.



FIGS 6-10

Antennae of *Tychus*. (6) *T. assingi*, holotype. (7) *T. moecha*, holotype. (8) *T. moecha*, female paratype, from Lepetimnos (Lesbos Island). (9) *T. sellarius*, holotype. (10) *T. sellarius*, female paratype from Pasayaylasi (Aydin). Scale bar 0.1 mm.

*Male*: Antennae (Fig. 3) 0.740 mm long, club 0.275 mm long; scape and antennomere II distinctly longer than wide; III longer than wide; IV wider than long; V wider than IV and VI and longer than wide; VI and VII wider than long, VII wider and slightly longer than VI; VIII much wider than long. Posterior margin of

mesotrochanters acute in middle, mesotibiae unarmed, metatibiae each with very small apical spurs. Aedeagus (Figs 13-14) 0.350 mm long.

*Female*: Unknown.

COMMENTS: *Tychus meybohmi* sp. n. is very similar to *Tychus viti* Besuchet, 2011 from which it can be distinguished by its smaller size (1.35 mm *T. meybohmi*, 1.60-1.65 mm *T. viti*), by the antennal shape with segments V longer than wide (slightly wider than long in *T. viti*), and by the different shape of the ventral portion and dorsal apophysis of the aedeagal median lobe.

***Tychus lederi* species group** (Sabella & Kurbatov, 2002)

***Tychus nothus* Sabella sp. n.**

Figs 4-5, 15-16, 24

HOLOTYPE: MHNG, ♂; Turkey, Kahramanmaraş Prov., NO Kadirli, 10 km N Andirin-Cokak, 1.148 m, 37°39'18.9"N 36°20'51"E; 03.05.2005; H. Meybohm & V. Brachat.

PARATYPES: MHNG, 1♀; Turkey, Kahramanmaraş Prov., same data as holotype; H. Meybohm & V. Brachat.- PCVB, 1♀; same data as holotype; H. Meybohm & V. Brachat.- PCVB, 1♂; Turkey, Mersin Prov., N Anamur, road Ermenek-Anamur, about 2 km S Kazanci, 1.421 m, 36°28'59.9"N 32°50'45.2"E; 22.04.2005; H. Meybohm & V. Brachat.

DESCRIPTION: Length 1.60-1.65 mm. Winged. Body dark brown with elytra red, antennae reddish, legs yellowish and palpi yellow.

Head slightly longer (0.300 mm) than wide (0.285-0.290 mm), frontal rostrum 0.135-0.14 mm wide and 0.080 mm long. Eyes well developed (24-26 facets). Apical segment of maxillary palpi 0.185 mm long and 0.085 mm wide.

Pronotum wider (0.345-0.350 mm) than long (0.300-0.310 mm) with lateral antebasal foveae in shallow impressions.

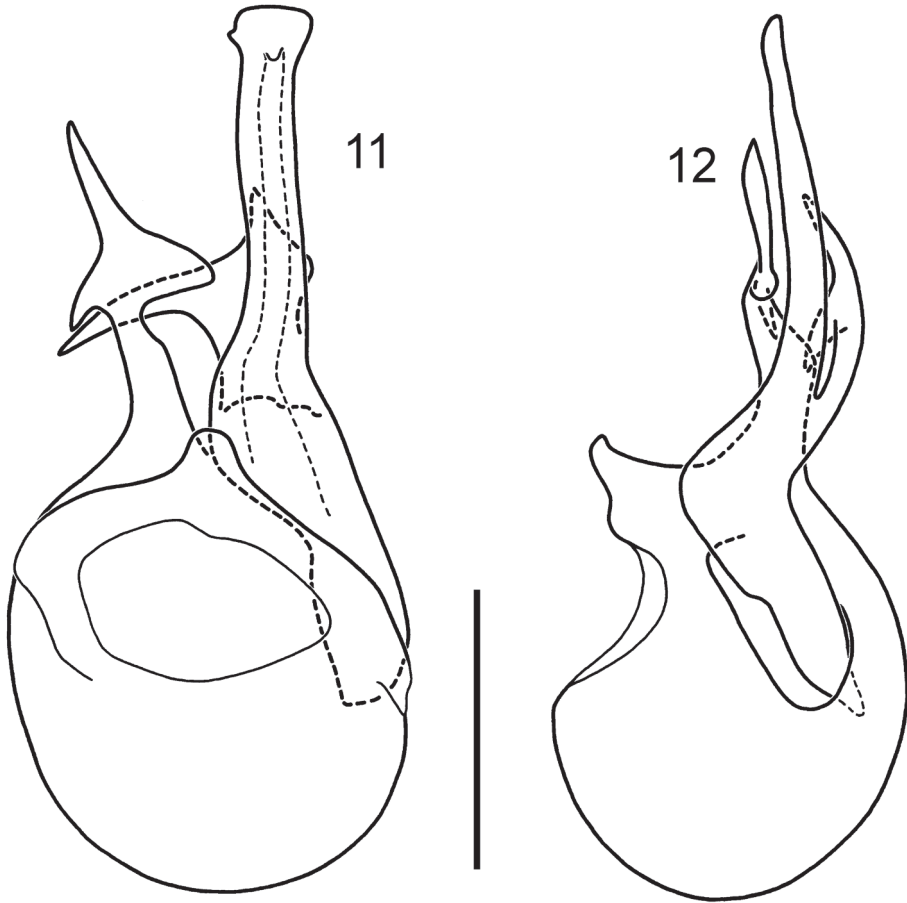
Elytra wider (0.595-0.600 mm) than long (0.500-0.525 mm) with humeri slightly protruding. Discal fovea joined to discal stria, latter reaching about elytral mid-length.

Abdomen with first tergite 0.185-0.190 mm long, basal impression extending on more than third of tergal width.

*Male*: Antennae (Fig. 4) 0.760-0.775 mm long, club 0.290 mm long; scape and antennomeres II-III distinctly longer than wide; IV and V slightly longer than wide; VI, VII and VIII wider than long. All femora and tibiae slightly thickened, posterior margin of mesotrochanters extended into long and sharp median spines. Mesotibiae unarmed, metatibiae each with small apical spurs. Aedeagus (Figs 15-16) 0.360-0.365 mm long.

*Female*: Antennae (Fig. 5) 0.725-0.740 mm long, club 0.285-0.290 mm long, similar to that of male, but only slightly shorter and thinner. Genital plate as in Fig. 24.

COMMENTS: *Tychus nothus* sp. n. is very similar to *T. olor* Sabella & Kurbatov, 2002, from which it is distinguished by its bigger size (1.55-1.65 mm *T. nothus*, 1.45-1.55 mm *T. olor*), by the shape of the antennomeres IV and V slightly longer than wide (wider than long in *T. olor*), and by the shorter aedeagus (0.360-0.365 mm in *T. nothus*, 0.385-0.390 mm in *T. olor*) with shorter dorsal apophysis bearing a thinner and longer dorsal process in *T. nothus* sp. n.



FIGS 11-12

*Tychus triumphator*, holotype, aedeagus in ventral (11) and lateral (12) views. Scale bar 0.1 mm.

***Tychus rhodopeus* species group** (Besuchet & Sabella, 1999)

***Tychus assingi*** Brachat sp. n.

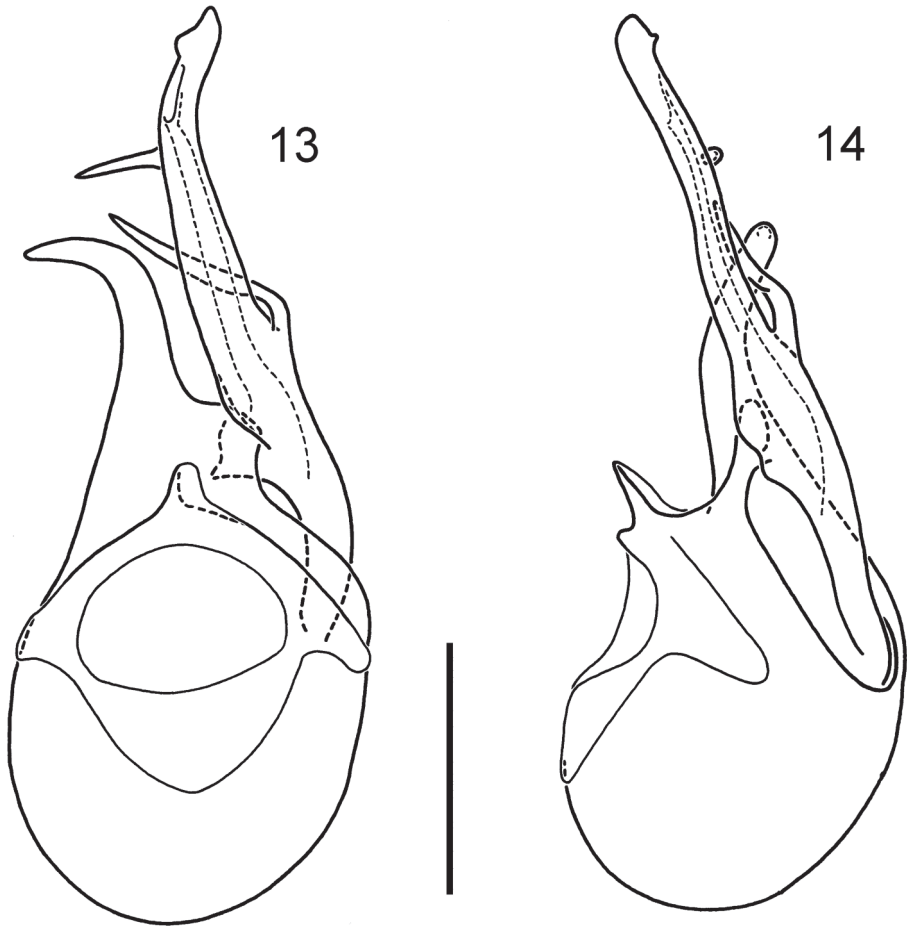
Figs 6, 17-18

HOLOTYPE: MHNG, ♂; Turkey, Mersin Prov., N Anamur, road Ermenek-Anamur, about 2 km S Kazanci, 1.421 m, 36°28'59.9"N 32°50'45.2"E; 22.04.2005; H. Meybohm & V. Brachat.

DESCRIPTION: Length 1.40 mm. Winged. Body dark brown with elytra reddish, antennae and legs yellowish and palpi yellow.

Head wider (0.285 mm) than long (0.265 mm), frontal rostrum 0.135 mm wide and 0.055 mm long. Eyes consisting in 16 facets. Apical segment of maxillary palpi 0.165 mm long and 0.075 mm wide.

Pronotum wider (0.325 mm) than long (0.300 mm) with lateral antebasal foveae in shallow impression.



FIGS 13-14

*Tychus meybohmi*, holotype, aedeagus in ventral (13) and lateral (14) views. Scale bar 0.1 mm.

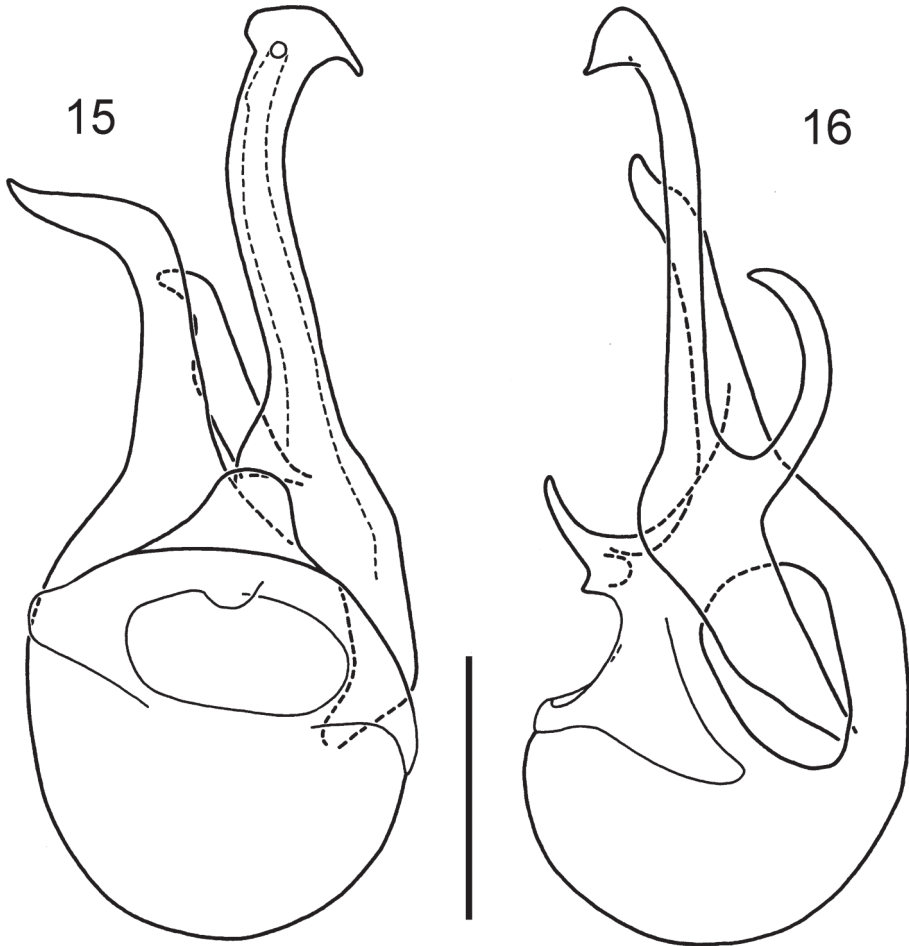
Elytra wider (0.610 mm) than long (0.500 mm) with slightly protruding humeri. Discal fovea joined to discal stria, latter reaching more than elytral mid-length.

Abdomen with first tergite 0.190 mm long, basal impression extending on more than 1/3 of tergal width.

*Male*: Antennae (Fig. 6) 0.760 mm long, club 0.285 mm long; scapus distinctly longer than wide; antennomeres II and III longer than wide; IV slightly wider than long, V as long as wide and slightly wider than IV; VI and VII distinctly wider than long, VII slightly longer than VI, VIII strongly wider than long. Posterior margin of mesotrochanters acute in middle. Mesotibiae and metatibiae unarmed. Aedeagus (Figs 17-18) 0.300 mm long.

*Female*: Unknown.





FIGS 15-16

*Tychus nothus*, holotype, aedeagus in ventral (15) and lateral (16) views. Scale bar 0.1 mm.

COMMENTS: *Tychus assingi* sp. n. is similar to *T. rhodopeus* Besuchet & Sabella, 1999, from which it is distinguished by the shape of the antennomere IV slightly wider than long and V as wide as long (IV and V distinctly longer than wide in *T. rhodopeus*) and by the different shape of the ventral portion of the aedeagal median lobe.

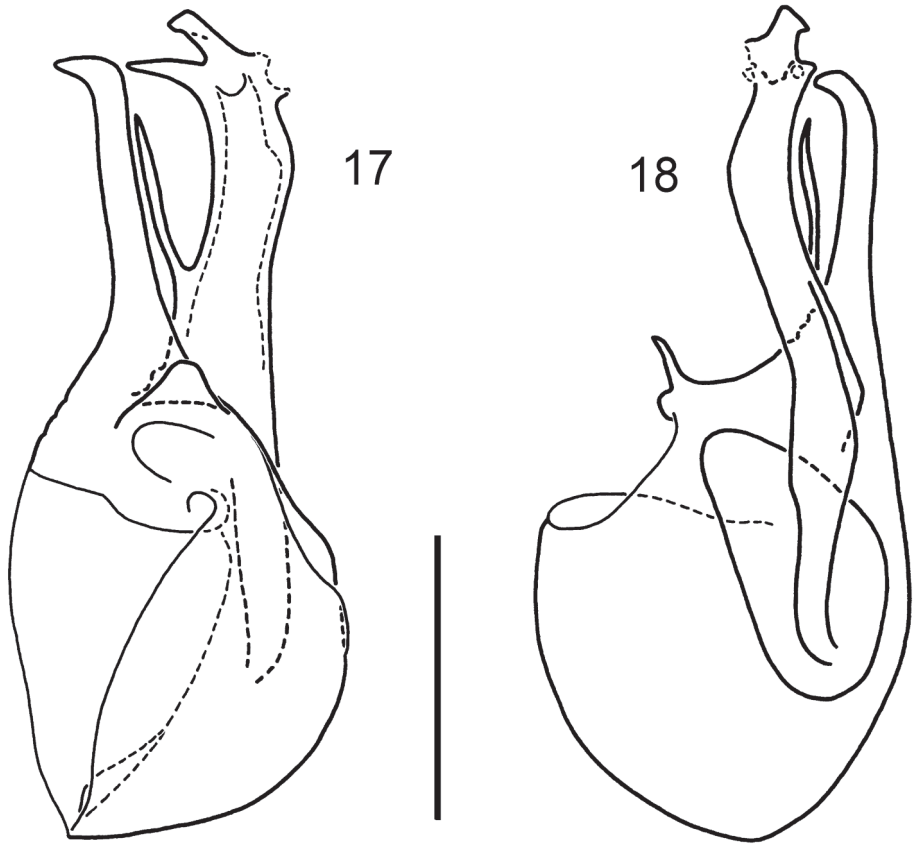
***Tychus florentinus* species group** (Sabella & Poggi, 1997)

***Tychus moecha*** Kurbatov sp. n.

Figs 7-8, 19-20, 25

HOLOTYPE: MHNG, ♂; Greece, Lesbos Island, Skotino, 200 m, 39°15'52"N 26°12'25"E; 17.03.2005; A. Lompe & H. Meybohm.

PARATYPE: MHNG, 1 ♀; Greece, Lesbos Island; Lepetimnos, 570 m, 39°21'11"N 26°17'37"E; 18.03.2005; A. Lompe & H. Meybohm.



FIGS 17-18

*Tychus assingi*, holotype, aedeagus in ventral (17) and lateral (18) views. Scale bar 0.1 mm.

**DESCRIPTION:** Length 1.45 mm. Apterous with fused elytra. Body dark brown with abdomen darker, antennae reddish, legs yellowish and palpi yellow in male; uniformly yellowish brown with palpi yellow in female.

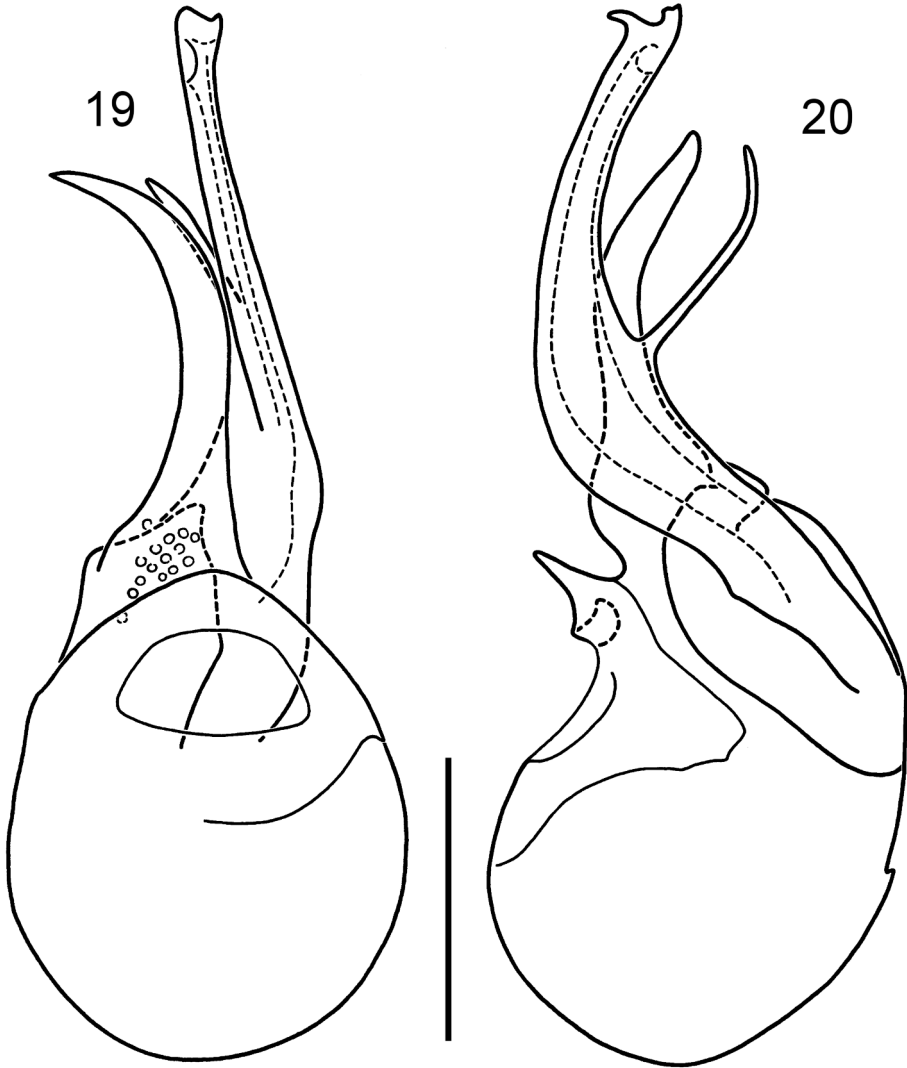
Head slightly wider (0.265-0.290 mm) than long (0.255-0.275 mm), frontal rostrum 0.165-0.175 mm wide and 0.070 long. Apical segment of maxillary palpi 0.190 mm long and 0.070 mm wide.

Pronotum wider (0.310 mm) than long (0.290-0.300 mm) with lateral antebasal foveae in shallow impressions.

Elytra wider (0.575-0.590 mm) than long (0.475-0.490 mm) with humeri not very protruding. Discal fovea joined to discal stria, latter reaching elytral mid-length.

Abdomen with first tergite 0.200 mm long, basal impression extending on more than 1/3 of tergal width.

*Male:* Antennae (Fig. 7) 0.800 mm long, club 0.300 mm long; scape distinctly longer than wide; antennomere II longer than wide, III slightly longer than wide; IV

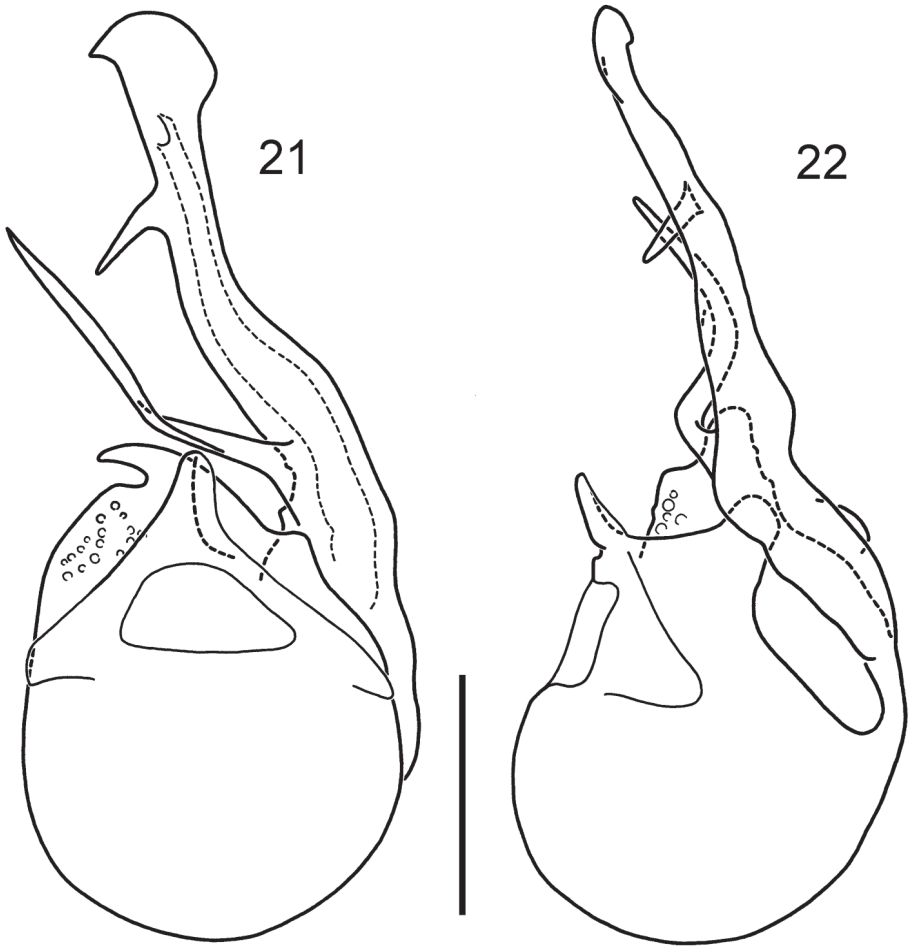


FIGS 19-20

*Tychus moecha*, holotype, aedeagus in ventral (19) and lateral (20) views. Scale bar 0.1 mm.

wider than long, V longer than wide and slightly wider than IV, VI distinctly wider than long, VII and VIII slightly wider than previous, and markedly wider than long, VII longer than VI. Eyes large (18 facets). Posterior margin of mesotrochanters extended into small median spines, mesotibiae each with small subapical spurs, metatibiae unarmed. Aedeagus (Figs 19-20) 0.370 mm long.

*Female*: Antennae (Fig. 8) 0.775 mm long, club 0.300 mm long, similar to that of male but slightly shorter and thinner. Eyes small (12 facets). Genital plate as in Fig. 25.



FIGS 21-22

*Tychus sellarius*, holotype, aedeagus in ventral (21) and lateral (22) views. Scale bar 0.1 mm.

COMMENTS: *Tychus moecha* sp. n. is similar to *T. grassator* Sabella, 2011, from which it distinguished by the shape of the antennomeres IV and VII wider than long (distinctly longer than wide in *T. grassator*), by the shape of ventral portion of the aedeagal median lobe and by the different shape of the genital plate (Figs 25, 31).

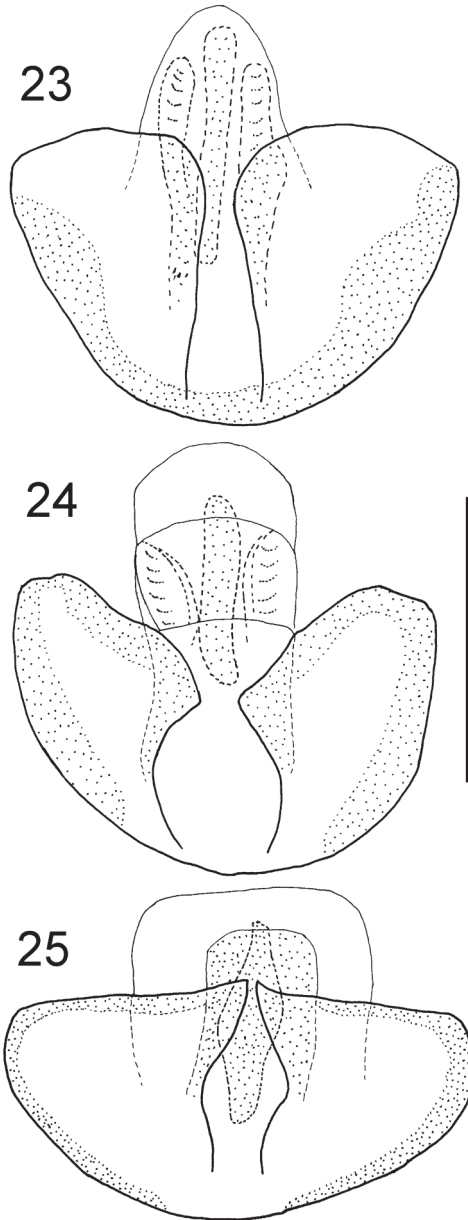
#### *Incertae sedis*

*Tychus sellarius* Kurbatov sp. n.

Figs 9-10, 21-22

HOLOTYPE: MHNG, ♂; Turkey, Aydin Prov., N Aydin, Pasayaylasi, 1.460 m, 37°56' 47''N 27°53'53''E; 20.04.2006; H. Meybohm & V. Brachat.

PARATYPE: MHNG, 1 ♀; Turkey, Aydin Prov., same data as holotype; H. Meybohm & V. Brachat.



FIGS 23-25

Genital plates of *Tychus*. (23) *T. triumphator*, paratype from Labou Mili (Lesbos Island). (24) *T. nothus*, paratype from Kadirli (Kahramanmaraş). (25) *T. moecha*, paratype from Lepetimnos (Lesbos Island). Scale bar 0.1 mm.

DESCRIPTION: Length 1.60 mm. Apterous. Body reddish brown with abdomen darker, legs yellowish and palpi yellow in male, uniformly yellowish brown with palpi yellow in female.

Head slightly longer (0.285-0.300 mm) than wide (0.275 mm), frontal rostrum 0.175 mm wide and 0.075 mm long. Apical segment of maxillary palpi 0.200-0.210 mm long and 0.075 mm wide.

Pronotum slightly longer (0.340 mm) than wide (0.325 mm) in male, as wide as long (0.340 mm) in female, with lateral antebasal foveae in shallow impressions.

Elytra wider (0.575-0.600 mm) than long (0.450-0.460 mm) with humeri not protruding. Discal fovea joined to discal stria, latter reaching more than elytral mid-length.

Abdomen with first tergite 0.200 mm long, basal impression extending on more than 1/3 of tergal width.

*Male*: Occipital region of head more convex than in female, eyes large (18 facets), antennae (Fig. 9) 1 mm long, club 0.390 mm long; scape and antennomeres II-V distinctly longer than wide; VI slightly longer than wide, VII longer and wider than VI and distinctly longer than wide, VIII strongly transverse. Posterior margin of mesotrochanters extended into small median spines, mesotibiae and metatibiae each with small apical spurs. Aedeagus as in Figs 21-22, 0.240 mm long.

*Female*: Eyes poorly developed (8 facets); antennae (Fig. 10) 1 mm long with club 0.390 mm long, similar to that of male.

COMMENTS: Based on external features (especially the antennal shape and the male secondary sexual characters) *Tychus sellarius* sp. n. resembles species of the *Tychus lederi* group (Sabella & Kurbatov, 2002). It is however unique by the peculiar shape of the dorsal apophysis of the aedeagal median lobe, with mesal margin prolonged to form two long spine-like processes extended medially. As we hold the assignment of *T. sellarius* sp. n. to this group as questionable, we prefer to leave it incerta sedis.

## DESCRIPTION OF FEMALES

The females of some species were still unknown and are thus described below based on material collected in the same locality and at the same date of the respective holotypes (except for *T. spurius*).

### *Tychus cilicicus* species group (Sabella & Kurbatov, 2002)

#### *Tychus sodalicus* Kurbatov, 2011

Figs 26, 29

MATERIAL EXAMINED: PCVB, 1 ♀; Turkey, Hatay Prov., Antakya, Ziyaret Dagi, Leylekli (Bachaue), 510 m, 35°57'47"N 36°02'57"E; 22.04.2004; H. Meybohm & V. Brachat.

DESCRIPTION: Length 1.45 mm. Body dark brown with elytra and antennae reddish and legs and palpi yellowish.

Head wider (0.270 mm) than long (0.250 mm), frontal rostrum 0.135 mm wide and 0.055 mm long. Eyes well developed (24 facets). Antennae (Fig. 26) 0.700 mm long, club 0.275 mm long; scape longer than wide; antennomere II slightly longer than wide, III distinctly longer than wide; IV slightly longer than wide; V longer than wide;

VI, VII and VIII distinctly wider than long, VII slightly wider than VI and VIII. Apical segment of maxillary palpi 0.175 mm long and 0.085 mm wide.

Pronotum wider (0.340 mm) than long (0.290 mm) with lateral antebasal foveae in well marked impressions.

Elytra wider (0.580 mm) than long (0.490 mm) with humeri not very protruding. Discal fovea joined to discal stria, latter reaching less than elytral mid-length.

Abdomen with first tergite 0.175 mm long, basal impression extending on half of tergal width.

Genital plate as in Fig. 29.

***Tychus mutabilis* species group** (Sabella & Kurbatov, 2002)

***Tychus spurius*** Sabella, 2011

Figs 27, 30

MATERIAL EXAMINED: PCVB, 1 ♀; Turkey, Sinop Prov., 15 km SW Sinop, S Kilih, 80 m, grassy road margin, 41°57'02"N 35°02'06"E; 03.04.2009; V. Assing.

DESCRIPTION: Length 1.70 mm. Winged. Body uniformly dark brown with legs and palpi yellowish.

Head as wide as long (0.300 mm), frontal rostrum 0.165 mm wide and 0.060 mm long. Eyes with 18 facets. Occipital region slightly convex. Antennae (Fig. 27) 0.770 mm long, club 0.310 mm long; scape and antennomeres II and III distinctly longer than wide; IV as long as wide; V wider than IV and wider than long; VI, VII and VIII wider than long, VII wider than VI and VIII. Apical segment of maxillary palpi 0.190 mm long and 0.085 mm wide.

Pronotum wider (0.365 mm) than long (0.330 mm) with small antebasal foveae in shallow impressions.

Elytra wider (0.650 mm) than long (0.510 mm) with humeri not very protruding. Discal fovea joined to discal stria, latter reaching more than elytral mid-length.

Abdomen with first tergite 0.220 mm long, basal impression extending more than 1/3 of tergal width.

Genital plate as in Fig. 30.

***Tychus florentinus* species group** (Sabella & Poggi, 1997)

***Tychus grassator*** Sabella, 2011

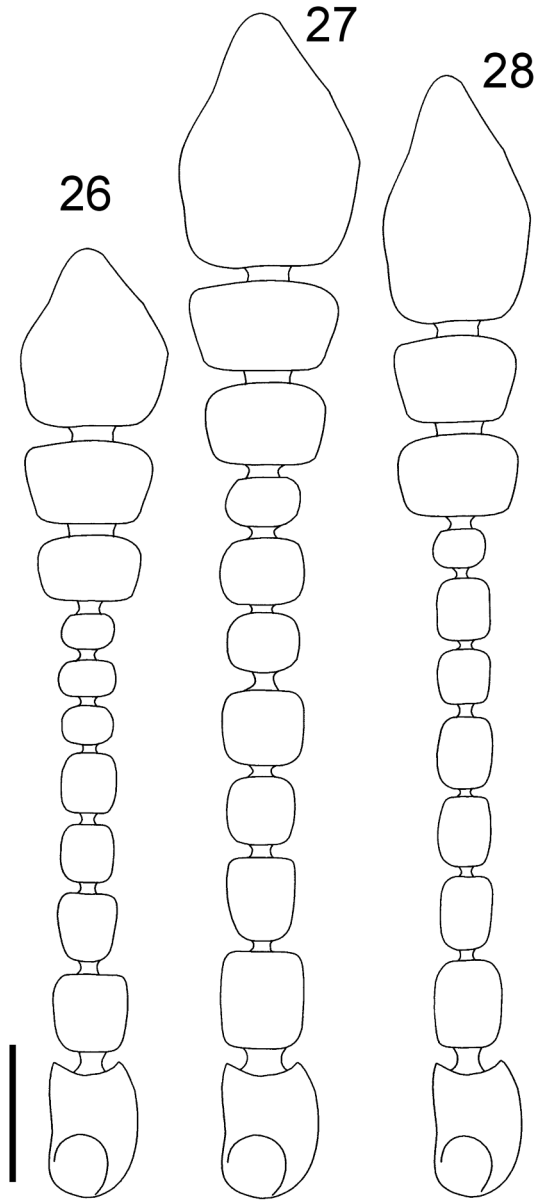
Figs 28, 31

MATERIAL EXAMINED: PCVB, 2 ♀ ♀; Turkey, Izmir Prov., environs of Kemalpaşa, Nif Dağı, 972 m, 38°24'19"N 27°23'32"E; 24.04.2006; H. Meybohm & V. Brachat.

DESCRIPTION: Length 1.45 mm. Winged. Body uniformly reddish brown with antennae and legs yellowish and palpi yellow.

Head slightly longer (0.270 mm) than wide (0.260 mm), frontal rostrum 0.150 mm wide and 0.060 mm long. Eyes with 8 facets. Antennae (Fig. 28) 0.800-0.820 mm long, club 0.325 mm long; scape distinctly longer than wide; antennomeres II-V distinctly longer than wide; V slightly longer than IV; VI as long as wide, VII longer than wide, VIII distinctly wider than long. Apical segment of maxillary palpi 0.145 mm long and 0.060 mm wide.

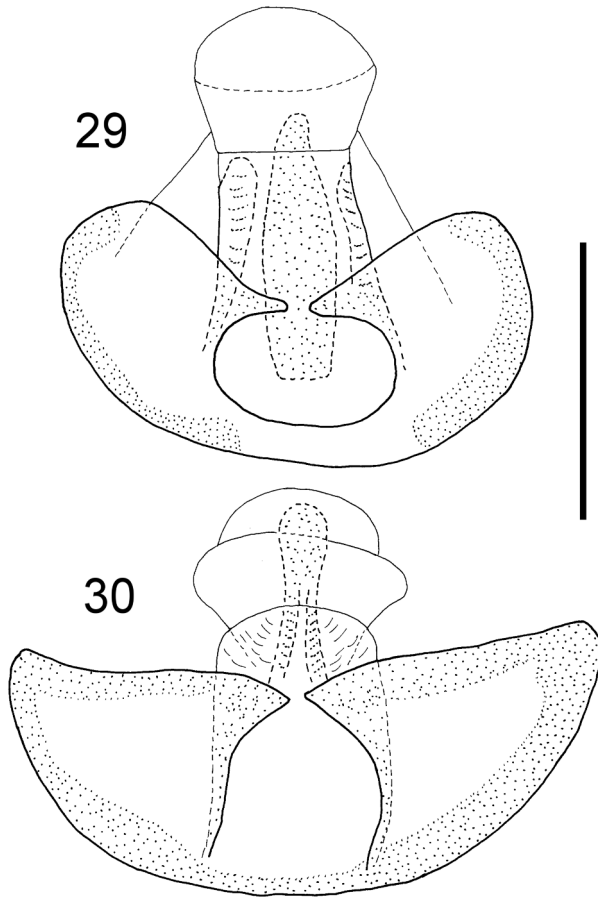
Pronotum as long as large (0.325 mm) with small lateral antebasal foveae in shallow impressions.



FIGS 26-28

Antennae of *Tychus* female. (26) *T. sodalicus* from Antakya (Hatay). (27) *T. spurius* from Sinop. (28) *T. grassator* from Kemalpaşa (Izmir). Scale bar 0.1 mm.





FIGS 29-30

Genital plates of *Tychus*. (29) *T. sodalicus* from Antakya (Hatay). (30) *T. spurius* from Sinop. Scale bar 0.1 mm.

Elytra wider (0.560 mm) than long (0.410 mm) with humeri not very protruding. Discal fovea joined to discal stria, latter reaching elytral mid-length.

Abdomen with first tergite 0.175 mm long, basal impression extending on more than 1/3 of tergal width.

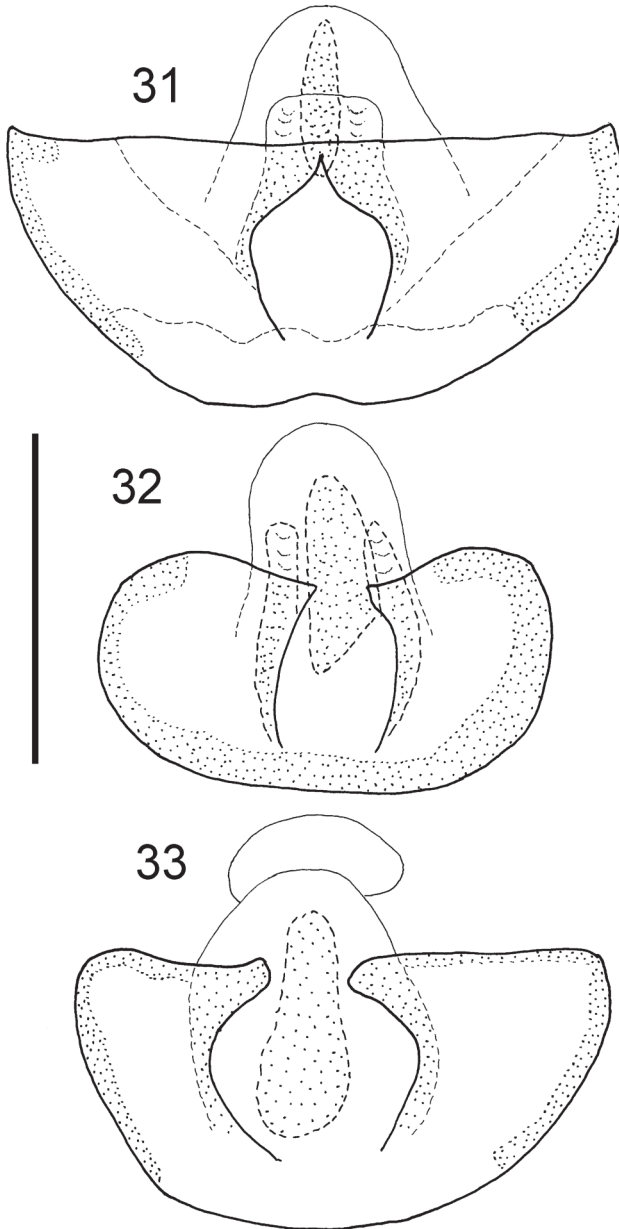
Genital plate as in Fig. 31.

#### *Incertae sedis*

*Tychus altivagus* Besuchet, 2011

Fig. 32

The genital plate of the female paratype (Fig. 32) is illustrated for the first time.



FIGS 31-33

Genital plates of *Tychus*. (31) *T. grassator* from Kemalpasa (Izmir). (32) *T. altivagus* paratype from Saklikent (Antalya). (33) *T. latebrosus* paratype from Do Luca (Kahramanmaraş). Scale bar 0.1 mm.

## NEW LOCALITY RECORDS

New locality records are listed below for some *Tychus* species. These records significantly expand the known distribution of these species.

***Tychus latebrosus* Besuchet, 2011**

Fig. 33

MATERIAL EXAMINED: PCVB, 1 ♂; Turkey, Kahramanmaraş Prov., 30 km SSW K. Maraş, Uzunsöğüt, 660 m, 37°22'43"N 36°40'51"E; 20.03.2005; V. Assing.- PCVB, 1 ♀; Turkey, Kahramanmaraş Prov., W Doluca, 40 km SSW K. Maraş, 1.140 m, 37°23'10"N 36°40'24"E; 30.04./02.05.2007; H. Meybhohm & V. Brachat.- PCVB, 1 ♀; Turkey, Kahramanmaraş Prov., 14 km S Türkoglu, 851 m, 37°21'06.3"N 36°44'21.9"E; 06.05.2002; H. Meybhohm & V. Brachat.

COMMENTS: The species was known so far only from some localities in south-eastern Turkey (Adiyaman and Kahramanmaraş provinces). The genital plate of the paratype (Fig. 33) is illustrated here for the first time.

***Tychus olor* Sabella & Kurbatov, 2002**

MATERIAL EXAMINED: PCVB, 2 ♂♂; Turkey, Niğde Prov., environs of Çiftelhan, E of Maden, 1.330 m, 37°28'22"N 34°40'05"E; 17.04.2011; H. Meybhohm & V. Brachat.

COMMENTS: The species was known so far only from Zorhum-Yayalasi (Hatay province, southerneastern Turkey).

***Tychus balcanicus* Reitter, 1902**

*Tychus longicornis* Besuchet 1958: 914 (synonymized by Besuchet 1999: 55).

MATERIAL EXAMINED: PCVB, 1 ♂; Turkey, Kastamonu Prov., about 50 km W Kastamonu, road Daday-Eflani, 1.000 m, 41°27'01"N 33°20'25"E; 25.03.2010; V. Assing.- MHNG, 1 ♂; Turkey, Burdur Prov., 20 km S Burdur, 1.200 m; 01.05.1969; W. Wittmer.- MHNG, 1 ♂; Turkey, Antalya Prov., Bakaran-Cevizli, 1.400 m; 08.05.1978; C. Besuchet & I. Löbl.

COMMENTS: The species was known so far from southwestern Bulgaria, Karabalkan locality that Reitter (1902: 187) had mistakenly referred to Turkey, from western Turkey, Port Baklar and Belgeyix near Isparta (Besuchet 1958: 915), and from Georgia without additional geographical indications (Löbl & Besuchet 2004: 318).

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