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Contribution to knowledge of the tribe Gastrallini (Coleoptera: Bostrichoidea: Anobiidae) – I. New species of the genus *Gastrallus* from Turkey, with review of the Palaearctic species

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Abstract. *Gastrallus vavrai* sp. n. is described from Mediterranean. There are 21 species known from Palaearctic region; in three of them, drawings of the aedeagus have not yet been published (*G. clematorum* Fursov in Sinadskiy, 1958 from Uzbekistan, *G. phloeophagus* Iablokoff-Khnzorian, 1960 from Armenia and *G. rollei* Reitter, 1912 from Spain, which was recently established as a valid species by Toskina, 2003).

INTRODUCTION

The tribe Gastrallini was established by White (1982). There are currently 4 genera in this tribe (Español & Comas 1991; Jacquelin du Val 1860; Pic 1914, Sakai 2003). Genus *Gastrallus* Jacquelin du Val, 1860 is the largest one, widely distributed throughout the world excluding Australia and South and Central America. It contains more than 50 known species and almost one half of them occur in Palaearctic region. The genus *Falsogastrallus* Pic, 1914 has centre of its occurrence in Indomalayan region, but a few species occur in adjacent part of Palaearctic region and one species - *F. unistriatus* (Zoufal, 1897) - is also distributed in south-east part of Europe and Near east. Other two genera are monotypic. *Hemigastrallus albonotatus* (Pic, 1903) occurs in Madagascar and *Mimogastrallus hideoi* Sakai, 2003 occurs in Japan.

These four genera may be differentiated from each other according to the following key:

1 Antennae with 10 segments 2
- Antennae with 9 segments 3
2 Elytra without distinct striae; only on the lateral margin with little distinct 1 - 2 striae and on the disc of elytra ever with inkling of shallow striae formed by small and sparse punctures ... *Gastrallus* Jacquelin du Val, 1860
- Elytra with distinct striae ..... *Hemigastrallus* Español & Comas, 1991
3 Underside of head with gular portion long, deeply excavated like a letter "omega - ω" for the reception of antennae in retraction. Prosternum transversaly ridged at the middle, and bisected anterior head holder plate and posteriorly intercoxal plate ..... *Falsogastrallus* Pic, 1914
- Undersurface of head with gular portion very short, devoid of deep excavation to receive antennae in retraction. Prosternum not ridged at middle ..... *Mimogastrallus* Sakai, 2003

MATERIAL AND METHODS

There are 23 described species of the genus *Gastrallus* known from the Palaearctic region. I studied all the original descriptions (Español 1963, 1977, 1990; Fairmaire, 1875; Iablokoff-Khnzorian 1960; Logvinovskiy 1978; Müller 1821; Olivier 1790; Pic 1914, 1922, 1937; Reitter 1912, 1913; Sakai 1984; Schilsky 1898; Sinadskiy 1958; Toskina 1998, 2003; Wollaston 1865; Zahradník 1996) and a major part of the species of this genus. Palaearctical* species may be divided into two groups.

*Note: Palaearctical region is used according to Löbl & Smetana (2003).

1 Pronotum with a distinct bump in the middle of the anterior part of pronotum .... *G. immarginatus*-group

- Pronotum without bump in the middle of the anterior part of pronotum or only with feeble inkling of the bump ..... *G. laevigatus*-group

G. immarginatus-group

cymoreki Español, 1990: 47 (Fig. 1)	Nepal
immarginatus P. W. J. Müller, 1821: 196 (*Anobium*) (Fig. 2)	Armenia, Austria, Belgium, Bulgaria, China, Croatia, Czech Republic, Denmark, France, Great Britain, Germany, Greece, Hungaria, Italy, Poland, Russia, Slovakia, Spain, Sweden, Switzerland, Ukraine, Tunisia; Ceylon (?)
ornatulus Toskina, 2003: 189 (Fig. 3)	Azerbaijan, Russia Southern Territory)
tuberculatus Pic, 1914: 10 (Fig. 4)	Taiwan (China); Vietnam
wittmeri Español, 1977: 306 (Fig. 5)	Bhutan, Nepal

G. laevigatus-group

affinis Sakai, 1984: 19 (Fig. 6)	Japan
clematorum Fursov in Sinadskiy, 1958: 144	Uzbekistan
corsicus Schilsky, 1898: 51 (Fig. 7)	Algeria, Croatia, France, Greece, Israel, Italy, Morroco, Portugal, Spain, Syria
dimidiatus Sakai, 1984: 22 (Fig. 8)	Japan
erdosi Toskina, 2003: 187 (Fig. 9)	Israel
indicus Reitter, 1913: 16 (Fig. 10)	Uttar Pradesh (India);

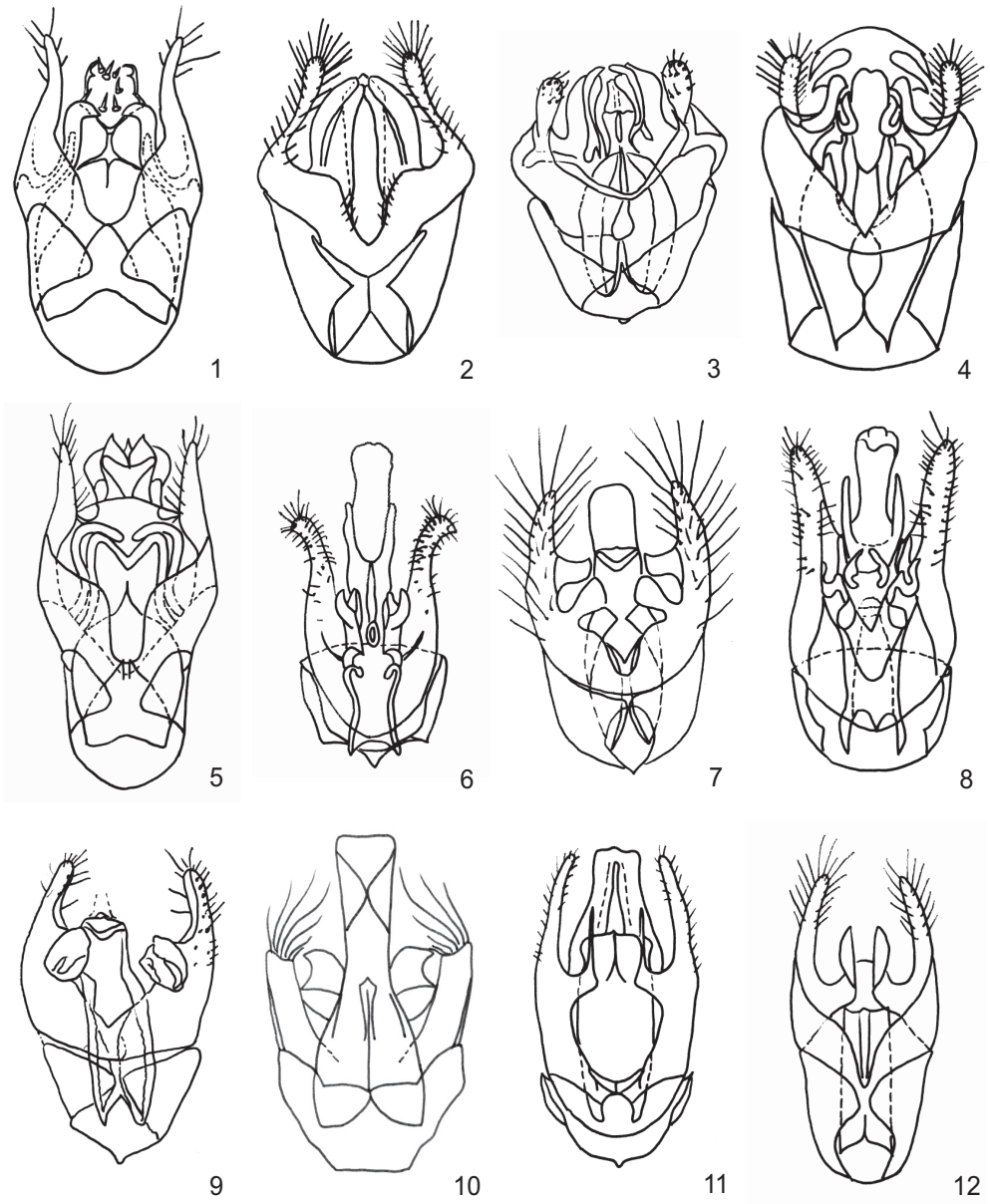
	Burma
insuetus Logvinovskiy, 1978: 28 (Fig. 11)	Kazakhstan
insulcatus Pic, 1937: 124 (Fig. 12)	Uttar Pradesh (India); India
knizeki Zahradník, 1996: 267 (Fig. 13)	Austria, Czech Republic, France, Germany, Slovakia
kocheri Español, 1963: 15 (Fig. 14)	Greece (Crete), Italy, Morroco, Spain, Tunisia
laevigatus Olivier, 1790: 16: 12 (*Anobium*) (Fig. 15)	Algeria, Austria, Belgium, Bosna and Hercegovina, Bulgaria, Croatia, Cyprus, Czech Republic, France, Germany, Georgia, Greece, Hungary, Israel, Italy, Japan, Morroco, Poland, Portugal, Russia, Slovakia, Spain, Switzerland, Syria, The Neederlands, Tunisia, Turkey, Ukraine, Yugoslavia
lyctoides Wollaston, 1865: 35 (*Anobium*) (Fig. 16)	Canary Is. (Spain)
mauritanicus Español, 1963: 18 (Fig. 17)	Italy, Morroco, Tunisia, Turkey
phloeophagus Iablokoff-Khnzorian, 1960: 149	Armenia
pubens Fairmaire, 1875: 515 (Fig. 18)	Azerbaijan, Egypt, Israel, Jordan, Libanon, Spain, Syria, Tunisia, Turkmenistan; Chad, Ethiopia, Kenya, Senegal, Sudan, Uganda
rollei Reitter, 1912: 104	Spain
subtilis Toskina, 1998: 52 (Fig. 19)	Saudi Arabia
testaceicornis Pic, 1922: 7 (Fig. 20)	Taiwan (China)
vavrai sp. n. (Fig. 21)	Turkey

DESCRIPTION

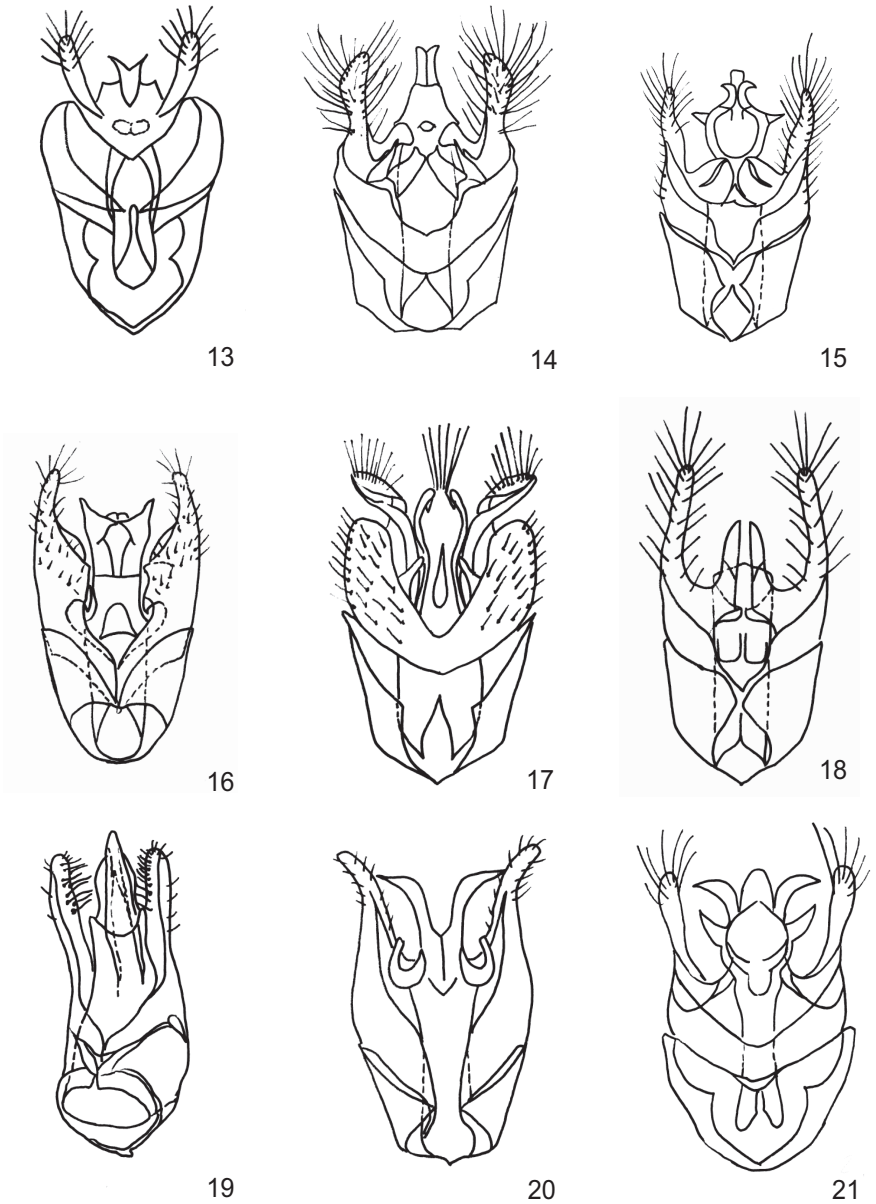
Gastrallus vavrai sp. n.

(Fig. 21)

Type material. Holotype (♂): Turkey, Hatay prov., Erzin, Nur Daĝlari mts., 3.v.2005 (ex pupa), J. Ch. Vávra lgt. Allotype (♀): the same data. Paratypes (4 ♂♂, 1 ♀): the same data as holotype. Holotype, allotype and 1 ♂ paratype deposited in the private collection of J. Ch. Vávra (Ostrava, CZ), 3 ♂♂, 1 ♀ deposited in author´s collection.



Figs 1-12. Aedeagus: 1- *G. cymoreki* Español, 1990; 2- *G. immarginatus* P. W. J. Müller, 1821; 3- *G. ornatulus* Toskina, 2003; 4- *G. tuberculatus* Pic, 1914; 5- *G. wittmeri* Español, 1977; 6- *G. affinis* Sakai, 1984; 7- *G. corsicus* Schilsky, 1898; 8- *G. dimidiatus* Sakai, 1984; 9- *G. erdoi* Toskina, 2003; 10- *G. indicus* Reitter, 1913; 11- *G. insuetus* Logvinovskiy, 1978; 12- *G. insulcatus* Pic, 1937;



Figs 13-21. Aedeagus: 13- *G. knizeki* Zahradník, 1996; 14- *G. kocheri* Español, 1963; 15- *G. laevigatus* Olivier, 1790; 16- *G. lyctoides* Wollaston, 1865; 17- *G. mauritanicus* Español, 1963; 18- *G. pubens* Fairmaire, 1875; 19- *G. subtilis* Toskina, 1998; 20- *G. testaceicornis* Pic, 1922; 21- *G. vavrai* sp. n.

Description. Male (holotype). Oblong oval, very convex, body length 2.2 mm, greatest width 0.85 mm. Ratio length : width of elytra 1.9. Bright brown, pubescence golden-yellow, very short, recumbent. Antennae, palpi and legs lighter, yellow-brown.

Head evenly convex, coarsely and densely punctate, matt. Eyes large, almost globular, with very small emargination besides the insertions of antennae. The width of eye the same as the width of frons. Antennae consist of ten antennomeres. The first antennomere relatively robust and long, the second almost globular, the third little longer than wide, the fourth and the sixth wider as long, slightly serrate, the fifth only very slightly wider than long and the seventh slightly longer than wide, slim. Last three (eighth to tenth) strongly enlarged, eighth and ninth triangular with emarginated apical part, longer than wide, the tenth three times as long as wide.

Pronotum slightly transverse (length 0.6 mm, width 0.8 mm), strongly convex, in its anterior third moderately emarginate laterally (from dorsal view), widest at the base, without bump anteriorly in the middle. Lateral margin invisible (dorsal view). Base of pronotum twice very slightly emarginate. Surface of pronotum finely and densely punctate, with coarse and sparse punctures, matt. Scutellum square.

Elytra with distinct shoulders, matt, coarsely and densely punctate, matt. Striae practicaly invisible (visible only at good angle of look - askance from backwards), except one fine larteral stria on each elytron.

The second visible sternite a little wider than the third and the fourth combined, the fifth almost the same wide as the second.

Aedeagus see Fig. 21.

Female (allotype). Without distinct sexual dimorphism.

Variability. All paratypes of the same length, width and colour as holotype, without distict differences.

Differential diagnosis. This species is very similar to *G. laevigatus* and *G. knizeki.* From the first one it differs by narrower frons, from the second one reliably by the shape of aedeagus only. The two species were probably confused in the past due to the absence of the study of the aedeagus.

Biology. Developed from small branches of *Ficus* sp.

Name derivation. Dedicated to the collector of the type material and my friend, Jiří Ch. Vávra (Ostrava, Czech Republic), to whom I am obliged for the loan and donation of described specimens.

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