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Faunistic review and description of a new species of Pselaphinae (Coleoptera: Staphylinidae) from the Strandzha Mountains (Bulgaria and Turkey)

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Abstract: During a 3-year faunistic survey in the Strandzha Mountains and along the Black Sea coast, a total of 44 species of Pselaphinae were recorded, 40 in the Bulgarian part and 30 in the Turkish part of this mountain range. *Bibloporus variicolor* Reitter, 1882 is reported to occur in the Balkan Peninsula for the first time; the genus *Centrotoma* Hayden, 1849 and 3 species (*Euplectus brunneus* Grimmer, 1841, *Batrisus formicarius* Aubé, 1833, and *Centrotoma lucifuga* Hayden, 1849) are new for the Turkish fauna; and 4 species (*Bibloplectus pusillus* (Denny, 1825), *Bibloplectus hungaricus* Besuchet, 1955, *Bythinus balkanicus* Reitter, 1885, and *Brachygluta tibialis* Aubé, 1864) are new for Bulgaria. One new species of Bythinini, *Bryaxis fronticornis* sp. nov., is described, illustrated, and distinguished from related congeners.

Key words: Faunistics, taxonomy, Palearctic, Strandzha Mountains, Black Sea coast, Pselaphinae, *Bryaxis fronticornis* sp. nov.

1. Introduction

The Strandzha (in Turkish, Yıldız or Istranca) is a mountain range in southeastern Europe that extends south of the Bay of Burgas and Lake Mandrensko between the Derventski Heights and the Ergene River on the western coast of the Black Sea, with its outlying areas almost reaching the Bosphorus Strait (Figure 1). This mountain massif has a fairly low altitude (5–1200 m), diverse topography, a wide spectrum of habitats, relatively well-preserved natural ecosystems, and a mild climate. It is known that the Strandzha had a role as a refugium during the glaciations, and its fauna has a particularly high percentage of animals with Mediterranean and Anatolian origins, along with animals with Eurosiberian origins. The main reason for this is that the mountain range and adjacent territory was never submerged or affected by glaciation or other major paleontological events during the Pleistocene (Gruev, 1988). This makes the entire mountain range highly interesting in terms of its faunistics and ecology, and important for the study of the biodiversity of Europe.

Due to its borderline location the Strandzha has been insufficiently researched; a vast area of this mountain range was almost completely inaccessible in the past, mainly for political and military reasons. This situation contributed to the conservation of some of the most interesting and species-rich ecosystems in Bulgaria and Turkey.

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Compared to many other areas of Europe, current knowledge of the fauna of the Pselaphinae of the Strandzha Mountains must be considered as rather incomplete. So far, only 3 species of Pselaphinae have been known to occur in the western (Bulgarian) part of the Strandzha range, and 23 are known from the eastern (Turkish) part of this mountain range (Rambousek, 1909; Karaman, 1969, 1972; Bekchiev, 2010).

The 2 main goals in my research were to eliminate the lack of knowledge for this poorly researched region of the Balkan Peninsula and to verify the hypothesis that this region serves or has served as a bridge between the pselaphine fauna of Europe and Asia (especially among the Balkans, Anatolia, and the Caucasus).

A 3-year faunistic survey carried out in 2009–2011 of the Strandzha Mountains and Black Sea coast resulted in many new records and the discovery of a new species of Pselaphinae; these findings are reported in the present paper.

2. Materials and methods

A total of 44 localities were visited, 33 in Bulgaria and 11 in Turkey (Figure 1).

The material was collected using the following methods:

- Sifting with litter reducer (mesh diameter: 6 × 6 mm). Beetles were either picked up manually directly from the

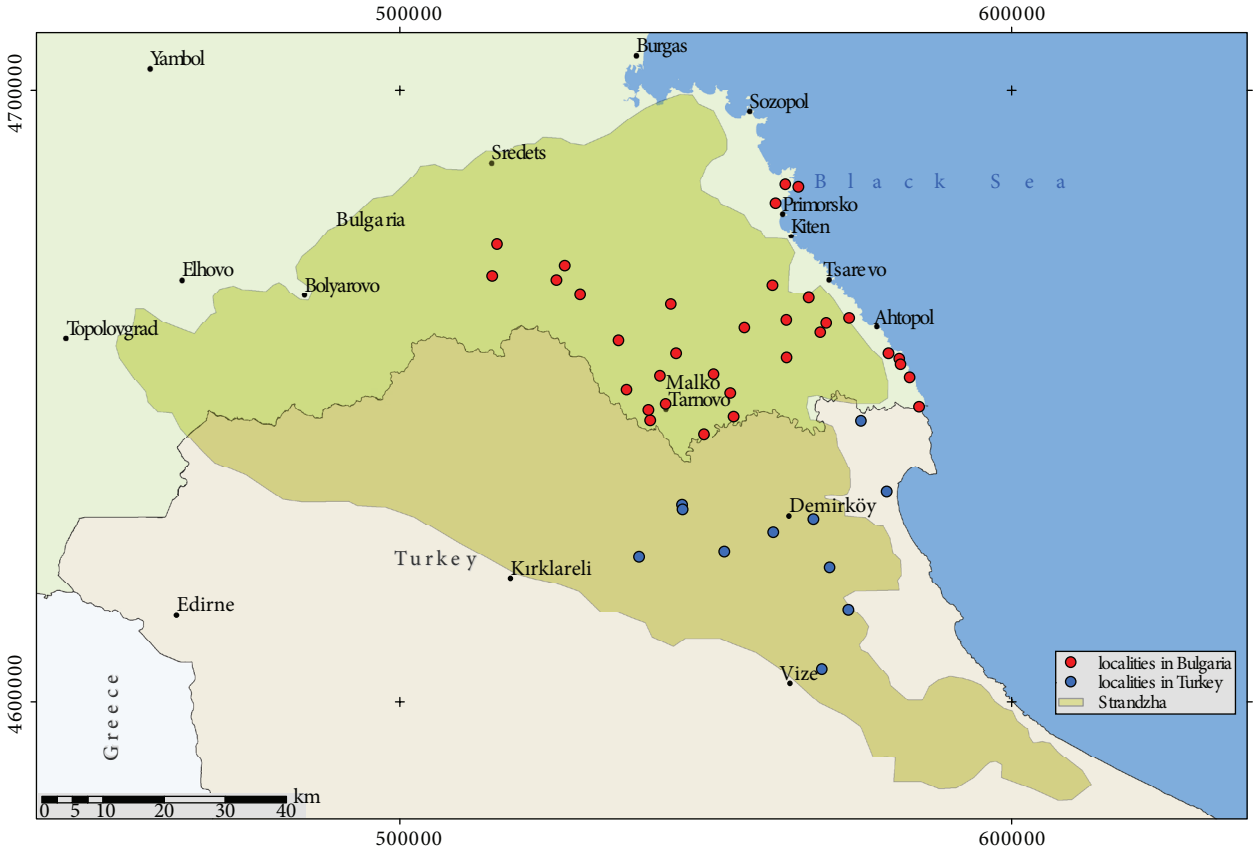

Figure 1. Map of the studied area in the Strandzha Mountains.

sifted leaf litter and rotten wood, or Winkler/Moczarski eclectors were used to extract beetles from soil samples of 2.5–3 kg.

- Collecting at night with a 160-W MBTF lamp and a F8T5 365-nm black light tube.

- Sweeping with an entomological net and a one-hand blower (Partner GBV 325).

Specimens were either mounted on cards or preserved in ethanol. When necessary, specimens were dissected using standard methods; extracted genitalia and other body parts were mounted in Euparal or Canada balsam on acetate mounting cards and pinned together with the beetles. Head length was measured from the base to the anterior margin of the frontal rostrum; head width was measured across the eyes; elytron length was measured from the apex of scutellum to the posterior margin of elytron on sutures; the width of antennal segments is their maximum width.

Voucher specimens are deposited in the National Museum of Natural History, Sofia, Bulgaria (NMNHS), except for some paratypes of the newly described species, which are preserved in the Musée d'Histoire Naturelle de Genéve, Switzerland (MHNG).

3. Results

3.1. Faunistics

The data are presented in the Table.

3.2. Taxonomy

Bryaxis fronticornis sp. nov.

Type material: (6 ♂♂, 5 ♀♀). Holotype: ♂, Bulgaria, Strandzha Mts., Stoilovo Village env., Mechi dol (Aidere) locality, N 42.03087 E 27.51392, 206 m, in leaf litter, 10.06.2009, leg. R. Bekchiev (NMNHS). Paratypes: 3 ♀♀, same data as holotype; 2 ♂♂, 2 ♀♀, Turkey, Thrace, Kırklareli, Demirköy, 31.07.1969, leg. C. Besuchet; 1 ♂, Turkey, Thrace, Kırklareli, Demirköy, Strandzha Mts., Sislioba Village env., N 41.96202 E 27.90977, 52 m, in leaf litter, 03.10.2009, leg. R. Bekchiev; 1 ♂, Turkey, Demirköy, entrance of Dupnisa Cave, N 41.84069 E 27.55604, 337, in leaf litter, 08.07.2009, leg. R. Bekchiev; 1 ♂, Turkey, Thrace, Kırklareli, Vize, Strandzha Mts., Sergen Village env., N 41.74361 E 27.70690, 730 m, in leaf litter, 25.05.2011, leg. R. Bekchiev. Paratypes in NMNHS and MHNG.

Description: Male. Body reddish-brown (Figure 2a), length 1.44–1.56 mm, maximum width of elytra 0.37–0.40 mm. Head (Figure 2b) almost as long as wide (0.25–0.32/0.28–0.31 mm), smooth and shiny, covered

Table. Pselaphinae recorded from the Strandzha Mountains.

Species	Country	Locality	GPS coordinates	Altitude (m)	Date	Exemplars	
						♂	♀
***Delenda carthago* Croissandeau, 1891**	Bulgaria	Papia hill	N42.10658 E27.84337	343	16.4.2009	1	1
		-	-	-	29.5.2010		1
		Indipasha	N42.00469 E27.65255	211	18.4.2009	1	
		Marina reka	N42.11158 E27.76472	172	08.5.2009	2	2
		Mechi dol (Aidere)	N42.03087 E27.51392	206	10.6.2009	1	
		Slivarovo	N41.96997 E27.65864	338	25.9.2009	1	
		Valchanov most	N41.94416 E27.60006	281	18.4.2010	1	4
	Turkey	Demirköy	N41.79940 E27.73470	593	06.7.2009	10	5
		-	N41.79940 E27.73470	593	29-30.9.2009	7	20
		-	N41.81785 E27.81383	172	03.10.2009	2	2
		Sislioba	N41.96202 E27.90977	52	03.10.2009	1	1
		Iğneada	N41.85762 E27.95894	5	02.10.2009	1	1
		Sivriler	N41.74678 E27.84505	419	22.5.2010	1	2
		Kızılağaç	N41.68393 E27.88095	141	24.5.2011	11	12
***Euplectus kirbii* Denny, 1825**	Bulgaria	Kalovo	N42.13644 E27.53652	324	06.5.2009		1
		Brodilovo.	N42.09315 E27.83140	17	14.7.2009		3
		Kondolovo, Marzevski dol	N42.10076 E27.68153	284	23.8.2009	2	2
		Papia hill	N42.10658 E27.84337	343	29.5.2010	1	
	Turkey	Iğneada	N41.85762 E27.95894	15	02.10.2009	2	2
		Dupnisa Cave environs	N41.84069 E27.55604	337	23.5.2010	4	1
***Euplectus karsteni* Reichenbach, 1816**	Bulgaria	Sinemorets, Veleka river bank	N42.06100 E27.96534	5	16.4.2009	1	
		Silistar	N42.02520 E28.00704	17	16–20.08.2009	2	8
		Mechi dol (Aidere)	N42.03087 E27.51392	206	10.6.2009	1	
		Sinemorets, Butamiata	N42.05286 E27.98706	5	16.4.2009		1
		Propada	N41.98044 E27.49048	351	22.8.2009		1
		Mladezhko	N42.15125 E27.35726	231	21.8.2009	1	3
		Papia hill	N42.10658 E27.84337	300	03.7.2009	1	
	Turkey	Sislioba	N41.96202 E27.90977	52	22.5.2010	1	
***Euplectus brunneus* Grimmer, 1841**	Bulgaria	Kondolovo, Marzevski dol	N42.10076 E27.68153	284	23.8.2009	6	3
		Valchanov most	N41.94416 E27.60006	281	18.4.2010	1	
	Turkey	Kızılağaç	N41.68393 E27.88095	141	24.5.2011		1
***Euplectus frater* Besuchet 1964**	Bulgaria	Propada	N41.98044 E27.49048	351	01.6.2010	1	
		Lipite	N42.04450 E27.98938	54	27.5.2011	3	8
***Euplectus piceus* Motschulsky, 1835**	Turkey	Mahya hill	N41.77108 E27.63829	804	25.5.2010	1	1
***Bibloplectus ambiguus* Reichenbach, 1816**	Bulgaria	Lipite	N42.04450 E27.98938	54	25.9.2010	1	1
	Turkey	Demirköy	N41.81785 E27.81383	172	03.10.2009	2	3
***Bibloplectus pusillus* (Denny, 1825)**	Bulgaria	Sinemorets, Veleka river bank	N42.06100 E27.96534	5	09.5.2009	2	5
		-	-	-	01.7.2009	3	4
		Bliznak	N42.17219 E27.30987	299	19.4.2010	5	8
		Lipite	N42.04450 E27.98938	54	25.9.2010	1	
	Turkey	Iğneada	N41.85762 E27.95894	15	02.10.2009	7	4
***Bibloplectus spinosus* Raffray, 1914**	Turkey	Iğneada	N41.85762 E27.95894	15	02.10.2009	2	3
***Bibloplectus hungaricus* Besuchet, 1955**	Bulgaria	Primorsko, Perla	N42.28344 E27.74508	1	30.6.2009	3	14

Table. (continued).

	Turkey	Iğneada	N41.85762 E27.95894	15	02.10.2009	1	1
***Bibloplectus minutissimus* Aubé, 1833**	Bulgaria	Valchanov most	N41.94416 E27.60006	281	18.4.2010	1	
***Bibloporus minutus* Raffray, 1914**	Bulgaria	Petrova niva	N42.06394 E27.54610	96	06.5.2009	2	
		-	N42.06164 E27.53303	132	21.8.2009		1
		Mechi dol (Aidere)	N42.03087 E27.51392	206	23.8.2009		2
		Mladezhko	N42.15125 E27.35726	231	21.8.2009	1	3
		Brodilovo	N42.09315 E27.83140	17	14.7.2009		2
		Kondolovo, Marzevski dol	N42.10076 E27.68153	284	23.8.2009		2
		Lipite	N42.04450 E27.98938	54	27.5.2011	1	6
***Bibloporus variicolor* Reitter, 1882**	Bulgaria	Mechi dol (Aidere)	N42.03087 E27.51392	206	10.6.2009	1	
***Trimium caucasicum* Kolenati, 1846**	Bulgaria	Slivarovo	N41.96997 E27.65864	388	19.4.2009		3
		Kosti	N42.05663 E27.76423	35	03.7.2009		1
		Izgrev	N42.14481 E27.80899	119	08.5.2009		3
		Mechi dol (Aidere)	N42.03087 E27.51392	206	10.6.2009	3	
		Propada	N41.98044 E27.49048	351	26.9.2009	1	
		-	-	-	17.4.2009	1	
		Marina reka	N42.11158 E27.76472	172	08.5.2009		3
		-	N42.11158 E27.76472	172	13.7.2009		10
		Sinemorets, Butamiata	N42.05286 E27.98706	5	02.07-03.08.2009	1	
		Papia hill	N42.10658 E27.84337	300	03.7.2009	1	4
		Maslen nos	N42.30771 E27.79065	13	30.5.2010	1	
	Turkey	Vize	N41.59683 E27.82825	376	07.7.2009	1	5
		-	N41.58386 E27.79410	348	25.5.2011		8
		Sivriler	N41.74678 E27.84505	419	22.5.2010		1
***Bryaxis bulbifer* Rechenbach, 1816**	Bulgaria	Sinemorets, Butamiata	N42.05286 E27.98706	5	13.6.2009	3	1
		Sinemorets, Veleka river bank	N42.06100 E27.96534	5	01.7.2009	1	4
		Silistar	N42.02520 E28.00704	23	16.-29.06.2008	3	3
	Turkey	Iğneada	N41.85762 E27.95894	56	05.7.2009	1	
		-	N41.85762 E27.95894	15	02.10.2009	1	3
***Bryaxis curtisii orientalis* Karaman, 1952**	Bulgaria	Bataka	N42.19368 E27.32662	319	05.5.2009	1	3
		Slivarovo	N41.96049 E27.65967	256	25.9.2009	2	2
		Indipasha	N42.00469 E27.65255	211	25.9.2009	2	3
		Propada	N41.98044 E27.49048	351	09.6.2009	2	
		-	-	-	17.4.2009	1	1
		Mladezhko	N42.15125 E27.35726	231	23.9.2009	1	
		-	-	-	29.5.2010	1	
		Mechi dol (Aidere)	N42.03087 E27.51392	206	10.6.2009	1	1
		Brodilovo	N42.09315 E27.83140	17	14.7.2009	3	1
		Kondolovo, Marzevski dol	N42.10076 E27.68153	284	23.8.2009	1	
		Silistar	N42.02520 E28.00704	23	16.-29.06.2008	3	
		Gradishte hill	N41.96528 E27.49386	624	18.4.2010	1	
		Marina reka	N42.11158 E27.76472	172	11.6.2009	1	3
		Vitanovo	N42.01036 E27.44767	359	28.5.2010	1	
		Bliznak	N42.17219 E27.30987	299	19.4.2010	5	3
		Valchanov most	N41.94416 E27.60006	281	18.4.2010	2	1
	Turkey	Demirköy	N41.79940 E27.73470	593	06.7.2009	4	5
		Iğneada	N41.85762 E27.95894	5	02.10.2009	1	4
***Bryaxis roumaniae* Raffray, 1914**	Bulgaria	Slivarovo	N41.96049 E27.65967	256	19.4.2009	1	

Table. (continued).

		-	N41.96997 E27.65864	338	25.9.2009	2	2
		Stoilovo	N42.00667 E27.50393	290	07.5.2009	1	
		Bataka	N42.19368 E27.32662	319	05.5.2009		2
		-	-	-	15.04-05.05.2009	1	
		Papia hill	N42.10658 E27.84337	343	16.4.2009		4
		-	-	-	08.5.2009		1
		-	-	-	29.5.2010		1
		Marina reka	N42.11158 E27.76472	172	16.4.2009	7	18
		-	-	-	09.5.2009		3
		-	-	-	03.7.2009	2	3
		Varvara	N42.11364 E27.88858	46	14.4.2009	1	
		-	-	-	16.4.2009	1	
		Mladezhko	N42.15125 E27.35726	231	23.9.2009	1	5
		Kondolovo	N42.09658 E27.66527	258	18.4.2009	4	4
		Gradishte hill	N41.96528 E27.49386	624	18.4.2010	1	
		Vitanovo	N42.01036 E27.44767	359	28.5.2010	1	
		Valchanov most	N41.94416 E27.60006	281	18.4.2010	1	
		Lipite	N42.04450 E27.98938	54	27.5.2011	1	4
	Turkey	Sarpdere	N41.83380 E27.55683	436	08.7.2009	6	3
		-	-	-	29.9.2009	2	
		Iğneada	N41.85762 E27.95894	5	02.10.2009	2	
		Demirköy	N41.81785 E27.81383	172	30.9.2009	1	
		-	-	-	03.10.2009	1	
		-	N41.77108 E27.63829	804	29.9.2009	1	
		Sislioba	N41.96202 E27.90977	52	22.5.2010		2
		Sivriler	N41.74678 E27.84505	419	22.5.2010	1	
***Bythinus balkanicus* Reitter, 1885**	Bulgaria	Papia hill	N42.10658 E27.84337	343	16.4.2009	2	2
		Indipasha	N42.00469 E27.65255	211	25.9.2009	2	7
		Mechi dol (Aidere)	N42.03087 E27.51392	206	23.8.2009	1	
		Brodilovo	N42.09315 E27.83140	17	14.7.2009	1	1
		Propada	N41.98044 E27.49048	351	09.6.2009	3	8
		-	-	-	17.042009	4	2
		Varvara	N42.11364 E27.88858	46	26.8.2009	1	
		Bogdanovo, Fakiiska River	N42.22602 E27.19269	125	09.6.2009	1	
		Kosti	N42.05663 E27.76423	35	01.8.2010	1	
		Popovi skali	N42.16274 E27.73766	26	01.7.2009	2	2
	Turkey	Demirköy	N41.79171 E27.83363	372	06.7.2009	3	
		-	-	-	29.9.2009	1	1
		-	N41.81785 E27.81383	172	30.9.2009	10	15
		-	-	-	03.10.2009	5	7
		Sislioba	N41.96202 E27.90977	52	08.7.2009	1	
		-	-	-	03.10.2009	1	1
		Kızılağaç	N41.68393 E27.88095	141	24.5.2011	1	
***Bythinus leonhardinus* Reitter, 1913**	Bulgaria	Kirovo	N42.17862 E27.18284	138	05.5.2009	2	1
		Indipasha	N42.00469 E27.65255	211	18.4.2009	1	
		Marina reka	N42.11158 E27.76472	172	08.5.2009	1	
		Bliznak	N42.17219 E27.30987	299	19.4.2010	3	1
		Sinemorets, Veleka river bank	N42.06100 E27.96534	5	16.4.2009	1	
		Brodilovo	N42.09315 E27.83140	17	14.7.2009	2	3

Table. (continued).

		Valchanov most	N41.94416 E27.60006	281	18.4.2010	5	3
		Mladezhko	N42.15125 E27.35726	231	17.4.2009	6	5
	Turkey	Demirköy	N41.79171 E27.83363	372	06.7.2009	7	7
		-	N41.77108 E27.63829	820	30.9.2009	6	12
		Sarpdere	N41.83380 E27.55683	345	01.10.2009	1	
***Bythinus acutangulus lunifer* Karaman, 1948**	Bulgaria	Slivarovo	N41.96049 E27.65967	256	25.9.2009	1	6
		Mechi dol (Aidere)	N42.03087 E27.51392	206	23.8.2009	2	
		Vitanovo	N42.01036 E27.44767	359	28.5.2010	1	
		Propada	N41.98044 E27.49048	351	10.6.2009	1	
	Turkey	Sarpdere	N41.83380 E27.55683	436	08.7.2009	1	
***Batrisodes buqueti* (Aubé, 1833)**	Bulgaria	Silistar	N42.02520 E28.00704	17	09.5.2009		1
		Petrova niva	N42.06164 E27.53303	132	21.8.2009	1	
		Izgrev	N42.14481 E27.80899	119	08.5.2009		1
		Begliktash	N42.31156 E27.76492	143	28.5.2011		1
***Batrisodes venustus* (Reichenbach, 1816)**	Bulgaria	Bataka	N42.19368 E27.32662	319	17.4.2009		1
***Batrisus formicarius* Aubé, 1833**	Turkey	Kızılağaç	N41.68393 E27.88095	141	24.5.2011	1	
***Tychus anatolicus* Besuchet, 1964**	Bulgaria	Sinemorets, Veleka river bank	N42.06100 E27.96534	5	09.5.2009		1
		Rezovo	N41.98179 E28.02490	1	09.5.2009	2	
		Primorsko, Perla	N42.28344 E27.74508	1	30.6.2009	4	5
	Turkey	Iğneada	N41.85762 E27.95894	5	05.7.2009	2	34
		-	-	-	02.10.2009	1	3
***Tychus bysanticus* Karaman, 1955**	Bulgaria	Varvara	N42.11364 E27.88858	46	14.4.2009	1	
		-	-	-	10.5.2009	1	1
		Lipite	N42.04450 E27.98938	54	27.5.2011	1	
***Tychus niger* Paykull, 1800**	Bulgaria	Kirovo	N42.17862 E27.18284	138	05.5.2009	1	1
		Bliznak	N42.17219 E27.30987	299	19.4.2010	1	4
		Veleka River, Diado Pavel	N42.03253 E27.62008	91	18.4.2009	1	
***Tychus pullus* Kiesenwetter, 1858**	Bulgaria	Sinemorets, Butamiata	N42.05286 E27.98706	5	16.4.2009	4	12
***Tychus apfelbecki* Karaman, 1955**	Bulgaria	Kirovo	N42.17862 E27.18284	138	05.5.2009	1	
		Mladezhko	N42.15024 E27.36229	248	18.4.2009	1	
***Brachygluta trigonoprocta*, Ganglbauer, 1895**	Bulgaria	Propada	N41.98044 E27.49048	351	10.6.2009	3	
		Kovach	N42.08331 E27.43258	190	09.6.2009	1	
		Bliznak	N42.17219 E27.30987	299	19.4.2010	1	3
		Popovi skali	N42.16274 E27.73766	26	01.7.2009	2	
		Vitanovo	N42.01036 E27.44767	359	28.5.2010	1	
	Turkey	Sarpdere	N41.83380 E27.55683	436	08.7.2009	30	
***Brachygluta foveola* Motschulsky, 1840**	Bulgaria	Sinemorets, Veleka river bank	N42.06100 E27.96534	5	02.7.2009	2	
		Kovach	N42.08331 E27.43258	190	09.6.2009	1	
	Turkey	Iğneada	N41.85762 E27.95894	5	05.7.2009	14	2
		-	-	-	01.10.2009	30	75
***Brachygluta helferi longispina* (Reitter, 1884)**	Bulgaria	Sinemorets, Veleka river bank	N42.06100 E27.96534	5	27.9.2009	1	1
	Turkey	Iğneada	N41.85762 E27.95894	5	01.10.2009	36	
***Brachygluta fossulata* Reichenbach, 1816**	Bulgaria	Sinemorets, Veleka river bank	N42.06100 E27.96534	5	15.4–09.5.2009	1	
		Sinemorets, Veleka river bank	N42.06100 E27.96534	5	09.6–02.7.2009	1	
***Brachygluta haematica* (Reichenbach, 1816)**	Bulgaria	Kosti	N42.05663 E27.76423	35	09.6–02.7.2009	1	

Table. (continued).

		-	-	-	08.5–09.6.2009		1
		Popovi skali	N42.16274 E27.73766	26	01.7.2009	7	
		Primorsko, Perla	N42.28344 E27.74508	1	10.5.2009	3	
***Brachygluta tibialis* Aubé, 1864**	Bulgaria	Rezovo	N41.98179 E28.02490	1	09.5.2009	1	2
***Fagniezia impressa* Panzer, 1805**	Bulgaria	Primorsko, Perla	N42.28344 E27.74508	1	10.5.2009	11	11
		Rezovo	N41.98179 E28.02490	1	09.5.2009	1	
	Turkey	Iğneada	N41.85762 E27.95894	5	05.7.2009	12	
		-	-	-	01.10.2009	50	
***Trissemus antennatus serricornis* Schmidt-Göbel, 1838**	Bulgaria	Sinemorets, Butamiata	N42.05286 E27.98706	5	16.4.2009		1
		-	-	-	13.6.2009	1	1
		Petrova niva	N42.06394 E27.54610	96	06.5.2009	1	
		Silistar	N42.02520 E28.00704	17	09.5.2009	9	9
		Kirovo	N42.17862 E27.18284	138	05.5.2009		3
		Mladezhko	N42.15125 E27.35726	231	23.9.2009	1	
		Popovi skali	N42.16274 E27.73766	26	01.7.2009	1	
		Malko Tarnovo	N41.98928 E27.52467	317	18.4.2010	3	3
		-	-	-	28.5.2010	1	2
		Slivarovo	N41.96049 E27.65967	256	08.5–09.6.2009		1
		Rezovo	N41.98179 E28.02490	1	09.5.2009	3	3
		Bliznak	N42.17219 E27.30987	299	19.4.2010	4	19
		Lipite	N42.04450 E27.98938	54	25.9.2010	2	3
	Turkey	Iğneada	N41.85762 E27.95894	5	06.7.2009	5	59
		-	-	-	01.10.2009	3	
		Sislioba	N41.96202 E27.90977	52	03.10.2009	1	1
***Rybaxis longicornis* Leach, 1817**	Bulgaria	Sinemorets, Veleka river bank	N42.06100 E27.96534	5	25.8.2009	1	1
		-	-	-	12.6.2009		1
		-	-	-	09.5.2009		1
		-	-	-	02.7.2009	1	4
		Rezovo	N41.98179 E28.02490	1	09.5.2009	3	3
	Turkey	Iğneada	N41.85762 E27.95894	5	06.7.2009	14	14
		-	-	-	01.10.2009	3	4
***Rybaxis gigas* Baudi di Selve, 1870**	Bulgaria	Sinemorets, Butamiata	N42.05286 E27.98706	5	16.4.2009	1	
		Sinemorets, Veleka river bank	N42.06100 E27.96534	5	09.5.2009		1
***Ctenistes palpalis* Reichenbach, 1816**	Bulgaria	Malko Tarnovo	N41.98928 E27.52467	317	18.4.2010	2	4
		-	-	-	28.5.2010		1
	Turkey	Sarpdere	N41.83380 E27.55683	316	08.7.2009		1
***Tyrus mucronatus* Panzer, 1805**	Bulgaria	Kondolovo, Marzevski dol	N42.10076 E27.68153	284	18.4.2009	3	4
		Petrova niva	N42.06164 E27.53303	132	06.5.2009	1	
		-	-	-	21.8.2009		1
		Brodilovo	N42.09315 E27.83140	17	14.7.2009		2
	Turkey	Sarpdere	N41.83380 E27.55683	316	01.10.2009	1	
***Centrotoma lucifuga* Hayden, 1849**	Turkey	Beypınar	N41.76455 E27.47058	457	25.5.2011		1
***Pselaphus caucasicus* Motschulsky, 1845**	Bulgaria	Malko Tarnovo	N41.98928 E27.52467	317	19.4.2010		1
	Turkey	Sarpdere	N41.83380 E27.55683	316	01.10.2009	1	
***Claviger (Clavifer)* sp.**	Bulgaria	Kondolovo	N42.09957 E27.66749	320	19.4.2009	2	3
		Malko Tarnovo	N41.98394 E27.51794	300	28.5.2010		1
	Turkey	Kızılağaç	N41.68393 E27.88095	141	24.5.2011		1

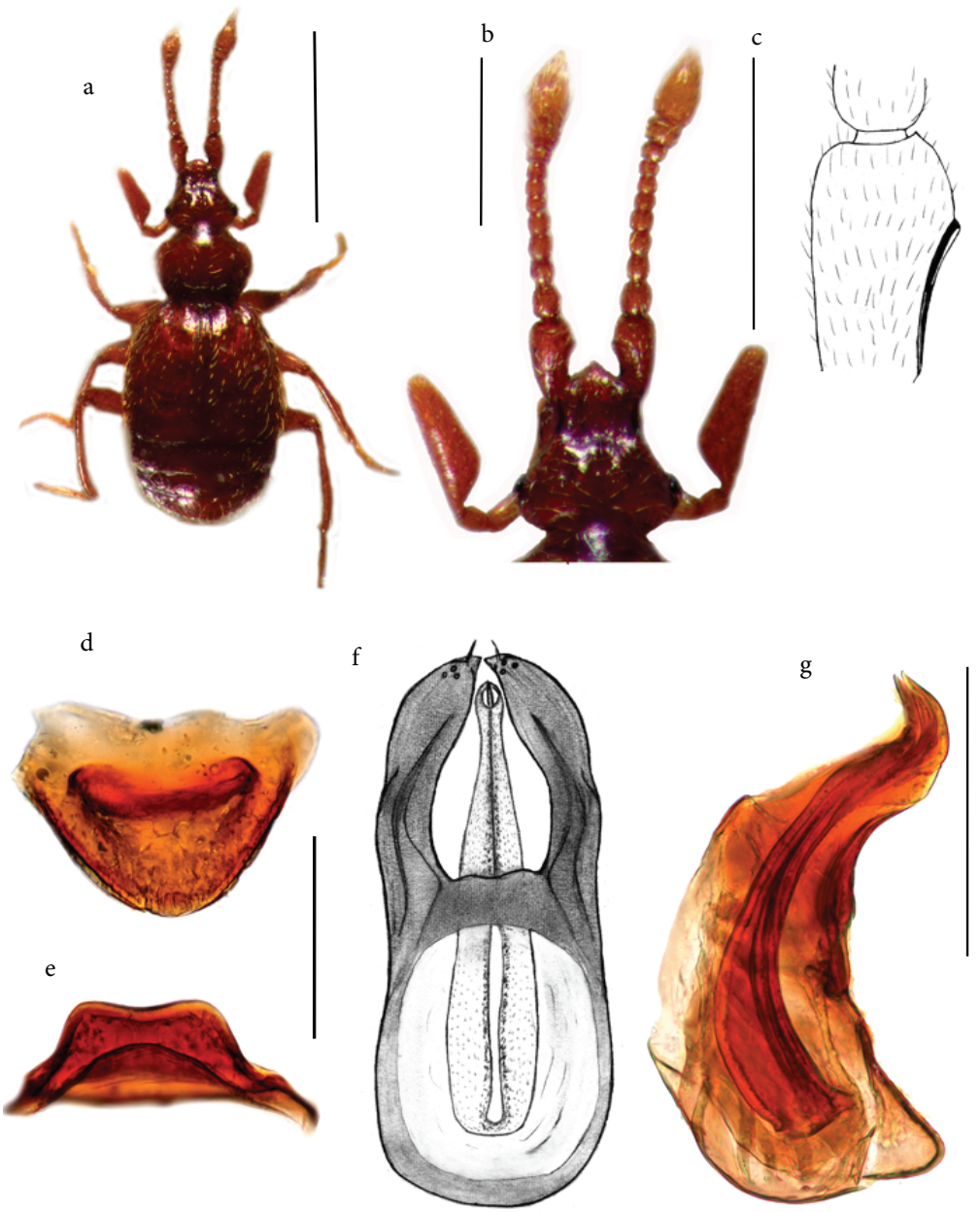

Figure 2. *Bryaxis fronticornis* sp. nov. (holotype male): a) habitus (scale: 0.75 mm); b) head (scale: 0.43 mm); c) left scapus in dorsal view (scale: 0.1 mm); d, e) abdominal tergite VIII – ventral and posteroventral views (scale: 0.17 mm); f, g) aedeagus – dorsal and lateral view (scale: 0.14 mm).

with sparse, long, golden, suberect setation. Frons with well-defined but shallow impression between antennal tubercles, bordered by 2 lateral carinae; rostrum prominent, in dorsal view extended to anterior margin of clypeus and covered with short, erected, golden setae. Median longitudinal occipital carina well defined; vertexal foveae deep, situated close to a hypothetical line joining anterior margins of eyes. Eyes small but well visible in dorsal view, each composed of 10–14 facets. Maxillary palpi long, palpomere I pedunculate, palpomere II very small, palpomere III 0.25–0.27 mm long. Antennae relatively short (0.58–0.59 mm), when bent backwards slightly exceeding base of elytra; scape (Figure 2c) about twice as long as wide; pedicel simple, slightly longer than wide (0.068/0.051 mm); antennomere III as long as pedicel; IV–VI subequal in length, each about 0.034/0.034 mm; VII wider than long (0.017/0.034 mm); VIII as long as wide, about 0.017/0.017 mm; IX about 3 times as wide

as long (0.051/0.017 mm); X about twice as wide as long (0.068/0.034 mm); XI about twice as long as wide, acute at apex. Pronotum (0.34/0.37 mm) covered with long, recumbent, dense setae, widest in anterior half, 1.20–1.30 times as long as head. Elytra (0.59/0.63 mm), 1.75 times as long as pronotum, covered with long, suberect setae. Terminal abdominal tergite (VIII) strongly modified (Figures 2d and 2e). Legs with robust femora and slender tibiae, pro- and mesotibiae simple, with short, robust setae in the internal apical part only, metatibiae with short internal apical spur. Aedeagus 0.27–0.28 mm long (Figures 2f and 2g).

Sexual dimorphism: Female with eyes composed of 4–5 ommatidia; frontal lobe with small, not as prominent as in the male, rostrum. Scapus simple, longer than wide (0.085/0.051 mm); pedicellus simple (0.068/0.034 mm). Apical part of abdomen without modifications.

Differential diagnosis: *Bryaxis fronticornis* sp. nov. belongs to the *Bryaxis curtisii* species group, as defined by Besuchet and Kurbatov (2007). The frontal lobe is bigger than half of the head, bearing secondary sexual characters; the metafemur has a line of setae on the inner part. The new species differs from all other members of this group in the shape of scapus and pedicel, the structure of aedeagus, and by the unique modifications of the last abdominal tergite.

Etymology: The name refers to the prominent horn-like projection of the frontal lobe.

4. Discussion

As a result of the field research in the Strandzha Mountains, 44 species of Pselaphinae were recorded, 40 from the Bulgarian part and 30 from the Turkish part of the mountain range. The genus *Centrotoma* and 3 species (*Euplectus brunneus*, *Batrisus formicarius*, *Centrotoma lucifuga*) are new for the fauna of Turkey; 4 species are new for Bulgaria (*Bibloplectus pusillus*, *Bibloplectus hungaricus*, *Bythinus balkanicus*, and *Brachygluta tibialis*). *Bibloporus variicolor* is reported to occur in the Balkan Peninsula for the first time.

In addition, a short visit at the Museum für Naturkunde in Berlin during November 2012 helped me to confirm 3 species for the region – *Rybaxis gigas* (known only from Löbl and Besuchet, 2004, without exact location), *Delenda carthago*, and *Tychus bysanticus* – all with labels: Belgrad Forest, leg. Bodemeyer (in German).

The total number of pselaphines in the European part of Turkey is 48 species; for the corresponding region of Bulgaria, it is 40 species (Apfelbeck, 1901; Löbl and Besuchet, 2004; Anlaş, 2009; Bekchiev, 2010; Besuchet and Sabella, 2012; current work). In addition to these results, the fact that some of the species were already known for the region (*Bibloplectus limatus* Normand, 1939; *Bibloplectus boyevi* Besuchet, 1975; *Trissemus mungasti* Reitter, 1905; *Bryaxis mohamedis* Reitter, 1903; etc.) and the total lack of some expected genera (*Plectopholeus* Reitter, 1891; *Pselaphaulax* Reitter, 1909) show that the faunistic work is far from finished and more interesting results can be expected.

The presence in the Strandzha and adjacent regions of relict species with Pontic and Anatolian (*Delenda carthago*, *Tychus bysanticus*, *Pselaphus caucasicus*, *Trimium caucasicum*), Mediterranean (*Tychus apfelbecki*, *Tychus anatolicus*, *Brachygluta foveola*, *Brachygluta helferi longispina*), or Turanian (*Rybaxis gigas*, *Bibloporus variicolor*) origins, or endemic Balkan species (*Bryaxis roumaniae*, *Bryaxis fronticornis*, *Bythinus balkanicus*, *Bythinus leonhardinus*, *Bythinus acutangulus lunifer*) and species that have mainly West and Central European (*Brachugluta fossulata*, *Euplectus piceus*, *Bibloporus minutus*, *Euplectus brunneus*, etc.) distribution, confirms the role of this territory as a refugium and bridge between Europe and Asia for the members of Pselaphinae, making it a place with enormous biodiversity importance.

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