

## Two new species of the genus *Phytoecia* Dejean, 1835 (Coleoptera, Cerambycidae) from Afghanistan

Yuriy Eugenievitch SKRYLNIK\*

\* Laboratory of Forest Protection, Ukrainian Research Institute of Forestry & Forest Melioration, Pushkinska 86, Kharkov, 61024, Ukraine – sklif83@mail.ru

**Summary.** *Phytoecia* (*Fulgophytoecia*) *valentinae* sp. n. and *Ph.* (*Blepisanis*) *tatyanae* sp. n. are described from Bamian province of Afghanistan and compared with closely relative species. *Ph. (F.) pilosicollis* Holzschuh, 1981 described as a subspecies of *Ph. circumdata* Kraatz, 1882 is accepted as a species.

**Résumé.** *Phytoecia* (*Fulgophytoecia*) *valentinae* sp. n. et *Ph.* (*Blepisanis*) *tatyanae* sp. n. sont décrites de Bamian province d'Afghanistan et comparées avec les espèces apparentées. *Ph. (F.) pilosicollis* Holzschuh, 1981 décrites comme une sous-espèce de *Ph. circumdata* Kraatz, 1882 est accepté comme une espèce.

**Key words.** Coleoptera, Cerambycidae, *Phytoecia*, *Fulgophytoecia*, *Blepisanis*, new species, Afghanistan.

### Introduction

In 2009 a rather successful entomological collecting trip to Central Afghanistan was arranged. A huge Coleoptera materials were obtained and distributed to different entomologists for study. Cerambycidae materials were studied by M. L. DANILEVSKY, but two new *Phytoecia* species are described by me bellow. All materials are preserved in Danilevsky's collection (Moscow).

### *Phytoecia* (*Fulgophytoecia*) *valentinae* sp. n. (Figs 1-2)

In 2009 a rather successful entomological collecting trip to Central Afghanistan was arranged. A huge Coleoptera materials were obtained and distributed to different entomologists for study. Cerambycidae materials were studied by M. L. DANILEVSKY, but two new *Phytoecia* species are described by me bellow. All materials are preserved in Danilevsky's collection (Moscow).

**Type material. Holotype:** (♂ with slightly deformed prothorax) with the label: "C. Afghanistan, Bamian prov., Band-e Amir env., 34°48'58.13"N, 67°11'44.83"E, 3000m, 1.07.2009, Yu. E. Skrylnik leg. - collection of M. L. Danilevsky (Moscow); 1 paratype (♀) in collection of M. L. Danilevsky (Moscow) from about same locality, 3100m, 26.6.2009, O. V. Pak leg.

### Description

Body length in male : 11.5 mm, width: 3.5 mm; body length in female: 12.0 mm, width: 3.8 mm.

Body, antennae and legs totally black; body covered with numerous dense long black erect and short recumbent pubescence; head with deep, dens ♂ punctation; eyes rather big, genae about as long a third of width of ventral eye-lobe; the distance between dorsal eye-lobes about 1.5 times more than width of 1st antennal joint in male or about 2 times more in female; antennae distinctly widened apically, in male a little shorter than body, in female – much shorter, reaching to about apical elytral forth; 3rd antennal joint is the longest, but just a little longer than 4th and about 1.2 times longer than 5th, which is about as long as 1st; all antennal joints without apical swellings; prothorax transverse, in male about 1.2 times wider than long, in female about 1.3; in both sexes about as wide anteriorly as posteriorly; male slightly wider than female about cylindrical, just a little wider anteriorly, than posteriorly, hardly widened near middle in male and more convex laterally in female; prothoracic callosities hardly pronounced, slightly convex : a pair of small central round spots and elongate middle area in between; pronotal punctation very dense laterally, but partly irregular near middle, more or less sparse anteriorly; erect pronotal setae moderately long, but very dense; scutellum transverse, rounded apically, without dense pale recumbent pubescence; elytra about 2.5 times longer than wide in male and in female, gradually

tapering posteriorly in male or with about parallel sides in female, relatively flat, slightly raised along suture and each a little depressed along middle; independently rounded apically; elytral punctation without any traces of longitudinal arrangement, relatively small, with the distance between dots much wider, than the width of each dot; punctation becomes smaller near middle and quite indistinct apically; long erect elytral setae present only near scutellum; hind coxae without spines; abdomen with numerous erect setae and dense recumbent pubescence; pygidium and postpygidium as well as last abdominal sternite in male truncated apically; last abdominal tergite in female widely rounded, last abdominal sternite in female widely emarginated.

### Taxonomy remark

The new species undoubtedly belongs to the subgenus *Fulgophytoecia* Pic, 1900 described for a single species *Phytoecia circumdata* Kraatz, 1882 (Figs 3-4) and included also *Ph. (F.) pilosicollis* Holzschuh, 1981. The latter was described as a subspecies of *Ph. circumdata*, but is in fact another species with totally different shape and punctation of prothorax, elytral punctation, body pubescence, shape of apical abdominal segments and many other characters.

*Ph. circumdata* was placed in the subgenus *Helladia* Fairmaire, 1864 by Plavilstshikov, 1932, in the subgenus *Blepisanis* Pascoe, 1866 by Breuning (1951, 1966) and finally to the special monotypic subgenus *Pseudomallosia* Breuning, 1967, which is an objective synonym of *Fulgophytoecia* Pic, 1900.

*Ph. valentinae* sp. n. must be included in the subgenus *Fulgophytoecia* because of thick antennae, thickened distally (so not *Helladia*, not *Musaria*), antennal joints without apical swellings, special structure of prothorax, absence of spines of hind male coxae, elytral punctation is not arranged in longitudinal rows.

### Differential diagnosis

*Ph. (F.) valentinae* sp. n. is not close to the neighbor species (Figs 3-4) *Ph. (F.) circumdata* (though has very similar pronotal sculpture) because of another shape of prothorax without lateral tubercles; less distinct, smaller elytral punctation; much shorter antennae, longer erect body pubescence; besides up to now no specimens of *Ph. (F.) circumdata* are known with totally black elytra, though such aberration seems to be possible.

### Distribution

The new species must be distributed in the mountain area of Central Afghanistan westwards Kabul.

### Bionomy (Fig. 8)

The new species occupies high mountain dry semi-desert areas at about 2900-3200m above the level of the sea. Imagoes are active in June-July. No food plants were registered. Both specimens were collected flying.

### Etymology

I am glad to dedicated *Phytoecia (Fulgophytoecia) valentinae* sp. n. to my honorable chief Valentyna Lvovna MESHKOVA.

### Materials used for comparison

*Phytoecia (F.) circumdata* Kraatz, 1882 - big series of males and females from Tajikistan – many localities in Gissar Range (Dushanbe environs, Varzob, Kondara, Takob, Ramit), Ak-Tau Range (Ganjina), Regentau Range (Kurgan-Tyube Region), Pamir Mountains (Khorog environs); 1 ♂, Uzbekistan (Babatag Range) – all preserved in Danilevsky's collection. *Ph. (F.) pilosicollis* Holzschuh, 1981 – 1 ♂ with the label : Uzbekistan, W Chatkal Range, Karankul-Sai, 8.6.1998, O. Legezin leg.; 1 ♀ with the label : Kazakhstan, Karatau Range, Kentau env., 28.5.1962, A. S. Badenko leg. - all preserved in Danilevsky's collection.

## Phytoecia (Blepisanis) tatyanae sp. n. (Figs 5-6)

**Type material. Holotype :** (♂) with the label: "C. Afghanistan, Bamian prov., Band-e Amir env., 34°50'59.64"N, 67°12'8.10"E, 3100m, 1-6.07.2009, O. V. Pak leg. – collection of M.L. Danilevsky (Moscow); 6 paratypes, 1 ♂ and 1 ♀ from about same locality, 2900-3200m, 26.6-13.7.2009, Yu. E. Skrylnik, I. G. Pljuschch leg. – collection of M. L. Danilevsky (Moscow); 1 ♂ and 1 ♀ from about same locality, 3200m, 1.7.2009, Yu. E. Skrylnik leg. – collection of Yu. E. Skrylnik (Kharkov); 1 ♂, from about same locality, 2900m, 26.6.2009, I. G. Pljuschch leg. – collection of I. I. Schmalhausen Institute of Zoology (Kiev); 1 ♀, Afghanistan, Kabul prov., Paghman, 34°36'47.17"N, 68°54'31.10"E, 2700m, 19.6.2009, Yu. E. Skrylnik leg. – collection of M. L. Danilevsky (Moscow).

### Description

Body length in males : 7.5-7.7 mm, width: 1.9-2.0 mm; body length in females : 8.3-8.9 mm, width: 2.0-2.2 mm. Body, antennae and legs totally black, only bases of tibiae slightly lightened, yellowish; elytra yellow with wide black area along suture never reaching scutellum, with wide black lateral stripe usually interrupted near black humeri; body covered with numerous dense pale-yellow erect and recumbent pubescence; head with very dense erect pubescence in males, which is rather shorter in females; genae about as long as half width ventral eye-lobe; the distance between dorsal eye-lobes about two times more than width of 1st antennal joint in males or a little more in females; antennae in males a little longer than body, in females - a little shorter; 3rd antennal joint is the longest, in males it is about 1.2.times longer than 4th and about 1.5 times longer than 5th, which is about as long as 1st; in females 3rd antennal joint is about 1.1 times longer than 4th and about 1.3 times longer than 5th, which is about as long as 1st; prothorax about cylindrical, just a little wider anteriorly, than posteriorly, hardly widened near middle; in males about as wide as long, in females about 1.2 times wider than long; prothoracic callosities, can be indistinct in males or rather reduced, in females sometimes complete: two lateral elongated, two short transverse anterior conjugated with lateral and a single elongated central postmedian; all callosities are never convex; the density and color of pale recumbent pronotal pubescence can be rather different, so pronotum can look black (if pubescence is scarce), or pale-yellow, or yellow; erect pronotal pubescence very long and dense; scutellum transverse, rounded apically, with dense pale recumbent pubescence; elytra about 3.0 times longer than wide in males or about 2.3 times in females; gradually tapering posteriorly both in males and in females, relatively flat, slightly raised along suture; independently rounded apically; elytral punctation very distinct anteriorly, but nearly disappeared apically, rather dense with the distance between dots about as wide as each dot or less; elytral punctures in males are usually distinctly longitudinally arranged, in females longitudinal rows of punctures are usually distinct only anteriorly, but sometimes are not pronounced at all; elytral recumbent pubescence is never dense, never totally hiding cuticle; erect elytral pubescence is very long anteriorly, much shorter near middle and short apically; legs with very dense recumbent pubescence, which still not hide the black cuticle; abdomen with numerous erect setae and dense recumbent pubescence, which also never totally hide black cuticle; pygidium in males slightly emarginated, postpygidium widely rounded or truncated, last abdominal sternite in males strongly exposed near middle; last abdominal tergite in females convex, rounded apically, last abdominal sternite in females truncated apically.

### Differential diagnosis

The new species is very close to *Ph. (B.) povolnyi* Heyrovský, 1971 (Fig. 7), which was described from near Jalalabad. *Ph. povolnyi* has about same body and pubescence color, but a little bigger, the length of available males 8.8-9.2mm; pubescence is much lighter, nearly white; much denser ventrally, totally hiding cuticle; antennae much longer than body, expanding beyond elytral apices in males by more than two apical joints; pronotal callosities are better developed, convex; elytra are relatively shorter, about 2.6 times longer than wide in males; black elytral areas are much smaller.

Very similar and extremely variable *Ph. (B.) ochraceipennis* Kraatz, 1882 widely distributed in Tajikistan and Uzbekistan (with several localities in Kazakhstan and Kyrgyzstan) is closer to *Ph. (B.) povolnyi* Heyrovský, 1971, than to *Ph. (B.) tatyanae* sp. n. because of long antennae and convex pronotal callosities, but it can be easily

distinguished from both by always lighter legs, tibiae are usually nearly totally yellow as well as femora apices; sometimes middle antennal joints are also partly yellowish; erect pronotal and elytral setae are never so long.

### Distribution

The new species must be distributed in the mountain area of Central Afghanistan westwards Kabul.

### Bionomy (Fig. 8)

The new species occupies high mountain dry semi-desert areas at about 2700-3200m above the level of the sea. Imagoes are active in June-July. No food plants were registered. All specimens were collected by sweeping over grass vegetation.

### Etymology

The new species is dedicated to my mother Tatyana Yakovlevna SKRYLNIK.

### Materials used for comparison

*Ph. (B.) povolnyi* Heyrovský, 1971 – 2 ♂♂, Afghanistan, Kabul prov., Sarowbi env. (about 50km eastwards the city), 18.5.1973, O. Kabakov leg. – Danilevsky's collection. The specimens were identified by me on the base of original description. Both were compared with the paratype specimen preserved in Heyrovský's collection in Prague by Danilevsky. The taxon was described from Darunta (or Daruntah) env., Nengrahar (or Nangarhar) prov., 750m – about 5km ENE Jalalabad. *Ph. (B.) ochraceipennis* Kraatz, 1882 big series of males and females from Uzbekistan (Samarkand, Nuratau Range, Baysantau Range - northwards Termez, Babatag Range) and Tajikistan (Gissar Range, Ak-Tau Range, Kulyab environs); one male from Kyrgyzstan (Tashkumyr) and one male from Kazakhstan (Georgievka – now Kurday) – all preserved in Danilevsky's collection.

### Acknowledgements

I am very grateful to M. L. DANILEVSKY for his invaluable consultations during my work, loan of his materials for study and participation in the final arrangement of my article. I express my heartfelt gratitude to both my colleagues in Afghanistan expedition Oleg PAK (Donetz) and Igor PLJUSHTCH (Kiev) for their active support during my collecting efforts, friendly help in hard expedition conditions and providing me with the specimens of new Cerambycidae species.

### Bibliographie

- BREUNING, S., 1951A** – Révision du genre *Phytoecia* Mulsant (Col. Cerambycidae). *Entomologische Arbeiten aus dem Museum G. Frey* 2 : 1-103, 353-460.
- BREUNING, S., 1966** – *Catalogue des lamiaires du Monde* (Col., Céramb.) 9. Lieferung. Tutzing : Museum G. Frey pp. 659-765.
- BREUNING, S., 1967** – Zwei neue Lamiiden aus den Beständen der Zoologischen Staatsammlung in München (Col. Cerambycidae). *Opuscula Zoologica* (München) 94: 1-2.
- HEYROVSKÝ, L., 1971** – Deux nouveaux Cerambycides d'Asie centrale (Col., Cerambycidae). *Bulletin de la Société Entomologique de Mulhouse* 1971: 81-82.
- HOLZSCHUH, C., 1981** – Zwanzig neue Bockkäfer aus Europa und Asien (Col., Cerambycidae). *Koleopterologische Rundschau* 55: 91-112.
- KRAATZ, G., 1882** – [new taxa]. In: Heyden L. F. J. D. von. & Kraatz G.: Käfer um Samarkand, gesammelt von Haberhauer. *Deutsche Entomologische Zeitschrift* 26: 297-338.
- PIC, M., 1900** – Contribution à l'étude des coléoptères d'Europe et des régions voisines. *Bulletin de la Société Zoologique de France* 25: 14-16.
- PLAVILSTSHIKOV, N. N., 1932** – *Zhuki-drovoseki vrediteli drevesiny*. Moskva-Leningrad : Gosudarstvennoe Lesnoe Tekhnicheskoe Izdatel'stvo, 200pp.



Fig. 1-2 - *Phytoecia (Fulgophytoecia) valentinae*, sp. n.: 1 - holotype, male; 2 - paratype, female.



Fig. 3-4 : *Phytoecia (Fulgophytoecia) circumdata* Kraatz, 1882 : 3 - male, Tajikistan, Kurgan-Tyube Region, Regantau Range, 26.04.1986, S. Beloborodov leg.; 4 - female, Tajikistan, Pamir Mountains, Khorog environs, 11.06.1985, V. Tuzov leg.



Fig. 5-6 : *Phytoecia (Blepisanis) tatyanae*, sp. n.: 1 - holotype, male; 2 - paratype, female, C. Afghanistan, Bamian prov., Band-e Amir env., 34°50'59.64N, 67°12'8.10E, 3000m, 27.06.2009, Yu. Skrylnik leg.



Fig. 7 : *Phytoecia (Blepisanis) povolnyi* Heyrovský, 1971, male, Afghanistan, Kabul prov., Sarowbi env., 18.05.1973, O. Kabakov leg.



Fig. 8 : The locality of new species: Afghanistan, Bamian prov., Band-e Amir env., 34°48'58.13"N, 67°11'44.83"E, 3000m.