Z.Arb.Gem.Öst.Ent.	48	113-116	Wien, 31. 12. 1996	ISSN 0375-5223

## New taxa of the genus Nebria LATR. from Tien-Shan (Coleoptera, Carabidae)

I. I. KABAK & A.V. PUTCHKOV

#### Abstract

One new species and two subspecies of *Nebria (Eunebria)* are described. *Nebria nataliae* sp.n. KABAK & PUTCHKOV occurs in the eastern part of Alai range. *N. ferganensis urumbashi* ssp.n. KABAK & PUTCHKOV inhabits the east and south-east parts of the Ferghana and West Ak-Shyirak ranges. *N.kirgisica intercalaria* ssp.n. KABAK was collected on north slopes of Baiduly range (Inner Tien-Shan).

#### Acknowledgment

The authors are profoundly indepted to S.V.Ovtschinnikov (Bishkek), I.A.Belousov, A.G.Koval (St.-Peterburg) and V.G.Dolin (Kiev).

Key words: Description, new species, Nebria, Coleoptera, Carabidae, Tien-Shan.

During numerous expeditions in the last years to different regions of Inner Tien-Shan some interesting specimens of the genus *Nebria* LATR. have been collected. One new species and two new subspecies in the subgenus *Eunebria* JEAN. were discovered.

Measurements of body length, etc. are given in millimetres. The length of the elytras is given in the description from apex of the scutellum to the apical margin of the elytras, length of pronotum is given along the middle line.

The holotype and some paratypes of the new taxa are preserved in the Zoological Institute of the Russian Academy of Sciences (St.-Peterburg), other paratypes are kept in the collections of the Institute of Zoology of National Academy of Sciences of Ukraine (Kiev), the Institute of Zoology and Genofond of Animals of the National Academy of Sciences of Kazakhstan (Almaty) and in the private collections of the authors, S. Ovtshinnikov (Bishkek), I. A. Belousov, A. G. Koval (St.-Peterburg), V. G. Dolin (Kiev) and A. Dostal (Wien).



This study was financially supported by a grant from Mr. Soros's International Science Foundation.

#### Nebria (Eunebria) nataliae KABAK & PUTCHKOV sp.n. ← (photo 1)..

Material: Holotype  $\mathcal{S}$ , S.Kirgizia, Alai range, Kysylalai district, upper part of Gultcha river, h: 3000 m, 6.07.1995, A. Putchkov; paratypes: 30  $\mathcal{S}\mathcal{S}$ , 19  $\mathcal{P}\mathcal{Q}$ , same locality 6-7. 07.1995, A. Putchkov, S. Ovtshinnikov, A. Koval; 1  $\mathcal{Q}$  Kirgizia, Alai, 30 km S Sary-Tash village, h: 2800 m, 25.06.1969, S. Emetz.

Wingless. Length 12,7 (11,9-13,2). Black, appendages of head, part of frons, legs (sometimes scutellum, too) brown or dark brown. Often 1st-4th segments of antennae, middle part of segments of tarsi and tibiae darkened; lower part of body black.

Head with convex eyes, frontal furrows wide and slightly curved, distinctly deeper in anterior part, in front of eyes with thin slanting wrinkles; antennae of female reaching middle of elytra, those of male longer; first segment of antenna less than 2 times longer than second and distictly



Fig. 1 -3. Nebria (Eunebria) nataliae sp.n. 1. Pronotum and left elytron; 2. Penis (lateral aspect); 3. Apex of penis (dorsal aspect).

shorter than third segment; second segment of antennae with one seta on ventral surface; third segment with 5-6 setae apically; submentum with 4 setae.

Pronotum relatively narrow and 1,29 (1,20-1,43) times wider than head with eyes, 1,29 (1,15-1,38) times wider than long, 1,60 (1,45-1,74) times wider than posterior margin of head; lateral margins of pronotum moderately and evenly rounded, almost parallel near posterior angles; anterior and posterior margins slightly convex in middle (rarely posterior margin straight); anterior angles narrow and considerably protruding; sides of pronotum moderately wide and flattened (fig.1); edging reached anterior margin of basal pits; middle line shallow, distinct and reaching posterior margin; transversal depressions clean-cut in middle, but indistinct on sides; basal pits distinctly deeper, especially on the level of the transversal depressions.

Elytra 1,59 (1,48-1,73) times longer than wide; 3,17 (2,92-3,45) longer and 1,54 (1,42-1,68) times wider than pronotum; maximum width of elytra behind middle; shoulders distinctly rounded; lateral edges moderately wide and flattened; apical ridge normally developed; furrows very

distinct, clean-cut and shallow only apically; second furrow more depressed than others before middle; points of furrows faint and often smoothed apically; only first furrow with distinct points on disk; intervals on disk very convex; microsculpture very fine and isodiometrical; points on sides of thorax and abdomen deep but not numerous.

Penis - fig.2, 3.

## Discussion

Morphologically the new species most closely resembles to *N. ferganensis* SHILENKOV, but is reliably distinguished by the following characters: the head is darkened; sides of pronotum are widely flattened and unbended; anterior angles of pronotum are more narrow and clean-cut; furrows of elytra are very distinct but unevenly depressed. The new species is similar in colour to *N. perlonga* HEYDEN, but differs distinctly by the more darkened head and 3rd-4th segments of antennae; more narrow and rounded pronotum with short and obtuse posterior angles; widely flattened lateral margins of pronotum and structure of the elytral furrows. The most important character of *N. nataliae* are very dark coloration and deep and clean-cut elytral furrows (especially second).

The species occurs on the banks of small rivers and is known for the present only from the upper reache of the Gultcha river on the east part of the Alai range.



# Nebria (Eunebria) ferganensis urumbashi KABAK & PUTCHKOV ssp.n.

← (photo 2).

Material: Holotype  $\eth$  NE slopes of Ferghana range, Urumbash river, 40 km SW of Kasarman, h: 2000-3000 m, 5.07.1994, I. Kabak; paratypes: 291  $\eth$   $\updownarrow$  same locality, 5-6. 07.1994, I. Kabak, A. Putchkov;  $6 \eth$ ,  $8 \clubsuit$ , same locality, 14.06.1995, S. Ovtshinnikov;  $8 \eth$ ,  $12 \clubsuit$ , same locality 14.06.1995, V. Dolin; 192  $\eth$   $\clubsuit$ , Inner Tien-Shan, West Ak-Shyirak range, Aldake river, h: 2400-2900 m, 2-4.07.1994, I. Kabak, A. Putchkov;  $3 \circlearrowright$ ,  $4 \clubsuit$ , Ferghana range, Karaalma, Cupka, 19.07.1991, S. Ovtschinnikov;  $1 \clubsuit$ , Kirgisia, Pychan pass, 16.08.1962, A. Protzenko.

Head and legs red (rarely red-brown), sometimes head and 3rd - 4th segments of antennae slightly darkened.

In the description of *Nebria ferganensis* (SHILENKOV, 1982) is indicated that this species is distinguished by the colour of the legs. We discovered that the two separate forms of *Nebria ferganensis* are almost allopatric. The population with black head, legs and antennae occurs in the northwestern part of the area of *N.ferganensis* - to Karaungur river in the south-east. The holotype collected from Arslanbob

belongs to this form. Specimens with red head, antennae and legs (100% of this population) inhabit the eastern and south-eastern parts of the area, the canyons of the Karaalma, Urumbash and Pychan rivers of Ferghana and West Ak-Shyirak ranges. A transition population of *N. ferganensis* with almost equal number of the specimens with red and black legs is known only from the north-eastern part of the area (132  $\Im^{Q}$ , NE spurs of Ferghana range, N slopes of Takhtalyk range, Tchonko river, SSW Ozgorush, h: 2500-3300 m, 9.07.1995, I.Kabak).

Ecology: *N. ferganensis* occurs at altitudes of 2000-3000 m. The specimens inhabit stony banks of small rivers and streams, but are absent near the big rivers.



#### Nebria (Eunebria) kirgisica intercalaria KABAK ssp.n.

(photo 3).

Material: Holotype ♂, Inner Tien-Shan, N slopes of Baiduly range, Kalmakashy river, h: 2900-3000 m, 16. 06. 1993, leg. I. Kabak.

Paratypes: 35  $\delta$ , 47  $\Im$ , collected at the same locality.

This taxon is distinguished from the nominate subspecies by one interesting character: the second interval of the elytra bears more less distinct points in the anterior half of the row (these are missing in four specimens only). These points start after the connection of the prescutellum with the first furrows of the elytra. It resembles a reduced additional furrow.

N. kirgisica intercalaria is known for the present only from the north slopes of the western part of the Baiduly range. Now it is the easternmost occurence of N. kirgisica. The nominative subspecies occurs only in Kirgizian, Sussamyr and eastern part of Tallass ranges.

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Author's addresses: I. I. KABAK, Institute of Zoology and Genofond of Animals, National Academy of Sciences, Akademgorodok, Almaty 480032, Kazakhstan. A. V. PUTCHKOV, Institute of Zoology of National Academy of Sciences of Ukraine, B. Khmelnitzkogo str., 15, Kiev-30, 252030, Ukraine.

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Digitale Literatur/Digital Literature

Zeitschrift/Journal: Zeitschrift der Arbeitsgemeinschaft Österreichischer Entomologen

Jahr/Year: 1996

Band/Volume: 48

Autor(en)/Author(s): Kabak Ilya, Putchkov A. V.

Artikel/Article: <u>New taxa of the genus Nebria Latr. from Tien-Shan</u> (Coleoptera, Carabidae). 113-116