

Three new *Agapanthia* Audinet-Serville, 1835 (Coleoptera, Cerambycidae) from Russia, Central Asia and Kazakhstan

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Abstract: *Agapanthia parauliensis* **sp. n.** close to *A. shovkuni* Shapovalov, 2009 is described from Golodnaya Steppe area near the border between Uzbekistan and Kazakhstan. *A. alternans paralternans* **ssp. n.** is described from Akmola Region of Kazakhstan: steppe in 10 km northwards Zharkol lake (about 360 m, 50°32'10"N, 67°15'49"E). The subspecies is widely distributed in Central Kazakhstan eastwards to about Akchatau (48°5'34"N, 73°16'28"E). *A. alternans eualternans* **ssp. n.** is described from near Orenburg.

Agapanthia Audinet-Serville, 1835 is one of the most complicated groups in Lamiinae. Three new taxons are described bellow. All type specimens are preserved in Zoological Institute of Russian Academy of Sciences (ZIN).

***Agapanthia (Epopetes) parauliensis* sp. n.**

Figs 1-4

Type locality. North margin of Golodnaya Steppe area along the border-line between Kazakhstan and Uzbekistan from about 41°11'N, 67°54'E to about 41°2'N, 67°58'E.

Middle-sized beetles with bright-yellow pubescence; lower eye lobes can be longer than genae (usually in males) or a little shorter (in females); antennae reddish in basal parts of 3rd - 12th joints and here with fine white pubescence, in males much longer than body reaching elytral apices by 6th-7th joints (in males) or by 8th-9th joints (in females); 3rd antennal joint with several long setae apically, without setae tufts; in males 1st antennal joint as long as 4th, much shorter than 3rd and longer than 5th; in females 1st joint about as long as 4th much shorter than 3rd and longer than 5th; prothorax transverse, its length less than basal width; pronotum with numerous erect long

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black setae, with central and 2 lateral wide, dense yellow hair stripes; two black areas in between shining, without recumbent yellow setae, with very dense conjugated punctation; scutellum semicircular covered by dense yellow setae; elytra in males from 2.9 to 3.1 times longer than basal width; elytra in females from 2.8 to 3.0 times longer than basal width; yellow recumbent elytral pubescence irregular, but very dens, partly hiding punctation, similar to elytral pubescence of *A. auliensis* Pic, 1907 or *A. shovkuni* Shapovalov, 2009; grey humeral elytral area (typical for *A. auliensis* Pic, 1907) absent; erect black elytral setae are rather long anteriorly and gradually shortened posteriorly, disappearing near apex; curved elytral margins with very dense yellow pubescence; elytral apices rounded or angulated; abdomen with very dense yellow pubescence totally hiding cuticula; pygidium rounded or shallowly emarginated; last abdominal sternites shallowly triangularly emarginated or truncated; parameres long and narrow, rod-shaped; aedeagus very narrow, sharpened, strongly attenuated; in general genitals are about same as in *A. auliensis* Pic, 1907 and *A. shovkuni* Shapovalov, 2009; body length in males 14.8-16.0 mm, width: 3.5-4.6 mm; body length in females: 14.4-18.0 mm, width: 3.9-4.9 mm.

The species is close to *A. auliensis* Pic, 1907 and *A. shovkuni* Shapovalov, 2009; it differs from all populations of *A. auliensis* by the absence of grey humeral area; it differs from *A. shovkuni* Shapovalov, 2009 by narrower body, thicker antennae and much denser elytral pubescence. The food plant of the new species must be local *Eremurus* as in *A. auliensis* and *A. shovkuni*.

Rather probably desert sandy landscapes from Ili River to Caspean See inhabits one *Eremurus* species with several local subspecies. A population from near Kzyl-Orda (Kazakhstan) known after a single male with distinct grey humeral area (Zoological Museum of Moscow University) seems to be another element of this system of allopathric taxa.

Materials. Holotype, male with the label: “Гран Кизил кумов / и Голод. ст. у СырД / Г. Якобсон. 10 V.03” [borderline between Kyzyl-Kumy desert and Golodnaya Steppe near Syr-Darya River, G. Jakobson leg. 10.V.1903] - ZIN; 10 paratypes: 3 males and 7 females with about same label (the dates are 10-12.5.1903) - ZIN.

Distribution. North margin of Golodnaya Steppe area along the

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border-line between Kazakhstan and Uzbekistan. Now the territory is covered by Chardara water reserve, but several parts of the type populations could occur near west border of the water reserve in Kazakhstan (about 41°11'N, 67°54'E) or in Uzbekistan (about 41°2'N, 67°58'E).

***Agapanthia (Epoptes) alternans paralternans* ssp. n.**

Figs 5-10

Type locality. Kazakhstan, Akmola Region, steppe in 10 km northwards Zharkol lake (about 360m, 50°32'10"N, 67°15'49"E).

Middle-sized beetles with black elytra (sometimes with poor bluish lustre) spotted by small patches of yellow pubescence; lower eye lobe about as long or longer than genae; antennae reddish in basal parts of 3rd - 12th joints and here with fine white pubescence, in males much longer than body reaching elytral apices by 6th-7th joints (in males) or by 8th-9th joints (in females); 3rd antennal joint with several long setae apically, or with more numerous setae forming hardly pronounced setae tufts, or with rather distinct setae tufts (in big females); 1st antennal joint shorter than 4th, much shorter than 3rd and longer than 5th, or in females 1st antennal joint can be as long as 4th; prothorax transverse, its length less than basal width; pronotum with numerous erect long black setae, with central and 2 lateral wide, dense yellow hair stripes; two black areas in between shining, without recumbent yellow setae, with dense small punctation, often with fine transverse rugae; scutellum semicircular covered by dense yellow setae; elytra in males from 2.7 to 3.1 times longer than basal width; elytra in females from 2.7 to 2.8 times longer than basal width; yellow elytral spots rather dense, often conjugated in transverse patches; erect black elytral setae are rather long anteriorly and gradually shortened posteriorly to about elytral middle, indistinct in posterior half; curved elytral margins with numerous setae spots along epipleurae; elytral apices rounded or angulated; abdomen with very dense yellow pubescence totally hiding cuticula; pygidium shallowly emarginated; last abdominal sternites shallowly triangularly emarginated or truncated; parameres attenuated from the base to apex; aedeagus moderately wide; body length in males 13.3-16.4 mm, width: 3.6-4.6 mm; body length in females: 12.4-19.7 mm,

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width: 3.4-5.6 mm.

A. a. paralternans **ssp. n.** differs from the nominative subspecies by 3rd antennal joint usually lacking setae tufts, by elytra often lacking bluish luster, by usually more numerous setae elytral spots often agglomerated in transverse patches.

Materials. Holotype, male with 2 labels: 1) “Акмолинск обл. / степь в 10 км к сев. / от озера Жарколь (южн.) / Гурьева 17.VI.957” [Kazakhstan, Akmolinsk Region, steppe in 10 km northwards Zharkol lake (southern) (about 50°32'10"N, 67°15'49"E, 360m), 17.6.1957, Guryeva leg.]; 2) “*Agapanthia dahlii*” - ZIN; 8 paratypes: 1 male: “30-50 км О. Джебз- / казгана, Караганд. / Тобиас 24.VI.958” [Kazakhstan, Karaganda Region, 30-50 km eastwards Dzhezkazgan (about 47°57'6"N, 68°5'52"E, 400m), 24.6.1958, Tobias leg.] - ZIN; 1 male, 2 females, each with 2 labels: 1) “Коксенгир, S Жана- / Арка, Караганд. обл. / Логинова 12.VI.958, 19.VI.958, 19.VI.958” [Kazakhstan, Karaganda Region, Koksengir Mt. (about 48°22'30"N, 71°32'E) southwards Zhana-Arka, 12.VI.1958, 19.VI.1958, 19.VI.1958, Loginova leg.]; 2) “на *Ferula songorica*” - ZIN; 1 female with 2 labels: 1) “Карагандинская обл., / 40 км южнее ст. / Жана-Арка 9.VI.958 / Р. Жантиев” [Kazakhstan, Karaganda Region, 40 km southwards Zhana-Arka, 9.6.1958, R. Zhantiev leg.]; 2) “с *Ferula songorica*” - ZIN; 1 female with 3 labels: 1) “г. Кокшетау, Акмол. / обл. / Гурьева 9.VI.957 г.” [Kazakhstan, Akmolinsk Region, Kokshetau Mt. (about 49°57'27"N, 67°33'27"E), 9.6.1957, Guryeva leg.]; 2) “*Agapanthia / dahli* Richt. опр. / Плавильщиков 958”; 3) “кошение на лугу / с *Agr. repens*” - ZIN; 1 female with 2 labels: 1) “г. Кокшетау, бл. р. / Терсакан W Акмол. / Рудольф 29.VI.957” [Kazakhstan, westwards Akmolinsk, Kokshetau Mt. (about 49°57'27"N, 67°33'27"E) near Tersakan River, 29.6.1957, Rudolf leg.]; 2) “на зонтичном” - ZIN; 1 female with 2 labels: 1) “Коксенгир, 40 км S / Жана Арка, Караг. об. / Герасенкова 6.XII.60” [Kazakhstan, Karaganda Region, Koksengir mt., 40 km southwards Zhana-Arka (about 48°22'30"N, 71°32'E), 6.12.1960, Gerasenkova leg.]; 2) “личинки 3.VIII.60 / *Ferula zongorica* / окук. IX.60 г.” - ZIN; 1 male, 1 female, “Агадырский р. / 60 км З Акчатау / 12.6.89 / С. Мурзин” [Karaganda Region, Agadyr District, 60 km westwards Akchatau (48° 5'34"N, 73°16'28"E), 12.6.1989, S.Murzin leg.] - author's

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collection.

A. alternans alternans (author's collection): 7 males, 2 females, NE Kazakhstan, 40km southwards Ust-Kamenogorsk, Sibinka riv., Bazombay env, 49°36'N, 82°28'E, 540m, 26.5.2002, M.Danilevsky leg.; 5 males, 2 females, E Kazakhstan, 20km N Zyryanovsk, Putintzevo env., 49°53'N, 84°24'E, 475m, 11.6.2005, M. Danilevsky leg.; 1 male, Kazakhstan, Zyryanovsk, 500m, 25.7.1999, D.Obydov leg. [about same locality]; 1 male, 1 female, NE Kazakhstan, 20km N Zyrijanovsk, Putintzevo env., Maralikha Mt., 49°53'N, 84°23'E, 1000m, 20.6.2005, M. Danilevsky leg.; 2 males, E Kazakhstan, Kalbinsky Ridge, Samarka env., 600m, 49°4'15"N, 83°21'53"E, 22.5.2002, M. Danilevsky leg.; 1 female, Russia, Altay, Kolyvan, Kamenka (about 51°19'N, 82°23'E), 15.6.1984, V.Shilenkov leg.; 1 male, 1 female, Altay, Onguday (about 50°44'N, 86°10'E), 11.7.1999, O.Gorbunov leg.; 1 male, Altay, Shebalino (about 51°17'N, 85°40'E), 27.6.1988, E. Matveev leg.; 1 female, Russia, Altay, Artybash (about 51°47'N, 87°15'E), 9.6.1981, M.Krivosheina leg.; 1 male, Russia, Tuva, Kyzyl-Tayga Mt. (about 51°30'N, 90°2'E), 21.6.1959, N.N. Filippov leg.; 1 male, Russia, Tuva, Ak-Sug (about 51°24'N, 91°17'E), 80km E Ak-Dovurak, 23.7.1972, B.Korotyaev leg.; 1 female, Russia, Irkutsk Region, Bratsk, 27.6.2006, A.Fominykh leg.

Distribution. Several localities are known in Central Kazakhstan: Akmola Region, steppe in 10 km northwards Zharkol lake, about 50°32'10"N, 67°15'49"E, 360m; Akmola Region, Kokshetau Mt., about 49°57'27"N, 67°33'27"E; Karaganda Region, 30-50 km eastwards Dzhezkazgan, about 47°57'6"N, 68°5'52"E, 400m; Karaganda Region southwards Zhana-Arka, Koksengir Mt., about 48°22'30"N, 71°32'E; Karaganda Region, Agadyr District, 60 km westwards Akchatau, 47°59'36"N, 73°14'E.

Remark. *A. alternans* Fischer von Waldheim, 1842 was described from Siberia without more precise indication of locality. I accept here, that its type locality is situated in South-West Siberia, so the area of the nominative subspecies occupies the northern part of the species area: from NE Kazakhstan (Semipalatinsk - Ust-Kamenogorsk - Kalbinsky Ridge - Zaisan depression) to Russian Altaj, Sajans, Transbaicalia and Mongolia. *A. alternans* is usually connected with *Ferula* or *Prangos*, while sympatric *A. dahli*

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(Richter, 1820) is connected with *Malva*, and sympatric (in Altay) *A. altaica* Plavilstshikov, 1933 is connected with *Paeonia*.

Agapanthia (Epopetes) alternans eualternans ssp. n.

Figs 11-13

Agapanthia (Epopetes) dahli, Shapovalov, 2012: 184, part. (including 2 specimens from Verkhnyaya Karagalka River - ZIN).

Type locality. South-east of European Russia, north environs of Orenburg, Verkhnyaya Karagalka River (a confluent of Srednyaya Karagalka).

Only two males known; bigger beetles with black elytra spotted by wide transverse patches of yellow pubescence; lower eye lobe about as long as genae; antennae reddish in basal parts of 3rd - 12th joints and here with fine yellow pubescence, much longer than body reaching elytral apices by 7th joints; 3rd antennal joint with wide distinct setae tuft; 1st antennal joint shorter than 4th, much shorter than 3rd and longer than 5th; prothorax transverse, its length less than basal width; pronotum with numerous erect long black setae, with central and 2 lateral wide, dense yellow hair stripes; two black areas in between shining, without recumbent yellow setae, with dense small punctation; scutellum semicircular covered by dense yellow setae; elytra about 2.5 times longer than basal width; yellow elytral spots dense, conjugated in transverse patches; erect black elytral setae are rather long anteriorly and gradually shortened posteriorly to about middle, indistinct in posterior elytral half; curved elytral margins with numerous setae spots along epipleurae; elytral apices shortly angulated; abdomen with very dense yellow pubescence totally hiding cuticula; pygidium and last abdominal sternite shallowly emarginated; body length: 15.3-16.0 mm, width: 3.8-4.5 mm.

The new subspecies is characterized by black elytra without bluish luster, by brighter yellow colour of body pubescence, by big setae tufts of 3rd antennal joints; by very numerous dense partly transverse elytral setae patches.

Materials. Holotype, male: “р. Верх. Кара- / галка Оренб. у. / Линдгольм 6.VI.93” (река Верхняя Карагалка, Оренбургского уезда), Линдгольм, 6.VI.93 [Russia, Orenburg District, Verkhnyaya

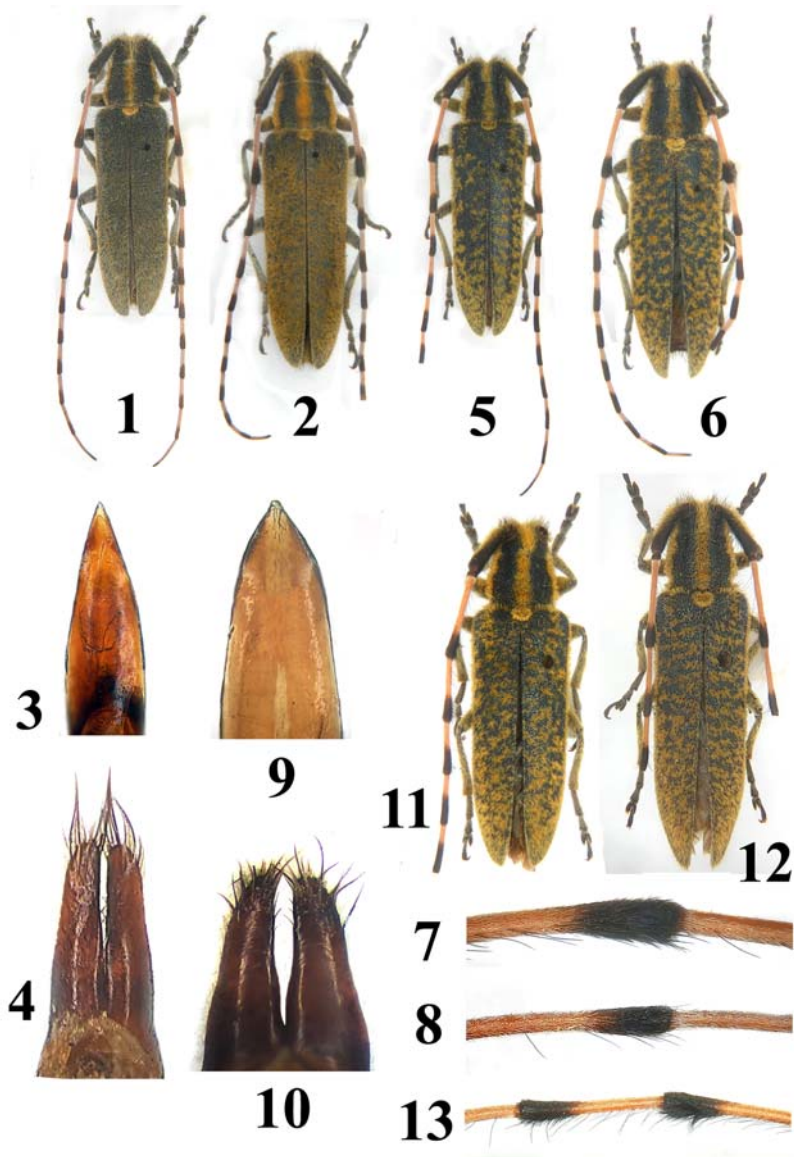
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Karagalka River, 6.6.1893, Lindgolm leg.] - ZIN; paratype, male with same label - ZIN.

Distribution. South-east of European Russia, north environs of Orenburg, Verkhnyaya Karagalka River (a confluent of Srednyaya Karagalka).

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Figs 1-4. *Agapanthia parauliensis* sp. n.

1 - male, holotype; 2 - female, paratype; 3 - aedeagus; 4 - parameres.

Figs 5-10. *Agapanthia alternans paralternans* ssp. n.

5 - male, holotype; 6 - female, paratype, Kazakhstan, Akmolinsk Region, Kokshetau Mt. (about 49°57'27"N, 67°33'27"E), 9.6.1957, Guryeva leg.; 7 - apex of 3rd antennal joint of holotype; 8 - apex of 3rd antennal joint of paratype-male, Karaganda Region, Koksengir Mt. (about 48°22'30"N, 71°32'E) southwards Zhana-Arka, 19.VI.1958, Loginova leg.; 9 - aedeagus, Karaganda Region, 30-50 km eastwards Dzhezkazgan (about 47°57'6"N, 68°5'52"E, 400m), 24.6.1958, Tobias leg.; 10 - parameres of same specimen.

Figs 11-13. *Agapanthia alternans eualternans* ssp. n.

11 - male, holotype; 12 - female, paratype; 13 - 3rd and 4th holotype antennal joints.

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