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Taxonomic position of the genera Aomus Schoenherr and Chilodrosus Reitter (Col. : Curculionidae), with the description of the two new species from Turkey

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Summary

Chilodrosus Reitter, 1913 is junior synonym of **Aomus** Schoenherr, 1834. Both of these genera have been hitherto classified in different subfamilies (Otiorhynchinae and Brachyderinae respectively) as a results of inexpressive cours of antennal furrows at the sides of rostrum. Two species - **Aomus ilerii sp. n. and A. bashi** sp .n. - are described as new to science. New combinations as well as new synonymy **Aomus pubescens** Boheman, 1834 (= **Otiorhynchus phyllobiiformis** Reitter, 1895) are proposed, too.

Introduction

Characteristic common feature of genera *Aomus* and *Chilodrosus* is their rostrum, which is vaulted in front of eyes and distinctly separated from front by transverse impression. Insertions of antennae are distinctly visible from above which similar conditions in genera of the subfamily Otiorhynchinae. Lower edge of antennal furrow is abruptly curved ventrally, inmmediately behind the insertion of antenna, that being typical character of the subfamily Brachyderinae. However, the antennal furrow is shallow and its true shape is hardly visible on badly mounted specimens. As a result of that species of both the genera have been classified in different subfamilies

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with considerable uncertainly. Thus Reitter (1895) described originally *Otiorhynchus phyllobiiformis* only to transfer it later himself to the new monobasic genus *Chilodrosus* of Brachyderinae.

Under such conditions the revision of taxonomic position of all hitherto described species of both the genera under discussion was badly needed. We are obliged to Dr. P. I. Persson (Swedish Museum of Natural History, Stockholm) and to the late Dr. Z. Kaszab (Hungarian Museum of Natural History, Budapest) for the loan of necessary type-specimens. We are particularly grateful to Dr. J. Jelinek (National Museum, Prague) for reading and critically commenting on the manuscript.

Aomus Schoenherr, 1834
(Figs. 1-2)

Aomus Schoenherr, 1834, Genera et species curculionidum (2) 2 : 532-533.

Chilodrosus Reitter, 1913, Verh. naturf. Ver. Brünn, 51 (1912) : 24 syn. n.

Type species : *Aomus pubescens* Boheman, 1834 (by monotypy)

Type species of *Chilodrosus* : *Otiorhynchus phyllobiiformis* Reitter, 1895 (by monotypy)

The following characterics are based on the examination of the type specimen of *Aomus pubescens* Boheman :

Rostrum short and strong, narrower than head with eyes, strongly longitudinally convex and separated from front by a distinct transverse impression, resembling rostrum of the genus *Rhinomias*. Antennae inserted laterally in its anterior portion. Dorsal part of rostrum between antennae in dorsal view as wide as front between eyes, limited by rounded obtuse margins laterally and markedly narrower than ventral part of the rostrum. Thus, both insertions of antennae and the whole course of antennal furrows are distinctly visible from above, strongly resembling conditions in Otiorhynchinae. In lateral view, the antennal furrow is shallow and somewhat distinct, its upper margin straight towards the eye, while the lower one abruptly curved ventral.

Elytra broadly ovate without distinct humera, vaulted laterally. Legs without any prominent feature (except, segment I of anterior and posterior tarsi conspicuously swollen in the males of the new species), femora edentate, tarsal claws concrescent at the basis.

According to the above characters the genus *Aomus* belongs to the tribus Brachyderini of the subfamily Brachyderinae (new classification!). Lona

(1938) recognized 7 species and one variety of the genus : *A. pubescens* Boheman, *A. elongatus* Pic, *A. minutissimum* Pic, *A. politus* Pic, *A. politus* var. *brunnescens* Pic, *A. similaris* Pic, *A. subdentatus* Pic and *A. ventricosus* Chevrolat.

Type - species of *Chilodrosus* Reitter is monotypy *Ch. phyllobiiformis* (Reitter). Examination of the holotype of that species revealed that it was conspecif c with *Aomus pubescens* Boh. and consequently *Chilodrosus* Reitter, 1913 must be considered to be junior synonym of *Aomus* Schoenherr, 1834. Lona (1938) recognized four species of the genus *Chilodrosus : Ch. phyllobiiformis* (Reitter), *Ch. aleppensis* Reitt., *Ch. otiorrhynchoides* Reitt. and *Ch. fumosus* Reitt..

The synonymy of both genera established, taxonomic position and validity of all included species had to be re - examined, too. Unfortunately, the type material of taxa described by Pic from Arabia was not available.

Aomus pubescens Boheman, 1834
(Figs. 1 - 2)

Aomus pubescens Boheman, 1834 in Schoenherr : Genera et species Curculionidum 5, 2 : 533

Otiorhynchus phyllobiiformis Reitter, 1895, Wien. ent. Zeit. 14 : 22. Syn. n.

Chiloneus phyllobiiformis (Reitter, 1897), Wien. ent. Zeit. 16 : 218

Chilodrosus phyllobiiformis (Reitter, 1913), Verh. naturf. Ver. Brünn,51:24

Holotype according to Boheman «One female, habibat in Persia. A. Dom. Faldermann missus». The holotype in the Museum Stockholm is 6.3 mm long female labelled : «Persia», «48», «Typus», pinned and missing the right intermediary leg. It corresponds to the original description (and was therefore designated by us as Lectotype). As mentioned above, this species is a type species of the genus *Aomus* Schoenherr,1834, belonging to the subfamily Brachyderinae.

Reitter (1895) described his *O. phyllobiiformis* according to a single specimen from the valley of Araxes near Ordubat and he transferred it into the genus *Chiloneus* Schoenherr and later (1913) to the distinct genus *Chilodrosus*. The holotype is deposited in the Budapest museum. It is male specimen 6.3 mm long, labelled «Monotypus» and «Caucasus, Araxesthal, Leder - Reitter». The weevil with missing abdomen and left antenna is mounted on a paper card. It corresponds to the original description and is quite identical with *Aomus pubescens* Boheman.

Aomus otiorrhynchoides (Reitter, 1913) comb. n.
(Figs. 7 - 8)

Chilodrosus otiorrhynchoides Reitter, 1913, Coleopt. Rdsch., 2 : 189

Described according to one male and 2 females from Aleppo, Syria, deposited in the museum Budapest. We examined one female 5.5 mm long and labelled «Syria - Aleppo» and «*Chilodrosus otiorrhynchoides* m. n. sp.», mounted on a paper card and completely preserved. It corresponds to the original description as well as to the above characterization of the genus *Aomus*. It differs from *A. pubescens* distinctly in having less convex elytra with very fine, almost indistinct pubescence.

Aomus aleppensis (Reitter, 1913) comb. n.

Chilodrosus aleppensis Reitter, 1913, Coleopt. Rdsch., 2 : 189 - 190.

It was described according to a female specimen from Aleppo, Syria. Holotype is deposited in the museum Budapest. It is a 5.6 mm long female bearing labels «Syria - Aleppo» and «*Childrosus alepensis* m. Type». The specimen is mounted on a paper card and is completely preserved. It corresponds to the original description and displays diagnositc characters of the genus *Aomus*. It is very similar to *A. otiorrhynchoides*, from which it differs only by different structure of elytra. Examination of a larger material would be necessary to decide whether the differences given in the original description fall into the range of variability of *A. otiorrhynchoides*.

Following species must be excluded from *Aomus* Schoenherr :

Strophomorphus ventricosus (Chevrolat, 1880)

Aomus ventricosus Chevrolat, 1880, Ann. Soc. Ent. France, Bull. p. v.

Strophomorphus ventricosus Chevrolat, In Winkler : Catalogus Coleopterorum region is palaearctica, II, 1927 - 1932 : 1476, No. 3329

Holotypus according to Chevrolat, 1880 : Syrien

The Holotype deposited in the Stockholm museum is a 9.0 mm long female bearing label «Typus» and a badly legible hand - written label «obesus Chr., Syria...», pinned, missing left intermediary leg and right posterior tarsus. It has quite that rostrum passing fluently into front, and asymmetrically vaulted eyes. It is a characteristic member of the genus *Strophomorphus*, which must be excluded from *Aomus*. In the catalogus by Winkler (1924-1932),

Dalla Torre and M. and F. van Emden (1937) it is listed (perhaps by mistake) in the both genera of *Aomus* and *Strophomorphus*.

Chilodrosus fumosus Reitter, 1913

Chilodrosus fumosus Reitter, 1913, Coleopt. Rdsch., 2 : 190

Holotypus : Male, Aleppo, Syria (Mus. Nat. Hist., Budapest)

Holotypus is a 8.1 mm long male labelled : «Monotypus», «Aleppo, Syrien» and «*Chilodrosus fumosus* m., Type». The specimen is mounted on a paper card, flagellum of right antenna and left anterior tarsal claw are missing. It corresponds to the original description. Conspicuous are strong posthumeral impressions at the sides of elytra. This species belongs - according to the form of antennal insertions and to the shape of antennal furrows - to the subfamily Otiorhynchinae, in the close genera of *Choerocephalus* and *Elytrodon*.

Judging localities of the examined Type specimens, the genus *Aomus* occurs in Transcaucasia, Turkey and Syria. Its occurrence in Arabia, from where some non - verified species were described by Pic, is proable. Two new species of the genus were discovered in the material collected recently in southern Turkey.

Aomus bashi sp. n.
(Figs. 5 - 6, 9 - 11)

Type material : Holotypus, male, Turkey, distr. Içel - Gülnar, 25.V.1984, lgt. Lodos, Deposit in coll. Fremuth. - Allotypus, female, Turkey, distr. Içel - Anamur, 19.IV.1985, lgt. Lodos, coll. Fremuth. - Paratypes : 1 male, the same date as holotype, coll. Lodos; 1 female, Turkey, distr. Antalya - Akseki, 22.VI.1981, lgt. Lodos, coll. Fremuth.

Length : Holotype 6.2 mm, Allotype 7.1 mm, Paratypes 6.2 mm (male) and 7.9 mm (female).

Head : Rostrum as long as wide, parallel - sided ,narrower than head with the eyes together, transversely impressed in front of eyes. Dorsal surface of rostrum in front of eyes with parallel sides, only little narrower between them than front between eyes, shallowly longitudinally furrowed. Both rostrum and front seperately vaulted in lateral view, including an obtuse angle, eyes strongly convex. Entire upper surface denselly and

not deeply punctate. Antennal furrow as described in the above redescription of the genus *Aomus*.

Antennae slender, much more so in females than males. Scape reaching to the anterior margin of pronotum, becoming gradually wider to distal end curved, as long as segments I to V of antennal flagellum. Segment I of flagellum 4 times, II 5 times longer than wide. Antennal club 3 times longer than wide, distinctly seperated from the last segment of flagellum.

Pronotum transverse (width : length as 26 : 20), rounded laterally, widest behind its midlength, densely and somewhat strongly punctate.

Elytra oblong ovate (male 32 : 50, female 37 : 60) without distinct humera, reaching their maximum width near at their midlength. Extremity of elytra acuminate, flatly vaulted laterally. Striae densely punctate, punctures rather large. Intervals slightly convex, dull, in males 1.5 times, in females twice as wide as striae.

Legs slender, without conspicuous secondary charecters, femora edentate. Tibiae in females quite straight, in males thicker, with inner apical angle prolonged inwords into a distinct thorn. Tarsal segment I swollen in both sexes, segment III twice as wide as II, deeply emarginate, IV by half longer than III. Tarsal claws concrescent.

Aedeagus : As Figs. 10 - 11.

Colour : Entire body pitchy brown.

Integument : Upper surface of body covered with shining golden yellow hairs concentrated here and there to form inconspicuous irregular transverse spots.

Bionomy unknown, type - specimens were collected on oaks.

Distribution : Hitherto known only from southern Turkey.

Differential diagnosis : The new species is most closely related to *Aomus pubescens* Boh.; its elytra are pubescent in similar way, however more elongate and more flatly valuted than in the latter species. It differs very distinctly from *A. ilerii* by different pubescence of elytra and the shape of rostrum. From *A. otiorrhynchoides* and *A. aleppensis*, which have almost glabrous elytra, differs *A. bashi* be the shape of convexity of elytra in lateral view.

Name derivation : The species is dedicated to Turkish entomologist Prof. Dr. Refik Baş.

Aomus ilerii sp. n.
(Figs. 3 - 4, 12 - 13)

Type material : Holotypus, male, Turkey, distr. Niğde - Ihlara. 30.V.1973, Lodos lgt. Deposited in coll. Fremuth. - Allotypus, female, the same data as Holotype, coll. Fremuth. - Paratypes : 30 specimens (males and females) with the same data as Holotype (10 specimens coll. Fremuth, 20 specimens coll. Lodos); 2 specimens Turkey, Anatolia, Konya - Akşehir, 1900, lgt. Korb, coll. National Museum, Praha.

Length : Holotype 4.55 mm, Paratypes : males 4.15 - 4.55 mm, females 5.00 - 5.40 mm.

Head : Rostrum as long as wide at the base, conically narrowed towards to the end, transverselly impressed in front of eyes; dorsal surface between insertions of antennae and eyes with parallel obtuse lateral margins, shallowly longitudinally furrowed in the middle. Both rostrum and front separately vaulted in lateral view, including an obtuse angle. Eyes convex, strongly projecting from the outline of head, front between them wider than rostrum between antennae. Temples behind eyes as long as two thirds of the eye width.

Antennae showing no distinct sexual dimorphism. Scape reaching to the anterior margin of pronotum, becoming gradually thicker towards to the end, moderately arcuate, as long as flageller segments I - IV. Segments I and II of the flagellum twice as long as wide each, of segments III - VII somewhat longer than wide. Antennal club distinctly separated from flagellum.

Pronotum wider than long (as 16 : 12), rounded lateral, widest in the basal third, all over densely punctate; punctures rather large.

Elytra ovate (length : width as 33 : 25), without distinct humera, widest before their midlength, strongly and regularly convex at sides, more strongly so at apex. Elytral striae densely punctate, not very deep. Intervals broad, moderately vaulted and shining.

Legs slender, without sexual dimorphism, femora edentate. Tibiae straight in both sexes. Tarsal segment I somewhat wider than II, III twice as wide as two preceding ones together and deeply bilobed. Tarsal claws fused at the basis.

Aadeagus : As figs. 12 - 13.

Colour pattern : Body completely black, only base of scape reddish.

Integument : Head, pronotum, abdomen, legs and antennae covered with greenish golden hairs. Interstries elytra I, 4 to 7 and 10 covered with densely arranged golden green oblong oval scales, remaining ones glabrous or at most sparsely pubescent, so that each elytron is marked with two broad dark longitudinal stripes. Thoracic sterna covered with scales similar to those of elytra.

Bionomy : Majority of the specimens were collected in Ihlara Valley (is a place about in the middle of ancient Cappodocia) where harehound grows in the damped areas of this 12 km long, deep and narrow Valley.

Distribution : The new species seems to be restricted in Central Anatolia and hitherto known only from this areas.

Differential diagnosis : *Aomus ilerii* sp. n. differs distinctly from all known species of the genus in having scales on elytra and conical rostrum.

Variation : Females generally larger than males, with conspicously paunchy and strongly vaulted elytra. One female from Turkey, distr. Ankara - Kızılcahamam, 15.VI.1974 (coll. Fremuth) was not included in type series. It is conspicuously small (3.8 mm) with flatter eyes and less paunchy elytra. It is difficult to decide, whether that single specimen is but an aberrant one of *A. ilerii,* or rather representative of a distinct taxon closely related to it.

Name derivation : The new species is dedicated to one of the most eminent Turkish entomologist Mesude İleri, to whom junior author ows very much things.

Revision of type specimens of species classified in genera *Aomus* and *Chilodrosus* results in the following list :

Aomus Schoenherr, 1834 (Brachyderinae) - new classification

syn. :	*Chilodrosus* Reitter, 1912	— syn. n.	
	pubescens Boheman, 1834		Caucasus
	phyllobiiformis (Reitter, 1895)	— syn. n.	
	otiorrhynchoides (Reitter, 1913)		Syria
	aleppensis (Reitter, 1913)		Syria
	bashi sp. n.		Turkey
	ilerii sp. n.		Turkey

Species of uncertain position :

Aomus elongatus Pic, 1901	Arabia
minutissimus Pic, 1901	Arabia
politus Pic, 1901	Arabia
politus var. *brunnescens* Pic, 1901	Arabia
similaris Pic, 1901	Arabia
subdentatus Pic, 1901	Arabia

Transferred in other genera :

Aomus ventricosus Chevrolat, 1880

Chilodrosus fumosus Reitter, 1913

Key to species of *Aomus*

1 (2) Elytra covered with golden green scales, bearing dark longitudinal stripes on intervale 2 - 4 and 7 - 10; strongly convex laterally ..... **A .ilerii** sp. n.

2 (1) Elytra either pubescent or glabrous, without longitudinal stripes of different colour.

3 (6) Elytra distinctly pubescent; distinctly convex laterally.

4 (5) Elytra shortly ovate, strongly convex laterally, steeply sloping down, simultaneously rounded at the apex. Eyes little convex. Scape quite straight. Elytral striae fine, intervals broad and flat.
Pronotum feebly rounded laterally. Pubescence of elytra greyish white without metallic lustre ..... **A. pubescens** Boh.

5 (4) Elytra oblong ovate, moderately convex laterally, less steeply sloping down, tips of elytra acuminate. Eyes more strongly convex. Scape arcuate. Elytral striae coarser, intervals narrower. Pronotum more strongly rounded laterally. Pubescence of elytra with metallic lustre ..... **A. bashi** sp. n.

6 (3) Elytra only very sparsely and finely pubescent, semingly glabrous, flatly convex laterally.

7 (8) Intervals of elytra finely punctate, feebly shining.
Punctures in striae small and fine, yet well distinct and separated from each other ..... **A. otiorrhynchoides** Reitt.

8 (7) Intervals of elytra with flat punctate wrinkles, dull.
Punctures in striae little distinct, connected mutually by flat tubercle ...
... ... **A. aleppensis** Reit.

Özet

Aomus Schoenherr ve **Chilodrosus** Reitter (Col. : Curculionidae) cinslerinin taksonomik durumlarıyla Türkiye'den yeni iki türün orijinal deskripsiyonları

Chilodrosus Reitter, 1913, **Aomus** Schoenherr, 1834'in junior sinonimidir. Hortumun her iki yanında bulunan antenlerin yerleştiği anten yataklarının yeterli taksonomik özelliklere sahip olamamasından ötürü, bu her iki cins de bugüne kadar farklı altfamilyalar içinde (örneğin sırasıyla Otiorhynchinae ve Brachyderinae gibi) mütalaa edilegelmişlerdir. Bu bakımdan bu cinslere bağlı türleri yeniden gözden geçirme zorunluluğu doğmuştur. İşte buna göre yapılan bu çalışmada bu cinslere bağlı türler gözden geçirilmiş, taxonomik durumları saptanmış, bu arada Türkiye'ye özgü ve bilim dünyası için yeni olan iki tür : **Aomus ilerii** n. sp. ile **A. bashi** n. sp.'nin tanıtılmaları yapılmıştır. Bundan başka türlerle ilgili yeni kombinasyonlar yapılmış, **Aomus pubescens** Boheman, 1834 (= **Otiorhynchus phyllobiiformis** Reitter, 1895)'in yeni sinonimi de ortaya konmuştur.

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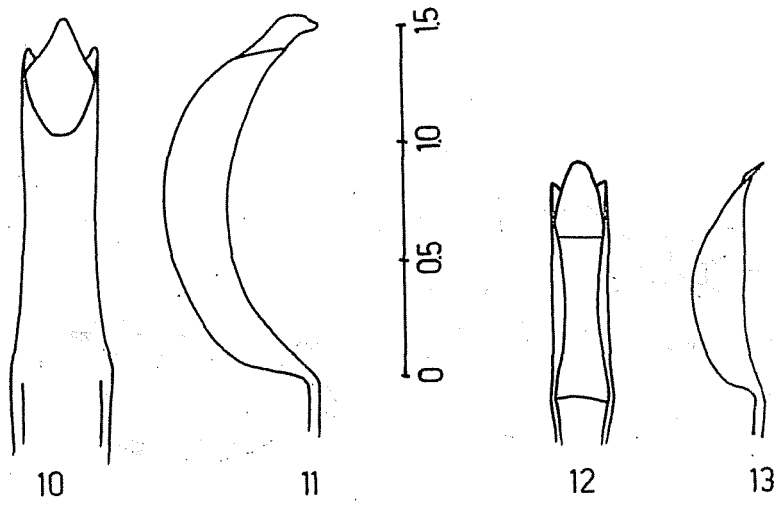
Fig. 8.



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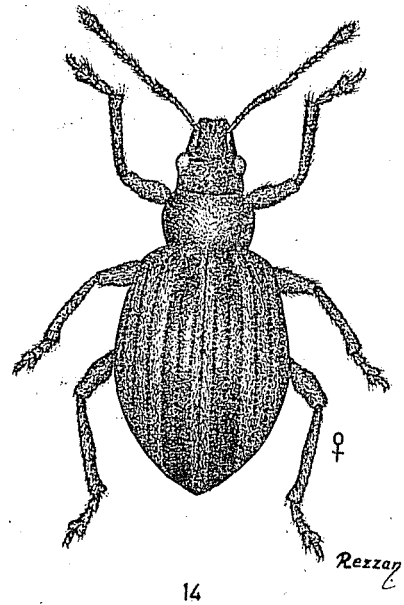

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Explanation of Figures

Figs. 1 - 8 :Body of **Aomus** in dorsal and lateral view. - 1. and 2. **A. pubescens** (female). - 3. and 4. **A. ilerii** (Allotypus, female) .- 5. and 6. **A. bashi** (Allotypus, female). - 7. and 8. **A. otiorrhynchoides** (Holotype, female). Fig. 9- Fore leg **of A. bashi** (male). Figs. 10 - 13 : Aedeagus of **Aomus** in dorsal and lateral view. - 10. and 11. **A. bashi.** - 12. and 13. **A. ilerii.** Fig. 14 : General aspect of **A. ilerii** (female).