Revision of the *Agrilus cyaneoniger* species group

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JENDEK, E. 2000. Revision of the *Agrilus cyaneoniger* species group. *Entomol. Probl.* 31(2): 187-193. *Agrilus cyaneoniger* species group is established and diagnosed, two new species of *Agrilus* are described: *A. laboquerti* sp.nov., *A. qiling sp.nov.* *Agrilus agnatus* KERREMS ANS is considered as a valid species. All species are keyed and illustrated. Lectotypes of *Agrilus aures-ternum* OBEKENBERGER, *Agrilus agnatus* KERREMS ANS, *Agrilus bifoveolatus* KERREMS ANS are designated.

**Key words:** Taxonomy, Coleoptera, Buprestidae, *Agrilus*, Palearctic region, Oriental region.

**Introduction**

The examination of the majority of the numerous type material of the genus *Agrilus* from the Palearctic and Oriental regions allowed me to start species grouping, which will serve next as the base for a subgeneric division of this large genus. Species grouping is based on set of characters, a combination which seems to be distinctive and constant within group.

**Material and methods**

The examined material comes from following collections:

**EJCB** Collection E. Jendek, Slovak Academy of Sciences, Bratislava, Slovakia
**MCSN** Museo civico di Storia Naturale “Giacomo Doria”, Genova, Italy
**MNHN** Muséum national d’Histoire naturelle, Paris, France
**NMPC** Národní muzeum v Praze, Prague, Czech Republic

Other abbreviations: DV (dorsal view), FV (frontal view); LW (proportional relation between length and width); MS (manuscript); PDV (postero-dorsal view). The backslash “\” is used to separate data from different labels; square brackets “[ ]” are used for my remarks; [p], preceding data printed; [h], preceding data hand-written.

The lectotype designations in this paper are provided in order to preserve the stability of nomenclature by fixing the status of the specimen as the sole name-bearing type of a particular nominal taxon and in order to specify the type locality. Designated lectotypes are provided with a printed red label bearing all relevant data as: species name in the original combination and correct spelling, author name, year of publication and an inscription “Lectotype ... E. Jendek design.” along with year of designation.

Historical or vague localities are made more precise using the GÉOnet Names Server (GNS), which is accessible on the Internet, providing access to the database of foreign geographic feature names of the National Imagery and Mapping Agency. Localities written in Russian are transcribed according to the British standard.

**Agrilus cyaneoniger** species group

Elongate, medium sized or large species (8.5 – 15.5 mm); eyes medium or small; vertex large, minimally 2x as wide as width of eye (DV); pronotum widest before middle; anteromedial pronotal lobe vague or absent; pronotal disk with large, 8-shaped, medial, longitudinal sulcus; prehumeral obsolete or obliterate; scutellum rudimentary, with obsolete or obliterate transverse carina, often deeply impressed on disk; apex of last abdominal ventrite arcuate or subtruncate, mediately sometimes weakly, arcuately emarginate. Ventral side in male without obvious sexual modification.

The group can be subdivided into the subgroup of large and distinctive species of *Agrilus cyaneoniger* SAUN-DERS, *A. aures-ternum* OBEKENBERGER and *A. laboquerti* sp.nov. and the subgroup of smaller and very closely related species of *A. laboquerti* KERREMS ANS, *A. agnatus* KERREMS ANS, *A. bifoveolatus* KERREMS ANS and *A. qiling* sp.nov.

The oak (*Quercus* sp.) is only known as the host plant of species from this group (*Agrilus cyaneoniger*, *A. au-risternum*, *A. laboquerti*, *A. agnatus*).

**Agrilus cyaneoniger** SAUNDERS

**Remarks.** This species was studied in detail by JENDEK (1995: 140-141), where ssp. *melanopterus* SOL-SKY was reduced to the infrasubspecific level. In this paper I follow the apprehension of AKIYAMA, K. & OHMOMO, S., (1997: 31-32) who revalidated the subspecific status of this taxon. Distribution map (Fig. 14). Distribution records were given by CHOU & MATUDA (1940), DESCARPENTRIES, & VILLIERS (1963), JENDEK (1995) and OBEKENBERGER (1958). Further material examined see under particular subspecies.
Agrilus cyaneoniger cyaneoniger SAUNDERS (Figs. 1, 7, 14)

Agrilus cyaneoniger SAUNDERS, 1873: 515.


Agrilus cyaneoniger melanopterus SOLSKY (Fig. 14)

Agrilus melanopterus SOLSKY, 1875: 277-279.


Agrilus auristernum OBERBERGER (Fig. 8)

Agrilus auristernum OBERBERGER, 1924: 34-35, 37, Pl. I, figs. 15, 50.


Remarks. Species from Ninglang were collected by author on fruticose form of Quercus sp. Male unknown.


Agrilus labopetri sp.nov. (Figs. 2, 9a, b)


Description. Length 14.8 - 15.5 mm. Holotype (14.8 mm): Body strikingly elongate. Pronotum and elytra dark olivaceous-brown, silky lustrous; frons, vertex and ventral side metallic-blue or metallic-green. Lower part of frons, pronotal sides and ventral side with short, whitish, recumbent pubescence. Elytra glabrous, except from white, semierect pubescence on apicalmost part of apices. Frons in lower part densely rugoso-punctate, deeply, subtriangularly impressed (FV); impression with smooth surface and short medial, longitudinal carina. Upper part of frons and vertex sparsely punctate, divided by deep medial sulcus into two hemispheres (DV, PDV). Eyes small, convex (DV), lower part extends below upper side of antennal sockets. Vertex 2.8 as wide as depth of eye (DV); Clypeus flat; antennae slender and long, overreaching beyond half of pronotal length, serratate from antennomere 4.

Pronotum transverse (LW = 0.7), widest in anterior half; sides in apical half almost subparallel, basally strongly curved. Basal pronotal angles sharp; anteromedial lobe absent; anterior angles sharply projecting forward. Disk superficially, transversely rugose; medial sulcus obvious; lateral impressions deep; prehumeral absent. Marginal and submarginal carinae convergent, joined before basal angles. Scutellum (1 : w = 0.4) obsolete, without transversal carina. Elytra obviously prolonged (LW = 4.1), strikingly extending beyond abdominal apex (VV); humeral pits very deep; apices regularly, separately rounded, with serrulate margin.

Metatarsi as long as metatarsomere 1.2 x longer than three following together; tarsal claws bifid, inner tooth nearly as long as outer one.

Mentoniiere narrow; outer margin widely and feebly arcuately emarginate. Prosternal process flat, triangular; sides evenly tapering to tip. Last ventrite truncate on apex, weakly arcuately emarginate medially. Aedeagus (Fig 2).

Sexual dimorphism. Female with striking, transverse fascia of dense, golden-yellow torment on pronotum.

Etymology. Name combined by first names of the collectors of this species, my friends, Lubos Dembicky and Petr Pacholátko from Brno, Czech Republic.

Agrilus laferterei KERREMS (Figs. 3, 10)

Agrilus laferterei KERREMS, 1892a: 212-213.

Agrilus auriventris La Ferté: KERREMS, 1892a: 212. (unavailable name)

Remarks. In description of *A. lafertei* listed Kerremans the name “*Agrilus auriventris La Ferté*” not Saunders, 1873 as objective synonym of *A. lafertei*. “*Agrilus auriventris La Ferté*” has been never published and introduced to the synonymy by this act of Kerremans.

Data on distribution given by Tóyama (1988) from Thailand and by Descarpentries & Villiers (1963) from Vietnam and Laos are related very probably to *Agrilus aequalis* Kerremans. Aedeagus (Fig. 3).


*Agrilus aequalis* Kerremans, resurrected name
(Figs. 4, 11)

*Agrilus aequalis* Kerremans, 1892b: 820-821.

**Type material.** Lectotype ♂, MCSI, by present designation: “Carin. Cheha [= Karen Hills, Karen State, Myanmar, mountainous region about 40 km NE from Toungoo (= Tongu, Toungoo). Source: itinerant map of L. Fea in Burma, sensu Dr. Poggi, MCSI (personal communication) approximate coordinates 19°13'N, 96°35'E], 900-1100 m L. Fea [leg.] V XII-[18]88 [p] \ Typography [p] [red ink, red border] *agnathus* [sic!] Kerr. [h] [black border] *agnathus* Kerremans' MS]; *Agrilus aequalis* [sic!] Kerr, type! [h]! Museo Civico di Genova [p]!; Number of syntypes unknown.

Remarks. *Agrilus aequalis* was synonymized by Descarpentries & Villiers (1963: 8) as junior subjective synonym of *A. lafertei*. The type examination of both species revealed, that *Agrilus aequalis* is species well distinguishable by form of head, pronotum and aedeagus. Differential diagnosis is given in the key bellow.

Data on distribution given by Tóyama (1988) from Thailand and by Descarpentries & Villiers (1963) from Vietnam and Laos under name *A. lafertei* are related very probably to this species. Aedeagus (Fig. 4).

Additional material examined: CHINA: Yunnan province: 1 ♂, “Yun'an" 765 km po dor[oge] [= on road] Kun'min [= Kunming] - Dalo, 1000 m, 26. IV. 1957, P. Pu-Fu-di [site unlocated], [in Russian]; 1 ♂, “CHINA, Yunnan. 22. V. -
2. VI., 100 km W of KUNMING, 1993, DIAOLIN Nat. Reserva-
Hong Son province: 1♂, “NW Thailand, 19°19'N, 97°59'E, Mae Hong Son, 1991, Ban Huai Po, 1600 - 2000 m, 17-29. VI., L. Dembický leg.; 3♀♂, “THAI, Mae Hong Son pr., 19°27'N, 98°20'E, 1500 m, SOPPONG 7-12. V., Vit Kubáň leg., 1996.”
Chiang Mai province: 1♂, “THAI, 2-3/6, 1995, 18°49'N, 98°54'E, DOI PUI, 1400 m, Vit Kubáň leg.; 1♀, “THAI, Chiang Mai prov. 18°49'N, 98°54'E, 1600 m, DOI Pui mt., 2-6. V. 1996, Vit Kubáň leg.; 1♀, “THAI, 17-24. V. 1991, Chiang Dao, 1000 m, 19°25'N, 98°52'E, Vit Kubáň leg.; 1♀, “Phu-
nam gory V okr. SHA-PA [Sa Pa, 22°21'N, 103°52'N] 1700 -
2000 m, 23. 5. 1963 g., Kabakov [leg.] [in Russian].
km NW Louang Namtha, N 21°09'2, E 101°18'7, alt. 900±100
m, E. Jendek & O. Šaušė leg.; Louangphrabang province: 1♂,
20°33'34"N 102°14'E, Ban Song Cha (5km W) ± 1200 m, Vit
Kubáň leg.; 1♂, 1♀, “LAOS-N, 23. iv. 1999, Louangphrabang
prov. 20°42' N 102°54'E, 25 km E Muang Ngoy, 1000 m, Vit
Kubáň leg.”

Agrius bifoveolatus KERERMANS (Figs. 5, 12)

Type material: Lectotype ♂, MNHN, by present designation:
“Pedong [27°09'N, 88°37'E], Sikkim, India] A. Desgodins
[leg.]♂” [bifoveolatus Ker. Type [KERERMANS’ MS] \ KERER-
MANS vidit 1893 [♂] \ collectio OBERTHUR [♂]”. Number of
syntypes unknown.

Remarks. This species is distinguished by two pairs
of golden, tormentose spots on the elytra, which have, how-
ever, often vanished in older specimens. Aedeagus (Fig. 5).

Additional material examined: INDIA: West Bengal
state: 1♂, 1♀, “Distr. Darjeeling [27°02'N, 88°16'E] India, W.
Wittmer [leg.] Lophcu [site unlocated] 9. V. 1995, 1500 m”;
Meghalaya state: 5♂♂, “NE INDIA, MEGHALAYA, 1999, 3
km E of Tura, 500-1150 m, 25°30'N, 90°14'E, 1-8.6, Dem-
bický & Pochátal leg.” NEPAL: Kosi zone: 1♀, “E NEPAL, Dhankuta, Arun - Valley, Num [27°33'N, 87°17'E], 1500 m, 3-
6. VI. 1983, leg. C. Holzschuh; 1♂, “E NEPAL, Dhankuta,
Arun - Valley, KHANDIBARI - BHOTEBAŚ [27°22'N, 87°13'E],
5. VI. 1988, 1000 - 1750 m, 1. Probst. leg.”

Agrius qingling sp.nov. (Figs. 6, 13)

Type material. Holotype ♂, EJCB: “CHINA, 1000 - 1300
m, Shaxi [prov.], Qingsling mts., XUNYANGBA (6 km E
[33°33'N - 108°37'E], E, v. - vi. 1998, I. H. Maruéjols leg.”
Paratypes: 7♀♂, EJCB, with the same locality data as holotype.

Description. Length 10.3 - 12.6 mm. Holotype
(11.1 mm): Dorsally silvery-black; frons, Clypeus and later-
al pronotal impressions golden-green; ventrally golden-
bronze. Lateral portions on ventral side and lateral pronotal
impressions with golden tomentum; ventral side medially
with white pubescence.

Frons densely punctate, upper part with distinct
transverse impression; vertex longitudinally rugose, con-
 vex, medially with large sulcus (PDV); eyes convex (DV),
lower part distinctly extends below upper side of antennal
sockets; vertex 2.9 as wide as width of eye (DV); antennae
shorter, reaching maximally to half of pronotal length, ser-
rate from antennomere 4.

Pronotum transverse (LV = 0.65), widest in median;
tantero-mesial lobe vague, not projecting beyond pronotal
corners; disk convex, finely, transversely rugose, medially
with deep 8-shaped sulcus, laterally with large impres-
sions. Prehumerus obsolete, hair-like, closely subparallel
with side edges, reaching beyond half of pronotal length.
Scutellum reduced in size, hind projection very short.

Elytra (LV = 3.8) with deep humeral pits; disk with-
out ornamental pubescence except for whitish hairs in
humeral pits and adstylesur part on apices. Apices before
spines slightly attenuate, separately arcuate, with denticulate
margin.

Metatarsi about as long as metatibiae; basal metatar-
somere longer as following together; tarsal claws bifid,
inferior tooth almost as long as outer one.

Mentoniere narrow, outer margin widely arcuately
emarginate. Prosternal process flat, subparallel, behind
coxae evenly tapering to tip. Last ventrite weakly, widely,
arcuately emarginate medially. Aedeagus (Fig. 6).

Sexual dimorphism. Prosternum in male with medial,
longitudinal strip of white, erect pubescence.

Etymology. Named in reference to the type locality.

Key to species

1. Elytral apices broadly, regularly arcuate, margin fine-
dly denticulate; large species, body rarely smaller than
13 mm ......................................................... 2

- Elytral apices narrowly arcuate or arcuately-acumi-
nate, margin coarsely denticulate; smaller species,
body rarely exceeds 13 mm .................................. 5

2 Pronotum widest before middle; sides in apical half
almost subparallel, basally strongly arcuate; elytra
strikingly elongate, apices with dense, white, erect
pubescence, aedeagus (Fig. 2) .............................................

Agrius lubopetrī sp.nov. (Figs 9a, b)

- Pronotum widest in middle, sides evenly arcuate;
elytra not strikingly elongate, without pubescent
apices .......................................................... 3

3 Prehumerus obsolete, hair-like, narrowly conver-
gent with pronotal margin and reaching beyond middle
of pronotal length; pronotal disk with fine structure;
elytra with pair of adstylesur, whitish, pubescent
spots in apical third, male unknown ................................

Agrius uristernum OBERBERGER (Fig. 8)

- Prehumerus absent; pronotal disk with coarse, trans-
verse structure; elytra without ornamental pubes-
cence ...................................................................... 4
Fig. 14 Distribution of Agrilus cyanoniger SAUNDERS: ● Agrilus cyanoniger cyanoniger SAUNDERS. ● Agrilus cyanoniger melanopterus Solsky.

4 Head, pronotum and elytra concolor black; pronotal sides usually with violet tinge, aedeagus (Fig. 1) ....
   .... Agrilus cyanoniger cyanoniger SAUNDERS (Fig. 7)
- Body ventrally bicolor; head and pronotum golden, golden-orange, golden-green or bronze, elytra black, often with bluish or greenish tinge ............................................
   .................. Agrilus cyanoniger melanopterus Solsky 5
- Vertex strongly protruding (PDV), medially with deep and narrow sulcus; pronotum enlarged forwards, with maximum width in anterior third; elytra at well preserved specimens with two pairs of golden, tomentose spots; aedeagus (Fig. 5) .................
   .................. Agrilus bifoveolatus Kerremans (Fig. 12)
- Vertex not protruding (PDV), flat or convex, medially without or with shallower and wider sulcus; pronotum widest in middle, sides evenly rounded forwards and backwards; elytra without tomentose spots ................................................................. 6
- Vertex flat (PDV), without or with very fine medial carina; eyes not protruding beyond head outline, aedeagus (Fig. 3) ............................................................
   .................. Agrilus latifrons Kerremans (Fig. 10)
- Vertex convex (PDV), with distinct median carina; eyes distinctly protruding beyond head outline ............... 7
- Elytral apices narrowly aruncate-acuminate; pronotal sides in lateral impressions with narrow patches of whitish pubescence; aedeagus (Fig. 4) ...................
   .................. Agrilus australis Kerremans (Fig. 11)
- Elytral apices widely subacutate; pronotal sides in lateral impressions with large, golden, tomentose patches; aedeagus (Fig. 6) ..................................................
   .................. Agrilus omina sp. nov. (Fig. 13)

References


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