

**A SYNOPSIS OF TURKISH *CLYTUS* LAICHARTING, 1784
AND *SPHEGOCLYTUS* SAMA, 2005 WITH
ZOOGEOGRAPHICAL REMARKS (COLEOPTERA:
CERAMBYCIDAE: CERAMBYCINAE)**

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ABSTRACT: All taxa of the genus *Clytus* Laicharting, 1784 and *Sphegoclytus* Sama, 2005 in Turkey are evaluated. These genera are also discussed in detail. The main aim of this work is to clarify current status of these genera in Turkey. Some new faunistical data are given in the text. A key for Turkish *Clytus* species is also given.

KEY WORDS: *Clytus*, *Sphegoclytus*, Cerambycinae, Clytini, Cerambycidae.

Subfamily CERAMBYCINAE Latreille, 1802

Tribe CLYTINI Mulsant, 1839

- = *Clytaires* Mulsant, 1839
- = *Clytita* Thomson, 1860
- = *Clytides* Thomson, 1866
- = *Clytina* Reitter, 1912

Type genus: *Clytus* Laicharting, 1784

They are small longhorn beetles (~ 10 - 15 mm). Adult characterized by elongate or moderately elongate body. Head is vertical or subvertical, ventral surface oblique at a point below lower eye lobe. Frons has smooth median longitudinal carinae or median flat and wide groove, which is sometimes longitudinal. Eyes have minute facets, notched in upper half. Antennae are relatively short, do not extend beyond middle of elytra, rarely extend beyond or reach apex of elytra. Pronotum is cydariform or sometimes elongated, side rounded, never tuberculate. Fore coxa usually rounded externally, its cavity open posteriorly. Mid coxal cavity open to epimeron. Scutellum pointed posteriorly, triangular or rounded. Elytra are more or less elongate, apically truncate and generally dark-colored with white or yellowish lines or bands produced by combination of pubescence and color on disc itself. Epimeron of metathorax angulated and produced over first abdominal segment and hind coxae. Episternum of metathorax is wide. Legs relatively long; hind femora thicken gradually distally, rarely appear almost clavate (Cherepanov, 1990).

Genus *CLYTUS* Laicharting, 1784

- = *Sphegestes* Chevrolat, 1863

Type species: *Leptura arietis* Linnaeus, 1758

Body length is small generally. It is between approximately 5 and 20 mm.

Frons vertical, without visible carinae, with deep punctuation. Eyes deep and comparatively broad notch with small upper lobe and minute facets. Antennae short and slightly thickened towards the apex, the third article a little longer than the fourth. Pronotum transverse or slightly oblong, laterally rounded, with markedly convex disc, the disc shows a dotted sculpture and lacks rasp-like carinae. Scutellum rounded or truncated in the apex. The elytra elongate, usually with parallel sides. Mesosternum very oblique in its previous part; as maximum, metaepisternum three times longer than wide. Front legs short, femora thick; hind tarsi long. Hind femora short and do not reach or barely reach elytral apex (Villiers, 1978; Cherepanov, 1990; Vives, 2000).

Larval development is in broadleaf trees (e.g. in Europe and Turkey, *Prunus*, *Crateagus*, *Quercus*, *Ficus*, *Morus*, *Fraxinus*, *Pistacia*, *Juglans*, *Fagus*, *Castanea*, *Ulmus*, *Padus*, *Frangula*, *Rhamnus*, *Salix*, *Pistacia*, *Robinia*, *Pyrus*, *Vitis*, *Acer*, *Carpinus*, *Paliurus*, *Styrax*, *Cistus*, *Corylus*, *Rosa*, *Ilex* etc.) or in conifers (*Picea*, *Abies*, *Larix*, *Juniperus*). Pupation is in the wood generally. Life cycle is about 2-3 years (Bense, 1995; Vives, 2000; Sama, 2002; Hoskovec & Rejzek, 2009).

The main aim of this work is to clarify current status of the genus in Turkey. The genus has about 50 species in the world fauna. At present, it probably will have to separate in other genera or different subgenera. For example, the genus *Sphegoclytus* was recently described by Sama (2005).

The genus *Clytus* Laicharting, 1784 has Holarctic + Oriental + Australian chorotypes. The genus is represented by 32 species in the Holarctic region, 10 species in Oriental region and 5 species in Australian region. In addition to this, it has 4 fossil species that are incertae sedis as *Clytus leporinus* Oustalet, 1874; *C. melancholicus* Heer, 1847; *C. pervetustus* (Cockerell, 1920) and *C. pulcher* Heer, 1865 in the world fauna. *C. carinatus* Laporte & Gory, 1835 was given by Monné & Bezark (2009) in the end of the species of *Xylotrechus* with a question mark for N America.

In Palaearctic region, the genus is represented by 22 species.

In Europe, this genus includes 7 species as *Clytus arietis* (Linnaeus, 1758); *C. arietoides* Reitter, 1900; *C. clavicornis* Reiche, 1860; *C. lama* Mulsant, 1850; *C. rhamni* Germar, 1817; *C. triangulimacula* Costa, 1854 and *C. tropicus* (Panzer, 1795). According to Sama (2002), *Clytus robertae* Mineau & Teocchi, 1986 is a nomen nudum. *C. clavicornis* Reiche, 1860 is endemic to Sicily and *C. triangulimacula* Costa, 1854 is endemic to Italy.

The genus *Clytus* Laicharting, 1784 is represented by 10 species as *Clytus arietis* (Linnaeus, 1758); *C. ciliciensis* (Chevrolat, 1863); *C. gulekanus* Pic, 1904; *C. kumalariensis* Johanides, 2001; *C. madoni* (Pic, 1890); *C. rhamni* Germar, 1817; *C. schneideri* Kiesenwetter, 1879; *C. schurmanni* Sama, 1996; *C. taurusiensis* (Pic, 1903) and *C. tropicus* (Panzer, 1795). 4 species as *Clytus ciliciensis* (Chevrolat, 1863); *C. gulekanus* Pic, 1904; *C. kumalariensis* Johanides, 2001 and *C. schurmanni* Sama, 1996 are endemic to Turkey.

The present zoogeographical characterization is based on the chorotype classification of Anatolian fauna, recently proposed by Vigna Taglianti et al.

(1999). As far as possible as one chorotype description can be determined for each taxon in the text.

The Turkish *Clytus* Laicharting, 1784 taxa are presented as follows:

***arietis* Linnaeus, 1758**

ssp. ***arietis*** Linnaeus, 1758

ssp. ***lederi*** Ganglbauer, 1881

ssp. ***oblitus*** Roubal, 1932

?ssp. ***gazella*** Fabricius, 1792

Original combination: *Leptura arietis* Linnaeus, 1758

Other names. *arcuatus* Sulzer; *quadrifasciatus* DeGeer; *dasypus* Voet; *bourdilloni* Mulsant; *clouti* Thery; *incontans* Kuhn; *sibiricus* Pic; *bickhardti* Pic; *heyrovskyi* Pic; *chapmani* Pic; *koslovskyi* Plavilstshikov; *triangulimaculus* Costa; *schepmani* Reclaire et Van Der Wiel; *carpelani* Heyrovsky; *quadripunctatus* Heyrovsky; *krupkai* Heyrovsky; *aliquoi* Tassi.

Body length 6-15 mm. Antennae brownish, blackish or dark brown towards to distal end (distal half of fifth segment to eleventh segments). Pronotum with yellow borders; anterior border complete, posterior border interrupted in the middle. Scutellum covered with yellow hairs. Scutellum rounded in the apex. Elytra truncated in the apex. Elytra with four transverse bands and spots. In general: 1st band (humeral band or spot) clear, transverse, more or less smooth or slightly convex, not reaching to the suture at the end but run beyond the half of elytral width; 2nd band so clear, oblique transverse (very concave undulating), reaching to the suture at the end, the lowest part in just middle of elytron and run obliquely to basal one fourth of elytron, begins and finishes in second quarter of elytron; 3rd band so clear, transverse, more or less smooth, reaching to the suture, just on three fourth of elytron; 4th band (band of elytral apex) so clear, concave, reaching to the suture. So 3 elytral bands reaching to the suture and 1 elytral band or spot (humeral band or spot) not reaching to the suture. Elytral bands with yellow hairs. Legs brown generally, front and middle femora blackish in the basal half.

In ssp. *lederi*, posterior border of pronotum complete and the elytral bands broader and more distinct.

Records in Turkey: İstanbul prov.: Alem Mt. (Bodemeyer, 1906; Demelt, 1963); Turkey (Acatay, 1948, 1961, 1968; Danilevsky & Miroshnikov, 1985; Lodos, 1998; Sama, 2002); Erzurum prov., Trabzon prov.: Hamsiköy, Zonguldak prov.: Safranbolu (Villiers, 1967); Gümüşhane prov.: Torul (Gfeller, 1972); Amasya prov.: Turhal (Gül-Zümrüoğlu, 1972); Artvin prov.: Ardanuç as *C. arietis gazella* Fabricius, 1792 (Sama, 1982); Erzurum prov.: Tercan (Öymen, 1987); Kocaeli prov.: İzmit (Adlbauer, 1988); European Turkey (Althoff & Danilevsky, 1997); Artvin prov.: Ardanuç (Tosunlu) (Alkan, 2000); Kocaeli prov.: İzmit (Beşkayalar Natural Park) (Özdikmen & Demirel, 2005); Bolu prov.: Abant, Çanakkale prov.: Kırazlı, Çankırı prov.: Ilgaz Mt., Erzurum prov.: İspir, Samsun prov.: Kavak (Hacılar pass) (Malmusi & Saltini, 2005); Ankara prov.: Kızılcahamam (Yenimahalle village) (Özdikmen, 2006); Düzce prov.: Yığılca, Kastamonu prov.: Küre, Bolu prov.: Pazarköy env. (Özdikmen, 2007).

Range: Europe (Portugal, Spain, France, Corsica, Italy, Slovenia, Croatia, Bosnia-Herzegovina, Serbia, Macedonia, Greece, Bulgaria, European Turkey, Romania, Hungary, Austria, Switzerland, Belgium, Netherlands, Denmark, Germany, Luxembourg, Great Britain, ?Ireland, Czechia, Slovakia, Norway, Poland, Sweden, Finland, Estonia, Latvia, Lithuania, Belorussia, Ukraine, Crimea, Moldavia, European Russia, ?European Kazakhstan), Central Asia, Turkmenistan, Caucasus, Azerbaijan, Transcaucasia, Turkey, Iran.

Chorotype: European

Remarks: It distributes in North and East Turkey. The species has three (or four) subspecies in the World. Danilevsky (2009a,b) stated that "*Clytus arietis gazella Fabricius*" was recorded for Artvin (Turkey) by G.Sama (1982). According to personal communication by G. Sama (2004), the name was introduced by Fabricius for a colour form (black femurs) of *Clytus arietis* from "Kiliae = Kiel" and does not represent a separate taxon". So, the species is represented by two subspecies in Turkey. *C. arietis lederi* Ganglbauer, 1881 occurs in Caucasus (Talysh, Kopet-Dag and North Iran), East Turkey (Danilevsky, 2009b) and the nominative *C. arietis arietis* (Linnaeus, 1758) occurs in other parts of North Turkey. Another subspecies is *C. arietis oblitus* Roubal, 1932 occurs only in Caucasus.

ciliciensis Chevrolat, 1863

Original combination: *Sphegistes ciliciensis* Chevrolat, 1863

Other names. *bifarius* Heyden; *reitteri* Thery; *griseofasciatus* Pic.

Body length 5-10 mm. Antennae brownish completely. Pronotum with very reduced white borders; anterior border into a trace just in the middle, posterior border more clear but very reduced and interrupted in the middle. Scutellum covered with yellow hairs. Scutellum rounded in the apex. Elytra rounded in the apex. Elytra with two transverse bands, without humeral band and band of elytral apex. 1st band clear, oblique transverse (very concave undulating), almost reaching to the suture at the end, beginning near the middle of elytron and run obliquely to basal quarter of elytron; 2nd band clear, transverse (on the elytral margin slightly lower than the suture), reaching to so near the suture at the end. So, elytral bands not reaching to the suture or only 1 elytral band (the 1st band) almost reaching to the suture. Elytral bands with yellow hairs. Legs blackish generally, tibiae and tarsi brownish or dark brown.

Material examined: Osmaniye prov.: Kalecik-Hasanbeyli road, N 37 03 E 36 30, 689 m, 19.05.2006, 1 specimen; Hasanbeyli, Kalecikli village, N 37 09 E 36 27, 587 m, 19.05.2006, 2 specimens; Karaçay district, N 37 02 E 36 17, 212 m, 17.05.2006, 3 specimens; Zorkun road, Çiftmazı, N 37 01 E 36 17, 223 m, 20.05.2006, 1 specimen; Issızca village, N 37 08 E 36 20, 139 m, 21.04.2007, 1 specimen; Bıçakçı village, N 37 09 E 36 17, 293 m, 21.04.2007, 1 specimen; Bahçe, Horu stream env., N 37 10 E 36 27, 562 m, 17.05.2007, 2 specimens; Bahçe, Kabacalı village, N 37 11 E 36 36, 722 m, 02.06.2007, 3 specimens; Hatay prov.: Sazlık, N 36 54 E 36 07, 15 m, 17.05.2006, 1 specimen; Erzinkaplı place, N 36 57 E 36 15, 123 m, 17.05.2006, 1 specimen; Kuzuculu, N 36 53 E 36 15, 134 m, 23.04.2007, 1 specimen.

Records in Turkey: Type loc.: Caramanie (Tarsous) (Chevrolat, 1863); Turkey (Winkler, 1924-1932; Lodos, 1998); Hatay prov.: İskenderun (Demelt, 1963); İçel prov.: Gözne (Villiers, 1967); İçel prov.: Erdemli and Kuzucubelen (Adlbauer, 1988); Kahramanmaraş prov.: Ekinözü (Türkeli), Pazarcık, Central, Kahramanmaraş-Andırın road (Özdikmen & Okutaner, 2005); İçel prov.: Erdemli- Güzeloluk, Tarsus-Çamlıyayla (Malmusi & Saltini, 2005); İçel prov.: Erdemli (Limonlu) (Özdikmen et al., 2005); Osmaniye prov.: Düziçi (Gökçayır village) (Özdikmen & Demirel, 2005); İçel prov.: Erdemli-Güzeloluk road (Özdikmen, 2006).

Range: Turkey.

Chorotype: Anatolian

Remarks: The species is endemic to Turkey. Aurivillius (1912) recorded it for Anatolia, Syria and Cyprus, but its status in Syria and Cyprus is not clear. It distributes rather widely in only S Anatolia.

***gulekanus* Pic, 1904**

Original combination: *Clytus gulekanus* Pic, 1904

Body length 6-15 mm. Antennae brownish completely. Pronotum with reduced yellow borders; both anterior and posterior borders interrupted in the middle, posterior border more reduced than the anterior. Scutellum covered with yellow hairs. Scutellum pointed in the apex. Elytra truncated in the apex. Elytra with 4 transverse bands and spots. 1st band (humeral spot) clear, oblique, not reaching to the suture, only in humeral part; 2nd band so clear, oblique transverse (very concave undulating), not reaching to the suture but in the length of one third at the end run parallelly along the suture, the lowest part just in the middle of elytron and run obliquely to basal one fourth of elytron, begins and finishes in second quarter of elytron; 3rd band so clear, more or less transverse but like a distinct spot, not reaching the elytral margin, almost reaching to the suture, just at the beginning part of apical quarter of elytron; 4th band (band of elytral apex) clear, more or less smooth or slightly concave, reaching to the suture. So, only 1 elytral band (band of elytral apex) reaching to the suture. Elytral bands with yellow hairs. Legs brown generally, all femora blackish with brown basal and apical end.

Records in Turkey: Type loc.: İçel prov.: Namrun and Tarsus (Ex Akşit et al., 2005); Taurus (Aurivillius, 1912); Turkey (Winkler, 1924-1932; Lodos, 1998); İçel prov.: Tarsus, Çamlıyayla (Adlbauer, 1988); Aydın prov.: Buharkent (Akşit et al., 2005).

Range: Turkey.

Chorotype: Anatolian

Remarks: It is endemic to Turkey and according to the record of Akşit et al. (2005) it distributes rather widely in S and SW Anatolia. Host plant is *Ficus carica*.

kumalariensis Johannides, 2001

Original combination: *Clytus kumalariensis* Johannides, 2001

Body length 10-14 mm. Antennae brownish completely. Pronotum with yellow anterior border and without posterior border. Scutellum covered with yellow hairs. Scutellum rounded in the apex. Elytra truncated in the apex. Elytra with 4 transverse bands and spots. 1st band (humeral spot) clear, transverse, more or less smooth or slightly convex, not reaching to the suture and elytral margin, only in humeral part; 2nd band so clear, oblique transverse (very concave undulating), not reaching to the suture but in the length of one third at the end run more or less parallel along the suture, the lowest part just in the middle of elytron and run obliquely to basal quarter of elytron (almost to level of humeral spot), begins in second quarter and finishes in first quarter of elytron; 3rd band so clear, transverse, slightly convex undulating, reaching to the suture, just on tree fourth of elytron; 4th band (band of elytral apex) clear, more or less smooth or slightly concave, reaching to the suture. So, two elytral band (3rd band and band of elytral apex) reaching to the suture. Elytral bands with yellow hairs. Legs brown generally, all femora blackish with brown basal and apical end but hind femora paler.

Records in Turkey: Type loc.: Afyon prov.: Kumalar Mountain (Şuhut-Başören) (Holotype and allotype), Afyon prov.: Kumalar Mountain (Şuhut-Başören), 3 km West of Başören (paratypes) (Johanides, 2001).

Range: Turkey.

Chorotype: Anatolian

Remarks: The species is endemic to Turkey. Until now it has been known only from the type locality. Probably the species distributes only in CW Turkey.

madoni Pic, 1890

Original combination: *Clytus (Clytantus) madoni* Pic, 1890

Other names. *preapicalis* Pic.

Body length 5-8 mm. Antennae brownish completely. Pronotum without borders. Scutellum covered with white hairs. Scutellum rounded in the apex. Elytra truncated in the apex. Elytra with two transverse bands, without humeral band and band of elytral apex. 1st band clear, oblique transverse (concave undulating), not reaching to the suture, beginning near the middle of elytron and run obliquely to the beginning part of second quarter of elytron (at the beginning level so lower than the end); 2nd band clear, oblique transverse, more or less smooth or slightly undulating, reaching to near the suture at the end (at the beginning level lower than the end). So, elytral bands not reaching to the suture. Elytral bands with white hairs. Legs blackish dark brown.

Records in Turkey: Type loc.: Palestine (Pic, 1890); Hatay prov.: Antakya (Adlbauer, 1992); Turkey (Lodos, 1998; Sama & Rapuzzi, 2000); Hatay prov.: Harbiye-Yayladağı (Malmusi & Saltini, 2005).

Range: Turkey, Israel, Palestine, Cyprus.

Chorotype: E-Mediterranean (Palestino-Cyprioto-Taurian)

Remarks: It distributes only in S Anatolia for Turkey. *Clytus preapicalis* Pic, 1939 was proposed by Holzschuh (1975) as a synonym.

ramni Germar, 1817

ssp. ***ramni*** Germar, 1817

ssp. ***temesiensis*** Germar, 1824

ssp. ***bellieri*** Gautier, 1862

Original combination: *Clytus ramni* Germar, 1817

Other names. *gazella* Olivier; *corsicus* Chevrolat; *ferruginipes* Pic; *bifasciatus* Nicolas; *longicollis* Reitter; *siculus* Wagner; *innormalis* Pic; *paliuri* Depoli; *latevittatus* Schaefer; *kaszabi* Heyrovsky; *anticedivisus* Podany.

Body length 6-12 mm. Antennae brownish, blackish or dark brown towards to distal end (distal half of fifth segment to eleventh segment). Pronotum with yellow borders; anterior border complete, posterior border interrupted in the middle. Scutellum covered with yellow hairs. Scutellum rounded in the apex. Elytra truncated in the apex. Elytra with four transverse bands and spots. 1st band (humeral spot) clear, more or less oblique or more or less circular, not reaching to the suture, only in humeral part; 2nd band so clear, oblique transverse (very concave undulating), reaching to the suture at the end, beginning near the middle of elytron and run obliquely to basal quarter of elytron (almost to level of humeral spot), begins in second quarter and finishes in first quarter of elytron (at the beginning level so lower than the end); 3rd band so clear, transverse, more or less smooth, reaching to the suture, just on tree fourth of elytron; 4th band (band of elytral apex) so clear, more or less smooth, reaching to the suture. So, 3 elytral bands reaching to the suture and 1 elytral band or spot (humeral band or spot) not reaching to the suture. Elytral bands with yellow hairs. Legs brown generally, all femora black and hind tibiae blackish or dark brown.

In ssp. *temesiensis*, posterior border of pronotum almost complete and front legs and antennae paler.

Material examined: Antalya prov.: Akseki, Murtıçı-Güzelsu, 970 m, N 36 54 E 31 49, 11.06.2007, 2 specimens; İbradı, 908 m, N 37 04 E 31 36, 11.06.2007, 5 specimens, 1008 m, N 37 05 E 31 36, 09.06.2008, 3 specimens; Hatay prov.: Samandağı, Kapisuyu village, N 36 07 E 35 57, 323 m, 04.06.2007, 1 specimen; Konya prov.: Hadim, Korualan env., 1648 m, N 36 58 E 32 24, 12.06.2008, 3 specimens; Osmaniye prov.: Zorkun road, Çiftmazı Gölü, N 37 01 E 36 17, 751 m, 24.06.2006, 1 specimen; Cebel road, Çürükarmut plateau, N 37 04 E 36 21, 911 m, 26.06.2006, 3 specimens; Yarpuz road, Yukarı Haraz plateau, N 37 04 E 36 22, 856 m, 26.06.2006, 30 specimens; Yarpuz road, 8th km, N 37 04 E 36 20, 718 m, 26.05.2006, 3 specimens; Zorkun road, Karacalar village, N 37 02 E 36 16, 381 m, 24.06.2006, 1 specimen; Zorkun road, Ürün plateau, N 37 01 E 36 16, 785 m, 24.06.2006, 2 specimens; Yarpuz road, Forest store env., N 37 05 E 36 19, 273 m, 18.05.2006, 1 specimen; Düziçi, Gökçay, N 37 20 E 36 27, 600 m,

02.06.2007, 6 specimens; Düziçi, Yarbaşı, N 37 11 E 36 25, 376 m, 02.06.2007, 1 specimen; Bahçe, Kabacalı village, N 37 11 E 36 36, 722 m, 02.06.2007, 2 specimens.

Records in Turkey: İstanbul prov.: Alem Mt. (Bodemeyer, 1906); European Turkey as *C. rhamni* v. *ferruginipes* Pic, 1891 (Winkler, 1924-1932); Sinop prov.: Ayancık (Schimitschek, 1944); Amasya prov. (Villiers, 1959); İstanbul prov.: Polonez village / Alem Mountain / Beykoz / Anadoluhisarı / Çengelköy, İzmir prov.: near Central / Kemalpaşa / Efes / Bergama, Antalya prov.: near Central / Belkis (Aspendos, Cumali) / Antitoros Mountains (Bey Mountains / Korkuteli) / Alanya and near, Isparta prov.: Eğirdir and near (Demelt & Alkan, 1962); Turkey (Demelt, 1963; Danilevsky & Miroshnikov, 1985; Lodos, 1998); Amasya prov., Artvin prov. (Villiers, 1967); Bayburt prov.: Central (Fuchs et Breuning, 1971); Amasya prov., Kocaeli prov., Yalova prov. (Gfeller, 1972); İçel prov.: Silifke (Tuatay et al., 1972); Gaziantep prov.: Fevzipaşa as *C. rhamni temesiensis* (Sama, 1982); Hatay prov.: Amanos Mountains (near Dörtöl) (Öymen, 1987); İzmir prov.: Efes, Antalya prov.: Central / Kemer / Alanya (Güzelbağ) / Manavgat / Patara / Termessos / Yeni Karaman, İçel prov.: Anamur / Silifke (Central / Gülnar) / Kuzucubelen / Tarsus (Çamlıyayla) / Kanlıdivane, Çanakkale prov.: Ayvacık, Osmaniye prov.: Nurdağı pass, Kahramanmaraş prov.: Andırın, Adana prov.: Kozan as *C. rhamni temesiensis* (Adlbauer, 1988); European Turkey as *C. rhamni temesiensis* (Althoff & Danilevsky, 1997); Adıyaman prov.: Karadut village env. as *C. rhamni temesiensis* (Rejzek & Hoskovec, 1999); Antalya prov.: Arapsuyu, Artvin prov.: Yusufeli, Bilecik prov.: Central, Hatay prov.: Erzin, Gümüşhane prov.: Kale, Tokat prov.: Central (Tozlu et al., 2002); Asia Minor as *C. rhamni temesiensis* (Sama, 2002); Antalya prov.: Alanya (Mahmutlar) / Kemer (Olimpos Mt.), Konya prov.: Akşehir (Cankurtaran village, Sultan Mts.), Sivas prov.: Yıldızeli (Cumhuriyet village), Yozgat prov.: Çiğdemli (Gökiniş village), Gümüşhane prov.: Kelkit (Günyurdu village) (Özdikmen & Çağlar, 2004); İçel prov.: Silifke, İstanbul prov.: Kadıköy (Özdikmen et al., 2005); Kocaeli prov.: İzmit (Ballıkayalar Natural Park / Beşkayalar Natural Park), Osmaniye prov.: Zorkun plateau / Zorkun plateau road (Ürün plateau / Olukbaşı place) / Yarpuz road (Karataş place) (Özdikmen & Demirel, 2005); Amasya prov.: Aydınca (İnegöl Mt.), Artvin prov.: from Şavşat to Çam pass, Adana prov., Bursa prov.: Uludağ, Çanakkale prov.: Kirazlı, Çankırı prov.: Çerkeş, Kırklareli prov.: Demirköy, İçel prov.: Erdemli- Güzeloluk / Güzeloluk / from Tarsus to Çamlıyayla / from Ortagören to Mut, Malatya prov.: Reşadiye pass, Rize prov.: Artvin-Şavşat, Samsun prov.: Kavak (Hacılar pass) (Malmusi & Saltini, 2005); Ankara prov.: Kızılcahamam (Işık Mountain, Yukarı Çanlı) (Özdikmen & Demir, 2006); Ankara prov.: Kızılcahamam (S of Dam / Güvem / Yasin village / Yukarı Çanlı, İçel prov.: Uzuncaburç / Mersin-Gözne road (entry of Yeniköy), Kayseri prov.: Yahyalı (Büyükçayır-Yeşilköy, Kapuzbaşı place) (Özdikmen, 2006).

Range: Europe (Portugal, Spain, France, Corsica, Italy, Sicily, Sardinia, Albania, Slovenia, Croatia, Bosnia-Herzegovina, Serbia, Macedonia, Greece, Bulgaria, European Turkey, Romania, Hungary, Austria, Switzerland, Germany, Czechia, Slovakia, Poland, Latvia, Belorussia, Ukraine, Crimea, Moldavia, European Russia, European Kazakhstan), Caucasus, Transcaucasia, Turkey, Iran, Syria, Cyprus.

Chorotype: European

Remarks: It distributes widely in Turkey. The species is represented by two subspecies in Turkey. *C. rhamni temesiensis* Germar, 1824 occurs in West and South Turkey and the nominative *C. rhamni rhamni* Germar, 1817 occurs in other parts of Turkey. The other known subspecies, *C. rhamni bellieri* Gautier, 1862, occurs in W Mediterranean, C Europe, Sicily and Italy.

***schneideri* Kiesenwetter, 1879**

ssp. *schneideri* Kiesenwetter, 1879

ssp. *inapicalis* Pic, 1895

Original combination: *Clytus schneideri* Kiesenwetter, 1879

Other names: *robertae* Mineau & Teocchi.

Body length 6-12 mm. Antennae brownish completely. Pronotum with clear yellow borders, both borders not interrupted. Scutellum covered with yellow hairs. Scutellum rounded in the apex. Elytra rounded in the apex. Elytra with four transverse bands and spots, without band of elytral apex. 1st band (humeral band or spot) clear, transverse, more or less smooth, not reaching to the suture at the end but run to the half of elytronal wideness; 2nd band so clear, oblique transverse (very concave undulating), reaching to the suture at the end, begins near the middle of elytron and run obliquely to one fourth of elytron, begins and finishes in second quarter of elytron; 3rd band clear, oblique transverse, more or less smooth, reaching to the suture, just on tree fourth of elytron at the beginning (on the elytral margin lower than the suture); 4th band clear, transverse, more or less smooth or slightly concave, reaching to the suture and the elytral margin, in apical quarter of elytron but distinctly apart from the elytral apex. So, 3 elytral bands reaching to the suture and 1 elytral band or spot (humeral band or spot) not reaching to the suture. Elytral bands with yellow hairs. Legs brownish.

In ssp. *inapicalis*, elytral bands broader and more distinct; 1st elytral band (humeral band or spot) clear, transverse, more or less smooth, not reaching to the suture at the end but run slightly beyond the half of elytronal wideness; 2nd elytral band more distinct, oblique transverse (concave undulating), reaching to the suture at the end, the lowest part near the middle of elytron and run obliquely to basal quarter of elytron, begins in second quarter of elytron and finishes in first quarter of elytron; 4th band clear, oblique transverse, more or less smooth, reaching to the suture, setting on apical quarter of elytron but distinctly apart from the elytral apex.

Records in Turkey: Turkey: Erzurum prov. as type loc. of *C. schneideri inapicalis* Pic, 1895; Turkey (Winkler, 1924-1932; Danilevsky & Miroshnikov, 1985); Turkey as *C. inapicalis* Pic, 1895 (Winkler, 1924-1932; Lodos, 1998); Artvin prov.: Ardanuç (Sama, 1982); Artvin prov.: Ardanuç / 10 km SE Borçka / Şavşat (Central / Çam pass) / Yalnızçam pass (Sama, 1996); Erzurum prov.: İspir, Artvin prov.: NW Yusufeli (Altıparmak) as *C. schneideri inapicalis* Pic, 1895 (Sama, 1996); Erzurum prov.: İspir (Tauzin, 2000); Artvin prov.: Yusufeli (Yesiltepe env. / Barhal road / Central (Özdikmen & Demirel, 2005); Artvin prov.: Şavşat, Rize prov.: Artvin-Şavşat / Cankurtaran pass (Malmusi & Saltini, 2005); Artvin prov.: Yusufeli as *C. inapicalis* Pic, 1895 (Malmusi & Saltini, 2005).

Range: Caucasus, Iran, Turkey.

Chorotype: SW-Asiatic (Anatolo-Caucasian + Irano-Caucasian + Irano-Anatolian). According to Sama (1996 and 2002), *C. robertae* Mineau & Teocchi is nomen nudum and collecting label is wrong fairly probable.

Remarks: The species distributes only in NE Turkey. It is represented by two subspecies in Turkey. According to Sama (1996), *C. schneideri inapicalis* Pic, 1895 occurs only in NE Turkey (eastwards Tokat prov. to Artvin prov.) and the nominative *C. schneideri schneideri* Kiesenwetter, 1879 occurs in Artvin prov. of NE Turkey. The nominative subspecies is distributed mainly in Caucasus, Iran and Near East. Some old records from Turkey of this species belong to the species *C. schurmanni* Sama, 1996. These records are given below. Sama (1996) recognized *Clytus schneideri inapicalis* Pic, 1895 (stat. n.) as a subspecies.

***schurmanni* Sama, 1996**

Original combination: *Clytus schurmanni* Sama, 1996

Body length 6-12 mm. This species so close to *C. schneideri* Kiesenwetter, 1879. Sama (1996) originally stated that “*Cette espèce qu'on a jusqu'ici rapportée à C. schneideri, s'en sépare à première vue par ses bandes élytrales bien plus réduites et minces, presque linéaires, son écusson non flanqué d'une tache de poils jaunes de chaque côté, la ponctuation du pronotum et des élytres plus fine, la pubescence sombre qui couvre les élytres plus courte, plus raide et clairsemée, l'apex élytral atténué, anguleux en dehors, tandis qu'il est arrondi chez schneideri et inapicalis*”.

Chiefly, elytra attenuated in the apex but rounded in *C. schneideri schneideri* and *C. schneideri inapicalis*. Elytral bands are more reduced and slim, almost linear. Elytral bands with yellow hairs.

Records in Turkey: There are two types of the records from Turkey for this species. As *C. schurmanni* Sama, 1996: Holotype: Ankara prov.: Kızılcahamam, Paratypes: Ankara prov.: Kızılcahamam / Işık Mountain, Çankırı prov.: Çerkeş / Ilgaz, Çorum prov.: Boğazkale, Amasya prov., Tokat prov.: Central / Almus, Yozgat prov. (Sama, 1996a); Turkey (Johanides, 2001); Bolu prov.: Köroğlu Beli (Özdikmen et al., 2005); Kırşehir prov.: Boztepe road (Özdikmen & Demirel, 2005); Amasya prov.: Aydınca, Çankırı prov.: Çerkeş / Korgun, Çorum prov.: Boğazkale (Malmusi & Saltini, 2005); Ankara prov.: Kızılcahamam (Soğuksu National Park) / Sincan (Mülk, Ayaş Mountain) (Özdikmen & Demir, 2006); Karabük prov.: Safranbolu (Bulak village), between Azdavay–Pınarbaşı, Hanönü env., Çorum prov.: Tosya–Kargı road (Özdikmen, 2007); Ankara prov.: Bağlum (Özdikmen et al., 2009). As *C. schneideri* Kiesenwetter, 1879: Amasya prov. (Villiers, 1967); Ankara prov.: Işık Mountain (Demelt, 1967); Amasya prov. – Heyden, 1890 (Ex. Gül-Zümreoğlu, 1975); Ankara prov.: Çubuk dam, İzmir prov.: Kemalpaşa (Gül-Zümreoğlu, 1975); Tokat prov.: Almus (Sama, 1982); Ankara prov.: Kızılcahamam, Tokat prov.: Central / Akbelen / Mezra / Yakacık (Gökdere), Amasya prov.: Merzifon, Kastamonu prov.: Akaya / Central (Adlbauer, 1992); İzmir prov., Ankara prov., Amasya prov. (Lodos, 1998).

Range: Turkey.

Chorotype: Anatolian

Remarks: It is endemic to Turkey and distributes mostly in central parts of North Turkey.

***taurusiensis* Pic, 1903**

Original combination: *Clytus (Clytantus) taurusiensis* Pic, 1903

Other names: *bytinskii* Heyrovsky.

Body length 6-10 mm. Antennae brownish completely. Pronotum without borders. Scutellum covered with white hairs. Scutellum rounded in the apex. Elytra truncated in the apex. Elytra with two transverse bands, without humeral band and band of elytral apex. 1st band reduced, fine but clear, very oblique transverse (very concave undulating), not reaching to the suture and elytral margin but in the most length at the end run more or less parallel along the suture, the lowest part in just middle of elytron and run obliquely to one fourth of elytron (run along the whole length of second quarter of elytron); 2nd band clear, oblique transverse, smooth, almost reaching to the suture at the end (at the beginning level very lower than the end). So, elytral bands not reaching to the suture or 1 elytral band (2nd band) almost reaching to the suture. Elytral bands with white hairs. Legs blackish dark brown.

Records in Turkey: Osmaniye prov.: Bahçe (Adlbauer, 1992); Turkey (Lodos, 1998); Hatay prov.: Antakya (Teknepinar) (Özdikmen & Demirel, 2005); İçel prov.: Uzuncaburç road (Özdikmen, 2006).

Range: Turkey, Israel.

Chorotype: E-Mediterranean (Palestino-Taurian)

Remarks: It probably distributes only in S Anatolia for Turkey. *Clytus bytinskii* Heyrovsky, 1954 was proposed by Holzschuh (1975) as a synonym.

***tropicus* Panzer, 1795**

Original combination: *Callidium tropicum* Panzer, 1795

Other names: *mucronatus* Castelnau & Gory; *kelchi* Bach; *prescutellaris* Pic; *interruptus* Pic; *reclinatus* Pic; *inbasalis* Plavilstshikov; *posticedivisus* Plavilstshikov; *posticeabruptus* Plavilstshikov; *posticereductus* Plavilstshikov; *posticeconjunctus* Plavilstshikov; *maculatus* Sekera; *bimaculaticollis* Sekera; *nigricollis* Sekera; *tripunctatus* Sekera; *kudlai* Sekera; *tippmanni* Sekera; *anticereductus* Schmidt; *incertus* Niedl; *klinzigi* Podany; *georgii* Podany; *palaseki* Podany; *reductesignatus* Heyrovsky; *circumactus* Slama; *terinterruptus* Slama.

Body length 10-20 mm. Antennae brownish completely. Pronotum with 4 spots of yellow hairs (2 spots near anterior margin and 2 spots near posterior margin). Scutellum covered with yellow hairs. Scutellum rounded in the apex. Elytra rounded in the apex. Elytra with four transverse bands and spots,

without band of elytral apex. 1st band or spot (humeral band or spot) clear, oblique, more or less circular, not reaching to the suture, setting just in one fourth of the elytron centrally; 2nd band so clear, oblique transverse (very concave undulating), reaching to the suture at the end, in the most length at the end run more or less parallel along the suture, the lowest part in just middle of elytron and run obliquely to basal quarter of elytron, begins in second quarter of elytron and finishes in first quarter of elytron; 3rd band so clear, oblique transverse, slightly convex or more or less smooth, reaching to the suture and near the elytral margin but not reaching, setting just on tree fourth of elytron; 4th band clear, oblique transverse, concave, reaching to the suture but not reaching the elytral margin. So, 3 elytral bands reaching to the suture and 1 elytral band or spot (humeral band or spot) not reaching to the suture. Elytral bands with yellow hairs. Legs brownish generally, all femora black with brownish basal and apical parts.

Records in Turkey: European Turkey (Althoff & Danilevsky, 1997); Turkey (Lodos, 1998).

Range: Europe (Spain, France, Corsica, Croatia and Bosnia-Herzegovina, Serbia, Macedonia, Greece, Bulgaria, European Turkey, Romania, Hungary, Austria, Switzerland, Germany, Czechia, Slovakia, Poland, Belorussiya, Ukraine, Moldova, European Russia).

Chorotype: European or S-European

Remarks: It probably distributes only in NW Turkey.

Genus *SPHEGOCLYTUS* Sama, 2005

Type species: *Clytus vesparum stepanovi* Danilevsky & Miroshnikov, 1985 [= *Clytus stepanovi* Danilevsky & Miroshnikov, 1985]

The generic characters were given by Sama (2005). “*Head with front subvertical, without carinae or distinct longitudinal lines; the posterior part of head, concealed under the anterior part of pronotum, simple, not extended behind. Antennae short (in both sexes hardly extending to the middle of elytra), all segments not spinose. Pronotum subhexagonal, slightly rounded at sides, the disc distinctly elevated on the anterior and posterior margins, transversally depressed on the middle between these two elevations and with one longitudinal depressed area on each side. Legs slender, 2nd segment of hind tarsi not longer than 3rd. Besides the basal falcate sclerite, the internal sac of aedeagus only with a single apical sclerite*”.

The genus *Sphegoclytus* was recently described by Sama (2005) on the base of the only one species, *Clytus stepanovi* (Danilevsky & Miroshnikov, 1985) with a note that “*Clytus vesparum* Reitter, 1889 (described from “*Talisch*”, currently Azerbaijan) possibly belongs to the new genus”. *Clytus stepanovi* was described by Danilevsky & Miroshnikov (1985) from Krasnodar in north-western Caucasus as a subspecies of *C. vesparum* Reitter, 1889. Miroshnikov (1990) proposed to regard *C. stepanovi* as a distinct species. Although, the genus *Sphegoclytus* Sama, 2005 was regarded by Danilevsky (2009b) as a subgenus of *Clytus* Laicharting, 1784. He stated that “*Sphegoclytus* Sama, 2005 was described for *Clytus*

stepanovi only with a remark: "*Clytus vesparum* Reitter, 1889 possibly belongs to a new genus". The current composition of the genus *Clytus* is so heterogeneous, that now *Sphegoclytus* must be accepted as a subgenus, which sure includes *Clytus vesparum*". However, we accept that *Sphegoclytus* Sama, 2005 is a separate genus, not a subgenus of *Clytus*. Since, Sama (2005) stated that "the new genus appears more closely related to *Clytus* from which it differs in the shape and number of sclerites of the internal sac of aedeagus (which in *Clytus* has two rows of spines) (Figs 9-10), the shape of pronotum, the 2nd segment of hind tarsi not longer than 3rd (distinctly longer in *Clytus*)". So we also take into consideration the form of head and we agree with the approach of Sama (2005). And now we have evaluated *C. vesparum* Reitter, 1889 in the genus *Sphegoclytus* Sama, 2005 in the present text.

The presence of the genus in Turkey is not clear. Until now, it has not been recorded from any exact locality in Turkey. If present, it probably distributes only in NE Anatolia for Turkey.

Turkish *Sphegoclytus* Sama, 2005 taxa are presented as follows:

stepanovi Danilevsky & Miroshnikov, 1985

Original combination: *Clytus vesparum stepanovi* Danilevsky & Miroshnikov, 1985

Body length 8-12 mm. Antennae brownish completely. Pronotum with yellow borders; in female, anterior border interrupted in the middle and posterior border complete; in male both borders interrupted in the middle. Scutellum covered with yellow hairs. Scutellum pointed in the apex. Elytra truncated in the apex. Elytra with four transverse bands and spots. 1st band or spot (humeral band or spot) clear, oblique, not reaching to the suture at the end but run at least the half of elytral width; 2nd band clear, oblique transverse (very concave undulating), reaching to the suture at the end, beginning just in one third of elytron and run obliquely to basal quarter of elytron (almost to level of humeral spot); 3rd band so clear, transverse, more thickened in the suture, reaching to the suture but not reaching the elytral margin, just on two third of elytron; 4th band (band of elytral apex) clear, more or less smooth, reaching to the suture. So, 3 elytral bands reaching to the suture. Elytral bands with yellow hairs. Legs brownish generally, all femora black in the apical half.

Records in Turkey: N Turkey (Danilevsky & Miroshnikov, 1985; Johanides, 2001).

Range: Caucasus, Turkey.

Chorotype: SW-Asiatic (Anatolo-Caucasian)

Remarks: Its status in Turkey is not clear. It has not any record of exact locality in Turkey. If present, it probably distributes only in NE Anatolia for Turkey.

vesparum Reitter, 1889

Original combination: *Clytus vesparum* Reitter, 1889

Body length 10-18 mm. In general, this species is close to *S. stepanovi*. Pronotum with yellow borders; anterior border usually interrupted in the middle and posterior border complete. Yellow borders of pronotum are very narrow in *S. stepanovi*. Scutellum covered with yellow hairs. Background coloration of elytra brownish, but blackish in *S. stepanovi* at least on the elytral disc. This species is a little larger size than *S. stepanovi*.

Records in Turkey: N Turkey (Danilevsky & Miroshnikov, 1985; Danilevsky, 2009b).

Range: Caucasus, Iran, Turkey.

Chorotype: SW-Asiatic (Irano-Caucasian + Anatolo-Caucasian + Irano-Anatolian)

Remarks: Its status in Turkey is not clear. It has not any record of exact locality in Turkey. If present, it probably distributes only in NE Anatolia for Turkey.

A short key for Turkish *Clytus* and *Sphegoclytus* species

- 1 Pronotum transverse or slightly oblong, laterally rounded.....**2 (*Clytus*)**
 - Pronotum subhexagonal, slightly rounded at sides.....**11 (*Sphegoclytus*)**
- 2 Elytral apex with a band of hairs.....**8**
 - Elytral apex without a band of hairs.....**3**
- 3 Elytra with a band of hairs in the apical quarter.....**4**
 - Elytra without a band of hairs in the apical quarter.....**6**
- 4 Elytral band in the apical quarter near the elytral apex but clearly separating from apex.....***tropicus* Panzer, 1795**
 - Elytral band in the apical quarter distinctly apart from the elytral apex.....**5**
- 5 Elytra rounded in the apex.....***schneideri* Kiesenwetter, 1879**
 - Elytra attenuated in the apex.....***schurmanni* Sama, 1996**
- 6 Elytra with bands of yellow hairs.....***ciliciensis* Chevrolat, 1863**
 - Elytra with bands of white hairs.....**7**
- 7 The first elytral band of white hairs so clear, almost reaching the elytral margin and not run parallelly along the suture.....***madoni* Pic, 1890**
 - The first elytral band of white hairs fine, not reaching the elytral margin and run more or less parallel along the suture.....***taurusiensis* Pic, 1903**
- 8 Scutellum more or less pointed in the apex.....***gulekanus* Pic, 1904**
 - Scutellum rounded in the apex.....**9**
- 9 Antennae brownish completely.....***kumalariensis* Johanides, 2001**
 - Antennae not brownish completely; antennae brownish, blackish or dark brown towards to distal end.....**10**

10 Humeral bands or spots on the elytra clear, transverse, more or less smooth or slightly convex, not reaching to the suture at the end but run beyond the half of elytral widening.....**arietis** Linnaeus, 1758
 - Humeral bands or spots on the elytra clear, more or less oblique or more or less circular, not reaching to the suture, only in humeral part....**rahamni** Germar, 1817

11 Pronotum with clear yellow borders; background coloration of elytra mostly brownish; body length 10-18 mm.....**vesparum** Reitter, 1889
 - Yellow borders of pronotum very narrow; background coloration of elytra mostly black or blackish; smaller.....**stepanovi** Danilevsky & Miroshnikov, 1985

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