

SUBSPECIFIC STATUS OF *RUTPELA MACULATA* (PODA, 1761)(COLEOPTERA: CERAMBYCIDAE: LEPTURINAE)

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ABSTRACT: The subspecific status of *Rutpela maculata* (Poda, 1761) is discussed. So a new subspecies, *Rutpela maculata nigricornis* (Stierlin, 1864), is added for the fauna of Turkey.

KEY WORDS: *Rutpela maculata*, Lepturini, Lepturinae, Cerambycidae, Coleoptera, Turkey.

Rutpela maculata (Poda, 1761) has European chorotype in the world fauna. It is very variable. For this reason, it has been described many different color forms that have been described by various authors as different taxa: *Leptura fasciata* Scopoli, 1763; *Leptura elongata* DeGeer, 1775; *Leptura armata* Herbst, 1784; *Leptura scopoliana* Laicharting, 1784; *Stenocorus rubea* Geoffroy, 1785; *Leptura calcarata* Olivier, 1790; *Leptura quinquemaculata* Gmelin, 1790; *Leptura nigrofasciata* V. Petagna, 1792; *Leptura sinuata* Fabricius, 1792; *Leptura subspinosa* Fabricius, 1792; *Strangalia binotata* Mulsant, 1839; *Strangalia externepunctata* Mulsant, 1839; *Strangalia impunctata* Mulsant, 1839; *Strangalia punctatofasciata* Mulsant, 1839; *Strangalia undulata* Mulsant, 1839; *Strangalia manca* Schaufuss, 1863; *Strangalia armata* var. *nigricornis* Stierlin, 1864; *Strangalia dayremi* Pic, 1904; *Leptura alsatica* Pic, 1906; *Leptura disconotata* Pic, 1908; *Leptura kricheldorfii* Wagner, 1928; *Strangalia bifenestrata* Pic, 1933; *Strangalia nicodi* Pic, 1933; *Strangalia discoininterrupta* Pic, 1945; *Strangalia dromensis* Pic, 1945; *Strangalia pacifica* Pic, 1945; *Rutpela maculata irmasanica* Sama, 1996.

Among them, only *Strangalia armata* var. *nigricornis* Stierlin, 1864 [as *Rutpela maculata nigricornis* (Stierlin, 1864)] and *Rutpela maculata irmasanica* Sama, 1996 are accepted the geographical races as subspecies of *Rutpela maculata* (Poda, 1761) according to Löbl & Smetana (2010). In the same reference, the remaining taxa are accepted as synonyms of the nominotypical subspecies.

Until 1996 the species, *Rutpela maculata* (Poda, 1761) was knowing as only one taxon. That year Gianfranco Sama described a new subspecies as *Rutpela maculata irmasanica* Sama, 1996 from Antalya province (Irmasan pass) in Southern Turkey. So the species has been represented by only two subspecies in the world fauna as the nominotypical subspecies and *Rutpela maculata irmasanica* Sama, 1996 which described on the base of red colored abdomen of males. The later has still been known as a local taxon in Southern Turkey yet.

On the other side, *Strangalia armata* var. *nigricornis* was described by Stierlin (1864) from Sicily. In 2006, Rapuzzi & Sama accepted it as a valid name for a subspecies of *Rutpela maculata* (Poda, 1761) from Sicilia and Calabria because of black antennae (with the exception of articles 4 to 7 which have a narrow yellowish basal ring) and totally black hind tibiae in males. So they given it as *Rutpela maculata* ssp. *nigricornis* (Stierlin, 1864) **status novus** in their

publication. They also stated that this form was already identified by Stierlin (1864). On the contrary the their subtitle, *Rutpela maculata* ssp. *nigricornis* (Stierlin, 1864) **status novus**, they considered the description of Stierlin as infrasubspecific status and the taxon not available under the International Code of Nomenclature (1999), art. 45.6.4.

The subspecific status of the taxon was also published by Löbl & Smetana (2010) as *Rutpela maculata nigricornis* (Stierlin, 1864) from Italia (Sicily) only. Rapuzzi & Sama (2010), however, stated *Strangalia armata* var. *nigricornis* Stierlin, 1864 is an unavailable name. So they used *Rutpela maculata nigricornis* Rapuzzi & Sama (2006) as the taxon name in their publication.

Rutpela maculata nigricornis Rapuzzi & Sama (2006) can not accept as an available name under the International Code of Nomenclature (1999), art. 16.1. Since the name was not introduced by the authors as new. This approach is also shared by Danilevsky (2011).

We studied the fauna of Bolu, Düzce and Kırıkkale provinces of Turkey in 2011 and collected *Rutpela maculata* (Poda, 1761) from Bolu and Düzce provinces (except Kırıkkale province). During the works, we detected an important serie of males which are different from the nominotypical subspecies. Then, we compared the new series with the old series that were collected by H. Özdikmen et al. from different parts of Turkey.

After the works, we saw that the species, *Rutpela maculata* (Poda, 1761), is represented by all subspecies (3 subspecies) in Turkey in real.

As seen above, *Rutpela maculata irmasanica* Sama, 1996 occurs only in Antalya provinces in Southern Turkey.

The nominotypical subspecies, *Rutpela maculata maculata* (Poda, 1761) occurs Northwestern Anatolia (e.g. Balıkesir province) and probably European Turkey.

Rutpela maculata nigricornis (Stierlin, 1864) occurs the remaining parts of Turkey (e.g. all territories of Western Black Sea Region including Düzce and Bolu provinces in Northern Turkey and Osmaniye province in South Turkey) (Fig 1, 4).

The later subspecies is probably distributed Turkey to Caucasus and Iran. We see some specimens from Georgia and Armenia. Moreover, Danilevsky (2011) stated that "According to Lazarev (2008) all populations of *Rutpela maculata* from Caucasus and Crimea must be regarded as *R. m. nigricornis* because of black hind tibiae in males".

This subspecies does not occur only in Italy (Sicily) for Southern Europe, but also at least in France. Since we saw some specimens from France on web page (e.g. www.galerie-insecte.org). Moreover, Danilevsky (2011) mentioned that the subspecies seems to be distributed in Spain evidently. Interestingly, it absolutely occurs in Great Britain. Since we also saw some specimens from Great Britain on web page (<http://www.thewcg.org.uk/Cerambycidae/0140G.htm>).

On the other side, we must state that the shape of parameres of *Rutpela maculata nigricornis* (Stierlin, 1864) is the same that of *Rutpela maculata maculata* (Poda, 1761).

According to the description of Rapuzzi & Sama (2006), *Rutpela maculata nigricornis* (Stierlin, 1864) is a color form of *Rutpela maculata* (Poda, 1761). It differs from the nominotypical subspecies by black antennae (with the exception of segments 4 to 7 which have a narrow yellowish basal ring) and totally black hind tibiae in males. However, we observed some variations in the populations in terms of these diagnostic characters. With this respect, coloring of antennae very variable (totally black to segments 3-11 which have a yellowish basal ring). The coloring of hind tibiae has only one variation. The articulation area between

femora and tibiae and / or a small parts of tibial bases is colored yellowish. However, that area mostly is completely black.

As a result of the present work, the distributional areas of the subspecies of *Rutpela maculata* (Poda, 1761) for Turkish and World fauna are presented as follows:

FOR TURKISH FAUNA

Old records from Turkey: Sinop prov.: around Ayancık (Schimitschek, 1944); Zigana Mountains (?Trabzon prov.) (Villiers, 1959); İstanbul prov.: Polonez village as *Strangalia maculata* (Demelt & Alkan, 1962; Demelt, 1963); Balıkesir prov.: Gönen, Çanakkale prov.: Biga (Gfeller, 1972); Turkey (Lobanov et al., 1981; Danilevsky & Miroshnikov, 1985; Svacha & Danilevsky, 1988; Sama, 2002); Trabzon prov.: Maçka (Sümela), Kastamonu prov., Sivas prov.: Çamlıbel pass (Sama, 1982); İstanbul prov.: Bahçeköy as *Strangalia maculata* (Öymen, 1987); Tokat prov.: Mezra, Amasya prov.: Merzifon (Ortaköy, Suluova), Kastamonu prov.: Masruf pass (Küre), Tunceli prov.: Pülümür, Rize prov.: Ovitdağı pass (İkizdere) (Adlbauer, 1992); Holotype: Antalya prov.: İrmasan pass as type locality of *R. maculata irmasanica* Sama, 1996 and Akseki (Sama, 1996); Hatay prov.: Akbez, İçel prov.: Namrun (Bolkar Mountains) (Sama, 1996); İstanbul prov., Artvin prov., North parts of Van prov., East Anatolian Region (Lodos, 1998); Artvin prov.: Şavşat (Karagöl) / Yusufeli, Balıkesir prov.: Erdek, Bingöl prov.: Central, Trabzon prov.: Beşikdüzü (Türkelli) (Tozlu et al., 2002); Artvin prov.: Şavşat, Bolu prov.: Abant, Bursa prov.: Uludağ, Çanakkale prov.: Kirazlı, Kırklareli prov.: Demirkoy, Malatya prov.: Reşadiye pass, Muş prov.: Buğlan pass, Rize prov.: İkizdere / Şavşat-Çam pass, Samsun prov.: Kavak (Hacılar pass) (Malmusi & Saltini, 2005); Çankırı prov., Kastamonu prov. (Özdikmen et al., 2005); Artvin prov.: Yusufeli (Barhal road), Kocaeli prov.: İzmit (Beşkayalar Natural Park), Osmaniye prov.: Zorkun plateau road (Olukbaşı place) / Yarpuz road (Karataş place), Hatay prov.: Dört Yol (Topaktaş plateau) (Özdikmen & Demirel, 2005); Kocaeli prov.: İzmit (Özdikmen & Şahin, 2006); Adana prov.: Pozantı (Karataş), Rize prov.: Central (Özdikmen & Demir, 2006); Rize prov.: Çamlıhemşin (Çat village env., entry of Verçenik Atmeydanı), Elevit plateau, Meydan village, Kastamonu prov.: between Azdavay–Pınarbaşı, Pınarbaşı–Azdavay road (Karafasil village, Suğla plateau), Azdavay (Ballıdağ Wild Life Protection District), Küre–Seydiler road (Masruf pass), Yarılgöz pass, Daday (Daday–Araç road), Karabük prov.: Safranbolu (Gürleyik National Park), Akçakese–Pınarbaşı road (Özdikmen, 2007); Konya prov.: Derebucak (Tekebeli pass env.) (Turgut & Özdikmen, 2010); Osmaniye prov.: Külli–İslahiye road (Hınzırlı plateau), Zorkun road (Çiftmazı Gölüyeri), Yarpuz road (Yukarı Haraz plateau) (Özdikmen et al., 2010); Bolu prov.: Gerede–Mengen, İkizler plateau road, Bolu–Seben road, Yeniçağa–Mengen road, Abant (Dereceören env.), Gölcük road, 500 m to Dereceören (Özdikmen, 2011); Düzce prov. (unpublished data) (Fig. 2).

According to the subspecies, probable dispersion of these records is like that:

For the subspecies, *Rutpela maculata maculata* (Poda, 1761):

İstanbul prov.: Polonez village as *Strangalia maculata* (Demelt & Alkan, 1962; Demelt, 1963); Balıkesir prov.: Gönen, Çanakkale prov.: Biga (Gfeller, 1972); İstanbul prov.: Bahçeköy as *Strangalia maculata* (Öymen, 1987); İstanbul prov. (Lodos, 1998); Balıkesir prov.: Erdek (Tozlu et al., 2002); Bursa prov.:

Uludağ, Çanakkale prov.: Kirazlı, Kırklareli prov.: Demirkoy (Malmusi & Saltini, 2005); Kocaeli prov.: İzmit (Beşkayalar Natural Park) (Özdikmen & Demirel, 2005); Kocaeli prov.: İzmit (Özdikmen & Şahin, 2006) (Fig. 3).

For the subspecies, *Rutpela maculata nigricornis* (Stierlin, 1864):

Sinop prov.: around Ayancık (Schimitschek, 1944); Zigana Mountains (?Trabzon prov.) (Villiers, 1959); Turkey (Lobanov et al., 1981; Danilevsky & Miroshnikov, 1985; Svacha & Danilevsky, 1988; Sama, 2002); Trabzon prov.: Maçka (Sümela), Kastamonu prov., Sivas prov.: Çamlıbel pass (Sama, 1982); Tokat prov.: Mezra, Amasya prov.: Merzifon (Ortaköy, Suluova), Kastamonu prov.: Masruf pass (Küre), Tunceli prov.: Pülümür, Rize prov.: Ovitdağı pass (İkizdere) (Adlbauer, 1992); Hatay prov.: Akbez, İçel prov.: Namrun (Bolkar Mountains) (Sama, 1996); Artvin prov., North parts of Van prov., East Anatolian Region (Lodos, 1998); Artvin prov.: Şavşat (Karagöl) / Yusufeli, Bingöl prov.: Central, Trabzon prov.: Beşikdüzü (Türkelli) (Tozlu et al., 2002); Artvin prov.: Şavşat, Bolu prov.: Abant, Malatya prov.: Reşadiye pass, Muş prov.: Buğlan pass, Rize prov.: İkizdere / Şavşat-Çam pass, Samsun prov.: Kavak (Hacılar pass) (Malmusi & Saltini, 2005); Çankırı prov., Kastamonu prov. (Özdikmen et al., 2005); Artvin prov.: Yusufeli (Barhal road), Osmaniye prov.: Zorkun plateau road (Olukbaşı place) / Yarpuz road (Karataş place), Hatay prov.: Dört Yol (Topaktaş plateau) (Özdikmen & Demirel, 2005); Adana prov.: Pozantı (Karataş), Rize prov.: Central (Özdikmen & Demir, 2006); Rize prov.: Çamlıhemşin (Çat village env., entry of Verçenik Atmeydanı), Elevit plateau, Meydan village, Kastamonu prov.: between Azdavay–Pınarbaşı, Pınarbaşı–Azdavay road (Karafasil village, Suğla plateau), Azdavay (Ballıdağ Wild Life Protection District), Küre–Seydiler road (Masruf pass), Yarılgöz pass, Daday (Daday–Araç road), Karabük prov.: Safranbolu (Gürleyik National Park), Akçakese–Pınarbaşı road (Özdikmen, 2007); Konya prov.: Derebucak (Tekebeli pass env.) (Turgut & Özdikmen, 2010); Osmaniye prov.: Küllü-İslahiye road (Hınzırlı plateau), Zorkun road (Çiftmazı Gölüyeri), Yarpuz road (Yukarı Haraz plateau) (Özdikmen et al., 2010); Bolu prov.: Gerece-Mengen, İkizler plateau road, Bolu-Seben road, Yeniçağa-Mengen road, Abant (Dereceören env.), Gölcük road, 500 m to Dereceören (Özdikmen, 2011); Düzce prov. (unpublished data) (Fig. 4).

For the subspecies, *Rutpela maculata irmasanica* Sama, 1996:

Antalya prov.: Irmasan pass as type locality of *R. maculata irmasanica* Sama, 1996 and Akseki (Sama, 1996) (Fig. 5).

FOR WORLD FAUNA

Range of *Rutpela maculata maculata* (Poda, 1761):

Europe (France, Corsica, Italy, Sardinia, Albania, Slovenia, Croatia, Bosnia-Herzegovina, Serbia, Montenegro, Macedonia, Greece, Bulgaria, Romania, Hungary, Austria, Switzerland, Belgium, Netherlands, Denmark, Germany, Luxembourg, Great Britain, Ireland, Czechia, Slovakia, Norway, Poland, Sweden, Finland, Estonia, Latvia, Lithuania, Belorussia, Ukraine, Moldova, European Russia, European Kazakhstan), Caucasus, Turkey, Iran.

Range of *Rutpela maculata nigricornis* (Stierlin, 1864):

S Europe (Portugal, Spain, France, Italy, Sicily, Crimea, Great Britain), Caucasus (Georgia, Armenia), Turkey, Iran.

Range of *Rutpela maculata irmasanica* Sama, 1996:

S Turkey.

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Figure 1. A male of *Rutpela maculata nigricornis* (Stierlin, 1864) from Bolu province in NW Anatolia.

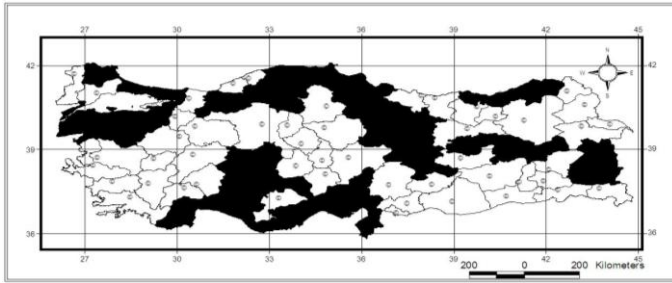


Figure 2. Old records from Turkey of *Rutpela maculata* (Poda, 1761).

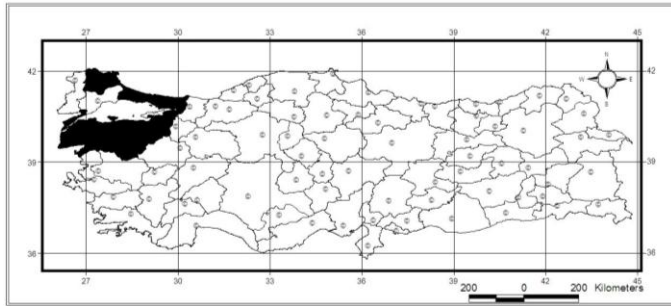


Figure 3. The distribution in Turkey of *Rutpela maculata maculata* (Poda, 1761).

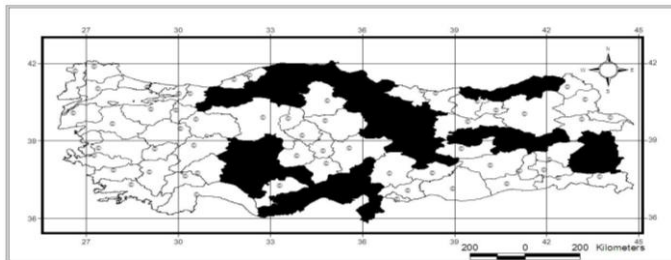


Figure 4. The distribution in Turkey of *Rutpela maculata nigricornis* (Stierlin, 1864).

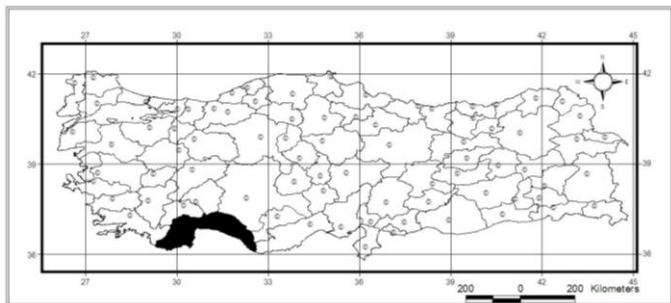


Figure 5. The distribution in Turkey of *Rutpela maculata irmanonica* Sama, 1996.