# New and little known species of the genus Meligethes from Turkey and neighbouring countries (Coleoptera, Nitidulidae)

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## **Summary**

This article deals with some new and little known species of the genus Meligethes from Turkey and neighbouring countries. The new species and type localities are shown as below: Meligethes prometheus n. sp. (Caucasus); M. prometheus ponticus n. ssp. (Trabzon: Sürmene); M. atrovirens n. sp. (Iran, Caucasus, Trabzon: Sürmene) and M. turcicus n. sp. (Erzurum: Kandilli, Tunceli: Pülümür). Some little known species, namely M. haemorrhoidalis Förster, M. symphyti (Heer), M. mandibularis Sahlb., M. nitidissimus Roubal, and their new synonyms are given in the text.

#### Introduction

In the present paper are given descriptions of several new species of the genus *Meligethes* Steph. from Turkey and Caucasus together with remarks to some other related species of the genus.

It is my pleasant duty to express my thanks to the following entomologists and institutions, who enabled me to study necessary material including some type-specimens: Dr. A. Descarpentries (National Museum of Natural History, Paris - MHNP), Dr. A. G. Kirejtshuk (Zoological Institute, Academy of Sciences of USSR, Leningrad-ZIN), Dr. I. Okáli (Slovak National Museum, Bratislava-SNM), Dr. G. Osella (Museum of Natural History, Verona-MSNV), Dr. W. Wittmer (Museum of Natural History, Basel-NHMB) and Dr. Silfverberg (Zoological Museum of the University, Helsinki). Some specimens have been collected by myself on travelling through Turkey whilst a member of Czechoslovak Entomological Expeditions to Iran and are deposited in the

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National Museum, Praha (NMP). The abbreviations given above are used throughout the paper to indicate the origin of material. Very important material from Caucasus has been recently collected also by czechoslovak entomoligists J. Vorisek and ing. J. Gottwald. Last but not least I am indebted to my friend, C. Johnson (Machester Museum) for reading my English manuscript.

# Meligethes prometheus sp. n.

Male: Anterior margin of clypeus broadly truncate. Front rather flat with pair of tentorial impressions above insertions of antennae. Punctures nearly equal in size to eye-facets, separated by one diameter or slightly more, spaces between them obsoletely reticulate.

Pronotum widest somewhat behind its midlength and there slightly wider than the base of elytra and about 1.8 times wider than long. Anterior margin truncate, anterior angles bluntly obtuse, moderately prominent. Posterior angles obtuse, basal margin almost as wide as that of elytra, very shallowly emarginate besides scutellum. Sides strongly arcuate, more converging anteriorly than posteriorly, distinctly explanate. The explanate portion is very narrow, hardly as wide as the thick lateral border, at the anterior angles, but becoming wider posteriorly, at the posterior angles nearly as wide as the second antennal segment. Disc of pronotum both longitudinally and transversely strongly vaulted, dispersely punctate. Punctures in the middle slightly finer than those of the front, becoming larger laterally, separated by 1.5 to 2 diameters. Spaces between them with very feeble and obsolete traces of reticulation, rather strongly shining. Scutellum large, rounded, finely punctate and obsoletely reticulate.

Elytra 1.20 - 1.25 times longer than their combined width, widest in the basal third and from there rather strongly narrowed posteriorly, separatly and flatly rounded at the apex, reaching their maximum length in the inner half. Humeral angle distinct, bluntly obtuse, sutural one roundly obtuse. Sides widely, flatly arcuate, finely bordered, hardly explanate. Almost entire suture bordered. Punctures of elytra almost equal in size to those of pronotum, separated by 1.5 to 2 diameters, becoming finer posteriorly. Spaces between them practically smooth, strongly shining.

Prosternum very closely reticulate, quite dull, with coarse but rather indistinct punctures, hypomera reticulate, only very finely, dispersely obsoletely punctate. Mesosternum sharply and longitudinally carinate in the middle, the carina almost - but not quite - reaching the posterior margin of mesosternum. Metasternum moderately transversely vaulted, rather finely

punctate, punctures separated by 1 to 1.5 diameter, spaces between them obsoletely reticulate, rather shining. In the posterior half of the metasternum there is a well defined smooth, impunctate median longitudinal strip, nearly as wide as mesosternal carina, lightly impressed, the impression becoming gradually deeper posteriorly. Punctures of abdominal sternites slightly finer and sparser than those of the metasternum, spaces between them more distinctly reticulate especially in the lateral parts. Caudal marginal lines of the first sternite closely following the posterior margins of the metacoxal cavities.

All femora simple, without any protuberances. Anterior tibiae rather slender, about 3.3 times longer than wide, with their outer edge very finely crenulate. Anterior tarsi in the male hardly dilated, tarsal claws simple.

Dark metallic green, strongly shining. Antennae blackish brown, the second antennal segment and legs yellowish - brown. Pubescence thin, re cumbent, rather short, dark, very inconspicuous.

Male genitalia resembling those of *Meligethes aeneus* (F.), but somewhat more slender (Figs. 1-2).

Female: Pronotum only as wide as the base of elytra, at the base distinctly narrower than the latter. Sides of pronotum moderately arcuate, more converging anteriorly. Disc of pronotum less convex. Punctures of elytra in the basal half distinctly larger than those in the middle of pronotum. Impunctate median longitudinal strip on metasternum hardly impressed. Ovipositor with widely triangular gonostyloids, their basal margins straight and outer basal angles sharp (Fig. 5).

Length in both sexes 2.7 - 3.0 mm, width 1.4 - 1.5 mm.

Type material. Holotypus, J., Western Caucasus, Avadzchara, 1800 m, 16.-18.VI.1974, Vorisek lgt. (NMP). Paratypes: W. Caucasus, Avadzchara, 1800 m, 16.-18. VI. 1974, Vorisek lgt., 4 spec. (NMP) - W. Caucasus, Acischo, VI. 1973, 1 spec., lgt. and coll. Gottwald, Praha - Centr. Caucasus, Musatceri 3000 m, 10. VI. 1974, Gottwald lgt., 6 spec. (Coll. Gottwald, Praha and NMP) - Caucasus, Tsherkess AR, Karacaevo, river Teberda, 5. VII. 1976, Kirejtshuk lgt., 1 spec. (ZIN); dtto, 7. VII. 1977, 3 spec. (ZIN and NMP).

Differential diagnosis: Member of the Meligethes aeneus species - group, M. prometheus sp. n. resembles by its size, bright coloration and general appearance M. viridescens (F.) and M. czwalinai Reitt. It differs from both of them by the absence of teeth on the posterior margin of the intermediate femora, sparser puncturation of the upper surface, and in the male by the much more deeply excised tegmen and subtruncate aedeagus. These

characters suggest its close relationship to M. aeneus (F.). Both species however differ as follows:

M. prometheus sp. n.: Lateral border of pronotum as wide as antennal stem, widely explanate posteriorly. Punctures of pronotum separated by distinctly more than one diameter. Mesosternum sharply carinate, the carina almost reaching the posterior margin of mesosternum. Metasternum with rather broad, impunctate, median longitudinal strip.

M. aeneus (F.): Lateral border of pronotum hardly as wide as antennal stem, more narrowly explanate. Punctures of pronotum closer, separated by 1 to 1.5 diameters. Mesosternum with short, wide and blunt carina not reaching its posterior margin. Metasternum with impressed median longitudinal line, but without distinct impuctate strip.

Meligethes prometheus ponticus ssp. n.

Specimens from northeastern Turkey (Pontus) exhibit distinct and apparently constant differences from the caucasian ones, even though they are undoubtedly conspecific. I believe their subspecific separation is justified. Both subspecies differ as follows:

M. p. prometheus: Generally larger (2.7 - 3.0 mm). Brightly coloured, deeply metallic gren, sometimes bluish, legs yellowish brown. Pronotum at least as wide as the base of elytra, in the male more strongly convex and with more arcuate sides than in female. Punctures of pronotum almost equal in size to those of elytra or - in female - a little finer, spaces between them hardly reticulate, shining.

M. p. ponticus ssp. n.: Generally smaller (2.1 - 2.6 mm). Black with distinct greenish metallic reflection, legs brown. Pronotum in both sexes hardly as wide as and the base distinctly narrower than the base of elytra, less convex and more narrowed anteriorly. Punctures of pronotum in male much, in female slightly finer than those of elytra, spaces between them distinctly reticulate, rather dull.

By its dull coloration, sparse puncturation, fine isodiametric reticulation and feeble silky shine of pronotum and its thick, explanate borders, new subspecies may resemble also *M. coeruleovirens* Först., from which it differs e. g. by even darker, less green colour and absence of sinuosity at the proximal end of the anterior margin of anterior femora, and by rather shining elytra.

Type material. Holotypus, 3, Turkey, Sürmene (vil. Trabzon). 14. VI. 1969, Osella lgt. (MSNV). Paratypes, 5 spec., the same data (MSNV and NMP).

Meligethes haemorrhoidalis Förster, 1849 Meligethes haemorrhoidalis Förster, 1849 Meligethes floribundus Reitter, 1877 syn. n.

The identity of Meligethes floribundus Reitt. has not yet been solved in the literature. Reitter (1877) compared his new species with M. haemorrhoidalis Först., later (Reitter, 1919) placing it near M. viduatus (Heer) owing to the sides of pronotum being arcuate in the basal half. In the Hungarian National Museum, Budapest, there is one female labelled «Kaukas, Leder/coll. Reitter/Holotype, 1877. Meligethes floribundus Reitter/Meligethes haemorroidalis Förster, syn. n., det. Easton». It is indeed identical with european females of M. haemorrhoidalis Först. In MHNP there are two other females, labelled as Syntypes of M. floribundus Reitt., bearing the same printed label «Kaukas, Leder» and, moreover, the original Reitter's hand-written label «Meligethes floribundus m.» Their external characters and ovipositor correspond also with those of M. haemorrhoidalis Först. On the contrary, in collection Hlisnikovsky (NMP), there are three males of the same origin («Kaukas, Leder»), subsequently labelled as Types of M. floribundus Reitt. They all belong to M. difficilis (Heer) and may be those, on which the characteristics of males of M. floribundus by Reitter (1919) were based. In. some of the examined specimens, the lateral margins of the pronotum are slightly concave or curved towards the posterior angles in the basal half - an anomaly which may also be observed in some european specimens of the mentioned species. According to the above evidence, Meligethes floribundus Reitter, 1877 should be considered a junior synonym of Meligethes haemorrhoidalis Förster, 1849.

# Meligethes atrovirens sp .n.

Male: Anterior margin of clypeus truncate. Front flatly convex, punctures nearly equal in size to eye-facets, separated by one diameter, spaces between them smooth and shining.

Pronotum 1.75 - 1.80 times wider than long, widest at the base and there slightly but distinctly narrower than the base of elytra. Anterior angles obtuse, moderately prominent, posterior ones obtuse. Basal margin feebly, arcuately emarginate besides scutellum, arcuate and convex by the posterior angles. Sides in posterior half straight, moderately converging anteriorly, in the anterior half curved towards the anterior angles, hardly explanate. Punctures of pronotum fairly equal in size to eye-facets, separated by one diameter or a little more, spaces between them smooth and shining. Impunctate, strongly shining transverse areas developed along the basal

margin at the posterior angles. Scutellum almost semicircular, closely punctate.

Elytra comparatively long, 1.20 - 1.23 times longer than their combined width, widest in the basal fourth, from there moderately and regularly narrowed posteriorly, at the apex widely, almost continuously rounded. Punctures of elytra nearly equal in size to those of pronotum, separated by more than one diameter, spaces between them smooth and shining, only in the apical fourth obsoletely reticulate.

Prosternum coarsely, closely, punctate, shining, prosternal process almost flat. Metasternum coarsely and closely punctate, shining, in the posterior third with a shallow, triangular, median impression. Narrow median longitudinal strip in the posterior half and analogous narrow zone along posterior margin of metasterrnum between metacoxae impunctate, strongly shining. Abdominal sternites more finely and sparsely punctate than metasternum, the lateral parts obsoletely reticulate.

Anterior tibiae rather narrow, becoming moderately gradually wider distad, their outer margin finely denticulate, with 2-3 larger teeth at the distal end. Intermediate and posterior tibiae widest behind the midlength, their outer margins nearly arcuate, bearing fine and very close pegs. Tarsal claws simple.

Tegmen oblong, not distinctly narrowed towards the apex, its apical excision nearly V-shaped, deeper than wide. Aedeagus oblong, subparallel, its sides twice very shallowly emarginate, in apical portion arcuately converging towards the narrowly truncate apex (Figs 3-4).

Black, upper surface, especially on elytra, with distinct, deep greenish lustre. Antennae and legs yellowish brown, tibiae and the two basal antennal segments reddish yellow. Pubescence recumbent,dark, inconspicuous. Narrow lateral borders of pronotum sometimes translucent reddish.

Length 2.3 - 2.6 mm, width 1.2 - 1.4 mm.

Female: Generally similar to the male, but anterior tarsi narrower and metasternum only lightly deplanate between metacoxae, with narrow, shallowly incised median longitudinal line. Ovipositor as figured (Fig. 6).

Type material. Holotypus, S, USSR, W. Caucasus, Mt. Acischo, 21. - 25. VI. 1974, Vorisek lgt. (NMP). Paratypes: Turkey, Sürmene (vil. Trabzon), 14. VI. 1969, Osella lgt., 2 spec (MSNV) - USSR, W. Caucasus, Mt. Acischo, 21. - 25. VI. 1974, Vorisek lgt., 1 spec. (NMP) - W. Caucasus, Engelman. Poljana, 12. - 13. VI. 1974, Vorisek lgt., 1 spec. (NMP) - Centr.

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Gaucasus, Musatceri, 3000 m, 10. VI. 1974, Gottwald lgt. 1 spec. (coll. Gottwald, Praha) - Iran, Elborz Mts. Gol-e Loveh pr. Minudasht, 700 - 1400 m, 3. V. 1970, Wittmer and v. Bottmer lgt., 1 spec. (NHMB).

Differential diagnosis: Member of M. difficilis species-group, M. atrovirens sp. n., with its equal puncturation of pronotum and elytra, straight sides of pronotum in their basal half, rather finely dentate tibiae and comparatively long elytra, is very closely related to the european species M. haemorrhoidalis Först. and M. buyssoni Bris. (=M. wankai Reitt. according to Audisio, 1976). It differs from both of them by the distinct greenish lustre of its upper surface and different genitalia, especially in the male. From M. haemorrhoidalis Först., it differs, moreover, by the black abdomen in both sexes. It is not identical with the caucasian M. floribundus Reitt. (see above), though rather corresponding with its description. Ovipositor in M. haemorrhoidalis Först. (=M.floribundus Reitt.) has comparatively shorter gonostyloids with concave basal margins and sharp outer basal angles.

## Meligethes turcicus sp. n.

Anterior margin of clypeus truncate. Front flatly convex, rather finely and closely punctate. Punctures somewhat smaller than eye - facets, separated by nearly one diameter, spaces between them smooth and shining.

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Pronotum 1.52 - 1.54 times wider than long, widest near posterior angles and there slightly wider than the base of elytra. Anterior margin truncate, anterior angles bluntly obtuse, hardly prominent. Sides finely bordered, not explanate, in the middle almost straight, converging anteriorly, in the anterior third arcuately converging towards anterior angles, at the base strongly curved towards the roundly obtuse posterior angles. Base very shallowly emarginate besides scutellum. Disc of pronotum rather strongly convex, punctures smaller than eye-facets, separated by 1 - 1.5 diameter. Spaces between them smooth, shining.

Elytra about 1.1 times longer than their combined width, widest at their midlength, sides finely bordered, not explanate, very flatly arcuate, sligthly converging anteriorly and moderately so posteriorly, towards the broadly, flatly and separately rounded tips. Surface of elytra rather strongly, transversely vaulted. Punctures equal to those of pronotum, becoming finer posteriorly, spaces between them shining, with very feeble traces of reticulation, apex finely reticulate.

Anterior tibiae rather short, becoming gradually wider distad, their outer margins in two distal thirds with four to five strong, sharp teeth, rather irregular but generally becoming larger distad. Anterior tarsi of

male reaching nearly three fourths of the width of tibia. Tarsal claws simple.

Male genitalia as figured (Figs 7 - 9).

Black, legs and antennae yellowish brown. Pubescence thin, recumbent, yellowish grey, inconspicuous. Length 2.1 - 2.2 mm, width 1.1 mm.

Female unknown.

Type material. Holotypus, &, Turkey, Kandilli (vil. Erzurum), 1720 m, 18. VI. 1970, Expedition of NMP to Iran (NMP). Paratypus: Turkey, pass Pülümür geçidi (vil. Tunceli), 1950 m, 17. VI. 1970, Expedition of NMP to Iran, 1 & (NMP).

Differential diagnosis: Member of M. flavipes species - group, turcicus sp. n. is almost identical externally with the south-european species M. scholzi Easton. The species differ as follows: M. turcicus sp. n.: Anterior tibiae with several strong teeth as in M. flavipes Strm, Elytra more sparsely punctate, punctures separated by 1 - 1.5 diameters. Metasternum in male with broad, triangular median impression in the posterior half, impression shallower and more vaguely defined than in M. scholzi East. Tegmen broad, subparallel, not narrowed anteriorly, its lateral lobes broadly, more or less regularly rounded, the apical excision shallower than in M. scholzi (Fig. 7). Aedeagus shorter and wider, slightly narrowed towards the apex (Fig. 8), more abruptly curved in lateral view (Fig. 9). M. scholzi Easton: In the compared male from Kotor, Yugoslavia, teeth of the anterior tibia are finer, closer, becoming regularly larger distad. Easton (1960) described tibiae of M. scholzi as identical with those of M. flavipes Strm. Perhaps, there exists certain variation. Elytra more closely punctate, punctures (except around scutellum) separated by one diameter or less. Metasternum in the male with deep median longitudinal furrow opening into short transverse impression along the posterior margin of metasternum. Tegmen distinctly narrower, distinctly narrowed anteriorly, lateral lobes narrower, somewhat irregularly rounded at their apex (Fig. 10). Aedeagus comparatively longer, narrower, in the apical half distinctly narrowed distad, in lateral view rather regularly curved (Figs 11-12).

## Meligethes symphyti species - group

Meligethes symphyti (Heer) has not yet been placed in any of the distinct species groups, characterized both morphologically and bionomically, as distinguished recently in various papers by Easton or by Spornraft (1967). The latter author placed it in his «Sammelgruppe», as species incertae sedis. It seems to me, that in fact, a distinct M. symphyti species-group should be

constituted, comprising M. symphyti (Heer), M. mandibularis Sahlb. and M. nitidissimus Roubal. It is characterized by the more or less truncate clypeus, anterior tibiae strongly dentate along most of their outer edges, recumbent pubescence, occurence of shining, impunctate transverse area at the posterior angles of pronotum and with possible exception of M. mandibularis, where the male remains unknown - rather uniform type of male genitalia. Host plants of the group -judging from M. symphyti (Heer) - belong probably to the family Boraginaceae. Most of the external characters as well as the common family of host plants suggest close relationship of this group to that of M. rosenhaueri Reitt.

Meligethes mandibularis Sahlberg, 1913

Meligethes mandibularis Sahlberg, 1913

Meligethes robustus Jelinek et Marek, 1966 syn. n.

Meligethes mandibularis Sahlb., placed by Reitter (1919) in a different species-group, has not been taken into account during description of M. robustus by Jelinek et Marek (1966). Only recently I have been able to examine the unique Holotype of M. mandibularis Sahlb. from Yamanlar Dagh pr. Izmir (ZMUH). It is a female, quite identical with that of M. robustus Jelinek et Marek, which must be therefore considered junior synonym. Male of this species still remains unknown.

#### Meligethes nitidissimus Roubal, 1943

The unique Holotype of *M. nitidissimus* Roubal from Caucasus is deposited in Slovak National Museum, Bratislava. It is a female with broken ovipositor, yet apart from slightly more slender body it is quite identical with specimens from Turkey, on which the following redescription is based.

Male: Anterior margin of clypeus almost straight, finely bordered. Front lightly depressed in the middle, punctures slightly larger than eyefacets, separated by nearly one diameter, spaces between them smooth, strongly shining. Vague, very short traces of reticulation are arranged radially around the individual punctures.

Pronotum transverse, 1.6 - 1.7 times wider than long, widest shortly behind the midlength and nearly as wide as the base of elytra. Anterior angles prominent, bluntly obtuse, posterior ones roundly obtuse, hardly distinctly pointed. Sides moderately bordered, hardly explanate, strongly arcuate, much more converging anteriorly than posteriorly (posterior angles 1.6 times more apart than anterior ones), closely before the posterior angles shallowly emarginate. Basal margin straight against scutellum, widely and

shallowly arcuately emarginate beside scutellum and convex in the lateral fourth. Disc of pronotum rather vaulted, coarsely punctate. Punctures deep, larger than eye-facets, separated mostly by a little more than one diameter, spaces between them smooth and shining. Narrow strips bordering basal margin of pronotum beside the posterior angles impunctate, smooth and shining. Scutellum rather large, rounded at the apex, coarsely and rather closely punctate.

Elytra 1.18 - 1.20 times longer than their combined width, widest at about two fifths of their length, wider than pronotum, separately rounded at the apex, strongly transversely vaulted. Sides finely bordered, not explanate, moderately regularly arcuate, in the apical third more strongly convex and converging posteriorly. Satural angle bluntly obtuse, almost entire suture bordered. Punctures of elytra coarse and sparse, equal to those of pronotum or even slightly larger, separated by distinctly more than one diameter, becoming somewhat smaller posteriorly. Spaces between them smooth and shining, in the apical portion with obsolete traces of reticulation.

Prosternum dull with obsolete, rather small granular punctures, prosternal process moderately dilated behind procoxae, rounded at the apex, closely and coarsely punctate. Hypomera dull, microscopically reticulate, with very shallow and widely dispersed obsolete punctures, in the anterior portion obliquely wrinkled. Blunt mesosternal carina not reaching posterior margin of mesosternum. Metasternum with shallow impunctate and shining median longitudinal furrow bearing weak, feebly raised, longitudinal ridge in the middle, rather strongly convex beside it, especially against inner corners of metacoxae, between them transversely impressed. Punctures of metasternum almost equal to eye-facets, separated by 0.5 to 1.5 diameter, becoming much finer laterally. Spaces between them shining, laterally duller with distinct traces of reticulation. Punctures of abdominal sternites analogous to those of metasternum, but finer and sparser laterally, spaces between them alutaceous. Caudal marginal lines of the first sternite closely following posterior margins of metacoxal cavities. Pygidium dull, very finely and closely reticulate, with very fine and disperse obsolete punctures.

Anterior tibiae rather slender, widest at about three fourths of their length, then arcuately narrowed towards the apex, their outer edge bearing a set of rather large, sharp subequal teeth. Intermediate tibiae widest at about two thirds, posterior ones at four fifths of their length. Outer margin of intermediate tibiae rather strongly arcuate, that of posterior ones almost straight in the proximal four-fifths, both bearing rather short and close,

not too strong pegs. Anterior tarsi of male dilated, only by one seventh narrower than the antennal club. Tarsal claws simple.

Male genitalia as figured (Figs 13-14). Tegmen almost equal to that of M. symphyti (Heer) (Fig. 15), aedeagus slender, in the basal half parallel, in the apical one narrowed towards the blunt point.

Black, shining, legs and antennae yellowish brown, antennal club and terminal tarsal segments infuscate. Pubescence of the upper surface apparently absent. Length 2.8 - 3.0 mm, width 1.4 mm.

Female: anterior tarsi narrower, one fourth narrower than the antennal club. Metasternum in the posterior two-thirds lightly depressed medially, dispersely punctate, with impunctate but not impressed median longitudinal strip. Ovipositor with rather narrow gonostyloids and very short styli.

Material examined: USSR, Krasnaja Poljana, VII. 1910, Roubal Igt,  $1 \ \, \bigcirc \ \,$  (Holotype, SNM) - Turkey, Sürmene (vil. Trabzon), 14. VI. 1969,  $3 \ \,$  Osella Igt.,  $2 \ \, \bigcirc \ \,$ ,  $1 \ \, \bigcirc \ \,$  (MSNV and NMP).

#### Özet

Türkiye ve komşu ülkelerde **Meligethes** (Col. : Nitidulidae) cinsine bağlı yeni ve az bilinen türler

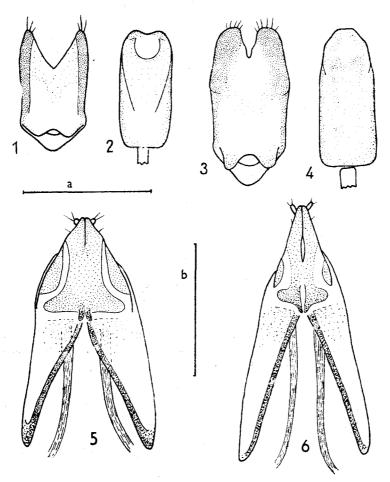
Bu makalede, Türkiye ve komşu ülkelerde bulunan Meligethes cinsine bağlı bazı az bilinen türler ele alınmış ve bazılarının da orijinal deskripsiyonları ve rilmiştir. Orijinal deskripsiyonu yapılan türler ve type locality'leri şunlardır : Meligethes prometheus n. sp. (Kafkasya); M. prometheus ponticus n. ssp. (Trabzon : Sürmene), M. atrovirens n. sp. (İran, Kafkasya, Trabzon : Sürmene) ve M. turcicus n. sp. (Erzurum : Kandilli, Tunceli : Pülümür). Bundan ayrı olarak bu çalışmada Meligethes haemorrhoidalis Förster, M. symphyti (Heer), M. mandibularis Sahlb. ve M. nitidissimus Roubal gibi az bilinen türlerle bunların yeni sinonimleri de verilmiştir.

#### Literature

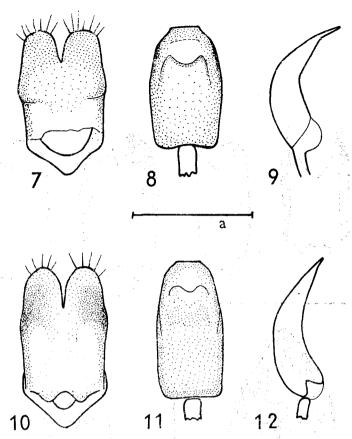
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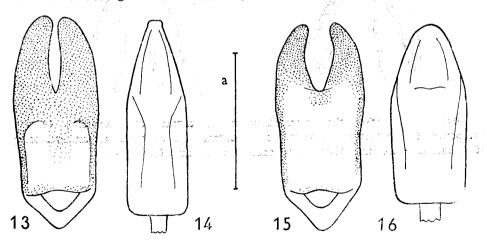
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Figs. 1 - 6: Meligethes prometheus sp. n., tegmen (1), aedeagus (2) and ovipositor (5). Meligethes atrovirens sp. n., tegmen (3), aedeagus (4) and ovipositor (6). Scale a = 0.4 mm (Figs. 1-4), scale b = 0.3 mm (Figs. 5-6).



Figs. 7 - 12: Meligethes turcicus sp. n., tegmen (7), dorsal (8) and lateral (9) view of aedeagus. Meligethes scholzi Easton, tegmen (10), dorsal (11) and lateral (12) view of aedeagus. Scale = 0.3 mm.



Figs. 13 - 16: Meligethes nitidissimus Roubal, tegmen (13) and aedeagus (14). Meligethes symphyti (Heer), tegmen (15) and aedeagus (16). Scale = 0.4 mm. 214