

Contribution to the knowledge of the alticines from Iran, with description of a new *Phyllotreta* species (Col.: Chrysomelidae: Alticinae)

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Abstract

An account of the Iranian alticine fauna, comprising 59 species from 11 genera, is presented. *Phyllotreta muehlei* sp. nov. is newly described and 13 species are recorded for the first time from Iran.

Key words: Chrysomelidae, Alticinae, *Phyllotreta*, fauna, Iran

چکیده

فون کک‌های گیاهی ایران، شامل ۵۹ گونه از ۱۱ جنس ارایه می‌شود. گونه‌ی *Phyllotreta muehlei* sp. nov. به عنوان گونه‌ی جدید توصیف شده و ۱۳ گونه برای اولین بار از ایران گزارش می‌گردند.

واژگان کلیدی: Chrysomelidae, Alticinae, *Phyllotreta*, فون، ایران

Introduction

In the last years, some entomologists collected beetles in Iran. Dr. Johannes Frisch, Berlin, visited the region in 2000, 2004, and 2005, and together with his Iranian colleague Dr. Sayeh Serri in 2006, 2007, and 2008. Dr. Ernst Heiss, Innsbruck, visited the region in 2001, 2003, and 2007; Hans Mühle, Munich, was there in 2004, and 2008. Besides their special groups of beetles, they captured a considerable number of Alticinae, containing 59 species in 11 genera, among them a new species belonging to *Phyllotreta* Chevrolat, and 13 species, which are recorded from Iran for the first time. I am greatly indebted to all the named colleagues, because they gave me the opportunity to study such an interesting material.

Materials and methods

Most of the material which was collected by Drs. Frisch & Serri is deposited in the Museum of Humboldt University Berlin. Duplicates are in my collection. A single one specimen of *Batophila olexai* Král is deposited in the collection of Bezdek, Prague. The other material is preserved in my collection, because of the generosity of my dear friends Ernst Heiss and Hans Mühle. A paratype of *Phyllotreta muehlei* sp. nov. is deposited in the Hayk Mirzayans Insect Museum, Tehran, Iran.

Identifications were made by help of a WILD-Microscope with a magnification of 50 times. Newly recorded species were compared with their original descriptions, as well as comparing with the specimens in my collection. In addition, their genitalia were studied. The list of species is given in alphabetical order.

Altica globicollis (Weise)

Material examined – 2 x Semnan, östl. Elburs-Gebirge, 40 km N. Sharud Abr, 1800-1900 m, 2. vi. 2008, leg. Mühle.

Altica oleracea (Linnaeus)

Material examined – 1 x Semnan Prov., 17 km N. Shahmirzad, 5 km S. Chashm, 2040 m, 35°51'21" N 53°17'30" E, 22. v. 2006, leg. Frisch & Serri; 2 x Golestan Prov., Tangebol, 37°22' N 55°56' E, 20. vi. 2007, leg. E. Heiss; 4 x Golestan, östl. Elburs-Gebirge, 40 km SE Azad Shar, 1200 m, 2. vi. 2008, leg. Mühle.

Altica palustris (Weise)

Material examined – 2 x Kerman Prov., Bardsir-Baft road: 10 km SE Qal'eh Askar (Mt. Lalehzar), 2750 m, 29°27'30" N 56°42'48" E, 6. v. 2007, leg. Frisch & Serri; 1 x Fars Prov., SE Sepidan: Dalkhon, 2100 m, 30°14'34" N 52°06'01" E, 9. v. 2007, leg. Frisch & Serri.

Altica viridula (Weise)

Material examined – 2 x Golestan Prov., Jahan Nama Prot. Area, Ranger Station Umg., 36°40' N 54°18' E 1700 m, 12.-13. vi. 2007, leg. E. Heiss.

Aphthona alexander Berti & Rapilly, 1973

Material examined – 1 ♀ Belutschistan, Iranshahr, 800 m, 11.-21. v. 1954, leg. Richter u. Schäufele.

Aphthona gracilis Faldermann

Material examined – 1 x Ardabil Prov., Helabad-Hir road: Buchalalu, 1700 m (Kuhha-ye Tales), 38°01'14" N 48°27'50" E, 4. viii. 2005, leg. Frisch & Serri; 2 x Esfahan Prov., Semirōm: Komeh, 2810 m, 31°00'47" N 51°35'28" E, 11. v. 2007, leg. Frisch & Serri; 3 x Persia, Khorasan, Bigan ad Shirvan, 800 m, 24. ii. 1963, leg. Warchalowski.

Aphthona hauseri Heikertinger

Material examined – 1 ♂ 1 ♀, Markazi, 10 km SE Tafresh, 2400-2600 m, 16. vii. 2004, leg. Mühle.

***Aphthona mohri* Warchalowski**

Material examined – 1♀ 1♀, Belutschistan, Iranshahr, 800 m, 11.-21. v. 1954, leg. Richter u. Schäufele.

***Aphthona pygmaea* (Kutschera)**

Material examined – 3 x Ardabil, 20 km S. Khalkhal Gollijeh, 1900 m, 20. vii. 2004, leg. Mühle; 1 x Khorasan, Kuh-e-Sorkh (West), 40 km N. Bardeskan (Pass), 28. v. 2008, 1800-1900 m, leg. Mühle.

Remarks: widespread in western Palaearctic (Döberl, 2010); first record from Iran.

***Batophila olexai* Král**

Material examined – 11 x Elburz Mts., Mazandaran Prov., Kandelouz Nich Kuh env., 2100 m, 36°17' N 51°34' E, 4. vi. 2007, leg. O. Šauša (coll. Bezdek).

Remarks: Southeast Europe and Turkey; first record from Iran.

***Chaetocnema arenacea* Allard**

Material examined – 1 x Azarbayjan-e Sharghi, Kaleybar, 1420 m, 38°51'14" N 47°00'49" E, 9. viii. 2005, leg. Frisch & Serri.

Remarks: widespread in western Palaearctic (Döberl, 2010); first record from Iran.

***Chaetocnema arida* Foudras**

Material examined – 8 x Fars Prov., Margoon, 2040 m, 30°31'35" N 51°54'47" E, 9. vii. 2004, leg. Frisch; 7 x Fars Prov., S. of Kakan: Dasht-e Khoshk, 2400 m, 30°29'28" N 51°51'28" E, 7. vii. 2004, leg. Frisch; 13 x Lorestan Prov., SE Dorud: Saravand (Oshtoran Kuh), 2050 m, 27. vi. 2004, leg. Frisch; 3 x Lorestan Prov., SE Dorud: Saravand (Oshtoran Kuh), 2000 m, light trap, 33°22'33" N 49°09'56" E, 26. vi. 2004, leg. Frisch; 1 x Lorestan Prov., Saravand (Oshtoran Kuh), 2000 m, light trap, 33°22'33" N 49°09'56" E, 25.-27. vi. 2004, leg. Frisch; 2 x Fars Prov., Estahban-Darab road: 23 km NW Darab, 1340 m, 28°52'34" N 56°23'57" E, 24. iv. 2006, leg. Frisch & Serri; 1 x Khorasan-e Razavi Prov., 27 km SW Chanaran: SW Frizi, 1690 m (Binalud Mts.), 36°27'38" N 58°56'45" E, 29. iv. 2006, leg. Frisch & Serri.

Remarks: widespread in western Palaearctic (Döberl, 2010); first record from Iran.

***Chaetocnema confusa* (Boheman)**

Material examined – 1 x Azarbayjan-e Gharbi, Tabriz-Marand-road: 3 km N. Ivand, 1700 m, 38°22'10" N 46°05'31" E, 26. viii. 2008, leg. Frisch & Serri; 6 x Azarbayjan-e Gharbi, Maku-Bazargan-road: 3 km NW Avajiq, 2170 m, 39°21'01" N 44°07'02" E, 27. viii. 2008, leg. Frisch & Serri; 1 x Azarbayjan-e Gharbi, NW Piranshar: 7 km road to Hashkan, 1600 m, 36°48'13" N 45°04'34" E, 2. ix. 2008, leg. Frisch & Serri; 11 x Kordestan Prov., 15 km NW Divandarreh: 5 km NE Ebrahim Abad, 1980 m, 35°59'13" N 46°52'10" E, 4. ix. 2008, leg. Frisch & Serri; 1 x Kordestan Prov., 27 km NW Divandarreh: 9 km NW Zarrineh, 2380 m, 36°04'24" N 46°49'42" E, 4. ix. 2008, leg. Frisch & Serri; 4 x Kordestan Prov., pass 21 km E. Sandanaj, 2100 m, 35°20'14" N 47°09'06" E, 5. ix. 2008, leg. Frisch & Serri; 4 x Kordestan Prov., Sanandai-Divandarreh-road, 33 km S. Divandarreh, 35°40'20" N 47°07'14" E, 6. ix. 2008, leg. Frisch & Serri; 1 x Kordestan Prov., Sanandai-Divandarreh-road, 35°45'43" N 47°04'43" E, 6. ix. 2008, leg. Frisch & Serri; 21 x Azarbayjan-e Gharbi, N. Takab: 3 km E. Takht-e-Soleyman, 2270 m, 36°38'08" N 47°14'07" E, 8. ix. 2008, leg. Frisch & Serri; 16 x Azarbayjan-e Gharbi, N. Takab: 13 km E. Takht-e-Soleyman, 2450 m, 36°36'07" N 47°19'42" E, 8. ix. 2008, leg. Frisch & Serri; 1 x Azarbayjan-e Gharbi, N. Takab: 13 km E. Takht-e-Soleyman, 2450 m, 36°38'07" N 47°19'42" E, 8. ix. 2008, leg. Frisch & Serri.

Remarks: widespread in western Palaearctic and Turkey (Döberl, 2010); first record from Iran.

***Chaetocnema gottwaldi* Král**

Material examined – 3 x Azarbayjan-e Sharghi, Zijenab, 2100 m (Kuh-e Sahand), 37°52'09" N 46°18'27" E, 8. viii. 2005, leg. Frisch & Serri.

Remarks: originally described from West Kazakhstan; first record from Iran.

***Chaetocnema breviscula* (Faldermann)**

Material examined – 10 x Golestan Prov., Lake Ala Gol, 29 m (on *Salsola*), 37°22' N 54°35' E, 10.-11. vi. 2007, leg. E. Heiss.

***Chaetocnema hortensis* (Geoffroy)**

Material examined – 1 x Ardabil Prov., Helabad-Hir road: Buchalalu, 1700 m (Tales Mts.), 38°01'14" N 48°27'50" E, 4. viii. 2005, leg. Frisch & Serri; 2 Esfahan Prov., S. of Fereydun Shahr, Faridan, 2570 m, 32°47'29" N 50°07'04" E, 30. vi. 2004, leg. Frisch; 3 x Khorasan-e Razavi Prov., 27 km SW Chenaran: SW Frizi, 1690 m (Binalud Mts.), 36°27'38"

N 58°56'45" E, 29. iv. 2006, leg. Frisch & Serri; 1 x Lorestan Prov., SE Dorud: Saravand (Oshtoran Kuh), 2000 m, light trap, 33°22'33" N 49°09'56" E, 26. vi. 2004, leg. Frisch; 1 x Hamedan Prov., Moradbeyk valley (Kuh-e Alvand), 2150-2350 m, 34°43'09" N 48°29'01" E, 22. vi. 2004, leg. Frisch; 1 x Chaharmahal va Bakhtiari Prov., NW of Shur Ab: Sheikhalikhan (Kuh-e Karbosh), 2650 m, 32°33'22" N 49°58'34" E, 3. vii. 2004, leg. Frisch; 1 x Kerman Prov., 100 km E. Hajiabad: 4 km W. Sorkhan, 1430 m, 28°19'44" N 56°50'35" E, 20. iv. 2006, leg. Frisch & Serri; 2 x Khorasan-e Razavi Prov., Sah Jahan Mts.: Mareshk, 1800 m (Koppe Dag), 36°12'58" N 53°38'41" E, 26. v. 2006, leg. Frisch & Serri; 1 x Golestan Prov., Tang Rah (Golestan N.P.), 490 m, 37°24'07" N 55°46'53" E, 4. vi. 2006, leg. Frisch & Serri; 1 x Kerman Prov., Baft-Rabor road: 10 km N Bezenjan, 2510 m, 29°19'30" N 56°39'26" E, 4. v. 2007, leg. Frisch & Serri.

***Chaetocnema nocticolor* Rapilly**

Material examined – 1 x Golestan Prov., NP Tanggol, 750 m, 37°22' N 55°56' E, 15.-17. vi. 2007, leg. E. Heiss.

***Chaetocnema orientalis* (Bauduer)**

Material examined – 2 x Azarbayjan-e Gharbi, N. Takab: 8 km E. Takht-e-Soleyman, 2210 m, 36°36'05" N 47°17'36" E, 7. ix. 2008, leg. Frisch & Serri; 5 x Azarbayjan-e Gharbi, N. Takab: 13 km E. Takht-e-Soleyman, 2450 m, 36°38'07" N 47°19'42" E, 8. ix. 2008, leg. Frisch & Serri; 2 x Azarbayjan-e Gharbi, N. Takab: 3 km E. Takht-e-Soleyman, 2270 m, 36°38'08" N 47°14'07" E, 8. ix. 2008, leg. Frisch & Serri.

***Crepidodera fulvicornis* (Fabricius)**

Material examined – 1 x Lorestan Prov., SE Dorud: Saravand (Oshtoran Kuh), 2000 m, light trap, 33°22'33" N 49°09'56" E, 26. vi. 2004, leg. Frisch; 1 x Lorestan Prov., Saravand (Oshtoran Kuh), 2000 m, light trap, 33°22'33" N 49°09'56" E, 25.-27. vi. 2004, leg. Frisch.

***Epitrix abeillei* (Bauduer)**

Material examined – 1 x Golestan Prov., Tanggol, 900 m, 37°22' N 55°56' E, 24.-25. x. 2003, leg. E. Heiss.

***Epitrix dieckmanni* (Mohr)**

Material examined – 1 x Khorasan, Kuh-e-Eshger, Gonabad, 20 km SE Kakhak (Paß), 2400-2500 m, 27. v. 2008, leg. Mühle.

***Epitrix krali* Döberl, 2000**

Material examined – 1 x Yasd Prov., SW Taft: Dehbala, 2770 m (Mt. Shir), 31°34'26" N 54°07'21" E, 15. v. 2007, leg. Frisch & Serri.

Remarks: known from Tajikistan and Jordan; first record from Iran.

***Epitrix warchalowskii* (Mohr)**

Material examined – 2 x Khorasan, Golestan NP., 900 m, 37°19' N 56°00' E, 28. x. 2003, leg. E. Heiss.

***Hermaeophaga (Orthocrepis) ruficollis* (Lucas)**

Material examined – 5 x Golestan Prov., Tanggol, 900 m, 37°22' N 55°56' E, 24.-25. x. 2003, leg. E. Heiss.

***Longitarsus aeneicollis* (Faldermann)**

Material examined – 3 x Fars Prov., Margoon, 2040 m, 30°31'35" N 51°54'47" E, 9. vii. 2004, leg. Frisch; 1 x Lorestan Prov., SE Dorud: Saravand (Oshtoran Kuh), 2000 m, light trap, 33°22'33" N 49°09'56" E, 26. vi. 2004, leg. Frisch; 2 x Esfahan Prov. S. of Fereydun Shahr, Sibak Kamran, 2600 m, 32°44'27" N 50°00'43" E, 1. vii. 2004, leg. Frisch; 1 x Esfahan Prov., S. of Fereydun Shahr, Sibak Kamran, 2600 m, 32°44'27" N 50°00'43" E, 1. vii. 2004, leg. Frisch; 1 x Esfahan Prov., S. of Fereydun Shahr: Gukan, 2260 m, 32°42'36" N 50°05'16" E, 2. vii. 2004, leg. Frisch; 1 x Lorestan Prov., Saravand (Oshtoran Kuh), 2000 m, light trap, 33°22'33" N 49°09'56" E, 25.-27. vi. 2004, leg. Frisch; 1 x Fars Prov., Sepidan-Komehr road: 9 km NW Sepidan, 2790 m, 30°21'30" N 51°55'40" E, 8. v. 2007, leg. Frisch & Serri; 2 x Esfahan Prov., S. of Fereydun Shahr, Sibak Kamran, 2600 m, light trap, 32°44'27" N 50°00'43" E, 30. vi.-02. vii. 2004, leg. Frisch.

***Longitarsus asperifoliarum* (Weise)**

Material examined – 9 x Yazd, Shir Kuh, 5 km S. Taft, 1600-1700 m, 23. v. 2008, leg. Mühle.

***Longitarsus exsoletus rufulus* (Foudras)**

Material examined – 12 x Golestan Prov., Jahan Nama, Deras Nu, *Fagus orientalis* forest, 2300 m, 36°39' N 54°07' E, 14.-15. vi. 2007, leg. E. Heiss.

***Longitarsus hoberlandti* Lopatin**

Material examined – 1 x Fars Prov., Estahban-Darab road: 23 km NW Darab, 1320 m, 28°51'18" N 54°24'32" E, 16. iv. 2006, leg. Frisch & Serri; 2 x Fars Prov., Estahban-Darab road: 23 km NW Darab, 1340 m, 28°52'34" N 56°23'57" E, 24. iv. 2006, leg. Frisch & Serri.

***Longitarsus luridus* (Scopoli)**

Material examined – 1 x Ardabil Prov., Helabad-Hir road: Buchalalu, 1700 m (Kuhha-ye Tales), 38°01'14" N 48°27'50" E, 4. viii. 2005, leg. Frisch & Serri; 1 x Azarbayjan-e Sharghi, Kuh-e Narmigh: Damirchi (Kuh-e Sabalan), 1950 m, 38°07'31" N 47°22'07" E, 7. viii. 2005, leg. Frisch & Serri; 1 x Azarbayjan-e Sharghi, Osku: Amghan, 2100 m (Kuh-e Sahand), 37°49'38" N 46°16'15" E, 8. viii. 2005, leg. Frisch & Serri.

***Longitarsus lycopi* (Foudras)**

Material examined – 1 x Kerman Prov., 12 km N. Kerman-Kuhpaye roed: Darbasiab (Kuhpaye Mts.), 2490 m, 30°30'59" N 57°09'55" E, 1. v. 2007, leg. Frisch & Serri; 5 x Esfahan Prov., 15 km NNE Semirom, 2650 m (Mt. Aljud), 31°32'09" N 57°37'23" E, 12. v. 2007, leg. Frisch & Serri; 2 x Esfahan Prov. S. of Fereydun Shahr, Sibak Kamran, 2600 m, 32°44'27" N 50°00'43" E, 1. vii. 2004, leg. Frisch; 2 x Kerman Prov., Pass Mahan-Sirch, east side, 2870 m (Kuhpaye Mts.), 30°12'18" N 57°24'28" E, 30. iv. 2007, leg. Frisch & Serri; 3 x Yazd, Shir Kuh, 5 km S. Taft, 1600-1700 m, 23. v. 2008, leg. Mühle.

***Longitarsus melanocephalus* (DeGeer)**

Material examined – 1 x Fars Prov., Margoon, 2040 m, 30°31'35" N 51°54'47" E, 9. vii. 2004, leg. Frisch; 1 x Golestan Prov., Tanggol, 37°22' N 55°56' E, 20. vi. 2007, leg. E. Heiss.

***Longitarsus nigrofasciatus* (Goeze)**

Material examined – 1 x Kerman Prov., Bardir-Baft road: Qal' Eh Askar, 2750 m, 29°30'17" N 56°37'51" E, 3. v. 2007, leg. Frisch & Serri.

***Longitarsus ochroleucus* (Marshall)**

Material examined – 4 x Golestan Prov., Jahan Nama, Deras Nu, *Fagus orientalis* forest, 2300 m, 36°39' N 54°07' E, 14.-15. vi. 2007, leg. E. Heiss.

Remarks: widespread in Palaearctic (Döberl, 2010); first record from Iran.

***Longitarsus pellucidus* (Foudras)**

Material examined – 3 x Azarbayjan-e Gharbi, Maku-Bazargan road: 3 km NW Avajiq, 2170 m, 39°21'01" N 44°07'02" E, 27. viii. 2008, leg. Frisch & Serri.

***Longitarsus pratensis* (Panzer)**

Material examined – 3 x Mazandaran Prov., Kuh-e Damavand (N-slope), Hajidella, 2200 m, 36°01'29" N 52°10'48" E, 16. viii. 2005, leg. Frisch & Serri.

***Longitarsus reichei* (Allard)**

Material examined – 1 x Chaharmahal va Bakhtiari Prov., S. of Shur Ab: Sardab, 2200 m, 32°17'29" N 50°13'51" E, 4. vii. 2004, leg. Frisch.

***Longitarsus rubiginosus* (Foudras)**

Material examined – 1 x Azarbayjan-e Gharbi, Maku-Bazargan-road: 3 km NW Avajiq, 2170 m, 39°21'01" N 44°07'02" E, 27. viii. 2008, leg. Frisch & Serri; 1 x Azarbayjan-e Gharbi, 10 km S. Ziveh (Ulugh Dag), 1810 m, 37°10'39" N 44°52'57" E, 1. ix. 2008, leg. Frisch & Serri; 2 x Kordestan Prov., 15 km NW Divandarreh: 5 km NE Ebrahim Abad, 1980 m, 35°59'13" N 46°52'10" E, 4. ix. 2008, leg. Frisch & Serri; 1 x Azarbayjan-e Gharbi, N. Takab: 16 km E. Takht-e-Soleyman, 2270 m, 36°36'24" N 47°21'18" E, 7. ix. 2008, leg. Frisch & Serri.

***Longitarsus trepidus* Warchalowski**

Material examined – 1 x Azarbayjan-e Sharghi, Osku: Amghan, 2100 m (Kuh-e Sahand), 37°49'38" N 46°16'15" E, 8. viii. 2005, leg. Frisch & Serri; 1 x Esfahan Prov., 15 km NNE Semirom, 2650 m (Mt. Aljud), 31°32'09" N 57°37'23" E, 12. v. 2007, leg. Frisch & Serri; 1 x Kermanshan Prov., Harsin: Nosratabad, 1700 m, 34°11'58" N 47°46'23", 24. vi. 2004, leg. Frisch.

***Neocrepidodera ferruginea* (Scopoli)**

Material examined – 2 x Azarbayjan-e Gharbi, 20 km W. Salmas: 10 km W. Kuzeh Rash, 2100 m, 38°11'17" N 44°31'24" E, 31. viii. 2008, leg. Frisch & Serri; 2 x Kordestan Prov., 27 km SW Saqqez: 2 km SW Mir Deh, 1600 m, 36°08'15" N 44°32'08" E, 3. ix. 2008, leg. Frisch & Serri; 1 x Azarbayjan-e Gharbi, N. Takab: 11 km E. Takht-e-Soleyman, 2300 m, 36°36'44" N 47°18'42" E, 7. ix. 2008, leg. Frisch & Serri; 1 x Azarbayjan-e Gharbi, N. Takab: 3 km E. Takht-e-Soleyman, 2270 m, 36°38'08" N 47°14'07" E, 8. ix. 2008, leg. Frisch & Serri.

***Neocrepidodera motschulskii* (Konstantinov)**

Material examined – 1 x Ardabil Prov., Nir-Shahneshin road: 1850 m (Kuh-e Sabalan), 38°05'39" N 47°57'20" E, 6. viii. 2005, leg. Frisch; 2 x Semnan Prov., Shahrud-Mojen road: 5 km SE Tash, 2040 m, 36°30'55" N 54°42'16" E, 24. v. 2006, leg. Frisch & Serri.
Remarks: widespread in Palaearctic (Döberl, 2010); first record from Iran.

***Phyllotreta astrachanica* Lopatin**

Material examined – 1 x Lorestan Prov., Saravand (Oshtoran Kuh), 2000 m, light trap, 33°22'33" N 49°09'56" E, 25.-27. vi. 2004, leg. Frisch.
Remarks: widespread in western Palaearctic (Döberl, 2010); first record from Iran.

***Phyllotreta atra* (Fabricius)**

Material examined – 2 x Ardabil Prov., Nir-Shahneshin road: 1850 m (Kuh-e Sabalan), 38°05'39" N 47°57'20" E, 6. viii. 2005, leg. Frisch.

***Phyllotreta cruciferae* (Goeze)**

Material examined – 1 x Azarbayjan-e Gharbi, Khoy-Siyahchesmeh road: 9 km W. Zar Abad, 1970 m, 38°47'15" N 44°32'08" E, 30. viii. 2008, leg. Frisch & Serri.

***Phyllotreta erysimi* (Weise)**

Material examined – 1 x Khorasan, Kuh-e-Eshger, Gonabad, 20 km SE Kakhak (Paß), 2400-2500 m, 27. v. 2008, leg. Mühle; 1 x Khorasan, Kuh-e-Sorkh (west), 7 km S. Sabzevar, 950 m, 30. v. 2008, leg. Mühle.

***Phyllotreta hermonensis* Furth**

Material examined – 2 x Azarbayjan-e Gharbi, N. Takab: 8 km E. Takht-e-Soleyman, 2210 m, 36°36'05" N 47°17'36" E, 7. ix. 2008, leg. Frisch & Serri.

Remarks: described from Israel; first record from Iran.

***Phyllotreta lativittata* Kutschera**

Material examined – 2 x Khorasan, Golestan NP., 1200 m, 37°20' N 56°14' E, 27. x. 2003, leg. E. Heiss; 1 x Khorasan, Golestan NP., Mirza Balloo, E. Dasht, 700 m, 27. x. 2003, leg. E. Heiss.

***Phyllotreta muehlei* sp. nov.**

(Figs 1-3)

Description – Measures of holotype: length = 2.0 mm; breadth = 1.0 mm; body black, antennae black, except segments two and three and the base of segment four, which are yellowish brown; all femora black, tibiae and tarsi somewhat brownish. Vertex reticulated, with four to five punctures in a nearly semicircle formation; antennal calli vaguely bordered, triangular, shining, anteriorly separated by the outermost top of the sharply elevated frontal ridge, posteriorly separated by a deep furrow. The distance between the inner borders of eyes is 0.55 times as wide as the distance between their outer borders. Proportions of antennal segments in holotype are as 17:10:10:13:13:12:13:13:12:11:17 (1 = 0.01 mm); the segments eight to eleven are somewhat thicker than the foregoing ones. The pronotum is subquadrate, its breadth 1.6 times as long as its length; the sides are evenly rounded; the distance of the anterior angles is equal with that of the posterior angles; the disc is smooth and shining, provided with sharply impressed, fine punctures. Winged, but humeral calli weak and separated from the disc by only a shallow impression; sides of elytra gently curved, broadest in the mid; disc depressed, smooth and shining, the punctures are a little stronger than those on pronotum; the apices broadly rounded, and a little gaping. Hind tibiae straight.

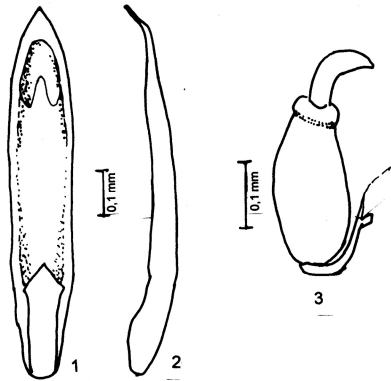
Sexual dimorphism – Male and female of the same measures. Basal segment of anterior tarsi in male with distinctly arched sides, and as broad as the third segment, but not strikingly widened. In female basal segment of anterior tarsi with sides nearly straight, and not as broad as the third one. Aedeagus (figs 1-2) dorsally without transverse striae. Spermatheca as in fig. 3.

Diagnosis – A little species near *Phyllotreta nigripes* (Fabricius), upside black with weak metallic sheen, segments two and three of antennae somewhat lightened. Vertex reticulated with a few punctures.

The key provided by Warchałowski (2003) will lead to *P. nigripes*, but in this species the sides of pronotum are distinctly converging in front, but not so in *P. muehlei*. The distance between the inner borders of eyes is in *P. muehlei* 0.55 times as wide as the distance between their outer borders; in *P. nigripes* 0.6 times. In *P. nigripes* the basal segment of anterior tarsi of males is distinctly widened, and broader than the third segment; but not so in *P. muehlei*. Aedeagi and spermathecae are differently formed.

Type material – Holotype (♂): "Iran, Khorasan, Birjand, 10 km S. Mud, Kahi, 2400-2500 m, 26. v. 2008, leg. Mühle" (in coll. auct.); Paratypes: 2 ♀♀ idem (1 ♀ in coll. auct.; 1 ♀ in the Hayk Mirzayans Insect Museum, Iranian Research Institute of Plant Protection, Tehran, Iran).

Etymology – Named in honour of the collector Hans Mühle, Munich, Germany.



Figs 1-3. *Phyllotreta muehlei* sp. nov. 1. Aedeagus, ventral view; 2. Aedeagus, lateral view; 3. Spermatheca.

***Phyllotreta nemorum* (Linnaeus)**

Material examined – 1 x Semnan Prov., Shahrud-Mojen road: 5 km SE Tash, 2040 m, 36°30'55" N 54°42'16" E, 24. v. 2006, leg. Frisch & Serri.

***Phyllotreta nigripes* (Fabricius)**

Material examined – 17 x Golestan, östl. Elburs-Gebirge, 15 km SE Azad Shar, 400 m, 2. vi. 2008, leg. Mühle.

***Phyllotreta ochripes* Weise**

Material examined – 7 x Kordestan Prov., 15 km NW Divandarreh: 5 km NE Ebrahim Abad, 1980 m, 35°59'13" N 46°52'10" E, 4. ix. 2008, leg. Frisch & Serri.

Remarks: legs unusually piceus!

***Phyllotreta ozbeki* Gruev & Aslan**

Material examined – 1 x Azarbayjan-e Gharbi, N. Takab: 8 km E. Takht-e-Soleyman, 2210 m, 36°36'05" N 47°17'36" E, 7. ix. 2008, leg. Frisch & Serri.

Remarks: described from Turkey; first record from Iran.

***Phyllotreta praticola* Weise**

Material examined – 1 x Azarbayjan-e Gharbi, N. Takab: 8 km E. Takht-e-Soleyman, 2210 m, 36°36'05" N 47°17'36" E, 7. iv. 2008, leg. Frisch & Serri.

***Phyllotreta procera* (Redtenbacher)**

Material examined – 1 x Golestan NP., 26.-27. x. 2003, leg. E. Heiss.

***Phyllotreta vittula* (Redtenbacher)**

Material examined – 1 x Khorasan, Kuh-e-Joghatay, 30 km N. Sabzevar, 1500-1600 m, 31. v. 2008, leg. Mühle.

Remarks: widespread in Palaearctic (Döberl, 2010); first record from Iran.

***Phyllotreta wiseana* Jacobson**

Material examined – 6 x Khorasan, Birjand, 10 km S. Mud, Kahi, 2400-2500 m, 26. v. 2008, leg. Mühle; 3 x Khorasan, Kuh-e-Eshger, Gonabad, 20 km SE Kakhak (Paß), 2400-2500 m, 27. v. 2008, leg. Mühle; 13 x Khorasan, Kuh-e-Joghatay, 30 km N. Sabzevar, 1500-1600 m, 31. v. 2008, leg. Mühle; 1 x Khorasan, Kuh-e-Eshger, Gonabad, 10 km S. Kakhak, 2100 m, 27. v. 2008, leg. Mühle.

***Podagrica malvae* (Illiger)**

Material examined – 1 x Fars Prov., Sepidan-Komehr road: 3 km NW Sepidan, 2510 m, 30°17'51" N 51°58'18" E, 8. v. 2007, leg. Frisch & Serri.

***Psylliodes cuprea* (Koch)**

Material examined – 10 x Golestan NP., 26.-27. x. 2003, leg. E. Heiss.

***Psylliodes persica* Allard**

Material examined – 1 x Hamedan Prov., Moradbeyk valley (Kuh-e Alvand), 2150-2350 m, 34°43'09" N 48°29'01" E, 22. vi. 2004, leg. Frisch; 2 x Esfahan Prov., 15 km E. Zefreh, 2660 m (Mt. Marshonan), 32°54'48" N 52°22'39" E, 16. v. 2007, leg. Frisch & Serri; 1 x Kerman Prov., 6 km N. Rabor (Mt. Lalehzar), 2590 m, 29°19'01" N 56°51'39" E, 4. v. 2007, leg. Frisch & Serri; 1 x Khorasan-e Razavi Prov., SW Shandiz: Zoshg, 1750 m (Binalud Mts.), 36°19'43" N 59°10'40" E, 27. v. 2006, leg. Frisch & Serri; 2 x Mazandaran, route Teheran-Amol, 2400 m, 12. v. 2001, leg. E. Heiss; 5 x Khorasan, Birjand, 10 km S. Mud, Kahi, 2400-2500 m, 26. v. 2008, leg. Mühle; 9 x Khorasan, Kuh-e-Eshger, Gonabad, 20 km SE Kakhak (Paß), 2400-2500 m, 27. v. 2008, leg. Mühle; 1 x Khorasan, Kuh-e-Joghatay, 15 km N. Mehr, 2100-1500 m, 29. v. 2008, leg. Mühle; 3 x Khorasan, Kuh-e-Eshger, Gonabad, 10 km S. Kakhak, 2100 m, 27. v. 2008, leg. Mühle; 1 x Fars, Dasht-e Arzhan, 2000-2200 m, 28.-29. iv. 2006, leg. G. Sama.

***Psylliodes tricolor* Weise**

Material examined – 1 x Khorasan-e Razavi Prov., Emamgholi: Aghmazar, 1850 m (Koppa Dag), 37°19'16" N 58°41'13" E, 31. v. 2006, leg. Frisch & Serri; 1 x Khorasan-e Shomali Prov., Shirvan-Quchan road: 24 km SSW Faruj: Garmab, 1710 m (Barjoven Mts.), 37°03'01" N 58°06'30" E, 1. vi. 2006, leg. Frisch & Serri.

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Received: 24 November 2009

Accepted: 1 June 2010

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