44/1

365-399

On the taxonomy and zoogeography of some *Oxypoda* species of the West Palaearctic region (Coleoptera: Staphylinidae: Aleocharinae)

V. Assing

A b s t r a c t : Six species are described and illustrated: Oxypoda (Thliboptera) apennina nov.sp. (S-Italy), O. (T.) acutior nov.sp. (Albania), O. (Deropoda) gontarenkoi nov.sp. (Ukraine), O. (D.) pungens nov.sp. (Turkey), O. (Sphenoma) ludgeri nov.sp. (Kyrgyzstan), and O. (Oxypoda) constricta nov.sp. (Algeria). The sexual characters of eleven additional species are illustrated. Four synonymies are proposed: Oxypoda carbonaria (HEER 1841) = O. pubescens BERNHAUER 1902, nov.syn.; O. determinata SCRIBA 1870 = O. telifera ASSING 2008, nov.syn., O. hispanica BERNHAUER 1914 = O. virgata ASSING 2008, nov.syn.; O. islandica KRAATZ 1857 = O. dubiosa FAGEL 1960, nov.syn. Oxypoda micans KRAATZ is resynonymised with O. attenuata MULSANT & REY 1853. Catalogues of the subgenera Thliboptera THOMSON 1859 and Deropoda BERNHAUER 1902 are provided. A neotype is designated for Oxypoda determinata SCRIBA 1870. Lectotypes are designated for Oxypoda transgressa PEYERIMHOFF 1908, O. schatzmayri BERRNHAUER 1936, O. incerta EPPELSHEIM 1884, O. pubescens BERNHAUER 1902, O. hispanica BERNHAUER 1914, and O. weiratheri BERNHAUER 1929. Numerous additional records are reported, among them several new country records. The distributions of seven species are mapped.

K e y w o r d s : Coleoptera, Staphylinidae, West Palaearctic, taxonomy, new species, new synonymies, new subgeneric assignment, neotype designation, lectotype designations, distribution, new records, myrmecophily.

Introduction

The speciose genus *Oxypoda* MANNERHEIM is currently represented in the Palaearctic region by more than 400 species in 13 subgenera. Numerous species have been described and reported from the West Palaearctic, but only few species groups have been revised recently; the sexual characters of many species have not been illustrated. Aside from North and Central Europe, modern comprehensive and revisionary taxonomic studies exist only for some regions such as the Canary Islands (ZERCHE 1996), Spain (ASSING 2003, 2008) and Turkey (ASSING 2006a, 2007b), as well as for some conspicuous species groups and subgenera (e.g., ASSING 2009; ZERCHE 1994, 1995, 1999).

Since the last contributions to the *Oxypoda* fauna of the West Palaearctic, additional material, including types, has become available from various field trips, as well as from

various public and private collections. A study of this material yielded a considerable number of new species, records of zoogeographic interest, and also new synonymies.

Material and methods

The material referred to in this study is deposited in the following public institutions and private collections:

FMNHField Museum of Natural History, Chicago (J. Boone, A. F. Newton)
IRSNBInstitut Royal des Sciences Naturelles de Belgique, Bruxelles (Y. Gérard)
MHNG Muséum d'Histoire Naturelle Genève (G. Cuccodoro)
MNHNP Muséum National d'Histoire Naturelle, Paris (A. Taghavian)
SDEISenckenberg Deutsches Entomologisches Institut, Müncheberg (L. Behne, L.
Zerche)
cAssauthor's private collection
cAdo private collection Antonio Adorno, Catania
cFel private collection Benedikt Feldmann, Münster
cSch private collection Michael Schülke, Berlin
cTer private collection Heinrich Terlutter, Coesfeld
cWun private collection Paul Wunderle, Mönchengladbach
cSza private collection Alexander Szallies, Reutlingen

The morphological studies were carried out using a Stemi SV 11 microscope (Zeiss Germany) and a Jenalab compound microscope (Carl Zeiss Jena). For the photographs a digital camera (Nikon Coolpix 995) was used.

Head length was measured from the anterior margin of the clypeus to the posterior margin of the head, elytral length at the suture from the apex of the scutellum to the posterior margin of the elytra. The parameral side (i.e., the side where the sperm duct enters) of the median lobe of the aedeagus is termed the ventral, the opposite side the dorsal aspect.

The maps were created using MapCreator 2.0 (primap) software.

Subgenus Thliboptera THOMSON 1859

The distribution of this subgenus is confined to the Mediterranean region, with the distribution of one species extending into Central, North, and East Europe. Including the new species described below, *Thliboptera* currently includes nineteen species. The diversity hotspot is Turkey, from where as many as eleven species (seven of them exclusive) have become known.

Thliboptera undoubtedly forms a monophyletic taxon constituted by a highly derived aedeagus. The capsule of the median lobe is conspicuously enlarged and weakly sclerotised, and the ventral process is generally short and more or less strongly curved in lateral view. The internal sac contains conspicuously long, sclerotised apical structures extending clearly beyond the apex of the ventral process, and a characteristic ventral tube of species-specific shape. Aside from some species of distinctive external morphology (*O. antennata, O. togata, O. speculoclara, O. apennina*), a reliable identification of the *Thliboptera* species is generally possible only based on the morphology of the median lobe of the aedeagus. The spermatheca is of rather uniform shape (little interspecific

variation), at the same time subject to considerable intraspecific variation, and consequently of little use for taxonomic purposes. For more information on the subgenus see ASSING (2006a).

Tab. 1: Catalogue of the species of the subgenus *Thliboptera*. In the references column, only articles containing recent descriptions and/or recent illustrations of the genitalia are listed.

species	distribution	references
acutior nov.sp.	Albania	present paper
acutissima ASSING 2006	Turkey	ASSING (2006a)
antennata BERNHAUER 1902 = lindbergi SCHEERPELTZ 1958 = mysica FAGEL 1971	Bulgaria, Turkey	Assing (2006a)
apennina nov.sp.	S-Italy	present paper
attenuata MULSANT & REY 1853 = damryi MULSANT & REY 1853 = micans KRAATZ 1855; resyn. = persimilis MULSANT & REY 1875 = rufonitens PEYERIMHOFF 1901	Mediterranean region	ZERCHE (1994); ASSING (2006a, 2007a); present paper
fissa Assing 2006	Turkey	Assing (2006a)
gaillardoti SAULCY 1865	Jordan	Assing (2006a)
gladiatoria Assing 2006	Turkey, Cyprus	Assing (2006a)
inermis Assing 2006	Turkey	ASSING (2006a)
infissa Assing 2006	Greece	ASSING (2006a)
luctifera FAUVEL 1872	Algeria, Morocco	Tronquet (1999)
ormana FAGEL 1971	Turkey	ASSING (2006a)
<i>platyptera</i> FAIRMAIRE 1859 <i>= planipennis</i> FAIRMAIRE & LABOULBENE 1856	SW-France, Spain, Portugal	present paper
recta Assing 2006	Turkey	ASSING (2006a)
referens Mulsant & Rey 1875	Corsica	ZERCHE (1994); present paper
scheepeltziana (FAGEL 1968) = micantoides Assing 2006	Turkey, Lebanon	ASSING (2006a)
speculoclara Assing 2004	Turkey	Assing (2004b)
tenuilaminata Assing 2006	Turkey	ASSING (2006a)
togata Erichson 1837 = hospita Grimm 1845 = atricapilla Mäklin 1846	Europe, Algeria?	





Figs 1-9: Oxypoda platyptera FAIRMAIRE (1), O. attenuata MULSANT & REY from Sardinia (2), O. referens KRAATZ (3-4), O. apennina nov.sp. (5-7), and O. acutior nov.sp. (8-9): (1-4, 6, 8) median lobe of aedeagus in lateral view; (5) habitus; (7, 9) spermatheca. Scale bars: 5: 1.0 mm; 1-4, 6, 8: 0.5 mm; 7, 9: 0.1 mm.

Oxypoda (Thliboptera) platyptera FAIRMAIRE 1859 (Fig. 1, Map 1)

Oxypoda planipennis FAIRMAIRE & LABOULBENE 1856: 435; primary homonym.

Oxypoda platyptera FAIRMAIRE 1859: 37; replacement name.

T y p e m a t e r i a l e x a m i n e d : <u>Syntypes</u>: 2♂♂ [mounted on the same pin]: "Haut-Pyrenaees, Südfrankreich / platyptera Fairm. Type, ded. Fairmaire / Chicago NHMus M.Bernhauer Collection / Syntypes Oxypoda platyptera Fairmaire, rev. V. Assing 2009" (FMNH).

Additional material examined: Spain: Galicia: 7 exs., Sierra de Ancares, Tres Obisbos, 42°48'N, 6°52'W, 1760 m, peak region, grass, moss, etc., sifted, 11.VII.2004, leg. Assing (cAss); 2 exs., Sierra de Ancares, Tres Obisbos, 42°48'N, 6°53'W, 1600 m, Formica sanguinea nest sifted, 11.VII.2004, leg. Assing (cAss); 1 ex., Sierra de Ancares, ENE Degrada, 42°50 N, 6°54 W, 970 m, mixed deciduous forest with very old Castanea sativa, 14.VII.2004, leg. Assing (cAss); 1 ex., Sierra do Courel, W Visuna, Formigueiros, 42°36'N, 7°07'W, 1590 m, grass and roots, sifted, 12.VII.2004, leg. Assing (cAss); 1 d [det. Feldmann], 2 exs., Sierra de Ancares, 2.5 km E Degrada, 12.VI.2000, leg. Aßmann & Wrase (cFel, cSch); 1 3, 3 exs., Lugo, Serra do Rañadoiro, Alto de Poio, 1470 m, 25.IX.2003, leg. Valcárcel (cAss). Castilla y L e ó n : 1 ex., Sierra de Ancares, ENE Puerto de Ancares, peak of Miravalles, 42°53'N, 6°47'W, 1960 m, N-slope, grass, moss, etc., sifted, 15.VII.2004, leg. Assing (cAss); 7 exs., Sierra de la Demanda, ca. 40 km ESE Burgos, S Valmala, Trigaza, 42°16'N, 03°15'W, 1720 m, N-slope, beech forest, 12.X.2003, leg. Assing (cAss); 2 exs., Sierra de la Demanda, Sierra de Neila, Laguna Negra de Neila, 42°03'N, 03°03'W, 1870 m, N-slope, pine litter, Erica, grass, and moss sifted, 16.X.2003, leg. Assing & Wunderle (cAss, cWun); 1 ex., Sierra de la Demanda, E Neila, Cabeza Herrera, 42°05'N, 02°58'W, 1580 m, E-slope, mixed oak, beech and pine forest, litter sifted, 16.X.2003, leg. Assing (cAss); 18 [det. Feldmann], Soria, Sierra de Urbion, below Laguna Negra, 1600 m, 21.V.1999, leg. Feldmann (cFel); 4 exs., 40 km ESE Burgos, Trigaza, 42°16'N, 3°15'W, 1720 m, beech forest, 12.X.2003, leg. Wunderle (cWun). C a n t a b r i a : 4 exs., Santander, Picos de Europa, Camping El Redondo, 1100 m, 14.-17.VII.1996, leg. Wrase (cSch, cAss). N a v a r r a : 233, 499, Sierra de Aralar, peak of Hachueta, 42°57'N, 1°59'W, 1150m, beech forest, leaf litter and grass roots sifted, 11.VII.2003, leg. Assing (cAss); 1 ex., Sierra de Aralar, Santuario de San Miguel in Excelsis de Aralar, 1340 m, 27.VII.1996, leg. Wrase & Zaballos (cSch). L a R i o j a : 1 d, 1 q, Villoslada de Cameros, S Cebollera, Lomos de Orios, 42.04°N, 2.68°W, 1400 m, 12.VIII.2008, leg. Andújar und Arribas (cAss); 2 exs., Logrono, Sierra de la Demanda, Estación de Invernal, 1650 m, 23.VII.1996, leg. Wrase & Zaballos (cSch). A r a g ó n : 4 exs., WNW Teruel, Sierra de Albarracín, Sierra Alta, below peak, 40°29'N, 01°35'W, 1850 m, Pinus and Vaccinium litter between stones sifted, 11.IV.2003, leg. Assing & Wunderle (cAss, cWun); 1 ex., WNW Teruel, Sierra de Albarracín, Sierra Alta, 40°29'N, 01°35'W, 1824 m, pine litter sifted, 11.IV.2003, leg. Assing (cAss); 11 exs., 40 km E Teruel, Sierra de Gúdar, pista to Penarrova, 40°24'N, 00°39'W, 1890 m, litter of old pine trees, 13.IV.2003, leg. Assing & Wunderle (cAss, cWun); 4 exs., 60 km E Teruel, Sierra del Rayo, 10 km E Valdelineares, 40°24'N, 00°30'W, 1875 m, pine forest, 13.IV.2003, leg. Assing & Wunderle (cAss, cWun); 1 ex., 60 km E Teruel, Sierra del Rayo, 10 km E Valdelineares, 40°23'N, 00°31'W, 1800 m, pine forest, 13.IV.2003, leg. Wunderle (cWun); 1 ex., 30 km S Teruel, Sierra del Javalambre, Javalambre ski resort, 40°07'N, 01°01'W, 1860 m, N-slope with spruce and pine, litter Agramonte, 1600 m, sifted, 20.V.1999, leg. Feldmann], Zragoza, Sierra de Moncayo, Agramonte, 1600 m, sifted, 20.V.1999, leg. Feldmann (cFel). M a d r i d : 2 exs., 10 km W Madrid, Boadilla del Monte, Valdepastores, 21.-23.I.1998, leg. Wrase (cSch). C a s t i l l a -L a M a n c h a : 1 o, Toledo, La Guardia, 24.V.1991, leg. Wrase (cAss); 1 d, 4 exs., Toledo, Quero, 4.VII.1996, leg. Wrase (cSch, cAss). V a l e n c i a : 18, 19, Alicante, Sierra de Aitana, 38°40'N, 0°15'W, 960 m, 6.X.2008, leg. Meybohm (cAss); $5\vec{\sigma}\vec{\sigma}$, $6\not{\circ}\varphi$, Alicante, Sierra d'Aitana, 38°38'N, 0°11'W, 950 m, 4.X.2008, leg. Meybohm (cAss); 2 q q, Alicante, Sierra d'Aitana, 1300 m, 17.III.1994, leg. Meybohm (cAss); 1 q, Sierra d'Aitana, ca. 8 km N Sella, 38°39'N, 00°16'W, 1390 m, N-slope, sifted from grass roots and moss, 28.III.2007, leg. Assing (cAss). M u r c i a : 1σ , $2\phi \phi$, Sierra de Espuña, 1500 m, 7.VI.2003, leg. Forcke (cAss); 1ϕ , Sierra de Espuña, Prado Mayor, 37°53'N, 01°34'W, 1100 m, under stones and sifted from grass roots, 29.III.2007, leg. Assing (cAss). A n d a l u c í a : 1 ex., E Jaén, SE Mancha Real, Sierra Almadén, 37°44'N, 03°31^TW, 1850 m, 26.XII.2003, leg. Assing (cAss); 1 ex., W Almeria, Sierra de Gádor, 36°57^N, 02°47^TW, 1510 m, dry macchia, under stones and sifted, 17.III.2008, leg. Assing & Andújar (cAss); 3 exs., W Almeria, Sierra de Gádor, 36°55'N, 02°47'W, 1720 m, N-slope with grassland, shrubs, and trees, under stones and grass roots sifted, 17.III.2008, leg. Assing & Andújar (cAss); 399, Granada, Sierra Nevada, below Solvnieve, 1900 m, 21.III.1994, leg. Assing (cAss); 13, same data,

but 1700 m, pine and juniper litter sifted, leg. Wunderle (cWun); $2\delta \delta$, Sierra Nevada, $37^{\circ}05'N$, $3^{\circ}24'W$, 2100 m, 23.II.2000, leg. Meybohm (cAss); 2 exs., Málaga, Sierra Jubrique, 500 m, road margin, moss sifted, 26.III.1994, leg. Wunderle (cWun); 3 exs., Málaga, Sierra Cortez de Frontera, 1200 m, oak forest, leaf litter sifted, 2.X.1993, leg. Wunderle (cWun); $4\delta \delta$, $2\varphi \varphi$, Málaga, SE Ronda, Sierra de Palmitera, 900 m, 24.III.1994, leg. Assing & Wunderle (cAss, cWun); $2\delta \delta$, Sierra de Cazorla, spring of Guadalquivir, macchia, 6.X.1993, leg. Wunderle (cAss); 13 exs., Cazorla env., Quesada, 1100 m, N-slope, moss sifted, 7.X.1993, leg. Wunderle (cAss, cWun); 6 exs., Cádiz, Ronda env., Sierra de Ubrique, Villaluenge del Rosario, 1000 m, 25.III.1994, leg. Assing & Wunderle (cAss, Wun); $2\delta \delta$, Ubrique, 600 m, 2.X.1993, leg. Wunderle (cWun); $2\varphi \varphi$, Cádiz, 15 km NE Ubrique, Sierra de Grazalema, $36^{\circ}45'N$, $5^{\circ}27'W$, 770 m, calcareous oak forest, sifted, 28.XII.2009, leg. Assing (cAss).

<u>Portugal</u>: 1 \circ , SW Montalegre, Parafita, 41°46'N, 7°50'W, 900 m, leaf litter near creek sifted, 22.III.2002, leg. Lompe (cAss); 2 $\circ \circ \circ$, Serra da Estrela, S Manteigas, 40°21'N, 7°34'W, 1070 m, bushes, under stones, 18.III.2002, leg. Lompe (cAss); 2 $\circ \circ \circ$, Serra da Estrela, W Manteigas, Penhas Douradas, 40°24'N, 7°34'W, 1470 m, 19.III.2002, leg. Lompe (cAss); 1 \circ , Serra do Gerez, W P. d. Homen, 1450 m, 28.V.1992, leg. Wunderle (cWun).

France: 3 exs., Hautes-Pyrénées, Aulon env., 29.VI.2010, leg. Terlutter (cTer, cFel).



Map 1: Distribution of Oxypoda platyptera FAIRMAIRE based on revised records.

C o m m e n t : FAIRMAIRE & LABOULBÉNE (1856) described *Oxypoda planipennis* from an unspecified number of syntypes collected in "H.-Pyr., vallée de Campan". The name is a primary homonym and was subsequently replaced with the nomen novum *O. platyptera* by FAIRMAIRE (1859). Two male syntypes were located in the Bernhauer collection at the FMNH. *Oxypoda platyptera* was moved to the subgenus *Thliboptera* by ASSING (2009).

In the Palaearctic catalogue (SMETANA 2004), *O. platyptera* is listed only for Italy, although it was described from France. GAMARRA & OUTERELO (2005) report the species from four Spanish provinces. As can be inferred from the material examined, *O. platyptera* is widespread and fairly common in the Iberian peninsula. The specimens from Portugal represent new country records. The distribution is mapped in Map 1.

For an illustration of the aedeagus see Fig. 1.

Oxypoda (Thliboptera) attenuata MULSANT & REY 1853 (Fig. 2, Map 2)

Oxypoda attenuata MULSANT & REY 1853: 53 ff.

Oxypoda micans KRAATZ 1855: 331 f.; resyn.

Oxypoda luctifera var. rufonitens PEYERIMHOFF 1901: 63.

Type material examined: *O. micans*: Lectotype $\underline{\phi}$ [dissected prior to present study]: "micans mihi, Graec. v. Ksw. / Coll. Kraatz / Holotypus / Lectotypus Oxypoda micans Kraatz, 1856, Zerche desg. 1993 / DEI Müncheberg Col-02784 / Oxypoda attenuata Mulsant & Rey, det. V. Assing 2012" (SDEI).

Additional material examined: Greece: 4 exs., N Larissa, Kato Olympos, above Goni, 39°54'N, 22°27'E, 550 m, road margin, in nest of Messor sp., 6.IV.1998, leg. Assing (cAss); 4 exs., Kato Olympos, E Kallipefki, 39°58'N, 22°29'E, 1500-1580 m, 6.IV.1998, leg. Assing (cAss); 1 ex., Fthiotis, 30 km W Lamia, W Kalithea, 38°53'N, 22°06'E, 800 m, oak forest, sifted, 16.IV.2000, leg. Assing (cAss); 1 q, Makedhonía, NW Kavála, Pangéo, beech forest near ski resort, 1650 m, 24.V.1999, leg. Assing (cAss); 1 ex., Pelopónnisos, Agios Nikolaos, IV.1999, leg. Wachtel (cAss); 12 exs., Levkas, Vouno peak, 1050 m, sifted, 25.IX.1993, leg. Assing (cAss); 2 exs., Ikaria, Nas, 37°37'N, 26°03'E, 10-100 m, stream valley, *Mastix* litter sifted, 26.IV.2003, leg. Brachat & Meybohm (cAss). Italy: 18, Sardinia, Cat. d. Marghine, Mt. Palai, 1000 m, leaf litter sifted, 12.X.1989, leg. Wunderle ["Oxypoda attenuata M. et R., Zerche det. 1992, LT Lyon, cum typ. comp., Zerche 1992"] (cWun); 18, Monti del Gennargentu, Brunco Spina, 40°01'N, 09°18'E, 1700 m, edge of snowfield, sifted, 12.V.2005, leg. Hetzel (cFel); 13, Monti del Gennargentu, Punta la Marmora, 40°01'N, 09°17'E, 1600 m,16.V.2005, leg. Hetzel (cAss). Morocco: 6 exs., Haut Atlas, NE Tizi-n-Test, 30°52'N, 8°22'W, 2070 m, Quercus ilex forest, sifted, 26.XII.2002, leg. Assing, Wunderle (cAss, cWun); 5 exs., Khénifra, lake Aguelmane, Azizga, under rocks near lakeshore, 10.V.2009, leg. Hlaváč (cAss); 2 exs., Moyen Atlas, Azrou env., Forêt de Cedres, 33°43'N, 5°18'W, 1600 m, sifted, 9.V.2009, leg. Hlaváč (cAss).

C o m m e n t : *Oxypoda attenuata* was described from an unspecified number of syntypes from "Hyères" (MULSANT & REY 1953). Three type specimens were examined and a lectotype was designated by ZERCHE (1994).

The original description of *O. micans* is based on an unspecified number of syntypes from "Griechenland" collected by "Herrn von Kiesenwetter" (KRAATZ 1855). A single female is deposited in the Kraatz collection at the SDEI. In referring to this specimens as "Holotypus" GAEDIKE (1981) designated it as the lectotype. It has a lectotype label by L. Zerche attached to it, but his designation was never published. Most species of *Thliboptera* can reliably be identified and interpreted only based on the morphology of the aedeagus. Therefore, the female lectotype is hypothesised to be conspecific with the most common representative of the subgenus in Greece. *Oxypoda micans* was synony-mised with *O. attenuata* by BERNHAUER (1902) and revalidated by ZERCHE (1994), who stated that it was "eine distinkte und allopatrisch verbreitete Art" without providing evidence.

Oxypoda micans was previously known only from Greece and Turkey (ASSING 2006a, 2007a; SMETANA 2004). The external and sexual characters of the specimens from Morocco (see above) are practically identical to those of the material seen from Greece and Turkey. The same is true of the specimens seen from Sardinia. Slight differences

between these populations may be observed in the length of the apical part of the ventral process of the median lobe and in the size of the crista apicalis of the aedeagus, as well as in body size. However, these differences are barely noticeable and, at the same time, there is some variation of these characters even with populations. Moreover, a remarkably discontinuous distribution, as it is currently known (Map 2), would seem as unlikely as the possibility that this species has never been found in the region between Greece, Sardinia, and Morocco. The only plausible explanation, therefore, is that populations from other regions have been recorded under a different name. The most likely candidate would be *O. attenuata* MULSANT & REY 1853, which has been reported from North Africa (Algeria) and in southern Europe from Spain to Greece (SMETANA 2004). Unfortunately, the type material of *O. attenuata* is teneral, in poor condition, and the aedeagus figured by ZERCHE (1994) is evidently deformed. In consequence, based on the available evidence, *O. micans* and *O. attenuata* are hypothesised to be conspecific and the former is placed in synonymy with the latter. For additional records from Turkey see ASSING (2007a).

According to PEYERIMHOFF (1901), *O. rufonitens* represents a variety of *O. luctifera* distributed in the French Alps and the Provence. At present, this treated as a synonym of *O. luctifera*. Confirmed records of *O. luctifera* have become known only from Algeria, so that *O. rufonitens* is most likely a synonym of *O. attenuata*, which was described from southeastern France.

Oxypoda attenuata was previously attributed to the subgenus *Podoxya* MULSANT & REY 1875. It is here transferred to the subgenus *Thliboptera*. For an illustration of the aedeagus (as *O. micans*) see ASSING (2006a). The aedeagus of a male from Sardinia is illustrated in Fig. 2. The distribution is shown in Map 2.

Oxypoda (Thliboptera) referens KRAATZ 1855 (Figs 3-4)

M a t e r i a l e x a m i n e d : <u>France</u>: C o r s i c a : $9\delta\delta$, $7\varphi\varphi$, 30 km W Corte, Col de Vergio, 1600 m, pine litter sifted, 9.IV.1990, leg. Assing (cAss); 1φ , Col de Vergio, 1500 m, 3.IV.2001, leg. Wolf (cSch); $2\delta\delta$, $2\varphi\varphi$, Mt. Renoso, Campanelle, 1650 m, 10.IV.1990, leg. Assing (cAss); 1δ , $2\varphi\varphi$, Mt. Renoso, Campanelle, 1800-1900 m, leaf litter sifted, 10.IV.1990, leg. Assing (cAss); 1ϕ , Col te very value a Restonica, 1000 m, stream bank, 6.IV.1990, leg. Assing (cAss); 1φ , Col de Vizzavona, Pylo. Telekom, 1200 m, 3.V.2001, leg. Wolf (cAss); 1 ex., Bocognano, VI.1933, leg. Peschel (MHNG); 1 ex., locality not specified (MHNG).

C o m m e n t : The type material of this species, which was originally described from Corsica, was revised by ZERCHE (1994) and moved to the subgenus *Thliboptera* by ASSING (2009). According to SMETANA (2004), *O. referens* has been reported also from Bosnia-Herzegovina, Greece, Italy, Portugal, Spain, and Algeria. At present, all these records must be considered doubtful, as they most likely refer to other, similar species. Confirmed records are known only from Corsica.

The median lobe of the aedeagus is illustrated in Figs 3-4.

Oxypoda (Thliboptera) luctifera FAUVEL 1872

Oxypoda luctifera FAUVEL 1872: 30.

C o m m e n t : The original description is based on an unspecified number of syntypes from "environs de Médéah" in Algeria (FAUVEL 1872). TRONQUET (1999) designated a

lectotype from "Teniet el Haad". Since this locality is not indicated in the original description, however, his lectotype designation is invalid. For illustrations of the sexual characters see TRONQUET (1999).

Oxypoda (Thliboptera) apennina nov.sp. (Figs 5-7, Map 2)

T y p e m a t e r i a l : <u>Holotype δ </u>: "Italien, Lazio, Lago di Bracciano, ca. l km südl. des Ortes, I. Wolf leg. 21.05.1998 / Holotypus δ *Oxypoda apennina* sp.n. det. V. Assing 2011" (cAss). <u>Paratypes</u>: 3 exs.: same data as holotype (cSch); 5 exs.: "Italien, Lazio, 50 km n. Monte Cassino, Passo di Forca D'Acero, I. Wolf leg. 15.05.1998" (cSch, cAss); l δ [teneral]: "Italien, Lazio, Lago di Vico, Monti Cimino ca. 700 m, s. San Martino al Cimino, I. Wolf leg. 23.05.1998" (cAss); $3\delta \delta$, $1 \circ$: "I Abruzzen, Pso. Lanciano, Majelletta (BR 12), 21.1X.77, Brandmayr" (cAss); l δ m: "I: P. Lanciano, Majelletta, Faggeta, 21.1X.1977, Brandmayr" (cAss); $2\delta \delta$, $4 \circ \phi \circ$: "I. Abruzzen, G. San Leonardo, Orthilia, Fagetum, 21.1X.77, Brandmayr" (cAss); $2\delta \delta$, $2 \circ \phi \circ$: "I. Basilicata, M. Pollino; Fagetum, Bodenfalle, 20.1X.77, Brandmayr" (cAss); l δ : "Lucania Pollino, Coppola di Paola (CS), pend. S, 1800-1900 m, 8.VII.85, l. Angelini" (cAss); l δ , l ϕ : "Italia: Campania, Reg. Salerno, Mti. Alburni, W San Rufo, Passo di Sentinella, 900 m, 10.X.2000, leg. I. Wolf" (cSch, cAss); l ϕ : "Italia mer. M. Pollino, Asyneumato-Fagetum, 20.09.1977, 6,5 Trappole, 1/20 Picoli (BR 3), leg. Brandmayr" (cSch); l δ : "Italia - Basilicata, Parco N. d. Pollino, ca. 1500 m, Umgeb. Rif. de Gasperi, leg. I. Wolf, 16.06.-06.07.2001" (cAss).

D e s c r i p t i o n : Relatively large species, body length 4.5-5.8 mm. Habitus as in Fig. 5. Coloration: head dark-reddish to blackish-brown; pronotum and elytra reddish; abdomen dark-brown to blackish brown, usually with the apex and sometimes also the anterior tergites dark-reddish to reddish-brown; legs reddish to reddish-brown; antennae brown to dark-brown, with the basal three antennomeres reddish.

Head and pronotum with very dense and extremely fine, barely noticeable punctation and with shallow microsculpture. Punctation of elytra very dense and fine, but much more distinct than that of head and pronotum.

Pronotum relatively large, approximately 1.20-1.25 times as broad as long, at least approximately 1.5 times as broad as head, broader than elytra at humeral angles, and almost as broad as elytra at posterior margin. Elytra approximately 0.75 times as long as pronotum. Hind wings (always?) fully developed. Abdomen with very dense punctation, with or without shallow microsculpture.

 δ : sternite VIII posteriorly broadly convex or indistinctly angled in the middle; median lobe of aedeagus (Fig. 6) large, approximately 0.8 mm long; ventral process apically of similar shape as in *O. referens* and *O. attenuata*; apical internal structures large and long; ventro-apical internal tube of constant and characteristic shape.

 φ : posterior margin of sternite VIII weakly concave in the middle and with row of numerous modified, stout marginal setae; spermatheca similar to that of other species of the subgenus (Fig. 7).

E t y m o l o g y : The specific epithet (adjective) alludes to the Apennine, the mountain range where the type specimens were collected.

C o m p a r a t i v e n o t e s : *Oxypoda apennina* is distinguished from all its consubgeners by the morphology of the aedeagus, from most of them additionally by the reddish pronotum and elytra. The geographically close *O. referens* is smaller, less distinctly bicolored (pronotum and elytra reddish brown to brown), and has a much more slender body with a relatively narrower pronotum (approximately 1.35 times as broad as head). The sometimes similarly coloured *O. togata* is much smaller and has a much

smaller (approximately 0.6 mm) aedeagus of completely different shape. The similarly coloured *O. platyptera* is on average smaller, more slender, has hind wings of strongly reduced length (extending little beyond posterior margin of elytra when unfolded), and an aedeagus with the ventral process and the apico-ventral tube of completely different shape.

D is tribution and natural history: *Oxypoda apennina* has been found in several localities in the southern Apennines (Map 2). Two external similar specimens from Sicily were examined, but since some differences (particularly regarding the apico-ventral tube) were observed in the aedeagus, they are not included in the type series. More material is needed to assess whether these differences are an expression of intra- or of interspecific variation.

The specimens with labels specifying additional data were collected at altitudes of 700-1900 m, at least some of them in beech forests. One specimen collected in May is teneral.



Map 2: Distributions of *Oxypoda attenuata* MULSANT & REY (squares), *O. appenina* nov.sp. (triangles), and *O. acutior* nov.sp. (open diamonds), based on revised records.

Oxypoda (Thliboptera) acutior nov.sp. (Figs 8-9, Map 2)

T y p e m a t e r i a 1 : <u>Holotype δ </u>: "Albania [7], Pogradec, 18 km NNW Pogradec, S Q. e Thanës, 1000 m, 41°03'23"N, 20°36'43"E, 24.V.2010, M. Schülke / Holotypus δ *Oxypoda acutior* sp.n. det. V. Assing 2011" (cAss). <u>Paratypes</u>: $2\delta \delta$, $4\varphi \varphi$, 1sex?: same data as holotype (cSch, cAss); 1φ : same data as holotype, but leg. Assing (cAss); 1δ : "Albania (Pogradec), 18 km NNW Pogradec, S Qafa e Thanës 1000 m, 41°03'23"N, 20°36'43"E (dry pasture on lime with oak shrubbery, under stones) 24.V.2010 D.W. Wrase [7]" (cSch); 1δ : "Albania (Kolonjë), 5 km SW Ersekë, M. Barmashi 1030 m, 40°17'43"N, 20°38'06"E (pasture and field edges, under stones), 28.V.2010, D.W. Wrase [15]" (cSch).

D e s c r i p t i o n : Body length 4.5-5.3 mm. Coloration: blackish-brown to blackish, usually with the elytra and sometimes also the pronotum slightly paler; legs dark-reddish; antennae dark-brown to blackish-brown, with the basal three antennomeres dark-reddish.

External characters as in *O. attenuata*; distinguished only by the male primary sexual characters:

 δ : median lobe of aedeagus (Fig. 8) larger, approximately 0.83 mm long; ventral process apically much longer and more acute; apical internal structures larger, longer, and more strongly sclerotised; ventro-apical internal tube of different shape.

Q: spermatheca as in Fig. 9.

E t y m o l o g y : The name (Latin, comparative of the adjective acutus) alludes to the apically more acute ventral process of the aedeagus, one of the characters distinguishing this species from the similar *O. attenuata*.

C o m p a r a t i v e n o t e s : *Oxypoda acutior* is reliably distinguished from most other East Mediterranean consubgeners only by the morphology of the aedeagus. For illustrations of the genitalia of these species see ASSING (2004, 2006a). The only similarly dark-coloured *Thliboptera* species in the West Mediterranean is *O. luctifera* from North Africa, which is distinctly smaller. The aedeagus of *O. luctifera* is figured by TRONQUET (1999). The aedeagus of the geographically close (Greece) and externally highly similar *O. infissa* has a ventral process with a longer, more slender (lateral view), and more acute apex, distinctly shorter and smaller apical internal sclerotised structures, and an apico-ventral tube of completely different shape (see figure 128 in ASSING 2006a).

D is tribution and natural his tory: *Oxypoda acutior* is currently known only from two localities in southern Albania, where the type specimens were collected by turning stones on pastures at an altitude of approximately 1000 m.

Oxypoda (Thliboptera) fissa ASSING 2006

M a t e r i a l e x a m i n e d : <u>Turkey</u>: 3 exs., Antalya, N Bademli geçidi, 37°19'N, 31°44'E, 1400 m, mixed cypress and fir forest, litter sifted, 17.II.2011, leg. Schülke (cSch, cAss).

C o m m e n t : This species was previously known from four Turkish provinces (Muğla, Konya, Mersin, Gümüşhane) (ASSING 2006a, 2007b).

Oxypoda (Thliboptera) gladiatoria ASSING 2006

M a t e r i a l e x a m i n e d : <u>Turkey</u>: 3 exs., Antalya, N Bademli geçidi, 37°19'N, 31°44'E, 1400 m, mixed cypress and fir forest, litter sifted, 17.II.2011, leg. Schülke (cSch, cAss).

C o m m e n t : The known distribution of this species is confined to southwestern Anatolia (Muğla, Antalya) and Cyprus (ASSING 2006a).

Subgenus Deropoda BERNHAUER 1902

The distribution of *Deropoda* is confined to the West Palaearctic region, with most species distributed in the south. Including the new species described below, the subgenus now includes 25 species, the vast majority of which is distributed in the Mediterranean. The subgeneric placement of two species, *O. rugulosa* and *O. nemrutica*, is doubtful. *Oxypoda bimaculata* BAUDI DI SELVE 1870, which was previously attributed to *Deropoda*, is excluded from the subgenus and treated as incertae sedis; neither the external nor the male sexual characters support a close relationship with other *Deropoda* species.

Deropoda species apparently reproduce in a cryptic subterranean habitat and are found rarely. Several species are currently represented only by their respective type specimens. *Oxypoda spaethi* seems to be nidicolous (associated with gopher burrows), *O. gontarenkoi* is probably myrmecophilous (associated with *Messor* sp.).

species	distribution	references
aegyptiaca KOCH 1936	Egypt	
<i>amicta</i> ERICHSON 1839 = <i>triangulum</i> EPPELSHEIM 1884	North Africa: Morocco, Algeria, Tunisia; Spain; Italy: Sardinia, Sicily; France: Corsica	Assing (2005)
amplipalpis ZERCHE 1994	SW-France	ZERCHE (1994)
andalusiaca Assing 2003	S-Spain	ASSING (2003)
<i>arabs</i> FAUVEL 1904 <i>= pierrei</i> JARRIGE 1956	Algeria; Canary Islands: Fuerteventura; Saudi Arabia; Egypt: Sinai	Zerche (1996)
brachati ASSIING 2004	Turkey	Assing (2004b)
depressipennis (AUBÉ 1862)	S-France, N-Italy	
extensiceps ASSING 2010	Italy: Lazio	ASSING (2010b)
gontarenkoi nov.sp.	Ukraine	present paper
graeca KRATZ 1855	Greece; Italy?	
leonhardi BERNHAUER 1936	Greece	
lencinai Assıng 2010	Spain: Murcia	ASSING (2010a)
magnicollis FAUVEL 1878	North Africa: Tunisia, Algeria, Morocco	present paper
mutata Sharp 1871	Europe, Turkey?	Zerche (1994),
= <i>rufula</i> MULSANT & REY 1853		present paper
= riparia Brisout de Barneville 1859		
<i>= mulsanti</i> BERNHAUER & SCHEERPELTZ 1926		
mutatoides ZERCHE 1994	Bosnia-Herzegovina	ZERCHE (1994)
nemrutica ASSING 2006	Turkey	Assing (2006b)
pungens nov.sp.	Turkey	present paper
reyi Zerche 1994	France, Italy	ZERCHE (1994)
rugulosa KRAATZ 1856	France, Germany, Switzerland	
schatzmayri BERNHAUER 1936	Libya	present paper
schminkei Assing 2004	Turkey	ASSING (2004a)
schuelkei Assing 2004	Turkey	Assing (2004b)
spaethi Bernhauer 1901	Austria, Hungary	
transgressa PEYERIMHOFF 1908	Algeria	present paper
zariquieyii Peyerimhoff 1919	N-Spain	

Tab. 2: Catalogue of the species of the subgenus *Deropoda*. In the references column, only articles containing recent descriptions and/or recent illustrations of the genitalia are listed.

Oxypoda (Deropoda) amicta ERICHSON 1839

M a t e r i a l e x a m i n e d : <u>Spain</u>: l ex., Andalucía, Tarifa env., 25.III.1974, leg. Fülscher & Meybohm (MHNG).

C o m m e n t : *Oxypoda amicta* was recently reported from Spain for the first time (Assing 2010a).

Oxypoda (Deropoda) andalusiaca ASSING 2003

M a t e r i a l e x a m i n e d : Spain: 1 ex., Andalucía, Sierra de Ronda, Mte. Jarastepar, 26.III.1974 (MNHG). Morocco: 1 ♀, Moyen Atlas, Azrou, Forêt de Cedres, 10.III.1980, leg. Meybohm & Fülscher (MHNG).

C o m m e n t : This species had become known only from Andalucía. The specimen from the Moyen Atlas is tentatively attributed to this species; it would represent the first record from Morocco. However, since it is a female, the presence of *O. andalusiaca* in Morocco requires confirmation.

Oxypoda (Deropoda) depressipennis (AUBÉ 1862)

M a t e r i a l e x a m i n e d : <u>France</u>: P r o v e n c e : 2 exs., Alpes-Maritimes, St. Barnabe, with ants, 20.IV.1956 (MHNG, cAss); 1 ex., same locality, 5.IV.1952 (MHNG); 1 ex., same locality, 17.IV.1946 (MHNG); 1 ex. [teneral], same locality, 20.V.1946 (MHNG); 1 ex., same locality, under stone, 30.IV.1948 (MHNG); 1 ex., same locality, 28.IV.1938 (MHNG); 1 ex., Provence, Luberon mts., leg. Fagniez (MNHNP); 2 exs., Provence, Luberon mts., leg. Fagniez (MNHNP); 1 ex., Le Beausset, under stone, 11.I.1924, leg. Planat (MHNG); 1 ex., Le Beausset, 21.I.1924, leg. Planat (MHNG).

Italy: 1 ex., Abruzzo, Pietracamela [42°31'N, 13°33'E], 29.VII.1898, leg. Fiori (FMNH); 1 ex., Abruzzo, Gran Sasso, VII.1898, leg. Fiori (FMNH); 1 ex., Lazio, Camerata Nuova, 1909, leg. Krüger (FMNH).

C o m m e n t : The distribution of *O. depressipennis* is confined to southeastern France and Italy (BERNHAUER 1902, SMETANA 2004).

Oxypoda (Deropoda) transgressa PEYERIMHOFF 1908 (Figs 10-11)

Oxypoda (Baptopoda) transgressa PEYERIMHOFF 1908: 122.

T y p e m a t e r i a l e x a m i n e d : Lectotype δ , present designation [dissected prior to present study]: "crête du Djurdjura / Oxypoda Jurjurae m. n. sp. / transgressa / Lectotypus δ *Oxypoda transgressa* Peyerimhoff, desig. V. Assing 2010" (MNHNP). <u>Paralectotypes</u>: 1 φ : "crête du Djurdjura, 6.VII.1907" (MNHNP); 1 φ : "crête du Djurdjura / Oxypoda transgressa / Muséum Paris, Ex Collection J. Jarrige 1976 / Oxypoda transgressa Peyer, M. Tronquet Det. 1999" (MNHNP).

C o m m e n t : The original description is based on "une dizaine d'exemplaires" collected "auprès des neiges du Djurdjura" in July (PEYERIMHOFF 1908). A holotype is not specified. Three syntypes were located in the Jarrige collection at the MNHNP. The male is designated as the lectotype. The primary sexual characters of the lectotype are illustrated in Figs 10-11.





Figs 10-19: Oxypoda transgressa PEYERIMHOFF, lectotype (10-11), O. magnicollis FAUVEL from Biskra (12-15), and O. schatzmayri BERNHAUER (16-19), lectotype (18-19) and paralectotype (16-17): (10, 14, 18) median lobe of aedeagus in lateral view; (11, 15, 19) paramere; (12, 16) habitus; (13, 17) forebody. Scale bars: 12, 16: 1.0 mm; 13, 17: 0.5 mm; 14-15, 18-19: 0.1 mm. 10-11: without scale.

This species is extremely similar to *O. andalusiaca*. The head is of less dark coloration and less strongly contrasting with the reddish pronotum. Also, the apex of the ventral process of the aedeagus is somewhat shorter and less slender. However, more material is needed to clarify if these differences are an expression of inter- or intraspecific variation.

Oxypoda (Deropoda) magnicollis FAUVEL 1878 (Figs 12-15)

M a t e r i a l e x a m i n e d : <u>Algeria</u>: 1 ex., Biskra, 24.I.1929, leg. Schatzmayr (FMNH); 2 exs., Biskra, El Kantara, 12.II.1929, leg. Schatzmayr (FMNH).

C o m m e n t : According to SMETANA, *O. magnicollis* has been reported from Greece, Spain, the Czech Republic, and North Africa (Tunisia, Algeria, Morocco). The records from regions other than North Africa, however, have not been confirmed and should be considered highly doubtful.

This micropterous species is characterized by the combination of large eyes (in this respect similar to *O. arabs* FAUVEL 1904 and *O. schatzmayri* BERNHAUER 1936), the conspicuously large pronotum (distinctly broader and longer than the elytra), moderately pronounced lateral folds of the elytra, and absence of a palisade fringe at the posterior margin of the abdominal tergite VII, as well as by the morphology of the aedeagus (Figs 12-15). The crista apicalis is larger than in many other species of the subgenus. As in many other species of the subgenus, the ventral process is apically bifid in ventral view.

Oxypoda (Deropoda) schatzmayri BERNHAUER 1936 (Figs 16-19)

Oxypoda schatzmayri BERNHAUER 1936: 56.

T y p e m a t e r i a l e x a m i n e d : Lectotype δ , present designation [dissected prior to present study]: "Tripoli Afr., 7.3.26, Schatzmayr / Schatzmayri Brh. Typus, Parlo Koch don / Schatzmayri Bernh. Typus, Baptopoda / Chicago NHMus M.Bernhauer Collection / Lectotypus δ Oxypoda schatzmayri Bernhauer, desig. V. Assing 2011" (FMNH). <u>Paralectotype φ </u>: "Tripoli Afr., 7.3.26, Schatzmayri Bernh. Cotypus, Baptopoda / Chicago NHMus M.Bernhauer Collection" (FMNH).

C o m m e n t : The original description is based on an unspecified number of syntypes from "Tripolis, 7. März 1926" (BERNHAUER 1936). Two syntypes, a male and a female were located in the Bernhauer collection at the FMNH; the male is designated as the lectotype.

SMETANA (2004) suggests that the species was described from Greece, but the labels attached to the type specimens leave no doubt that the type locality is Tripolis in Libya.

In many respects, *O. schatzmayri* is similar to *O. magnicollis* (eye size, coloration, reduced hind wings and palisade fringe at the posterior margin of the abdominal tergite VII, shape of aedeagus, with large crista apicalis and apically bifid ventral process). It is distinguished from that species particularly by more slender habitus, slightly less dense punctation and less matt appearance of the forebody, slightly shorter and more depressed elytra, as well as by the shape of the aedeagus (Fig 16-19).

Oxypoda (Deropoda) lencinai Assing 2010

M a t e r i a l e x a m i n e d : <u>Spain</u>: M u r c i a : 1 ♀, Jumilla, La Beata, 38°35'N, 1°19'W, 770 m, II.2011, leg. Lencina (cAss); 1 ♀, same data, but 760 m, IV.-V.2011 (cAss); 1 ♂ [aedeagus missing], Yecla, Arenal "Boquera del Carche", 38°29'N, 1°07'W, 680 m, XI-XII.2010, leg. Lencina (cAss).

C o m m e n t : The above specimens represent the first records since the original description, which is based on a single male from Molina de Segura in Murcia (ASSING 2010a).



Figs 20-23: Oxypoda gontarenkoi nov.sp.: (20) habitus; (21) forebody; (22) median lobe of aedeagus in lateral view; (23) apical lobe of paramere. Scale bars: 20: 1.0 mm; 21: 0.5 mm; 22-23: 0.1 mm.

Oxypoda (Deropoda) gontarenkoi nov.sp. (Figs 20-23)

T y p e m a t e r i a l : <u>Holotype</u> $\overset{\circ}{\circ}$ [with worker of *Messor* sp. attached to the same pin]: "Mykolayiv obl., Berzany distr., vic. Vasilevka, 1.04.011, leg. Gontarenko A. V. / under stone / Holotypus $\overset{\circ}{\circ}$ *Oxypoda gontarenkoi* sp.n. det. V. Assing 2011" (cAss).

D e s c r i p t i o n : Body length 3.0 mm. Habitus as in Fig. 20. Coloration: head blackish-brown, distinctly constrasting with the bright reddish pronotum and elytra; abdomen bright reddish, with segment VI and anterior portion of segment VII blackish; legs yellowish; antennae pale-reddish.

Head (Fig. 21) 1.05 times as long as broad; punctation very dense and moderately shallow. Eyes slightly longer than postocular region in dorsal view. Antenna gradually incrassate apically (somewhat more massive than in *O. mutata*) and with contiguous antennomeres; antennomere III distinctly shorter than II; IV weakly transverse; IV-X of gradually increasing width; X barely 1.5 times as broad as long; XI nearly as long as the combined length of VIII-X. Maxillary palpus slender, preapical palpomere approximately 3.5 times as long as broad.

Pronotum (Fig. 21) 1.22 times as broad as long and 1.5 times as broad as head, maximal width approximately in the middle; posterior margin weakly concave near posterior angles; punctation slightly coarser than that of head.

Elytra 0.75 times as long as pronotum (Fig. 21); posterior margin distinctly sinuate near postero-lateral angles; lateral margins moderately bulging and separated from disc by shallow impression in posterior 2/3; punctation dense, coarser than that of head and pronotum. Hind wings reduced. Legs slender; metatarsomere I approximately as long as the combined length of II-IV.

Abdomen approximately as wide as elytra; punctation dense on anterior tergites, gradually becoming less dense towards abdominal apex, moderately sparse on tergite VII; posterior margin of tergite VII with palisade fringe; posterior margin of tergite VIII distinctly convex.

 δ : sternite VIII posteriorly strongly convex; median lobe of aedeagus (Fig. 22) 0.51 mm long, with conspicuously slender apical portion, a small crista apicalis, and a rather large crista proximalis; apical lobe of paramere with moderately dilated base (Fig. 23), slightly less than half the length of basal portion.

♀: unknown.

E t y m o l o g y : The species is dedicated to Andrej Gontarenko, Odessa, who collected the holotype.

C o m p a r a t i v e n o t e s : *Oxypoda gontarenkoi* is distinguished from all its consubgeners by the morphology of the aedeagus. It is additionally separated from the widespread *O. mutata* by the paler and more distinctly bicoloured body, the much more slender habitus, the contiguous antennomeres, the differently shaped pronotum (more slender and less strongly narrowed anteriorly), the distinctly shorter, narrower, and more depressed elytra, the reduced hind wings, the more convex posterior margin of the abdominal tergite VII, and the shape of the male sternite VIII (obtusely angled in *O. mutata*). For illustrations of the male sexual characters of *O. mutata* see Figs 24-30. The only species of fairly similar habitus from Turkey is *O. schminkei*, which is of uniformly pale-reddish coloration (except for the weakly infuscate middle of the abdominal tergite VI), and which has much more depressed elytra and the antennomeres not contiguous.

Distribution and natural history: The species is currently known only from the type locality and the first representative of the subgenus to be recorded from Ukraine. The holotype was found under a stone together with *Messor* sp. (Formicidae). The contiguous antennomeres, a morphological adaptation to myrme-cophily known from many aleocharines, provide additional, morphological evidence that *O. gontarenkoi* may be associated with these ants.

Oxypoda (Deropoda) pungens nov.sp. (Figs 31-34)

T y p e m a t e r i a l : <u>Holotype δ </u>: "TR - Muğla, No. 10, 20 km NNE Fethiye, N-exp. oakwood, 970 m, 36°47'28N, 28°11'29E, 27.III.2002, V. Assing / Holotypus δ *Oxypoda pungens* sp.n. det. V. Assing 2011" (cAss). <u>Paratypes</u>: 1 φ : same data as holotype; 2 $\varphi \varphi$: "TR [36] - Adana, NE Kozan, Pinarbaşi-Eyüplü, 37°56'45N, 36°06'22E, 1560 m, 27.IV.2005, leg. Brachat & Meybohm" (cAss); 1 φ : "N37°35'25 E935°39'09, Türkei Adana Kozan, Mansurlu 500 m 18.4.2009, Brachat & Meybohm (21)" (cAss); 1 φ : "TR [44] - Osmaniye, 11 km Andırın, -> Geben, 37°38'42N, 36°25'51E, 1280 m, 3.V.2005, leg. Brachat & Meybohm" (cAss); 1 δ : "TR [5] - Sinop, 35 km SSW Sinop, 41°42'33"N, 34°55'25"E, 660 m, oak forest, sifted, 29.III.2009, P. Wunderle" (cWun); 1 φ : "TR [36a] - Kastamonu, 40 km NW Kastamonu, 41°42'05"N, 33°28'17"E, 1090 m, calcareous slope, 9.IV.2009, V. Assing" (cAss); 1 φ : "TR [38a] - Kastamonu, 30 km SE Inebolu, 41°45'39"N, 34°02'36"E, 1370 m, calcareous slope, 10.IV.2009, V. Assing" (cAss); 1 φ : same data, but leg. P. Wunderle (cWun).





Figs 24-34: *Oxypoda mutata* SHARP (24-30) from Germany (24-25, 27, 30) and Italy (26, 28-29), and *O. pungens* nov.sp. (31-34): (24-26, 31) median lobe of aedeagus in lateral view; (27-28, 32) paramere; (29-30) apical lobe of paramere; (33-34) spermatheca. Scale bars: 0.1 mm.

D e s c r i p t i o n : Body length 2.7-3.0 mm. Coloration: head dark-brown to blackishbrown, distinctly constrasting with the bright reddish pronotum and elytra; abdomen bright reddish, with segment VI (except for posterior and lateral margins), the anterior portion of segment VII, and sometimes also the middle of segment V weakly infuscate; legs yellowish; antennae pale-reddish.

Habitus and other external characters as in O. mutata, except as follows:

Elytra apparently monomorphic, as long as in brachypterous morph of the dimorphic *O*. *mutata*, slightly shorter than pronotum. Hind wings of reduced length, less than twice as long as elytra.

 δ : sternite VIII posteriorly convex; median lobe of aedeagus 0.53 mm long, of similar general morphology as in *O. mutata*, but apex of ventral process longer and more acute (Fig. 31); paramere (Fig. 32) with base of apical lobe gradually narrowed towards apex (abruptly narrowed in *O. mutata*).

Q: spermatheca as in Figs 33-34.

E t y m o l o g y : The specific epithet is the present participle of the Latin verb pungere (to sting) and alludes to the conspicuously acute apex of the ventral process of the aedeagus.

In traspecific variation: In the male paratype from Sinop, the apex of the ventral process of the aedeagus is somewhat less acute than in the holotype. However, since the shape of the ventral process is subject to some intraspecific variation also in *O. mutata* (see Figs 24-26), this difference is interpreted as an expressions of intra-rather than interspecific variation. The shape of the apical lobe of the paramere is identical in both specimens.

C o m p a r a t i v e n o t e s : *Oxypoda pungens* is distinguished from the similar *O. mutata* particularly by the bright reddish pronotum, elytra, and abdominal segments III-V, the more acute apex of the ventral process of the aedeagus, and particularly the different shape of the base of the apical lobe of the paramere. In *O. mutata*, the base is abruptly narrowed towards the apex (numerous males from various regions examined). For illustrations of the aedeagus of *O. mutata* see Figs 24-30; for figures of other species allied to *O. mutata* (*O. reyi, O. mutatoides, O. amplipalpis*) see ZERCHE (1994). *Oxypoda pungens* is readily distinguished from other Turkish representatives of the subgenus by the broader body, the shape of the pronotum (broader and more strongly narrowed anteriorly), as well as by the longer, broader, and less depressed elytra.

D is tribution and natural his tory: The known distribution of *O. pungens* is confined to Turkey. Some of the female paratypes were previously reported as *O. mutata*. One female possibly belonging to *O. pungens*, but not included in the type series, was seen from Greece (Evritania, Oros Kaliakouda SSW Karpenisi). The type specimens were found in oak forests and on calcareous slopes at altitudes of 500-1560 m. One female collected in April is teneral.

Subgenus Sphenoma MANNERHEIM 1830

Sphenoma was previously represented in the Palaearctic region by eighteen species (ASSING 2009, 2011). The subgenus is poorly defined and the subgeneric affiliations of several species currently attributed to *Sphenoma* have not been revised. Only one *Oxypoda* species, *O. (Sphenoma) kirghisica* ASSING 2009, was known from Kyrgyzstan.

Oxypoda (Sphenoma) kirghisica ASSING 2009

M a t e r i a l e x a m i n e d : <u>Tajikistan</u>: 21 exs., NW-Pamir, Peter I. mts., Tshil-Dara, 1700-2300 m, 21.-24.VI.1990, leg. Schülke (cSch, cAss); .

C o m m e n t : The above specimens represent the first record from Tajikistan.

Oxypoda (Sphenoma) barbarica Assing 2009

M a t e r i a l e x a m i n e d : <u>Spain</u>: 2♂♂, 1♀, Andalucía, SE Ronda, Sierra de Palmitera, 900 m, 24.III.1994, leg. Assing (cAss). <u>Morocco</u>: 1 ex., Haut Atlas, Marakesh env., Amizmiz, leg. Franz (cAss).

C o m m e n t : The known distribution of this species is confined to southern Spain and Morocco. One of the above males is teneral.

Oxypoda (Sphenoma) ludgeri nov.sp. (Figs 35-37)

T y p e m a t e r i a l : <u>Holotype 3</u>: "Kyrgyzstan - Issyk-Kul, Kungej A., Tschon-Ak-Suu valley, 03.VII.2005, 42°83'65"N [sic], 77°26'27"E, 29[00]-3200 m, l. L. Schmidt / Holotypus 3 Oxypoda ludgeri sp.n. det. V. Assing 2011" (cAss). <u>Paratype 3</u>: "Kyrgyzstan - Cuj, Tus-Ashuu pass, 14.VII.2003, 42°21'24N, 73°48'45"E, 3100 m, leg. L. Schmidt" (cAss).

Description: Body length 3.7-4.0 mm. External characters as in the macropterous morph of *O. abdominalis* (MANNERHEIM 1830), except as follows:

Coloration of head blackish-brown, distinctly contrasting with the reddish-yellow pronotum and elytra; scutellum, adjacent portion of elytra, and elytral suture infuscate; abdomen blackish-brown, except for the reddish-yellow posterior margins of segments III-VII. Elytra as long as pronotum. Hind wings fully developed.

 δ : sternite VIII as in *O. abdominalis*; median lobe of aedeagus (Figs 35-36) 0.48 mm long; ventral process strongly curved in lateral view; crista apicalis relatively large; paramere as in Fig. 37.

♀: unknown.

E t y m o l o g y : The species is dedicated to Ludger Schmidt, Neustadt/Rbg., who collected the two type specimens.

C o m p a r a t i v e n o t e s : The new species is reliably distinguished from *O. abdominalis* and allied species by the morphology of the aedeagus. In *O. abdominalis*, the ventral process of the median lobe is less strongly curved in lateral view, the apex of the ventral process is narrower in lateral view, the crista apicalis is smaller, and the internal structures are of somewhat different shape. In *O. kirghisica*, the only other species of *Oxypoda* previously known from Kyrgyzstan, the apex of the ventral process of the aedeagus is distinctly shorter and broader, and the internal structures are of different shape. For illustrations of the sexual characters of *O. abdominalis* and its allies see ASSING (2009).

Only six species have been recorded from Kazakhstan: the much smaller *O. (Podoxya) fulvicollis* HOCHHUTH 1858, the differently coloured *O. (Sphenoma) vicina* KRAATZ 1858 (possibly misidentified), and *O. (S.) abdominalis* (probably misidentified), as well as *O. (Oxypoda) cooteriana* PACE 2002, *O. (Podoxya) expeditionis* PACE 1992 (described from Nepal), and *O. (Sphenoma) aulica* PACE 1984 (described from Nepal). For illustrations of the latter three species see PACE (1984, 1992, 2002).

Distribution and natural history: The type specimens were collected in two localities in northern Kyrgyzstan at altitudes of 2900-3200 m in July.



Figs 35-41: Oxypoda ludgeri nov.sp. (35-37) and O. constricta nov.sp. (38-41): (35-36, 41) median lobe of aedeagus in lateral view; (37) paramere; (38) forebody; (39) abdomen; (40) male sternite VIII. Scale bars: 38-39: 1.0 mm; 40: 0.2 mm; 35-37, 41: 0.1 mm.

Subgenus Oxypoda MANNERHEIM 1830

The nominate subgenus previously comprised 34 species in the Palaearctic region (ASSING 2006a, 2007a; PACE 2002; SMETANA 2004). Some of them are associated with nests and burrows of small mammals (marmot, mole, etc.).

Oxypoda (Oxypoda) disiuncta Assing 2006

M a t e r i a l e x a m i n e d : <u>Israel</u>: 3 exs., North District, Upper Galilee, Meron Mts., Nakhar (Wadi) Moran, 1 km W Meron field school, ca. 900 m, under stones, 11.III.2008, leg. Wrase (cSch, cAss); 1 ex. [det. Feldmann], Golan Heights, Bental reservoir near Merom Golan, 33°08'N, 35°47'E, 940 m, 25.III.2008, leg. Aßmann (cFel).

C o m m e n t : This recently described species had been recorded only from several localities in central southern Turkey and one locality in Israel (ASSING 2006a).

Oxypoda (Oxypoda) constricta nov.sp. (Figs 38-41)

T y p e m a t e r i a l : <u>Holotype δ </u>: "Algeria Djurdjura, Azerou Tidjer, Gr. Ifri Maareb, 25.V.1981 / M. R. S. N. Spedizione 'Algeria '81' Boffa-Casale-Giachino, Pagliano-Risi-Scaramozzino / Holotypus δ *Oxypoda constricta* sp.n. det. V. Assing 2011" (cAss). <u>Paratype δ </u>: same data as holotype (cWun).

D e s c r i p t i o n : Body length 4.8-5.0 mm. Coloration: head and pronotum darkbrown to blackish-brown, with the lateral margins of the pronotum more or less distinctly paler; elytra dark-yellowish, with the scutellar region and the postero-lateral angles more or less extensively infuscate; abdomen blackish-brown, with the posterior margins of the segments yellowish-brown; legs yellowish-brown, with the femora slightly darker; antennae blackish-brown, with the basal two antennomeres indistinctly paler.

Head (Fig. 38) weakly oblong; punctation very fine and moderately dense; interstices with distinct microsculpture and subdued shine. Eyes approximately as long as postocular region in dorsal view; antenna similar to that of *O. longipes* MULSANT & REY 1861.

Pronotum (Fig. 38) approximately 1.3 times as wide as long and 1.3 times as wide as head, maximal width approximately in the middle; punctation and microsculpture similar to those of head.

Elytra approximately as long as pronotum (Fig. 38); punctation dense and finely granulose. Hind wings fully developed. Legs very long and slender; metatarsus almost as long as metatibia; metatarsomere I very long, almost as long as the combined length of II-IV.

Abdomen (Fig. 39) widest at posterior margin of segment III; distinctly narrower at anterior margin of segment III than at its posterior margin (i.e., noticeably constricted at base); segments IV-VIII moderately tapering; punctation very fine and very dense.

 δ : posterior margin of sternite VIII distinctly and acutely produced in the middle (Fig. 40); median lobe of aedeagus (Fig. 41) 0.63 mm long; ventral process straight and apically acute in lateral view, deeply bifid in ventral view; apical lobe of paramere approximately half as long as basal portion.

♀: unknown.

E t y m o l o g y : The specific epithet (Latin, adjective) refers to the basally constricted abdomen, one of the characters distinguishing this species from the similar *O. longipes*.

C o m p a r a t i v e n o t e s : The new species is reliably distinguished from all other representatives of the subgenus by the morphology of the aedeagus, particularly by the straight and apically acute ventral process and by the internal structures. In the similar *O. longipes*, the abdomen is widest at its base (i.e., not distinctly constricted) and more strongly tapering posteriad, the aedeagus is smaller, its ventral process and internal structures are of different shape, and the apical lobe of the paramere is relatively shorter (less than half the length of basal part). For illustrations of the male sexual characters of *O. longipes* and allied species (*O. falcozi* SAINTE-CLAIRE DEVILLE 1913, *O. pseudolongipes* TRONQUET 1998) see TRONQUET (1998).

D is tribution and natural his tory: The type locality is situated in the Djurdjura region in northern Algeria. Additional data are unknown. The habitats of the closely related species of the *O. longipes* group suggest that *O. constricta* may be associated with subterranean nests and burrows of mammals, too.

Subgenus Cyrtonychochaeta SCHEERPELTZ 1947

Cyrtonychochaeta was originally described as a genus by SCHEERPELTZ (1947) to include only the type species, *C. hoelzeli*, which was described in the same paper. *Cyrtonychochaeta* was subsequently attributed to *Oxypoda* as a subgenus by ZERCHE (1995), according to whom the genus comprises two species.

Oxypoda (Cyrtonychochaeta) hoelzeli (SCHEERPELTZ 1947)

Material examined: <u>Slovenia</u>: 3 exs., Julische Alpen, Mangart, 1850-2000 m, 16.VI.1996, leg. Schuh & Lebenbauer (cAss).

C o m m e n t : According to ZERCHE (1995) and SMETANA (2004), this species was previously known only from southern Germany (Bayern) and Austria (Osttirol, Kärnten). The above specimens represent the first record from Slovenia.

Oxypoda (Cyrtonychochaeta) nimbicola FAUVEL 1900

Oxypoda nimbicola FAUVEL 1900: 253.

Cyrtonychochaeta falsa LOHSE 1968: 46 f.

Type material examined:

O. nimbicola: Lectotype $\underline{\circ}$ [teneral; dissected prior to present study]: "La Vanoise (Savoie). 25 août / alticola Fvl. / Ex-Typis / Coll. et det. A. Fauvel, Oxypoda nimbicola Fauv., R.I.Sc.N.B. 17.479 / Lectotypus Oxypoda nimbicola Fauvel, 1900, Zerche desg. 1990" (IRSNB). <u>Paralectotype</u> $\underline{\circ}$ [heavily damaged; one antenna, pronotum, and two legs missing; legs partly separated from body]: Macugnaga, Mt. Rosa / nimbicola Fvl. / Ex-Typis / Coll. et det. A. Fauvel, Oxypoda nimbicola Fauvel, 1900, Zerche desg. 1990" (IRSNB). 25 antenna, pronotum, and two legs missing; legs partly separated from body]: Macugnaga, Mt. Rosa / nimbicola Fvl. / Ex-Typis / Coll. et det. A. Fauvel, Oxypoda nimbicola Fauvel, 1900, Zerche desg. 1990" (IRSNB).

C. falsa: <u>Holotype</u> 3: "Defreggen, Barmer Hütte, 2600 13.7.63 / Oxypoda nimbicola Fauv.? Peez 64. / Holotypus / Cyrtonychonych. falsa n. sp. Lohse 1967 [overleaf] / Cyrtonychochaeta nimbicola (Fauvel), Zerche det. 1990 / Cyrtonychochaeta falsa / Coll. G. A. Lohse, MHNG-1994 / Oxypoda nimbicola Fauvel, det. V. Assing 2012" (MHNG). <u>Paratype</u> 9: 1 9: "crête du Djurdjura, 6.VII.1907" (MNHNP); 1 9: "crête du Djurdjura / Oxypoda transgressa / Muséum Paris, Ex Collection J. Jarrige 1976 / Oxypoda transgressa Peyer, M. Tronquet Det. 1999" (MNHNP).

A d d i t i o n a 1 m a t e r i a 1 e x a m i n e d : <u>France</u>: 1 ♀, Isère, Veiron env., 19.VI.1976 (MHNG). <u>Italy</u>: 1♂, Alpi Cozie, Colle dell'Agnello, 2600 m, 1.VII.1997, leg. Feldmann (cFel). <u>Switzerland</u>: 1♂, 1♀, Graubünden, Lenzerheide, S Parpaner Rothorn, 2700 m, 24.-25.V.2011, leg. Szallies (cSza, cAss). <u>Austria</u>: 1♂, 1♀, Kärnten, Hohe Tauern, Reißeck, VIII.1972 (MHNG, cAss); 1♀, Kärnten, Gurktaler Alpen, Rinsennock, peack, 2300 m, 23.VII.1996, leg. Assing (cAss). <u>Slovenia</u>: 1♀, Triglavski Narodni Park, V. Mangart, 2100-2200 mm, N-slope, 26.VII.1999, leg. Assing (cAss).

C o m m e n t : The original description of *O. nimbicola* is based on an unspecified number of syntypes from "Mont Rosa: Macugnaga; Savoie: La Vanoise, août! Hautes-Pyrénées: Arrens" (FAUVEL 1900). ZERCHE (1995) designated a female syntype from La Vanoise as the lectotype. The lectotype is teneral and the paralectotype is in very poor condition.

Cyrtonychochaeta falsa was described from a male holotype from "Defreggen (Gebirge), Barmer Hütte", a female paratype from "Rolle-Pass, Tirol", and an unspecified number of paratypes from "Peltlerkofel, Südtirol" (LOHSE 1968). ZERCHE (1995) synonymised *C. falsa* with *Oxypoda nimbicola* without specifying his reasons.

This species is subject to remarkable intraspecific variation, particularly of the coloration, antennal morphology, the shape of the pronotum, and the shape of the spermatheca. For illustrations of the variability of the spermatheca see ZERCHE (1995).

Subgenera Bessopora THOMSON 1859 and Podoxya MULSANT & REY 1875

Bessopora (type species: *O. testacea* ERICHSON 1837) and *Podoxya* (type species: *O. lentula* ERICHSON 1837) currently include various species groups; the subgenera are poorly defined and undoubtedly not monophyletic. The characters traditionally used to distinguish them from other subgenera and from each other (relative length of antennomere III, length of elytra, shape of abdomen, density of abdominal punctation, shape of antenna, absence of derived characters) (e.g., BERNHAUER 1902) are either of unknown polarity or primitive. Many of the species currently attributed to either of the two subgenera are intermediate in one or several characters. Therefore, the following species, which would have to be assigned to either *Bessopora* or *Podoxya*, are treated as species incertae sedis.

Oxypoda subnitida MULSANT & REY 1875 (Map 3)

M a t e r i a 1 e x a m i n e d : <u>Spain</u>: M u r c i a : 1δ, Jumilla, 38°38'N, 1°25'W, 740 m, XI.-XII.2010, leg. Lencina (cAss); 1φ, Jumilla, 38°26'N, 1°12'W, 670 m, II.2011, leg. Lencina (cAss); 1δ, Jumilla, Los Almendros, 38°38'N, 1°25'W, 740 m, pitfall, VIII-XI.2010, leg. Lencina (cAss); Yecla, 38°30'N; 1°08'W, 670 m, X.2010, leg. Lencina (cAss); 1δ, Jumilla, Sierra del Carche, 820 m, flight interception trap, III.2009, leg. Lencina (cAss): <u>Italy</u>: 1δ, Sicilia, Ficuzza (PA), 19.II.1994, leg. Sabella (cAss). <u>France</u>: 1φ, Bouches-du-Rhône, La Crau, 6.IV.1989, leg. Poot (cWun). <u>Tunisia</u>: 1δ, ca. 25 km SW El Fahs, 36°15'N, 09°48'E, 340 m, reservoir, stream valley with poplar etc., moss and litter sifted, 25.XII.2004, leg. Assing (cAss). <u>Cyprus</u>: 1 ex., Troodos, Spilia, 34°58'N, 32°58'E, 1170 m, 26.III.2010, leg. Meybohm (cAss); 1 ex., Troodos, Platres-Prodromos, 1350 m, 1.IV.1996, leg. Wunderle (cAss); 1 ex., Paphos forest, Kykkos, 1250 m, sifted, 6.IV.1996, leg. Wunderle (cWun).

C o m m e n t : The distribution of *O. subnitida* ranges from North Africa (Tunisia, Algeria, Morocco) to France, Malta, and Sicily (SMETANA 2004, ZANETTI 1995). TRONQUET (2004) reported it also from Spain and the Greek island Corfu. The above specimens from Cyprus represent new country records. The revised distribution is illustrated in Map 3.



Map 3: Distribution of *Oxypoda subnitida* MULSANT & REY based on revised records (triangles) and records reported by TRONQUET (2004) (circles).

The species was redescribed and illustrated by TRONQUET (2004). The spermatheca is of extremely variable shape. The proximal portion of the spermathecal capsule may be distinctly longer than any of the spermathecae figured by TRONQUET (2004), even longer than that figured by ZERCHE (1994). The morphology of the aedeagus, however, is rather constant. The species is distinguished from the closely allied *O. incurvata* ASSING 2008 by somewhat larger size, the broader and shorter apex of the ventral process of the aedeagus (lateral view), and by the shape of the sclerotised structure in the internal sac of the aedeagus.

Oxypoda incurvata ASSING 2008

M a t e r i a l e x a m i n e d : <u>Spain</u>: 1 q, Andalucía, Sierra de Segura, 20 km S Pontones, 38°01'N, 2°45'W, 1830 m, 9.IV.2003, leg. Assing (cAss).

C o m m e n t: The above specimen represents the first record of this recently described species since the original description, which is based on a single male from the Sierra Nevada (ASSING 2008).

Oxypoda imminuta ASSING 2008 (Map 4)

M a t e r i a 1 e x a m i n e d : Spain: M u r c i a : 5♂♂, 3♀♀, Jumilla, Sierra del Carche, 38°27'N, 1°10'W, 900 m, flight interception trap, 1.XI.2010, leg. Lencina & Sánchez (cAss); 1♂, Jumilla, Los Gavilanes, 38°07'N, 1°19'W, 930 m, flight interception trap, 19.X.2010, leg. Gallego (cAss); 1♂, Jumilla, Los Almendros, 38°38'N, 1°25'W, 740 m, pitfall, VIII-XI.2010, leg. Lencina (cAss); 1♂, Yecla, Arenal "Boquera del Carche", 38°29'N, 1°07'W, 680 m, XI-XII.2010, leg. Lencina (cAss); 1♂, Yecla, 38°30'N; 1°08'W, 670 m, X.2010, leg. Lencina (cAss); 1♂, Yecla, 38°30'N; 1°08'W, 670 m, X.2010, leg. Lencina (cAss); 1♂, 4♀♀, Jumilla, El Portichuelo, Olmeda, 575 m, flight interception trap, IV.2010, leg. Lencina (cAss, cFel). A n d a l u c í a : 5♂♂, 3♀♀, Sierra de Alhamilla (AL), N-slope, 1000 m, oak forest, 20.III.1994, leg. Wunderle (cAss, cWun); 2 exs., Sierra de Grazalema, Puerto de las Palomas, 1000 m, 25.III.1994, leg. Wunderle (cWun); 1 ex., Sierra de Grazalema (CA), 1220 m, 12.X.1993, leg. Wunderle (cAss).

B a l e a r e s : $2\delta \delta$, 1φ , Mallorca, Escorca, dead oak, 10.IV.2002, leg. Vorst (cAss). <u>Morocco</u>: 4 exs., Haut Atlas, NE Tizi-n-Test, 30°52'N, 8°22'W, 2070 m, *Quercus ilex* forest, litter sifted, 26.XII.2011, leg. Assing & Wunderle (cAss, cWun); 1 ex., Haut Atlas, NE Tizi-n-Test, 30°52'N, 8°22'W, 2035 m, *Quercus ilex* forest, grass roots sifted, 29.XII.2002, leg. Assing (cAss); 2 exs., Haut Atlas, NE Tizi-n-Test, 30°52'N, 8°22'W, 2030 m, *Quercus ilex* forest, litter sifted, 29.XII.2002, leg. Assing & Wunderle (cAss, cWun); 1 ex., Haut Atlas, NE Tizi-n-Test, 30°54'N, 8°20'W, 2050 m, broom litter near stream sifted, 26.XII.2002, leg. Wunderle (cAss); 1 ex., Haut Atlas, SE Asni, Oukaimeden, 31°13'N, 7°50'W, 2500 m, pasture, under stones, 28.XII.2002, leg. Wunderle (cWun); 1 ex., Marakesh env. (cAss); 1 ex., Rif, W Ketama=Issaguen, 34°58'N, 4°41'W, 1600 m, mixed cedar and laurel forest, 26.XII.2001, leg. Bayer (cSch).

C o m m e n t : The original description of *O. imminuta* is based on three specimens from three localities in Andalucía (ASSING 2008). The species is apparently widespread and not uncommon in southern Spain and in Morocco (Map 4). For illustrations of external and the male sexual characters see ASSING (2008).



Map 4: Distribution of Oxypoda imminuta ASSING based on revised records.

Oxypoda determinata SCRIBA 1870 (Figs 42-43)

Oxypoda determinata SCRIBA 1870: 78 f. Oxypoda incerta EPPELSHEIM 1884: 370. Oxypoda telifera ASSING 2008: 1318 ff; **nov.syn.**

T y p e m a t e r i a l e x a m i n e d : *O. determinata* and *O. incerta*: Lectotype \mathcal{S} [*O. incerta*], present designation, and neotype \mathcal{S} [*O. determinata*], present designation: "incerta mihi. Andalusia. ded. Simon. / incerta Epp. Berl. ent. Zeit. 1884. p. 370. / c. Eppelsh. Steind. d. / Typus / Lectotypus \mathcal{S} *Oxypoda incerta* Eppelsheim, desig. V. Assing 2012 / Neotypus \mathcal{S} *Oxypoda determinata* Scriba, desig. V. Assing 2012" (NHMW). <u>Paralectotypes</u>: 19: on same pin as lectotype (NHMW); 1 $_{\rm Q}$: "Algeciras / incerta mihi. Algeciras. Quedenfeldt. / = haemorrhoa Sahlb. Certi / c. Eppelsh. Steind. d. / Typus" (NHMW).



Figs 42-50: Oxypoda determinata SCRIBA (42-43; 42: neotype of O. determinata and lectotype of O. incerta EPPELSHEIM; 43: paralectotype of O. incerta), O. hispanica BERNHAUER (44-45; 44: lectotype; 45: paralectotype), and O. flavicornis KRAATZ (46-50) from Sicily (46-47), northern Anatolia (48), and Albania (49-50): (42, 44, 46-49) median lobe of aedeagus in lateral view; (43, 45, 50) spermatheca. Scale bars: 0.1 mm.

A d d i t i o n a l m a t e r i a l e x a m i n e d : <u>Spain</u>: 1♂, Cortez de la Frontera (CA), Sierra Cortez de la Frontera, 1200 m, 2.X.1993, leg. Wunderle (cWun).

C o m m e n t : The original description of *O. determinata* is based on an unspecified number of syntypes from "Guarda, Serrae Estrellae Lusitaniae" collected by "Dom. de Heyden" (SCRIBA 1870). The type material is evidently lost. It was looked for, but found neither in the Senckenberg Museum in Frankfurt (HASTENPFLUG-VESMANIS, e-mail 10 Feb., 2012), where the Scriba collection is deposited, nor in the SDEI (BEHNE, e-mail 24 Oct., 2011), where the Heyden collection is housed.

EPPELSHEIM (1884) described *O. incerta* based on several syntypes ("in einigen Stücken") from Algeciras. The name was synonymised with *O. determinata* a decade later (EPPELSHEIM 1894) and has been treated as a synonym ever since. Three syntypes, a male and two females, were located in the collections at the NHMW. The male is designated as the lectotype.

Oxypoda telifera was described from a holotype and a paratype, both males, from the environs of Cortez de la Frontera in Andalucía (ASSING 2008). An examination of the type material of *O. incerta* revealed that it is undoubtedly conspecific with *O. telifera*.

In view of the fact that the Iberian peninsula hosts a number of species that are externally similar to the type material of *O. incerta*, that are reliably distinguished only based on their genitalia, and that the original description of *O. determinata* may refer to several of them, the designation of a neotype for *O. determinata* seems indispensible to unambiguously define the identity of that name. In order to cause the least possible nomenclatural disturbance it appears advisable to stabilise the long-standing synonymy with *O. incerta* rather than to propose new synonymies. Therefore, the lectotype of *O. incerta* is here designated as the neotype of *O. determinata*, thus rendering *O. incerta* EPPELSHEIM an objective junior synonym of *O. determinata* SCRIBA.

The distribution of *O. determinata* requires clarification. According to SMETANA (2004), the species has been reported from the Iberian peninsula (Spain, Portugal) and North Africa (Tunisia, Algeria, Morocco), but all previous records must be considered doubtful; they may well refer to other, externally similar species such as *O. imminuta*. The aedeagus of the neotype is illustrated in Fig. 42, that of the type material of *O. telifera* in ASSING (2008), and the spermatheca of a paralectotype of *O. incerta* in Fig. 43.

Oxypoda caespita ASSING 2003

M a t e r i a l e x a m i n e d : <u>Portugal</u>: 1♂, Serra da Estrela, S Manteigas, 40°21'N, 7°34'W, 1070 m, bushes, under stones, 18.III.2002, leg. Lompe (cAss).

C o m m e n t : Previously, only the two type specimens from the Sierra de Albarracín (Aragón) and the Sierra de Segura (Andalucía) were known (ASSING 2003). The above specimen represents the first record from Portugal.

Oxypoda carbonaria (HEER 1841)

Oxypoda pubescens BERNHAUER 1902: 162; nov.syn.

T y p e m a t e r i a l e x a m i n e d : Lectotype φ , present designation [dissected prior to present study]: "Norditalien, Genua (?) / pubescens Brnh. Type / Chicago NHMus M.Bernhauer Collection / Lectotypus φ *Oxypoda pubescens* Bernhauer, desig. V. Assing 2011 / Oxypoda carbonaria (Heer), det. V. Assing 2011" (FMNH).

C o m m e n t : The original description of *O. pubescens* is based on one specimen collected "vermuthlich aus der Umgebung von Genua" deposited in the Bernhauer collection and several additional specimens "von Genua" deposited "in der Sammlung Dodero's" (BERNHAUER 1902). The specimen from the Bernhauer collection, a female, is designated as the lectotype. It is conspecific and placed in synonymy with *O. carbonaria* (HEER).



Map 5: Distribution of Oxypoda hispanica BERNHAUER based on revised records.

Oxypoda hispanica BERNHAUER 1914 (Figs 44-45, Map 5)

Oxypoda hispanica BERNHAUER 1914: 42.

Oxypoda virgata ASSING 2008: 1313 ff.; nov.syn.

T y p e m a t e r i a l e x a m i n e d : Lectotype ♂, present designation: "Palencia, Paganetti / hispanica Brnh. Typus / Chicago NHMus M.Bernhauer Collection / Lectotypus ♂ *Oxypoda hispanica* Bernhauer, desig. V. Assing 2011" (FMNH). <u>Paralectotypes</u>: 6 exs.: same data as lectotype, but "Cotypus" (FMNH); 1 ex.: "Palencia, Paganetti / filiformis var. Nordspanien, det. Bernh. / hispanica Brh. Coypus / Chicago NHMus M.Bernhauer Collection" (FMNH); 1 ç: "Palencia, Paganetti / hispanica Brh. / Chicago NHMus M.Bernhauer Collection" (FMNH); 1 c.

A d d i t i o n a l m a t e r i a l e x a m i n e d : <u>Spain</u>: 4 exs., Andalucía, Sierra de Cazorla, Nava de San Petro, 1500 m, pine forest, 6.X.1993, leg. Wunderle (cWun). <u>Morocco</u>: 4 exs., Haut Atlas, SE Asni, Oukaimeden, 31°13'N, 7°50'W, 2500 m, heavily grazed grassland, under stones, 28.XII.2002, leg. Assing (cAss); 45 exs., same data, but sifted from grass roots, leg. Assing & Wunderle (cAss, cWun); 4 exs., Haut Atlas, Cirque de Jaffar, leg. Franz (cAss).

C o m m e n t : The original description of O. hispanica is based on a larger number

("in größerer Anzahl") of syntypes from "Nordspanien (Palencia)" and few specimens ("einzelne Stücke") from "Navacenada" and "Badajoz" (BERNHAUER 1914). Nine syntypes from Palencia were located in the Bernhauer collection at the FMNH; one of the males is designated as the lectotype. The species is conspecific with *O. virgata* ASSING 2008, whose description is based on numerous specimens from Andalucía and Castilla-La Mancha; hence the synonymy proposed above. For an illustration of the median lobe of the aedeagus and the spermatheca of the lectotype and a paralectotype, respectively, see Figs 44-45. The aedeagus of *O. virgata* is illustrated in ASSING (2008).

Oxypoda hispanica had been recorded only from Spain, where it is widespread and apparently not particularly rare. The above specimens from the Haut Atlas represent the first records from Morocco (Map 5).

Oxypoda islandica KRAATZ 1857

Oxypoda islandica KRAATZ 1857: 285. *Oxypoda dubiosa* FAGEL 1960: 231 f.; **nov.syn.**

M a t e r i a l e x a m i n e d : <u>Spain</u>: 7 exs., Cataluña, Sierra del Cadí, 1700 m, pine forest, 31.III.1994, leg. Wunderle (cWun, cAss); 1 ex., Andalucía, Cádiz, 25 km NNW Ubrique, Puerto de Galis, 36°34'N, 5°36'W, 400 m, W-exposed oak forest with rhododendron, sifted, 28.XII.2009, leg. Assing (cAss).

C o m m e n t : *Oxypoda insidiosa* PACE 1988 was synonymised with *O. islandica* by ASSING (2008). Since *O. insidiosa* had already been synonymised with *O. dubiosa* FAGEL 1960 by TRONQUET (1999), it follows that *O. dubiosa*, too, is a synonym of *O. islandica*. For a distribution map, illustrations of the genitalia, and a compilation of records see ASSING (2008).

Oxypoda flavicornis KRAATZ 1856 (Figs 46-50)

C o m m e n t : The widespread *O. flavicornis* is one of the most variable species of the genus, particularly regarding the shape of the antennae and the coloration, also regarding the shape of the spermatheca. However, the species is always readily identified by the shape and internal structures of the aedeagus (Figs 46-50). The spermatheca is illustrated in Fig. 50.

Oxypoda defossa ASSING 2010 (Figs 51-53)

M a t e r i a l e x a m i n e d : <u>Spain</u>: 1♂, Cádiz, Sierra d'Ojen, 27.I.1996, leg. Poot (cAss); 1♀, Cádiz, Tarifa, XII.1995, leg. Poot (cWun); 1♀, Tarifa, I.1996, leg. Poot (cWun).

C o m m e n t : The original description of this species is based on three females from Cádiz province (ASSING 2010a). In the meantime, the above specimens have become available, among them a male. So far, all the specimens have been collected in December and January. It seems likely that, like the type material, the above material was collected during periods of heavy rain. The male sexual characters are as follows:

 δ : sternite VIII much longer than broad, posterior margin obtusely angled in the middle (Fig. 51); median lobe of aedeagus conspicuously slender (Fig. 52); paramere as in Fig. 53.





Figs 51-57: *Oxypoda defossa* ASSING (**51-53**) and "*O*." *weiratheri* BERNHAUER (**54-57**; **55-56**: lectotype): (**51**) male sternite VIII; (**52**) median lobe of aedeagus in lateral view; (**53**, **56**) paramere; (**54**) habitus; (**55**) apical portion of median lobe of aedeagus in lateral view; (**57**) spermatheca. Scale bars: 54: 0.5 mm; 51: 0.2 mm; 52-53, 55-57: 0.1 mm.

Oxypoda haemorrhoa (MANNERHEIM 1830)

C o m m e n t : Like *O. flavicornis*, *O. haemorrhoa* is extremely variable. In particular, this is true of the shape of the antennae, which may occasionally approach the condition in *O. flavicornis*. In one locality in northern Turkey, both species were collected together. Based on external characters alone, it was virtually impossible to distinguish them. A reliable identification, however, is unproblematic based on the sexual characters, especially the shape and internal structures of the median lobe of the aedeagus. For an illustration of the aedeagus of *O. haemorrhoa* see ASSING (2008). In one Moroccan locality, *O. haemorrhoa* was collected together with the similar *O. imminuta*.

Oxypoda annularis (MANNERHEIM 1830)

M a t e r i a l e x a m i n e d : <u>Morocco</u>: 2 ざ ざ, Taza, Moyen Atlas, 30 km SW Taza, S Jbel Tazzeka, 1700 m, oak forest, leaf litter sifted, 7.II.2003, leg. Wrase (cSch, cAss).

C o m m e n t : According to SMETANA (2004), this common and widespread species was previously unknown from Morocco.

Oxypoda flavissima Assing 2008

M a t e r i a l e x a m i n e d : <u>Morocco</u>: 1 ♀, Taza, ca. 23 km SE Tissa, Sidi-Abdeljelil, 8.II.2003, leg. Wrase (cSch). <u>Italy</u>: 2 exs., Sicily, Lentini (SR), C.da Serravalle, Castello di Xirumi, window trap, X.2010, leg. Adorno (cAdo, cAss); 5 exs., same data, but X-XI.2010 (cAdo, cAss).

C o m m e n t : The description of *O. flavissima* is based on material from Madeira, Spain, and Morocco (ASSING 2008). The above specimens from Sicily represent the first records from Italy.

"Oxypoda" weiratheri BERNHAUER 1929 (Figs 54-57)

Oxypoda (Bessobia) weiratheri BERNHAUER 1929: 194 f.

T y p e m a t e r i a l e x a m i n e d : <u>Lectotype δ , present designation [dissected prior to present study, aedeagus damaged]</u>: "N.Montenegro, Ig. Weirather / Bioča Gruppe / Pl. 21, 18.7.27 / 1800 m / weiratheri Bernh. Čotypus / Chicago NHMus M.Bernhauer Collection / Lectotypus δ *Oxypoda weiratheri* Bernhauer, desig. V. Assing 2011 / "Oxypoda" weiratheri Bernhauer, det. V. Assing 2011" (FMNH). <u>Paralectotypes</u>: $2 \circ \varphi$: same data as lectotype" (FMNH).

C o m m e n t : *Oxypoda weiratheri* was described from several syntypes ("in mehreren Stücken") collected by Weirather "in den nord-montenegrinischen Alpen: Bioča, in einer Meereshöhe von 1800 m am 18. Juli 1927" (BERNHAUER 1929). Three specimens, a male and two females, were located in the Bernhauer collection at the FMNH. The male is designated as the lectotype.

The generic affiliations of this species are doubtful. In general habitus, it does not much resemble *Oxypoda*. Also, metatarsomere I is rather short, longer than metatarsomere II, but distinctly shorter than the combined length of metatarsomeres II and III.

The species is readily recognised by the following character combination:

Body small and slender, 1.8-1.9 mm long (Fig. 54). Coloration uniformly yellowish. Eyes reduced to minute rudiments without ommatidia and without pigmentation. Antennae strongly incrassate apically; antennomere IV distinctly transverse; antennomeres VI-X more than twice as broad as long. Elytra short, approximately 0.6 times as long as, and narrower than pronotum. Tarsi short; metatarsomere I distinctly shorter than the combined length of II and III. Posterior margin of tergite VIII without palisade fringe.

 δ : median lobe of aedeagus and paramere as in Figs 55-56.

 φ : spermatheca as in Fig. 57.

Acknowledgements

I am most grateful to all the colleagues indicated in the material section for the loan of material under their care. In particular, I am indebted to Andrej Gontarenko (Odessa), Ludger Schmidt (Neustadt/Rbg.), Michael Schülke, and Paul Wunderle for the generous gift of the holotypes of four species described in this paper. Benedikt Feldmann proof-read the manuscript.

Zusammenfassung

Sechs Arten werden beschrieben und abgebildet: Oxypoda (Thliboptera) apennina nov.sp. (S-Italien), O. (T.) acutior nov.sp. (Albanien), O. (Deropoda) gontarenkoi nov.sp. (Ukraine), O. (D.)

pungens nov.sp. (Türkei), O. (Sphenoma) ludgeri nov.sp. (Kirgisistan) und O. (Oxypoda) constricta nov.sp. (Algerien). Die Sexualmerkmale von elf weiteren Arten werden abgebildet. Vier Namen werden synonymisiert: Oxypoda carbonaria (HEER 1841) = O. pubescens BERNHAUER 1902, nov.syn.; O. determinata SCRIBA 1870 = O. telifera ASSING 2008, nov.syn., O. hispanica BERNHAUER 1914 = O. virgata ASSING 2008, nov.syn.; O. islandica KRAATZ 1857 = O. dubiosa FAGEL 1960, nov.syn. Oxypoda micans KRAATZ wird mit O. attenuata MULSANT & REY 1853 resynonymisiert. Für die Untergattungen Thliboptera THOMSON 1859 und Deropoda BERNHAUER 1902 werden Kataloge erstellt. Für Oxypoda determinata SCRIBA 1870 wird ein Neotypus, für Oxypoda transgressa PEYERIMHOFF 1908, O. schatzmayri BERNHAUER 1936, O. incerta EPPELSHEIM 1884, O. pubescens BERNHAUER 1902, O. hispanica BERNHAUER 1914 und O. weiratheri BERNHAUER 1929 werden Lectotypen designiert. Zahlreiche weitere Nachweise, darunter eine Reihe von Erstnachweisen, werden gemeldet Die Verbreitungsgebiete von sieben Arten werden anhand von Karten illustriert.

References

- ASSING V. (2003): New species and records of *Oxypoda* MANNERHEIM from Spain (Coleoptera: Staphylinidae, Aleocharinae). Linzer biologische Beiträge **35** (2): 813-829.
- ASSING V. (2004a): New species and records of Staphylinidae from Turkey II (Insecta: Coleoptera: Staphylinidae). Beiträge zur Entomologie, Keltern **54** (1): 53-73.
- ASSING V. (2004b): New species and records of Staphylinidae from Turkey III (Insecta: Coleoptera). Linzer biologische Beiträge **36** (2): 669-733.
- ASSING, V. (2005): New species and records of Staphylinidae from Tunisia (Insecta: Coleoptera). Linzer biologische Beiträge **37** (1): 749-770.
- ASSING V. (2006a): On some species of *Oxypoda* MANNERHEIM from Turkey and adjacent regions (Insecta: Coleoptera: Staphylinidae, Aleocharinae). Linzer biologische Beiträge **38** (1): 277-331.
- ASSING V. (2006b): New species and records of Staphylinidae from Turkey IV, with six new synonymies (Coleoptera: Staphylinidae). Koleopterologische Rundschau **76**: 223-276.
- ASSING V. (2007a): New species and additional records of Staphylinidae from Turkey V (Coleoptera). Stuttgarter Beiträge zur Naturkunde Serie A (Biologie) **700**: 1-64.
- ASSING V. (2007b): On the *Oxypoda* species of Turkey and adjacent regions. II. Three new species, additional records, and a checklist (Coleoptera: Staphylinidae, Aleocharinae). Zootaxa **1411**: 1-24.
- ASSING V. (2008): Nine new species and additional records of Staphylinidae from southern Spain, with new synonymies (Insecta: Coleoptera). Linzer biologische Beiträge **40** (2): 1301-1325.
- ASSING V. (2009): On some *Oxypoda* species of the subgenus *Sphenoma* MANNERHEIM (Coleoptera: Staphylinidae: Aleocharinae). Linzer biologische Beiträge **41** (2): 1307-1315.
- ASSING V. (2010a): Four new species and additional records of Staphylinidae from Spain, primarily from the south (Insecta: Coleoptera). Linzer biologische Beiträge **42** (2): 1105-1124.
- ASSING V. (2010b): A new micropterous species of *Deropoda*, subgenus of *Oxypoda*, from Italy (Coleoptera: Staphylinidae: Aleocharinae: Oxypodini). Linzer biologische Beiträge **42** (2): 1177-1181.
- ASSING V. (2011): On the Staphylinidae (Coleoptera) of Iran. II. New species and additional records, with special reference to the Paederinae, Xantholinini, and Aleocharinae. Stuttgarter Beiträge zur Naturkunde Serie A, Neue Serie 4: 137-183.

- BERNHAUER M. (1902): Die Staphyliniden der paläarktischen Fauna. I. Tribus: Aleocharini. (II. Theil). — Verhandlungen der Kaiserlich-Königlichen Zoologisch-Botanischen Gesellschaft in Wien 52 (Beiheft): 87-284.
- BERNHAUER M. (1914): Beiträge zur Kenntnis der paläarktischen Staphyliniden-Fauna. III. Münchener Koleopterologische Zeitwschrift 4: 33-45.
- BERNHAUER M. (1929): Neue Kurzflügler des paläarktischen Gebietes. Koleopterologische Rundschau 14: 177-195.
- BERNHAUER M. (1936): Neuheiten der paläarktischen Staphylinidenfauna. III. Koleopterologische Rundschau 22: 50-58.
- EPPELSHEIM E. (1884): [new taxa]. In: QUEDENFELDT M., Beiträge zur Kenntniss der Staphylinen-Fauna von Südspanien, Portugal und Marokko. Berliner Entomologische Zeitschrift **28**: 351-379.
- EPPELSHEIM E. (1894): Synonymische Bemerkungen über Staphylinen. Wiener Entomologische Zeitung **13**: 12.
- FAGEL G. (1960): Contribution à la connaissance des Staphylinidae. LXVIII. Notes sur quelques espèces méditerranéennes. — Bulletin et Annales de la Société Royale d'Entomologie de Belgique 96: 222-233.
- FAIRMAIRE L. (1859): Miscellanea entomologica. Troisième partie. Annales de la Société Entomologique de France (3) 7: 21-64.
- FAIRMAIRE L. & A. LABOULBENE (1856): [Livraison 3], pp. 371-665. In: Faune entomologique française ou description des insectes qui se trouve en France. Coléoptères. Tome premier. Paris, Deyrolle: xxxv + 665 pp.
- FAUVEL A. (1872): [new taxa]. In: REICHE L., Catalogue des coléoptères de l'Algérie et contrées, avec descriptions d'espèces nouvelles. — Mémoires de la Société Linnéenne de Normandie 15 (1869) (4): 1-44.
- FAUVEL A. (1900): Staphylinides paléarctiques nouveaux. Revue d'Entomologie 19: 160-161.
- GAEDIKE H. (1981): Katalog der in den Sammlungen der Abteilung Taxonomie der Insekten des Institutes für Pflanzenschutzforschung, Bereich Eberswalde (ehemals Deutsches Entomologisches Institut), aufbewahrten Typen XIX. Beiträge zur Entomologie, Berlin **31**: 175-232.
- GAMARRA P. & R. OUTERELO (2005): Catálogo iberobalear de los Aleocharinae (Coleoptera: Staphylinidae). Boletín Sociedad Entomológica Aragonesa **37**: 1-81.
- KRAATZ G. (1855): Beiträge zur Kenntniss der europäischen Staphylinen. Entomologische Zeitung (Stettin) 16: 330-334.
- LOHSE G.A. (1968): Zwei neue *Cyrtonychochaeta*-Arten aus den Alpen (Col., Staphylinidae). — Nachrichtenblatt der Bayerischen Entomologen **17** (3): 43-47.
- MULSANT E. & C. REY (1953): Description de quelques coléoptères nouveaux ou peu connus, de la tribu des Brachélytres. — Opuscules Entomologiques 2: 35-85.
- PACE R. (1984): Aleocharinae del Nepal e dell'India settentrionale raccolte dal Prof. H. Franz. III. Oxypodini ed Aleocharini (Coleoptera Staphylinidae). — Bollettino della Società Entomologica Italiana 116: 151-164.
- PACE R. (1992): Aleocharinae nepalesi del Museo di Ginevra. Parte VII (conclusione): Oxypodini e Aleocharini (Coleoptera, Staphylinidae). — Revue Suisse de Zoologie 99 (2): 263-342.
- PACE R. (2002): Aleocharinae aus Kasachstan (Coleoptera, Staphylinidae). Veröffentlichungen Naturkundemuseum Erfurt **21**: 189-204.
- PEYERIMHOFF P.M. DE FONTENELLE (1901): [new taxa]. In: PEYERIMHOFF P.M. DE FONTENELLE & J. SAINTE-CLARE DEVILLE, Coléoptères nouveaux ou peu connus trouvés dans les Alpes-Maritimes et les Basses-Alpes. L'Abeille. Journal d'Entomologie 30: 53-72.

- PEYERIMHOFF P.M. DE FONTENELLE (1908): Nouveaux coléoptères du Nord-Africain (sixième note: faune du Djurdjura). — Bulletin de la Société Entomologique de France 1908: 117-125.
- SCHEERPELTZ O. (1947): Neue Staphyliniden (Coleoptera) aus Österreich. I. Sitzungsberichte der Österreichischen Akademie der Wissenschaften, Mathematischnaturwissenschaftliche Klasse, Abteilung I 156 (5/6): 251-356.
- SCRIBA W. (1870): [new taxa]. In: HEYDEN L. v., Entomologische Reise nach dem südlichen Spanien, der Sierra Guadarrama und Sierra Morena, Portugal und den Cantabrischen Gebirgen. — Berliner Entomologische Zeitschreift (Beiheft) 14: 75-84.
- SMETANA A. (2004): Staphylinidae, subfamily Aleocharinae, pp. 353-494. In: LÖBL I. & A. SMETANA (eds), Catalogue of Palaearctic Coleoptera. II. Hydrophiloidea-Histeroidea-Staphylinoidea. Stenstrup: Apollo Books, 942 pp.
- TRONQUET M. (1998): *Oxypoda (s.tr.)* [sic] *pseudolongipes*, n.sp. (Coleoptera, Staphylinidae) commensal de la marmotte des Alpes (*Marmotta marmotta* [sic] L.) dans les Pyrénées. L'Entomologiste **54** (3): 135-149.
- TRONQUET M. (1999): Sur quelques Oxypoda des collections A. Fauvel et G. Fagel; Derocala lucida n.sp. (Coleoptera, Staphylinidae). Bulletin de la Société Entomologique de France 104: 167-181.
- TRONQUET M. (2004): Oxypoda subnitida MULSANT & REY, 1874 (Coleoptera, Staphylinidae Aleocharinae) redescription. — Nouvelle Revue d'Entomologie (N.S.) 20 (4) (2003): 361-365.
- ZERCHE L. (1994): Die Revision der Oxypoda-Typen aus der Sammlung Claudius Rey im Musée Guimet d'Histoire natrelle de Lyon und einiger anderer Typen der Gattung sowie die Beschreibung von vier neuen Oxypoda-Arten (Coleoptera, Staphylinidae, Aleocharinae). — Coleoptera - Schwanfelder Coleopterologische Mitteilungen 6: 1-36.
- ZERCHE L. (1995): Revision der *Oxypoda*-Untergattung *Cyrtonychochaeta* SCHEERPELTZ, 1947, stat. n., und alpiner Arten der Untergattung *Podoxya* MULSANT & REY, 1875 (Coleoptera, Staphylinidae, Aleocharinae). Beiträge zur Entomologie, Berlin **45** (2): 307-336.
- ZERCHE L. (1996): Die Oxypoda-Arten der Kanarischen Inseln: Taxonomie, Bionomie, Phylogenie und Biogeographie (Coleoptera: Staphylinidae, Aleocharinae). — Beiträge zur Entomologie, Berlin 46: 277-372.
- ZERCHE L. (1999): Die westpaläarktischen Arten der *Oxypoda*-Untergattung *Mycetodrepa* THOMSON (Coleoptera: Staphylinidae, Aleocharinae, Oxypodini). Beiträge zur Entomologie, Berlin **49**: 261-294.
- ZANETTI A. (1995): Habrocerinae, Trichophyinae, Tachyporinae e Aleocharinae (generi 148-314), pp. 33-58. In: CICERONI A., PUTHZ V. & A. ZANETTI: Coleoptera, Polyphaga III (Staphylinidae). Checklist delle specie della fauna italiana, Calderini Bologna, Fasc. 48: 1-65.

Author's address:	Dr. Volker ASSING
	Gabelsbergerstr. 2
	D-30163 Hannover, Germany
	E-mail: vassing.hann@t-online.de

ZOBODAT - www.zobodat.at

Zoologisch-Botanische Datenbank/Zoological-Botanical Database

Digitale Literatur/Digital Literature

Zeitschrift/Journal: Linzer biologische Beiträge

Jahr/Year: 2012

Band/Volume: 0044_1

Autor(en)/Author(s): Assing Volker

Artikel/Article: On the taxonomy and zoogeography of some Oxypoda species of the West Palaearctic region (Coleoptera: Staphylinidae: Aleocharinae) 365-399