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New records of Bostrichidae

(Insecta: Coleoptera, Bostrichidae, Bostrichinae, Lyctinae, Polyaconinae, Dinoderinae, Apatinae)

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Abstract

This paper lists new and remarkable records of 107 species of bostrichid beetles from many parts of the world. Many records show that species are distributed more widely within a biogeographic region than previous records suggested, e.g. *Cephalotoma perdepressa* LESNE, 1937, *Xylocis tortilicornis* LESNE, 1901 in the Oriental region, *Bostrychoplites megaceros* LESNE, 1899 and *Xyloperthella guineensis* ROBERTS, 1976 in the Afrotropical region, and *Trogoxylon giacobbii* SANTORO, 1957 and *Melalgus femoralis* (FABRICIUS, 1792) in the Neotropical region. In some cases the species are recorded for the first time from a different biogeographic realm, e.g. the Oriental and Australian species *Bostrychopsis parallela* (LESNE, 1895) has been introduced into the Afrotropical region, the Neoguinean species *Minthea humericosta* LESNE, 1936 and the Afrotropical species *Dinoderopsis serriger* LESNE, 1923 have been introduced into the Oriental region, and the Madagascan species *Apate gayi* LESNE, 1907 has been introduced into the Mediterranean area.

Introduction

The bostrichid beetles have a world-wide distribution but are mainly found in tropical and arid areas. They are commonly known as powder-post beetles, because of the ability of the larvae and some adults to reduce sapwood, particularly of hardwoods, into a powdery frass. Hence, the beetles are of considerable economic importance to forestry and the wood-using industries (RAI & CHATTERJEE 1963). Many species are adapted to live in environments with low humidity (CROWSON 1981), hence their importance as pests of dried wood and products made of wood as well. Because they feed on dry wood, Bostrichids are frequently transported between countries, especially in wood packing materials such as crates and dunnage, and are often intercepted at ports and cargo distribution centres (HAACK 2006). Sometimes these species become established in the country to which they have been imported (e.g. GERBERG 1957; IVIE 2002; HAACK 2006).

The first complete catalogue of Bostrichidae worldwide was given by LESNE (1938). The latest world-wide catalogue of Bostrichidae, including the distribution of each species, has been published by BOROWSKI and WĘGRZYNOWICZ (2007).

This has been amended and corrected by IVIE (2010), and his corrections to nomenclature have been incorporated here. In the Palearctic region (biogeographical regions used in this paper are those of MORRONE, 2002), most records from Europe refer to species which have been intercepted from time to time or have invaded the area (e.g. GEIS 1994, 1995; LÓPEZ-COLÓN 1998, 1999; RUSSO 2005). The first list of the Chinese bostrichid fauna was not published until recently (CHU & ZHANG 1997), and revised in 2002 (HUA 2002). Records of the bostrichid fauna in the Middle East are also rare, only Iran (DAMOISEAU 1969a) and Israel (HALPERIN & DAMOISEAU 2004) have been well studied. In the Nearctic region, the bostrichid fauna has been thoroughly studied by FISHER (1950), GERBERG (1957) and IVIE (2002). From 1952 to 1965, VRYDAGH worked on the bostrichid fauna of the Afrotropical region, and his work was continued by DAMOISEAU (1968, 1969b, 1972, 1973). After SANTORO (1956-1960) and REICHARDT (1962, 1964, 1970), almost no one has worked on the bostrichid fauna of the Neotropical region, except for records of invading species (e.g. PERES FILHO et al. 2006). Lesne revised part of the Oriental fauna from 1939 to 1941, RAI (1963-1978) revised part of the Indian bostrichid fauna, LE (1973) studied the fauna of north Vietnam, and LIU et al. (2006) reviewed the Taiwanese fauna. The bostrichid fauna in the Australotropical and Austral regions has rarely been studied except for work by VRYDAGH (1958, 1959).

When I examined the bostrichids in many important European coleopteran collections from 2005 to 2010, more unpublished faunistic records were found. Hence, this paper provides a list of noteworthy new faunistic records of 107 bostrichid species, including 22 lyctines (including 12 Lyctini and 10 Trogoxylini), 2 polyaonines, 7 dinoderines, 70 bostrichines (including 23 Bostrichini, 21 Sinoxylini and 26 Xyloperthini) and 6 apatines.

Abbreviations of collections

BMNH = The Natural History Museum, London, United Kingdom
 DEI = Deutsches Entomologisches Institut, Müncheberg, Germany
 HNHM = Hungarian Natural History Museum, Budapest, Hungary
 ISNB = Institut Royal des Sciences Naturelles de Belgique, Brussels, Belgium
 LYL = Collection of Dr. Liu, Lan-Yu, Taiwan
 MRAC = Musée Royale de l'Afrique Centrale, Tervuren, Belgium
 MSNF = Museo di Storia Naturale, Firenze, Italy
 NHMB = Naturhistorisches Museum, Basel, Switzerland
 NHMW = Naturhistorisches Museum, Wien, Austria
 PZP = Collection of Dr. Petr Zahradnik, Praha, Czech Republic
 SMNS = Staatliches Museum für Naturkunde, Stuttgart, Germany
 SMTD = Staatliches Museum für Tierkunde, Dresden, Germany
 ZMUB = Museum für Naturkunde, Berlin, Germany
 ZSM = Zoologische Sammlung des Bayerischen Staates, München, Germany

New records

The following records are all based on specimens examined by me between 2005 and 2010. The species are listed alphabetically under their respective subfamilies and tribes. The taxonomic system used here is that of BOROWSKI & WĘGRZYNOWICZ (2007), which has revised by IVIE (2010). It is not clear whether all of them are established in the countries where they have been collected. Further collections are needed particularly for those species which are represented only by single specimens, or collected from imported materials, or without information on the collector or date of collection. The number following the locality or before the date is the number of specimens that I have examined. The collections in which the specimens are currently deposited are also given in abbreviation (Georg Frey's collections are kept separately from the main beetle collections in NHMB, hence the record will be noted NHMB/Frey). The majority of specimens were identified by me, and for those which were not, the name of the identifier is given after the collector. Notes on the distribution of the species are given after each record.

Lyctinae

Lyctini

Acantholyctus cornifrons (LESNE, 1898)

SE Iran, Anbar-Abad, 1, iv-1956, W. RICHTER.; Oman, Wadi Arabiyin, 1, 30-iv-1996, M. GALLAGHER; Jemen, Al Kawd, 1, vii/ix-2001, (no collector); UA Emirates, Sharjah Desert Park, 3, iv/vi-2005, A. Van HARTEN, J.BOROWSKI det. (SMNS). S-Iran, Bandarabbas, 13km nordöstl., 1, 6-iv-1972; Iran, Manujan, 110km E Bandarabas, Lichtfang, 2, 2-v-1974, PRETZMANN; 22 km N Bandarabbas, an Licht, 2, vii-1974, PRETZMANN & KASY (NHMW).

It is apparently a north Afrotropical species which has crossed the Red Sea and Persian Gulf and is now distributed in the Arabian Peninsula, and the Middle East part of the Palaearctic region.

Lyctus africanus LESNE, 1907

Papua New Guinea, Madang Prov., 5°10'S 145°44'E, 50m Mis Village, 2, ii-iv-1999, L.CIZEK (NHMB).

This Afrotropical species has invaded USA, Europe and the Oriental region, and the new record reveals the species is distributed in the Neoguinean region too.

Lyctus caribeanus LESNE, 1931

Paraguay, Dep.Pte.Hayes, Transchaco Hwy km220, Rio Montelirido, 1, 22-viii-1995, DRECHSEL (NHMW).

The species is distributed from central America into the southern part of the Neotropical region.

Lyctus parallelocollis BLACKBURN, 1888

Costa Rica, Turrialba, 1, (no date), HEYNE V. (ZMUB).

The first record from Neotropical region for this Australian species. It needs further study to confirm if the species is established in the Neotropical region.

Lyctus patagonicus SANTORO, 1960

Brasilien, Sta. Catharina, 3, before 1930, W. EHRHARDT (ZMUB).

The first record outside the Patagonian area.

Lyctus pubescens PANZER, 1793

Taiwan, Taichuan, furniture wood *Fraxinus* sp. imported from Canada, 1, 10-iv-2009, M.C. CHENG (LYL).

The first record from Taiwan for this Palearctic species. It is probably not established in Taiwan. Since the timber was imported from Canada, it needs further study to confirm if the species has become established in Canada.

Lyctus suturalis FALDERMANN, 1837

China, Gansu, Dingxi, 1, 23-30-v-1996, E. KÜCERA (LYL).

The species was previously known only from the central Palearctic. It needs further study to confirm if the species is established in the southeast Palearctic region.

Lyctus tomentosus REITTER, 1878

Philippines, Malabigo, elevation 5000ft, Mt. Lobo Batangas, 1, 1-vi-1932, F.C. HADDEN, J.M. VRYDAGH det. (ISNB).

This is the second record from the Oriental region for this Central American species. It was recorded from Thailand by Sittichaya and Beaver (2009).

Lyctus villosus LESNE, 1911

[Colombia], Bogota, 2, (no date), O.THIEME (ZMUB)

The species has a Central American distribution.

Minthea humericosta LESNE, 1936

Philippines, Binalio, 2, 16-xii-1913, (no collector); 1, 11-xi-1914 (no collector); Mindanao, Momungan b.Lanao, 1, (no date), Böttcher (ZMUB). NW Thailand, 19°19'N97°59'E, Mae Hong Son, Ban Huai Po. 1600-2000m, 1, 9-16-v-1991, L.DEMBICKÝ; S. Thailand, Betong, Gunung Cang dun vill, Yala dist., 1, 25-iii/22-iv-1993, HORAK & STRNAD; Malaysia, Sarawak, Kelabit HL, 5km E Bario, Pa Ukat, 1000m, 4, 27-ii-1993, M. JÄCH; S. Vietnam, Nam Cat Tien Nat. Park, 1, 1-15-v-1994, PACHOLATKO & DEMBICKÝ (NHMW). S. Vietnam, 14°10'N 108°30'E, 40km NW of An Khe Buon, 1, 28-30-v-1996, PACHOLATKO & DEMBICKÝ (NHMB).

The first records from the Oriental region for the species, known previously only from New Guinea. These records show the species is widely distributed in the Oriental region and should be referred to as an Oriental-Neoguinean species.

Minthea reticulata LESNE, 1931

Ceylon, Kowa, Dalio Tante, 1, 2-iii-1906, H.SCHOEDE; China, Kanton, 1, 1916/1917, WEIGOLD; St. Thomas, Staudinger, 1, 1923, A. STAERCKE (ZMUB).

The species has an Oriental, Neoguinean and Australian distribution.

Minthea squamigera PASCOE, 1866

Surinam, Paramaribo, 1, (no date), S.V. HELLER; Niederlanden Guyana, Paramaribo, 3, 4-iii-1908, C.HELLER (ZMUB).

The species has a Neotropical distribution and has been introduced into Europe.

Trogoxylini

Cephalotoma perdepressa LESNE, 1937

Philippines, Palawan Island, Cleopatra Needle Nat.P., Tanabank Riv. Val., 300m, 1, 20-22-xii-1990, BOLM (NHMB). Malaysia, Johor Endau river, Selendang env., 2, 29-iv/6-v-1993, JENIS & STRBA (NHMW). Taiwan, Taitung, Li Jia, from the frass of *Cinnamomum* sp. in forestry trail, 20, 17-vi-2007, L.Y. LIU (LYL).

The species was known only from Vietnam, but was recently recorded from Thailand (SITTICHAYA et al. 2009). The additional records show the species is probably distributed widely in the Oriental region.

Lyctopsis pachymera LESNE, 1911

[UA Emirates], Sharjah Desert Park, 5, iv-2005, A. van HARTEN, J.BOROWSKI det. (SMNS).

The species was previously known only from Chad, and the record shows it occurs both in Africa and the Arabian peninsula. It may occur in other northern parts of the Afrotropical region.

Lyctopsis scabricollis LESNE, 1911

[Oman], Wadi Arabiyin, 1, 30-iv-1996, M. GALLAGHER, J.BOROWSKI det. (SMNS).

The species is distributed from Djibouti to the Arabian peninsula.

Phyllyctus gounellei (GROUVELLE, 1896)

Paraguay, Fiebrig, Chaco, 1, (no date, no collector) (NHMW).

The species was known previously only from Argentina and Brazil.

Trogoxylon aequale (WOLLASTON, 1867)

Costa Rica, Turialba, 1, (no date), V. HEYNE (ZMUB).

The species has a Neotropical distribution and has been introduced into Europe.

Trogoxylon giacobbii SANTORO, 1957

[Paraguay], San Pedro, W. Vaca Jhu, 1, xi-1995, F. BRETZENDORFER, J.BOROWSKI det. (SMNS).

The species was known previously only from Argentina.

Trogoxylon parallelipedum (MELSHEIMER, 1846)

Tanganyika, Albertville, 1, x-1954, H. BOMANS (MRAC). [Haiti], Cap Haitien, 6, vi-1960, HEIDRICH, J.BOROWSKI det. (SMNS).

The first records from the Neotropical and Afrotropical regions for this Nearctic species. It needs further study to confirm it is established in Africa.

Trogoxylon praeustum (ERICHSON, 1847)

Bolivia andina, Cochabamba, 2600m, 1, 6-ii-1956, ZISCHKA (ZSM).

The species has a Neotropical distribution and has been introduced into Europe and the Philippines.

Trogoxylon spinifrons (LESNE, 1910)

NW Thailand, 19°19'N97°59'E, Mae Hong Son, Ban Si Lang, 1200m, 1, 23-31-v-1991, L.DEMBICKÝ (NHMW).

The species is distributed in the Oriental and Neoguinian region.

Trogoxylon ypsilon LESNE, 1937

Solomon Islands, Guadalcanal, Kukum, 1, ii-1965, P.JNPUANDADI, J.BOROWSKI det. (HNHM).

The species has a Neoguinian-Australotemperate distribution.

Polycaninae

Melalgus femoralis (FABRICIUS, 1792)

NW Jamaica, westlich Montego Bay, 1 ♂ 5 ♀, 1-10-vi-1997, Dr. L. REZHANYAI-RESER (ZSM).

The species was recorded previously only from Cuba.

Melalgus rufipes (BLANCHARD, 1843)

N. Argentina, 1, 1903-250, Mrs. LEACH, M.A. IVIE det. (BMNH).

The species was recorded previously only from Bolivia and Paraguay in the Neotropical region.

Dinoderinae

Dinoderopsis serriger LESNE, 1923

N. Laos, 20°45'N 102°09'E, Oudom Xai (17km/Nee), 1100m, 1, 1-9-v-2002, Vit KUBÁŇ (NHMB).

The first record from the Oriental region for this Afrotropical species.

Dinoderus distinctus LESNE, 1897

C. Taiwan, Nantou Hsien, TungPu, 1200m, 1, 18-23-xi-1981, T.Lin & S. Tang. Taiwan, Taichung Co., Wuling, 1, 03-ii-2005; 1, 01-iv-2006; HuiSon, EtOH, 1, 18-ii-2006; Chia-Yi Co., TeFuYe, Cup with EtOH, *Prunus campanulata*, 1, 21-i-2006, Liu, L.Y. (LYL).

The Philippine species has been reported introduced into Europe. These records show the species also occurs in Taiwan.

Dinoderus ocellaris STEPHENS, 1830

Nouvelle Zélande, ex Bamboo from India, 12, i-1956, R. ZONDAG (ISNB). N. Laos, 10km N Luang-Prabang, am Mekhong, 240 km, Vientiane hills ca.250m, poor settlem. prim. Veget, 6, iii-1993, 1, xi-1992, Insomsay SOMSY (ZMUB).

This Oriental species has been reported from Australia, but this is the first record from New Zealand. It needs further study to determine if it is established in New Zealand.

Dinoderus ochraceipennis LESNE, 1906

[China], Yunnan, 25°22'N 98°49'E, Gaoligong mts. 1500-2500m, 1, 17-24-v-1995, Vit KUBÁŇ (NHMB).

An Oriental species recorded previously only from Vietnam and Burma.

Dinoderus speculifer LESNE, 1895

Indonesia, Sulawesi Utara, Dumoga-Bone N.P., Rothamsted light trap, 220m, 6, ii-1985, H.BARLOW (NHMB).

The first record from the Oriental region for this Palearctic species. It was previously recorded only from Japan and China.

Prostephanus punctatus (SAY, 1826)

[Mexico], Real de Arriba, Temescaltepe, 2, 1934, H.E. HINTON collection (BMNH).

This Nearctic species is also found in Canada and USA.

Stephanopachys quadricollis (FAIRMAIRE in MARSEUL, 1878)

NE India, 27°11'-12'N 92°24'E, Arunachal Pr., Rupa vicinity 1600±100m, 1, 21-vi-2004, L.DEMBICKÝ (NHMB).

The first record from the Oriental region for this southern Palearctic species.

Bostrichinae

Bostrichini

Bostrychoplites guineanus LESNE, 1923

Tanzania, 50km W from Songea Ruvuma Prov., 1, xii-1992; 50km Nsongea, 1, xi-1993, K.WEMER (MSNF).

The first record from East Africa for this West African species.

Bostrychoplites megaceros LESNE, 1899

Gabon, 0°36'26"N 9°19'03"E, Fôret de la Mondah, Cap Esterias, about 20km N of Libreville, 1♂, (no date, no collector) (MSNF).

The first record from West Africa for this East African species.

Bostrychoplites zickeli (MARSEUL 1867)

Franz. W. Afr., [Mauritania], Boghé, 9♂, 15-30-i-1966; Nouakchott, 2♂, x/xi-1966 (no collector) (ZSM).

The species is distributed in the south Palearctic and north Afrotropical regions.

Bostrychopsis bozasi (LESNE, 1913)

Rhodesie du Nord [Zambia], Lake Abangweulu, Ile Chisi, 1♂, xii-1950, Bredo (ISNB). Madagascar, Antananarivo env. Ivato, light, 2♂ 1♀, 15-i-2004, V.Dolin & R. Andreeva (LYL).

The species was previously known only from Somalia, but is evidently more widespread.

Bostrychopsis eremita (ERICHSON, 1847)

Paraguay, Chaco-Filadelfia, 3♂ 1♀, x-1959, P. KLASSEN (ZSM). Argentina, Santiago del Este vc Choya, 1, 4-iv-1962, (no collector) (LYL). Argentina, Puerto Iguazú, Misiones, 1♂, 10-ix-1985; Columbia, Yari Cagueta, 1♂, 7-i-1989, J. FOERSTER (NHMB).

The Peruvian species is apparently distributed more widely in the South of the Neotropical region.

Bostrychopsis jesuita (FABRICIUS, 1775)

Congo Belge [Dem.Rep.Congo], Bili, 1, 3-v-1952, Ch. VERBEKE (ISNB).

The first record from Africa for the Australian species. It is possibly a mislabelled specimen and further study is needed to determine if the species occurs in Africa.

Bostrychopsis optata (LESNE, 1938)

Kenya, Namango, 1000m, at light, 1♂, 24-25-i-2002, László NÁDAI (HNHM).

The species was previously recorded only from 'Abyssinia' now Ethiopia and Eritrea.

Bostrychopsis parallela (LESNE, 1895)

Congo Belge [Dem.Rep.Congo], I-Yoko, 1♀, vii-viii-1952, HOSTIE; Mauritania, Maghana, v-vi-1984, 1♂, F.SAMMLCHELL; SOMALIA, El Bur Sar, 1♂, 2-xi-1986, S.B.S.; S. Madagascar, Reserve de Andohahela (Foresta umida), 1♂, vi.1992-v.1993, B. RANDRIAMAMPIONONA; Tanzania, 100km N Songea Ruvuma prov., 1♂ 1♀, xi-1993, K. WEMER (ISNB). [Democratic Republic of Congo], Lubumbashi, 1, x-1971/iv-1972, W. BEUN (MRAC).

The first records from Africa for this Oriental and Australian species. It is apparently now widely established in Africa.

Bostrychopsis reichei (MARS, 1867)

SW Madagascar, 30km n. Toliara, Umg. Baobabwald, 1♀, 10-17-iii-1997, J.&R.OEHLKE (DEI).

The species is recorded from the Saharan area and Abyssinia. It needs further study to confirm if it is established in Madagascar.

Bostrychopsis trimorpha (LESNE, 1899)

Argentina, Buenos Aires, 1♂, 6-13-xi-1954 (no collector) (LYL).

The species is recorded from the north of the Neotropical region. This is the first record from the south Neotropical region.

Bostrychopsis valida (LESNE, 1899)

Bolivia andina, Comarapa, 2000m, 2♂, 24-xi-1959, ZISCHKA (ZSM).

This Neotropical species has been introduced into Europe.

Bostrychopsis villosula (LESNE, 1905)

Rhodesie du Nord, Abercorn, 1♀, x-1950, H.J.BREDO; Congo Belge, Rwankwi, 1♀, iii-1952, J.V.LEROY (ISNB). South Africa, Kwazulu, 27°32' 36"S 31°17'3"E, Natal province, Ithala Game, Reserve, Ntshodwe camp (Louwsburg env.), 1036m at light, 2♀, 27-xi-2006, D. AHRENS & S. FABRIZI (ZSM).

This species is distributed in the southern part of the Afrotropical region.

Dolichobostrychus angustus (STEINHEIL, 1872)

[Paraguay], San Pedro, W. Vaca Jhu, 1, ii-1993, F. BRETZENDORFER, J. BOROWSKI det. (SMNS).

The species has a Neotropical distribution.

Heterobostrychus hamatipennis (LESNE, 1895)

Nepal, Rapti Tal, Monahari Khola, 350m, 5, 10-v-1967, DIERL-FORSTER-SCHACHT (ZSM); Pakistan, 73°29'E 34°01'N, Kashmir, Himalaya Mts., 20km S Muzaffarabad, Nara Village, 750m, 1♀, 20-v-1998, Gy. LÁSZLÓ & G. RONKAY (HNHM).

This species is recorded from Madagascar, through the Indian Ocean islands to East and Southeast Asia and Indonesia.

Heterobostrychus pileatus LESNE, 1899

Laos, Paklay, 1♀, 1963, (no collector); Vientiane, 1♂, iii-vi-1963, (no collector) (ZSM).

This species has an Oriental distribution.

Lichenophanes carinipennis (LEWIS, 1896)

SE Burma, 1, xi-1989, S. STEHNKE, J. BOROWSKI det. (SMNS).

This species has an Oriental distribution.

Lichenophanes fasciatus (LESNE, 1895)

W. Africa, 2, (no date and collector), J. M. VRYDAGH det. (ZSM). Paraguay, Hohenau, 1, (no date), JACOB (DEI). The first record from Africa for this Neotropical species. The two specimens have no collector or collecting date on the label, so the record is doubtful or represents an introduction.

Lichenophanes oberthuri LESNE, 1899

E. Afrika, Tanzania, near Songea, Ruvuma Prov., 1, 9-13-xii-1997; near Mikumi, Morogoro Prov., 1, 9-xii-1999; Dodoma Prov., 1, 10-16-xii-1999, WERNER & LIZLER (MSNF). The species was previously recorded only from West Africa.

Lichenophanes plicatus (GUÉRIN-MÉNEVILLE, 1844)

Argentinen, Cordoba Rio, 1♂ 3♀, 13-iv-1975, Hans FÖRSTER (ZSM). This species has a Neotropical distribution.

Micrapate scabrata (ERICHSON, 1847)

[Austria], Wien, aus Peru importiert, mit Bambus-Flöte, 9, iii-1997, (no collector) (NHMW). It is the first record from Europe for this Neotropical species. It needs further study to determine if it is established in Europe.

Micrapate simplicipennis (LESNE, 1895)

[Indonesia], Java, Soekaboemi, 1, (no date), ex.coll. Le MOULT (misidentified as sp.nov./ prox-[illegible] by J. M. VRYDAGH) (ISNB). Laos, Hua Phan pr., Ban Kangpabong env., Vieng Xai, 1, 14-18-v-2001, D. HAUCK (PZP). The only Oriental species of the genus, recorded from India, Burma and Vietnam. These records show the species is widely distributed in the Oriental region. The ISNB species has no collection date, but Vrydagh determined it as "sp.nov./ prox-[illegible]" in 195- [sic].

Parabostrychus elongatus (LESNE, 1895)

S. India, Boring in coffee twigs, 1, (no date), G.I.D. (misidentified as *Bostrychopsis* sp. by E.A.J. DUFFY) (BMNH). The species was only recorded from Vietnam before.

Sinoxylodes curtulus (ERICHSON, 1847)

Paraguay, Fiebrig, 2, (no date), S. Bernardino (NHMW). Paraguay, Hohenau, 1, x-1935, JACOB (DEI). Paraguay, Chaco-Filadelfia, 1, x-1959, P. KLASSEN (ZSM). This species has a Neotropical distribution.

Sinoxylini

Calopertha truncatula (ANCEY, 1881)

N. India, Barmer, Thar desert, 1, viii-1955, P.S. NATHAN, J. M. VRYDAGH det. (ISNB). Tanzania, dintorni del Lake, Natron boscgaglia presso la riva S, alla luce (900m), 1♀, 10-25-iv-1999, L. BARTOLOZZI, B. CARLETTI, B. CECCHI & A. SFORZI; Ethiopia, Shewa Region, Yerer & Kereyu, dintorni di, Metahara (c/o Awash), alla luce, 1♂ 1♀, 20-vii-2002, A. SFORZI & BARTOLOZZI (MSNF). Tanzania CE, SE of Mbuyuni, Baobab vall., (NE of Iringa), 1, 9-iii-2002, M. SNIŽEK, P. ZAHRADNÍK det.; Kenya C.S., Mwingi Nguni, 1, 7-iv-2004, M. SNIŽEK, P. ZAHRADNÍK det. (LYL). The record from India is the first from the Oriental region for this Afrotropical species.

Sinoxylon atratum LESNE, 1897

China, Gansu, Bikou, 32°32'N 104°38'E, 1, 3-7-vii-1997, E. KÚCERA (PZP). The first record from north China for this Indian species. It needs further study to confirm if it is established in China.

Sinoxylon bufö LESNE, 1906

Philippines, Mindoro, Mt. Calavite, 1, Ankauf 1942, Coll. W. SCHULTZE (SMTD). The first record outside the Indonesian archipelago.

Sinoxylon crassum LESNE, 1897

E. Africa, Tanzania, Babati, 10, xii-1993, WEMER (ZSM). The first record from Africa for this Oriental species. It is not known if it is established on the African continent.

Sinoxylon cucumella LESNE, 1906

NE India, Distr. Darj., Kalimpong, Ralle, 29, 16-iv-1987, B. BHAKTA; 25°27'N 92°43'E, Assam, 5km N of Umrongso, 700m, 35, 21-v-1999, DEMBICKÝ & PACHOLÁTKO. Laos, 20°33-4'N 102°14'E, Louangphrabang pr., BanSongCha (5km W), 1200m, 2, 1-16-v-1999, Vit KUBÁŇ; 21°41-2'N 102°06-8'E, Phongsaly prov., Phongsaly env., 1500m, 1, 26-v/30-vi-2003, P. PACHOLÁTKO. Nepal, 27°33'N 87°17'E, 1550m, 1, 8-11-vi-2001, expedition to Nepal 2001 (NHMB). NE India, 26°27'N 90°43'E, Assam, 5Km N of Umronaso, 1, 17-25-v-1999, J. ROLČIK (PZP).

The species has been previously recorded from Bhutan and Vietnam but it is evidently distributed more widely in the Oriental region.

Sinoxylon divaricatum LESNE, 1906

[South Africa], Pretoria, 1, 10-xi-1963, A.L. CAPENER (ZSM).

The species was recorded previously only from Somalia.

Sinoxylon doliolum LESNE, 1905

N Yemen, 15 km E Mocha, 1, xii-1989, RABIEN, J. BOROWSKI det. (SMNS).

The species is distributed from East Africa to the Arabian peninsula.

Sinoxylon epipleurale LESNE, 1906

NE Namibia, Waterberg Park, 1, 24-ix-1990, P. SCHÜLE; 50 km S Okakarara, 1400 m, 1, 4-5-iii-2006; 120 km E Rundu, 1000 m, 1, 15-16-iii-2006, W. SCHAWALLER. Zimbabwe, 150 km S Harare, 3, 25-I-1996, F. KANTNER, J. BOROWSKI det. (SMNS).

The species is distributed in the eastern and southern parts of the Afrotropical region.

Sinoxylon flabrarius LESNE, 1906

[Burma], SW Shan State, Taunggyi, 1, 1-18-vi-1997, J. RESZEK, J. BOROWSKI det. (SMNS). Thailand N., Chiang Mai prov., Ban Sanpak, A. 1400m, 1, 1-19-v-1998, Ivo MARTINŮ (PZP). Nepal, 27°07'N 87°15'E, Mangmaya, 300-400m, 2, 30-v-2001, AKIBUNKYABESHI. Laos, 19°53'37"N 101°07'51"E, S-Udomxai Prov., Pak Beng, 450m, 1, 18-27-v-2001, Jiří KOLIBÁČ; 21°41-2'N 102°06-08'E, Phongsaly prov., Phongsaly env., 1500m, 2, 28-v/30-vi-2003, P. PACHOLÁTKO; 3, 28-v/20-vi-2003, BRANCUCCI (NHMB).

The species was previously known from India, Bhutan, south China and Vietnam. These records show the species is widely distributed in Southeast Asia.

Sinoxylon fuscovestitum LESNE, 1919

Saudi Arabia, Bahara, 1, 8-v-1978, W. BÜTTIKER, R. DAMOISEAU det.; India, Distr. Darjeeling, Kalimpong, Ralle, 2, 2-v-1987, B. BHAKTA (NHMB).

The first record from the Arabian peninsula and outside Laos for this Oriental species. It needs further study to confirm if it is established in the Arabian peninsula.

Sinoxylon indicum LESNE, 1879

Nepal, Rapti Tal, Monahari Khola, 350m, 1, 6-v-1967, DIERL-FORSTER-SCHACHT (ZSM). Pakistan, SE Balochistan, Bela, 1, 21-25-iv-1993, S.BECVAR (MSNF).

The species was only recorded from India and Burma previously.

Sinoxylon mangiferae CHUJO, 1936

India, Distr. Darjeelind, Kalimpong, Ralle, 2, 16-iv-1987, B.BHAKTA; Assam, 25°27'N 92°43'E, 5km N of Umrongso, 700m, 1, 21-v-1999, DEMBICKÝ & PACHOLÁTKO. Laos, 20°33-4'N 102°14'E, Louangphrabang pr., BanSongCha (5km W), 1200m, 2, 1-9-v-1999, Vit KUBÁŇ. E-Nepal, 27°29'N 87°45'E, Kangchenjunga Himal Mts, Chiruwa vill., 1260m, 3, 30-vi/1-vii-2000, David KRÁL (NHMB). Thailand, 17°30.502'N 101°20.868'E, Loi, Phu Ruea, NP, Pha Lon Noi 1343m, Malaise trap, 1, 19-26-iii-2007, Patikhom TUMTIP (LYL).

The first records outside Taiwan. These new records show the species is widely distributed in the Oriental region.

Sinoxylon marseuli LESNE, 1895

Malay Penin, Paharil-Kemasul, F.R., 1, 19-ii-1936, (no collector)(BMNH).

This species has an Oriental distribution.

Sinoxylon parviclava LESNE, 1918

[Philippines], Luzon, Montalban, 1, Ankauf 1942, Coll. W.SCHULTZE (SMTD).

This species has an Oriental distribution.

Sinoxylon pugnax LESNE, 1904

Oman, 10 km S Al Qabil, 2, 8-xii-2003, T. OSTEN, J. BOROWSKI det. (SMNS).

This West Oriental species is distributed from India to the Arabian peninsula.

Sinoxylon pygmaeum LESNE, 1897

Nepal, 30km NW Pokhara, Birethanti 1100m, 1, 4-v-1984, WEWALKA (NHMW). [Nepal], Sankhua Sabha Distr., Arun Valley between Bhotebas and Darapangma, 1800-1400 m, 1, 20-vi-1988, W. SCHAWALLER, J. BOROWSKI det. (SMNS). China, Gansu, Bikou, 32°32'N 104°38'E, 2, 3-7-vii-1997, E. KÜCERA (PZP).

The first records from China and the Himalayan area for this Oriental species.

Sinoxylon ruficorne FÄHRÆUS, 1872

Bresil, 2, (no date), Ex. Coll. Le MOULT (ISNB).

The first record from the Neotropical region for this African species. Because there is no collection date and no details about the location, it needs further study to confirm whether it is established in the Neotropical region.

Sinoxylon senegalense KARSCH, 1881

Yemen Arab Republic, 17°07'N 43°34'E, Ju Amalah ca 26km NW Sa'dah, m1950, Giugno-Luglio, 3, 1981, BORI & POGGESI; Mauritania, Maghana, 6, v-vi-1984, F.SAMMICHELI (MSNF).

The species is widely distributed in the Afrotropical region, but has not been recorded from the Arabian peninsula.

Sinoxylon succisum LESNE, 1895

Algeria, Taghit, ex.larva from *Acacia* sp., 12, (no date and collector) (NHMB).

The species is distributed in the northern and western parts of the Afrotropical region.

Sinoxylon sudanicum LESNE, 1895

Madagascar, dint. Maha junga, S.Taiti, 1, 10-ix-1989, L. BARTOLOZZI (MSNF).

The first record from Madagascar for this north Afrotropical species.

Xyloperthodes discedens LESNE, 1906

Rep.Pop. Du Congo, Réserve de Tchimpounga c/o Pointe Noire forêt c/o Bimhanga, 1, 19-iv/ 4-v-2006, L.BARTOLOZZI & S.BAMBI (MSNF).

The species is distributed in the western part of the Afrotropical region.

Xyloperthini

Dendrobiella aspera (LECONTE, 1858)

Domin[ican]. Rep., San Cristobal, 35m, 1, 01-v-1973, J&S KLAPPERICH (NHMB).

The first record from the Greater Antilles for this Central American species.

Dendrobiella leechi VRYDAGH, 1960

Peru, prov. Lca Paracas, 1♂ 1♀, 16-vi-2006, Nádai LÁSZLÓ (HNHM/Frey).

The species was previously recorded only from Mexico.

Dendrobiella sericans (LECONTE, 1858)

Jamaica, Black river beach, 1, 23-25-iv-1994, G. HAGHEBAERT (ISNB).

The first record from the Greater Antilles for this Central American species.

Enneadesmus forficula (FAIRMAIRE, 1883)

N. India, Barmer, Thar desert, 1, viii-1955, P.S. NATHAN, J. M. VRYDAGH det. (ISNB).

The species is recorded from many parts of Africa, the Arabian Peninsula, Iran, but not previously from the Indian Peninsula.

Enneadesmus masculinus LESNE, 1936

[South Africa] RSA North West prov., Bothaville, Vaal riv., R-504, 1, 27-xi-2002; Klerksdorp, Vaal riv., 20km W. of Bothaville, 1, 12-i-2001, M. SNIZEK (PZP). [Mozambique], Sofala Prov., Gorongosa NP, 2, 29-xi-2004, P. SCHÜLE, J. BOROWSKI det. (SMNS).

The species was previously recorded only from Namibia.

Mesoxylum collaris (ERICHSON, 1842)

New Zealand, Australian hardwood pole, 1, i-1956, R. ZONDAG, J. M. VRYDAGH, det. (ISNB).

The first record from New Zealand for this Australotemperate species. It needs further study to confirm it is established in New Zealand.

Mesoxylum cylindricus (MACLEAY, 1873)

[Australia] West Australien, Station Creek 127km, sse. Leinster (Fo. Nr. 28), 1♂, 8-9-xi-1987, BAEHR (ZSM).

The species is recorded from the Australotemperate region, but not previously from Western Australia.

Paraxylum bifer (LESNE, 1932)

[China], Hong Kong, Pat. Hueng, 21, 9-x-1990, C.K.S. LAU (BMNH).

The first record from China for this Southeast Asian species.

Scobicia pustulata (FABRICIUS, 1801)

[India] Péninsule indienne, récolte en France (Caisses à Thé), 1, (no date, no collector) (ISNB).

The single specimen lacks a collection date and collector. It needs further study to confirm whether the species which is distributed in the southern part of the Palearctic region also occurs in the Oriental region.

Tetrapriocera longicornis (OLIVIER, 1795)

Paraguay, Asunción, Beifang, 1, 24-i-1992 (no collector) (NHMB). Jamaica, Black river beach, 1, 23-25-iv-1994, G. HAGHEBAERT (ISNB).

These records confirm the species is a pan-Neotropical species.

Xylionulus epigrus LESNE, 1906

Öst-Afrika [East Africa], Tanzania, 50km N Songea, Ruvuma Prov., 7, xi-1993, WEMER (MSNF).

The species was recorded previously only from the southern part of the Afrotropical region.

Xylobiops basilaris (SAY, 1824)

New Zealand, Australian hardwood pole, 3, i-1956, R. ZONDAG, J. M. VRYDAGH det. (ISNB).

The first record from the Austral region for this Nearctic species.

Xylobiops parilis LESNE, 1901

Dominican Rep., Bani, 3, 28-v-1972, J & S KLAPPERICH (NHMB).

The species has a Central American distribution.

Xylocis tortilicornis LESNE, 1901

[China], Hong Kong, Pat. Hueng, 13, 9-x-1990, C.K.S. LAU (BMNH). Laos, 18°07'N 104°29'E, Khammouan prov., Ban Khoun Ngeun 200m, ex larva, 2♂ 2♀, x-2001, Vít KUBÁŇ (NHMB).

LIU et al. (2006) recorded the species from Taiwan. These records show the Indian and Sri Lankan species also occurs in more regions of the east of the Oriental region.

Xylogenes granulicauda LESNE, 1941

Australia, QLD, 20°12.9'S 138°54.9'E, 80km SE Camooweal on Landsborough Hwy 239m, 1, 1-xi-2000, Hung. Entomol. Exp., A. PODLUSSÁNY, G. HANGAY & I. ROZNER (HNHM).

The species was previously recorded only from the western part of the Australotropical region.

Xylopertha retusa (OLIVIER, 1790)

Turkey north, Abanti 1298m, 1, 20-v-10-vi-1994, Z ČEMÝ (PZP).

The species is distributed in the southern part of the Palearctic region.

Xyloperthella guineensis ROBERTS 1976

Cameroon, Eboufiek, Malaise, 1♂ 2♀, 28-vii-1993; Mbalmaya F. Res., FI trap, 1♂, TIGER Survey (BMNH). [Turkey] Asia minor, Alanya, 1♀, 25-vii-1968, WEWALKA; Mali, 14°30'N 4°12'W, Mopti, at light, 1♂, 21-ii-2000, KOMAREK & MAYER (NHMW). Zaire, ZAPA, 3, 2-3-iii-1925, SIMONETTA; Senegal, Park National du Niokolo Kob, 1, 24-xii-1997, C. TENDI; Tanzania, Iringa Prov. 50km W Winga, 1, 5-xii-1994, E. ORBACHI; Mto Wa Mbu (Lake Manyara, 1000m), alla luce, 27, 10-25-iv-1999, L. BARTOLOZZI, B. CARETTI, B. CECCHI & A. SFORZI; 3, at light; Magara

(a S del Lake Manyara sulla strada fra Mbulu e Magugu, 1000m), alla luce, 4, 15-iv-1999; dintorni del Lake Natron, pressorrenante del camp site (900m), alla luce, 1, 10-25-iv-1999; 20km a SE di Mto Wa Mbu sulla strada per Makuyuni (1100m), alla luce, 1, 10-24-iv-1999; Arusha province, Mto Wa Mbu (1170m), 1, 26-x-2008, L. BARTOLOZZI (MSNF).

The species was only recorded from Nigeria before. These records show the species is widely distributed in the west and southeast parts of the Afrotropical region. It needs further study to confirm it is established in 'Asia minor'.

Xyloprista arcellata (LESNE, 1901)

Paraguay, Asunción, Beifang, 1♂, 26-i-1992, (no collector) (NHMB/Frey).

The species was recorded previously only from Brazil.

Xylopsocus acutespinosus LESNE, 1906

W-Nepal, Arun valley, Bhotebas- Sakurate, 1750-2000 m, 2, 6-vi-1988, LEBISCH & PROBST (PZP). India, Distr. Darjeeling, Kalimpong, Ralle, 1, 2-v-1987, B.BHAKTA; Laos, 21°41'-2'N 102°06'-8'E, Phongsaly prov., Phongsaly env. 1500M, 1, 28-v/30-vi-2003, P. PACHOLATKO (NHMB).

The species was recorded previously only from Burma. These records show the species is more widely distributed in the Himalayan mountain area and Laos.

Xylopsocus capucinus (FABRICIUS, 1781)

[Philippines], Luzon, Laguna Paeta, 1; Mindoro, Mt. Calavite, 2, Ankauf 1942, Coll. W. SCHULTZE (SMTD). Laos, Paklay, 1, 1963, (no collector); Vientiane, 1, iii-vi-1963, (no collector) (ZSM). [Nepal], Ilam Distr., 5 km N Sanishare, feet of Siwalik Mts., 300 m, 1, 3-5-iv-1988, W. SCHAWALLER, J. BOROWSKI det. (SMNS).

The species has an Oriental-Neoguinean distribution and has been introduced into Africa and the Americas.

Xylopsocus castanoptera (FAIRMAIRE, 1850)

Philippines, Mindanao, Misamis oriental - Mala/sag forest Cagayan de/Oro, 1, 29-viii-1976, A. Bandinelli (MSNF).

The species has a wide distribution from Africa, through the Oriental region and the Neoguinean region, and has been introduced into USA.

Xylopsocus intermedius DAMOISEAU IN DAMOISEAU & COULON, 1993

China, Gansu, Wenxian env., 1, 1995, V-BENEŠ; China, Yunnan, Dali, 1, 28-v-9-vi-1994, E. KUČERA (PZP).

The first record from China of this species, known previously only from Vietnam.

Xylopsocus sellatus (FÄHRAEUS, 1871)

Formosa (Taiwan), Kenting, 2, 20-24-v-2002, P. MORAVEC; Paolai, 1, 26-28-v-2002; Ile de Réunion, Tros Bassins, 1, 21.II. 2004, Jiri MORAVEC (PZP).

The first records from Taiwan and Réunion for this Afrotropical species.

Xylothrips flavipes (ILLIGER, 1801)

[India], Ramgarh, 3, iii-1942, (no collector) (ZSM). [Nepal], Sankhua Sabha Distr., Arun Valley between Darapangma and Khandbari, 1400-1100 m, 1, 21-vi-1988, W. SCHAWALLER, J. BOROWSKI det. (SMNS).

The species is widely distributed in the Indian Ocean and Southeast Pacific Ocean archipelagoes and the Arabian Peninsula. These new records show the species also occurs in the Himalayan mountain area.

Xylothrips geoffroyi (MONTROUZIER, 1861)

Australia, Darwin N.T., G.F. Hill, 1, ix-1915, (no collector) (BMNH). Papua New Guinea, Madang province, Baiteta light Misc, 8♂ 11♀, 8-10-iii-1993, OLIVIER MISSA, Canopy Mission (ISNB).

The species was described from New Caledonia, but these records show the species also occurs in the Neoguinean region. It needs further study to determine if it is established in the Australotropical region.

Xylothrips religiosus (BOISDUVAL, 1835)

[Indonesia], Lombok, Senaro, N slope of Rinjani, 1100 m, 7, ii-1994, L. BOLM, J. BOROWSKI det. (SMNS).

The first record from Indonesia for this Australo-Pacific species.

Apatinae

Apatini

Apate degener MURRAY, 1867

[Zimbabwe], Shangani, 60 km SW Gweru, 2, 2-xii-1998, F. KANTNER, J. BOROWSKI det. (SMNS).

The species has an Afrotropical distribution.

Apate geayi LESNE, 1907

[France], Fautea Corsica, 1 ♀ 1 ♂, 7-viii-1973, B. LAUZE; 1 ♂, vii-1976, B. COUTI (MSNF).

The first record from the Mediterranean area for this Madagascan species. It is presumably established in the Mediterranean area because it was collected twice at a three year interval.

Apate indistincta MURRAY, 1867

Madagascar, Maroantsetra, 1 ♂, ii-1919, Coll. Le MOULT (ISNB).

The species has an Afrotropical distribution.

Apate scoparia LESNE, 1909

Tanganyika, Amani, E. Usambara, 1150m, 1 ♂, iv-1961, (no collector); Africa, Cameroon, Prov. Sud, Dep. Ocean, vic. Kribi, 0-10m, 2 ♂ 1 ♀, 1-5-ii-1995, AISTLEITNER; Cameroon, 1 ♀, 15-30-v-1970, FRANK (ZSM).

The new records show that the species occurs in both eastern and western parts of the Afrotropical region.

Phonapate porrecta LESNE, 1900

NW Namibia, Ufergebiet des Huab, 19°58'-14° 46'E; 1400m, 2 ♀, 9-12-iii-1997, U. et H.J. BREMER (ZSM).

The species has an Afrotropical distribution.

Xylomedes turcica LESNE, 1941

Yemen Arab republic, 17°07'N 43°34'E, Ju Amlah ca 26km, Giugno-Luglio, NW Sa'dah, m 1950, 1 ♀, 1981, BORRI & POGGESI; Somalia El. Missarre, 2 ♀, 3-iii-1984; Bug der Somalia, 1 ♀, 16-iv-1930, S.B.S. (MSNF).

The species was previously recorded from Iraq, Syria and Turkey in the northeast part of the Afrotropical region.

Conclusions

It is evident from these new records that many species of Bostrichidae are more widespread than the catalogue of BOROWSKI and WĘGRZYNOWICZ (2007) suggests, either within a geographical region (e.g. *Cephalotoma perdepessa* LESNE, 1937), or amongst geographical regions (e.g. *Bostrychopsis parallela* (LESNE, 1895)). There are two main reasons for this. Firstly, collecting in new areas and different habitats of any insect family always reveals extensions of distribution, or fills in gaps in previously known distributions. Secondly, the globalization of trade invariably results in the transport of species to new areas outside their natural range. This is particularly the case for bostrichids which can remain undetected in dry wood for long periods, and still emerge at some later date.

Some of the new records doubtless represent introductions which have not become established, e.g. *Lyctus pubescens* Panzer, 1793 in Taiwan and *Micrapate scabrata* (ERICHSON, 1847) in Europe. However, in other cases, it can be expected that further studies will reveal that establishment has occurred. It is highly probable that bostrichids will continue to be spread by human activities to more countries and more continents with the contingent risk of the introduction and establishment of pest species. This study also demonstrates that much unidentified material deserving investigation is available in many collections.

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Zusammenfassung

In der vorliegenden Publikation werden 107 neue und bemerkenswerte faunistische Nachweise von Bohrkäfern (Bostrichidae) aus vielen Teilen der Welt aufgelistet. Viele Fundmeldungen zeigen, dass die Arten sehr viel weiter verbreitet sind als man bisher vermutete. Beispiele dafür sind *Cephalotoma perdepressa* LESNE und *Xylocis tortilicornis* LESNE in der Orientalis, *Bostrychoplites megaceros* LESNE und *Xyloperthella guineensis* ROBERTS im Afrotropischen Bereich sowie *Trogoxylon giacobbii* SANTORO und *Melalgus femoralis* (FABRICIUS) in der Neotropis.

Manche Fundmeldungen sind Neunachweise für entsprechende Faunenreiche. Zum Beispiel wurde die orientalisch-australische Art *Bostrychopsis parallela* (LESNE) ebenso in die Afrotropis eingeschleppt wie die afrotropische Art *Dinoderopsis serriger* Lesne und *Minthea humericosta* LESNE aus Neuguinea in die Orientalis oder die Madagassische Art *Apate geayi* LESNE in das Mittelmeergebiet.

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