

**A CHECK LIST OF SCORPIONS (ARACHNIDA: SCORPIONES)
IN THE COLLECTIONS OF THE ZOOLOGICAL DEPARTMENT,
NATIONAL MUSEUM IN PRAGUE**

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A b s t r a c t. 1360 specimens of scorpions of all families, collected by naturalist and travellers in all continents during the last 150 years, are deposited in the National Museum in Prague. This material, consisting of 94 species, 44 genera and 9 families, is revised and listed.

HISTORY OF THE COLLECTION.

The first reference to scorpions deposited in the National Museum is in a catalogue of the insect collection drawn up by F.K.Prách (1839-1863) at the beginning of 1861. He listed 22 specimens. The collection grew thanks to contributions of various travellers and patrons of the Museum. Dr K.Táborský (1906-1988) intended to revise the collection [he mentioned this in a paper on the geographic distribution of the genus *Buthus* (1934)], but he never carried out the plan. In this paper, T á b o r s k ý mentioned 17 species of scorpions classified in the genus *Buthus* at that time and in the subfamily Buthinae at present.

The oldest of the scorpion collections in the National Museum is that of L.Salvator who collected the material between 1880s and the first few years after 1900. According to T á b o r s k ý (1934), all scorpions that he saw in this collection came from Tunisia, and Bizerta had been given with some of them as the locality. This collection also includes material from Greece (*Mesobuthus gibbosus* and *Androctonus crassicauda*).

In 1958, J.Frič donated a commercial museum [established by V.Frič (1839-1916) in 1862] to the National Museum in Prague. Most of the scorpions of the genera *Pandinus* and *Heterometrus* come from this source. However, the localities where the individual specimens were collected are not sufficiently specified.

The Museum collection also includes scorpions collected by Dr E.Holub (1847-1902), E.S.Vráz (1860-1933), J.Kořenský (1847-1938) and B.Machulka (1875-1954). Prof Machulka made several journeys to Africa after 1911.

The largest contribution was made by a Czech physician Dr V.Kálalová - di Lotti (1896-1971) who worked in Baghdad and sent insect material to Prague between 1929 and 1932. Surprising is the number of specimens which she collected - for example, 187 scorpions of the dominant species *Compsobuthus matthiesseni*.

Dr J.Baum (1900-1944), an arachnologist, donated interesting material from Australia, West Africa and Spain.

With a few exceptions, all scorpions acquired after World War II, including material from entomological expeditions to Iran in 1970, 1973 and 1977, were collected by staff members of the Museum (H o b e r l a n d t, 1981 and 1983).

MATERIALS AND METHODS

I revised the collection in the National Museum in 1990-1991, identified the majority of specimens and verified identifications made by Dr Táborský in the 1930s. Most of the specimens are preserved in alcohol; 371 scorpions are preserved dry, but many are damaged.

Explanatory notes

Arabic numeral - the number of specimens

A - specimens preserved in 75 % alcohol

E - mounted dry specimens

b - specimens born and reared in captivity. Locality and date indicate the origins of scorpions which founded the laboratory colony.

RESULTS

Bothriuridae Simon, 1880

Bothriurus bonariensis (C.L.Koch, 1842): Paraguay 1♂1♂E;

Brazil, Ceará 1♂E.

Bothriurus dorbignyi Guérin, 1843: Argentina 1♀E.

Bothriurus sp.: Paraguay 1♂E leg. Šedý.

Cercophonius squama (Gervais, 1844): Tasmania 1♀A det. Simon 1902;

Australia 1♀E leg. Baum.

Phoniocercus pictus Pocock, 1893: Chile 1♀E.

Thestylus glazioui (Bertkau, 1836): Brazil, Sao Paulo 4♂2♂2juv.A

1♂1♂1juv.E 1920-1927 leg. Mráz; St. Catharina 1♂2juv.E leg. Mráz.

Buthidae Simon, 1879

Ananteris pydanieli Lourenco, 1982: Surinam 1♂E.

Androctonus amoreuxi (Audouin & Savigny, 1812): Algeria, Colomb. Béchar 1 juv. E leg. Zoufal;

1♀A 1♂E no location.

Androctonus australis (Linné, 1758): Algeria, Ain Zaton, Mts Aurés 1♀1♂A 27.5.1977

leg. Horák, Hammam Salahine near Biskra 1 juv. A 28.5.1977 leg. Horák, Ed-dis 2 juv. E 1974,

3 juv. A b coll. Kovařík 1990; Tunisia, Bizerta 1♀E leg. Salvator, Gafsa 2♀3♂A.

6.7.1964; Libya, Tripoli 1♂E 8.1978 leg. Horká; 1♀E no location.

Androctonus bicolor (Hemprich & Ehrenberg, 1829): Tunisia, 1♀E 8.1978 leg. Horká; 1♀E no location.

Androctonus crassicauda (Olivier, 1807): Iraq, Bagdad 16♂5♂10juv.A 7♀4♂6juv.E 1929

leg. Kálalová; Iran, Kurdistan Shaklava 1♀A leg. Kálalová, 1♂E 1977 Exp. Nat. Mus. Prague;

Palestine, Belh Alfa 1♀E leg. Milič; Persia 1♀E leg. Kargl; Greece, 1♀A 1♂E leg. Salvator; 1♀1♂E

no location.

Androctonus mauretanicus (Pocock, 1902): Morocco 1♂E.

Babycurus neglectus Kraepelin, 1897: Gabon 1♀E.

Buthotus alticola (Pocock, 1895): China, Kwangsi 1♀E.

- Buthotus franzwernerii gentili* (Pallary, 1924): Morocco, 3♀3♂5juv.E.
- Buthotus hottentota* (Fabricius, 1793): ♀E no location; 2♀A coll.V.Frič 1900.
- Buthotus minax* (C.L.Koch, 1875): Sudan, Wad Medani 2♀1♂E 8.8.1982 leg.Kotásek.
- Buthotus pachyurus* (Pocock, 1897): India, Sangli 1juv.E.
- Buthotus rugicustis* (Pocock, 1897): India, Mysore state Shimoga 1♂E.
- Buthotus saulcyi* (Simon, 1880): Iraq, Bagdad 1♂E leg.Kálalová; Iran, ♀E exp.Nat.Mus.Prague 1977.
- Buthotus tamulus* (Fabricius, 1798): India, mouth of a river Ganges 3♀1♂A 1♀E leg.Šmala.
- Buthus occitanus* (Amoreuxi, 1789): Morocco, 1♀1♂2juv.E; Algeria, Tebesa 1♀1♂A 12.6.1930 leg.Obenberger, Djebel Aures 1♀1♂4juv.A leg.Táborský, Rivet near Algiers 1♀1♂A 16.5.1971 leg.Horák, Djebel Djudjura 1♂1juv.A 13.6.1971 leg.Horák, Ed-dis 3♀1♂1juv.E 1974, 2♀1♂E; Tunisia, 1♀1♂E coll.Salvator, Cairo 3♀1juv.A 1930 leg.Táborský, El-Kep 1♀2♂3juv.A leg.Táborský, Air Draham 1♀4juv.A 6.1937 leg.Mařan; Spain, Murcia 7juv.A leg.Baum, Arenas 3juv.A 1♀1♂E leg.Baum, Benidorm 1♂1juv. 7.1989 leg.Sova; Iraq, Bagdad 1♂E leg.Kálalová; 1♀1♂E no location.
- Centruroides bicolor* (Pocock, 1898): Panama, Chiriquí 1♀1♂E.
- Centruroides exilicauda* (Wood, 1863): Mexico, Quaaymas 1juv.A 1♂E 28.12.1927, Topobobampo 1♀2juv.A 23.12.1927, Inocentes 2♀A 29.1.1928, La Paz 2♀A 1♀E 30.1.1928.
- Centruroides gracilis* (Latreille, 1804): Cuba, 1♂1juv.E leg.Houba, 1juv.E, 1♀A 1988, 1♂1♂A 1♀1♂E coll. Kovařík 1990; ♀E no location.
- Centruroides infamatus* (C.L.Koch, 1821): Mexico, ♀E.
- Centruroides subgranosus* (Kraepelin, 1898): ♀A no location.
- Compsobuthus mathiesseni* (Birula, 1905): Iraq, Bagdad 84♀34♂63juv.A 3♀2♂1juv.E leg.Kálalová.
- Grosphus madagascariensis* (Gervais, 1844): Madagascar, Antalaba 1♂E, 6♀E 1902.
- Isometrus maculatus* (Geer, 1758): Madagascar, ♀A 1900; Peru, Juanjui 1♀1♂E, Callanga 1♀3♂E; ♀A no location.
- Leiurus quinquestriatus* (Hemprich & Ehrenberg, 1829): Tunisia, Cairo 7♀5♂25juv.E leg.Salvator; Sudan, ♀E leg.Machulka, Chartum 1♀E 1904, Wad Medani 1♀E 8.8.1982 leg.Kotásek.
- Lychas burdoi* (Simon, 1882): Tanzania, 1♀1♂E.
- Lychas* sp. :Indonesia, Island Bali 1E.
- Mesobuthus eupeus* (C.L.Koch, 1813): Iraq, Bagdad 44♀17♂88juv.A 7♀4♂10juv.E leg.Kálalová; USSR, Caucasus Tiflis 1♀1♂E, Armenia Erevan ♀A 1959 leg.Staněk; Iran, Ab-barum Demavend 2♀4juv.A 23.7.1970, 1juv.A 1970 exp.Nat.Mus.Prague, Isin 1♂E 11.4.1973 exp.Nat.Mus.Prague, Kandavan 1♂A 9.7.1977; Corea, Seoul ♀E; Persia ♀A 1♂E; 6♀3♂1juv.E no location.
- Mesobuthus gibbosus* (Brullé, 1822): Bulgaria, 1♂A; Jugoslavia, Monte Negro 3♀1♂7juv.E 6.1965 leg.Voděra; Greece, Parnas Dahvi 2♂1juv.A 31.5.1935, Gaudos 27♀9♂43juv.A 7♀2♂3juv.E 12.-20.5.1938 leg.Táborský, Hypati 1juv.E 5.1936 leg.Táborský, 1♀2♂A 1♀1♂E leg.Salvator, Crete Askypho 1♀6juv.A 12.5.1938 leg.Táborský, Crete Ida 1♀4juv.A 1938 leg.Táborský; Turkey, Ankara Barai 1juv.A 4.7.1947; Cyprus, ♀E; Syria, Zagrín near Latakia 1♀1juv.A 24.2.1982 leg.Pfleger.
- Mesobuthus martensi* (Karsch, 1879): China, Singley 1♂E.

- Odonturus dentatus* Karsch, 1879: Tanzania 1♂1juv.E.
- Olivierus caucasicus* (Nordmann, 1840): USSR, Buchara ♀E, Margilan ♀E, Fergana Kokand ♀E; Afganistan, Kabul ♀A 9.1963; Persia 2♀1juv.E; 2♂♂E no location.
- Orthochirus innesi* Simon, 1910: Syria, Palmyra ♂A 26.4.1982 leg. Pflieger; Iraq, Bagdad ♂E leg. Kálalová.
- Orthochirus scrobiculosus* (Grube, 1873): USSR, Caucasus Tiflis ♀E, Krasnovodsk ♂A leg. V. Frič, Turkmenia Bayran Ali ♂A leg. Pflieger, Uzbekistan Chrebet Nuratau 1juv.A 5.1989 leg. D. Král; Iran, W. Sabzwaran ♂E 7.5.1973 exp. Nat. Mus. Prague.
- Parabuthus capensis* (Hemprich & Ehrenberg, 1828): Republic of South Africa, 2♀A leg. Holub.
- Rhopalurus junceus* (Herbst, 1800): Cuba, ♀2juv.E, ♀A b coll. Kovařík 1990.
- Tityus androcottoides* (Karsch, 1879): Venezuela, ♀♂♂A ♀♂♂E 1891 leg. Vráz.
- Tityus bahiensis* (Perty, 1830): Cameroon, Douala ♀E 1929 leg. David; Brazil, Bahia ♀E, Sao Paulo 1 juv.A ♀E 1925 leg. Mráz
- Tityus dasyurus* Pocock, 1897 : ♀E no location.
- Tityus forcipula* (Gervais, 1844): Colombie, Tolima ♀E 1908.
- Tityus kraepelinianus* Mello-Leitao, 1931 : Venezuela, 3♂♂E.
- Tityus trivittatus* Kraepelin, 1898 : Brazil, Espirito Santo ♀E; 5♀E no location.
- Uroplectes formosus* Pocock, 1890 : Republic of South Africa, ♂ E.
- Uroplectes triangulifer* (Thorell, 1877); Republic of South Africa, 1E.
- Chactidae Laurie, 1896
- Chactas amazonicus* Simon, 1880: Peru, Juanjui ♀E.
- Chactas* sp.: Colombie ♂ E.
- Chactinae gen.sp.: Mexico, La Paz ♀1juv.E 1928.
- Euscorpius (Euscorpius) carpathicus* (Linnaeus, 1767):
 Bohemia the mapping square no. 6252, 2♀A 30.8.1959 leg. Gotlieb, 8♂1juv.A 5.6.1960 leg. Tábor-
 orský, 2♀E 27.4.1960 leg. Voděra, 3♀A 31.3.1961 leg. Tábor-
 orský, 6♀A 1962 leg. Tábor-
 orský, 4♂♂E 16.5.1962 leg. Voděra, 2juv.E 10.5.1963 leg. Voděra, 2♀E 7.6.1964
 leg. Voděra, 4♀8juv.A 24.4.1969 leg. Pflieger, 2♀A 6.5.1971 leg. Pflieger; Italy, Lago di Garda
 ♂A 6.8.1893 leg. Vávra, Alps ♂E, Calabria Capo Spulica 5♀1juv.A 18.4.1990
 leg. Kůrka, Lago Dilesin ♀1juv.A 15.4.1990 leg. Kůrka; Jugoslavia, Zagreb 3juv.A leg. Frič,
 Hercegovina Nevesinje 2♂A, Plitvice ♀A, Bosnia ♀2♂E 1♂3♂1juv.A, Monte Negro 4♂E 1902
 leg. Mrázek, Sarajevo 3♀E 1908 leg. Höhm, near lake Ljubol 1juv.A 28.6.1930 leg. Štor-
 kán, Breznica 6♀4♂A, Makarska ♂E 7.1933, Hvar 2juv.A 21.7.1977 leg. Tauber; Ruma-
 nia, 130♀23♂3juv.A; Bulgaria, ♀A leg. Petrič, Sandanski Pirin ♀A 1970 leg. Horák;
 Albania, ♀1♂E 1917; Greece, Creta Ida 5♀1juv.A ♀E, Parnas 2♀4♂7juv.A 2.6.1935 leg. Tá-
 borský, Thessália ♀E 21.6.1935 leg. Mařan, Olympus 2♀2juv.A leg. Tábor-
 orský, Taygetos
 1juv.A ♀E 1935 leg. Mařan, Kataphigion ♀1♂A 20.6.1974 leg. Horák.
- Euscorpius (Euscorpius) germanus* (C.L. Koch, 1836): Jugoslavia, Bosnia 1juv.A 18.9.1929; Au-
 stria, Tyrol Ampezzothal ♀E; 46♀6♂1juv.A ♀E coll. V. Frič.
- Euscorpius (Euscorpius) mingrelicus* (Kessler, 1876): USSR, Sochi ♀E 21.6.1990 leg. Kovařík.
- Euscorpius (Polytrichobothrius) italicus* Herbst, 1800: Italy, Lago di Garda ♀1juv.A ♀E 1893
 leg. Vávra; Jugoslavia, Bled 1juv.A, Bosnia Ragacia 3♂♂A, Brach ♂A 10.8.1971 leg. Sullivan;

- Albania 2♀E 1917; Turkey 1♂E; USSR, Batumi 1♂E 16.6.1957 leg. Mařan; 20♀7♂13juv. A no location; 4♀E are specified in the collection: "New Zealand leg. Erban". Probably the labels of the localities have been changed or the specimens have been brought.
- Euscorpius (Tetratrichobothrius) flavicaudis* Birula, 1917: France, Ville 1♀♂3juv. A; Italy, Campagna 2♀4juv. A 1901 leg. Dršvič, Rome 2♀A 1930 leg. Táborský, Nizza 2♀A 1898 leg. Frič, Sardinia 2♀E, Corsica 1♀E; Algeria 1♀E; 1♀♂E no location.
- Megacormus gertschi* Diaz, 1966: Mexico, Hidalgo Zacualtipan 1♀♂E 8.7.1992 leg. V. Malý.
- Chaerilidae** Kraepelin 1894
- Chaerilus variegatus* Simon, 1877: Java, Mons Gede 1♀E 8.1892 leg. Fruhstorfer.
- Diplocentridae** Kraepelin 1905
- Bioculus* sp.: Mexico, La Paz 1♀♂1juv. E. 1928.
- Nebo hierichonticus* (Simon, 1872): Yemen, 3juv. A b 1989 leg. Nečas.
- Ischnuridae** Simon, 1879
- Cheloctonus crassimanus* Pocock, 1896: Republic of South Africa, 1♀♂E 1938 leg. Baum.
- Iomachus politus* Pocock, 1896: Tanzania, 2♀♂E.
- Liocheles australasiae* (Fabricius, 1775): 1♀E no location.
- Liocheles caudicula* (C.L. Koch, 1844): New Guinea, 1♀♂E leg. Vráz.
- Opisthacanthus elatus* (Gervais, 1844): 1♀♂1juv. A coll. Berchthold et al. Kraepelin.
- Opisthacanthus fischeri* Kraepelin, 1910: Tanzania, 1♀E.
- Opisthacanthus validus* Thorell, 1877: Republic of South Africa, 1♂E leg. Nonfried.
- Opisthacanthus* sp.: 2♀2♂E no location.
- Iuridae** Pocock, 1893
- Hadrurus hirsutus* (Wood, 1863): Mexico, La Paz 1♂E 1928.
- Iurus dufourei* (Brullé, 1832): Greece, Mistras 1juv. A 7.1990 leg. Šklíba.
- Scorpionidae** Pocock, 1893
- Heterometrus (Chersonesometrus) phipsoni* (Pocock, 1892): 1♀A no location.
- Heterometrus (Gigantometrus) swammerdami* Simon, 1872: Ceylon (Sri Lanka), 2♀♂E leg. Nonfried.
- Heterometrus (Heterometrus) spinifer* (Hemprich and Ehrenberg, 1828): Cambodia, Takeo 1♀E 1984 leg. Frühbauer.
- Heterometrus (Heterometrus) longimanus* (Herbst, 1800): Borneo, 4♀♂1juv. A 2juv. E leg. Vráz; Sumatra, 3♂A leg. Hildebrandt.
- Heterometrus (Javanimetrus) cyaneus* (C.L. Koch, 1836): Java, 1♀♂♂A coll. V. Frič, 1♀A 1906 leg. Urbánková, Vulcan 2♀E leg. Gürda.
- Heterometrus (Srilankometrus) indus* (Geer, 1778): Ceylon, Peradeniya 2♂E leg. Uzel.
- Opisthophthalmus capensis* (Herbst, 1800): Republic of South Africa, Tatelberg 1♂E 1897 leg. Höhm, 1♀E leg. Holub.
- Opisthophthalmus glabrifrons* Peters, 1861: Tanzania, 1♀E.
- Opisthophthalmus pallidipes* C.L. Koch, 1843: 1♀E no location.
- Opisthophthalmus pictus* Kraepelin, 1894: Republic of South Africa, 1A leg. Holub.
- Opisthophthalmus pugnax* Thorell, 1877: Republic of South Africa, 1A leg. Holub.
- Opisthophthalmus schultzei* Kraepelin, 1908: Zambia, Zambezi 1♀E leg. Holub.

- Opisthophthalmus* sp. : Gabon, ♀E.
- Pandinus (Pandinoides) cavimanus* (Pocock, 1888): Kenya, Ugamba 4♂1♂8 juv. A leg. Machulka; Tanzania 1♂1♂E.
- Pandinus (Pandinopsis) dictator* (Pocock, 1888): Cameroon, Douala 1♂A leg. David; 4♂3♂A 1♂E no location.
- Pandinus (Pandinus) imperator* (C.L. Koch, 1842): 3♂A coll. V. Frič; ♀E no location.
- Scorpio maurus* Linné, 1758: Morocco, 6♂2♂1 juv. E; Algeria, Akbou ♀A 9.5.1971 leg. Haleš, Ghardibaou ♀A 5.5.1971 leg. Haleš, Tebessa 1♂1♂A 12.6.1930 leg. Obenberger, Ed-dis ♀E 1974; Tunisia, El-Kep 2♂1♂A leg. Táborický, Ain-Draham 1♂A 6.1927 leg. Mařan, Cairo 1 juv. A 5.1930; Syria, Palmyra 1 juv. A 26.4.1982 leg. Pflieger; Iraq, Bagdad 3♀E leg. Kálalová.
- Urodacus novaehollandiae* Peters, 1861: Australia, Melbourne ♀A 1902 Det. Kraepelin.
- Vejoidea Thorell, 1876
- Paruroctonus* sp. : Mexico, La laguna ♀A 9.2.1928.
- Scorpiops hardwickii* (Gervais, 1844): India, Sikkim 1♂E, Hindustan ♀E leg. Schlaginweix.
- Uroctonus* sp. : IE no location.
- Vejois mexicanus* C.L. Koch, 1836 : Mexico, IE

SUMMARY

The collection of scorpions in the Zoological Department of the National Museum in Prague includes 1360 specimens of 94 species, 44 genera and 9 families. According to Williams (1987), the world fauna of scorpions consists of 1500 species in 112 genera. The collection in the National Museum includes 6.26 % of species, 39.29% of genera, and all families of the Scorpiones (6 species of Bothriuridae, 44 species of Buthidae, 9 species of Chactidae, 1 species of Chaerilidae, 2 species of Diplocentridae, 8 species of Ischnuridae, 2 species of Iuridae, 18 species of Scorpionidae and 4 species of Vejoidea). The most interesting is material of *Euscorpium carpathicus* (Chactidae) from the mapping square No. 6252 (Central Bohemia) and the scorpions collected in Iraq (for the details see also Kovářík (1992)).

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