# A CATALOGUE OF THE SCORPIONS OCCURING IN IRAN, UP TO JANUARY 1986

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ABSTRACT. An alphabetical list of the so far (January 1986) recognized or revised scorpion taxa of Iran is given. The revised names have been adopted throughout, but in some instances, when clarification was required, disceed names have been given too.

The synonyms and specimen records, as well as the world distribution for each genus, are provided. A diagram depicting the present knowledge on scorpions from Iran is attached.

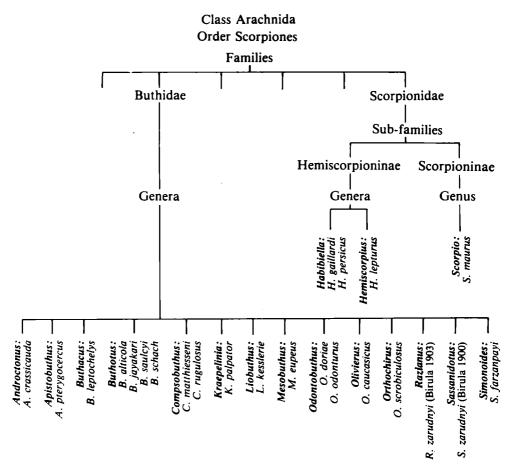
Key words: SCORPIONS/IRAN/SPECIES

## INTRODUCTION

Despite the great interest of a world catalogue of scorpions, its achievement has been meager so far.

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It is obvious that no zoologist can tackle this task, without referring to the existing catalogues of different regions of the world. As there has been no complete and confirmed data on scorpions inhabiting Iran and the only inventory list of the scorpions from this country (VACHON, 1966) is doubtful, the author compiled the present catalogue after a critical review of the related literature and his systematic studies, up to January 1986, on more than 20,000 specimens of scorpions from all over the country. The author has done his best to make sure that no publication related to the fauna of scorpions of Iran has been missed, however should a negligence come to the attention of readers, he would be more than grateful to be notified of it.



# Structure and procedure

This alphabetical catalogue presents general information, moving from the higher taxa to the lower ones. At the family level, as there are only two of it in Iran, the taxa of the Buthidae are treated first and those of the Scorpionidae next. Whenever a newly created taxon or change in name are to be done, this is notified.

The new creations are based on the co-operation and suggestion of Professor Max VACHON of the Museum national d'Histoire naturelle in Paris as agreed by personal communications.

As descriptions on such taxa have not yet appeared in any other publications, only the name of the author and Prof. VACHON have been referred to, according to our latest decision (letter August 30, 1984).

Each taxon of the named families is treated under the following sub-headings: Genus, species, author, date

Synonym(s) if any

Record(s) from the coutry

Remark(s) if any.

For each taxon, author's name and date of the first description, also the type species and broad distribution for each genus, are provided.

Records are cited chronologically and are not repeated if identical to those of the publications from which they were extracted. The latest publications of authors are cited.

If any taxon is considered, on the author's belief, to be omitted from the catalogue, it is noted by an asterisk and necessary comments are given under the remarks sub-heading.

The author believes that morphological data are not sufficient to distinguish between subspecies and varieties or forms, therefore these ranks have been omitted. Should there have been a doubtful or disputable information which the author has not been able to clarify, this has been shown by a question mark, to inform the reader that the subject should be scrutinized.

# A catalogue of the scorpions occuring in Iran up to January, 1986

A. Family Buthidae Simon, 1879

1. Genus Androctonus Hemprich & Ehrenberg, 1829

Type-species: Scorpio australis Linnaeus, 1758

Distribution: from the whole of North Africa down to Ethiopia, extending to the Near East and the Middle East in Asia.

\*Androctonus amoreuxi (Audouin & Savigny, 1812 & 1826)

Scorpio amoreuxi Audouin & Savigny, 1812 & 1826

Synonyms:

Androctonus citrinus Hemprich & Ehrenberg, 1829

Buthus deserticola Birula, 1903

Records:

VACHON, 1966 (see remarks 1 and 2) — HABIBI, 1971 (see remark 3)

Remarks:

- 1 Most scorpiologists have expressed their doubts as to A. amoreuxi being a distinct species.
- 2 Although A. amoreuxi was first reported by VACHON from Iran (1959, from Faisabad, province of Sistan), the author could not find such a locality in the geographical dictionary, nor was able to capture such a species. In Iran, there are nearly 12 villages named Faisabad, but no Sistan.

3 — Those of HABIBI which are identified and recorded as A. amoreuxi, are only a local form of A. crassicauda. So, until further studies, the species is omitted from the catalogue.

# Androctonus crassicauda (Olivier, 1807)

Records:

Scorpio crassicauda Olivier, 1807
Buthus (Prionurus) crassicauda Birula, 1917
Prionurus crassicauda Werner, 1934
VACHON, 1966 — FARZANPAY, 1968 — HABIBI, 1971

# 2. Genus Apistobuthus Finnegan, 1932

Type-species: Apistobuthus pterygocercus Finnegan, 1932

Distribution: it is only reported from the east of Saudi Arabia and the south-west of Iran.

Record:

Apistobuthus sp. HABIBI, 1971

Remarks:

This genus was reported from Iran by HABIBI (1971) who in comparison with one female specimen from Saudi Arabia, in the British Museum, suggested her specimen to be a new species, but according to VACHON (personal communication, 1975), it was Apistobuthus pterygocercus. Neither FINNEGAN, HABIBI nor VACHON have referred to trichobothriotaxies, but the specimens of Apistobuthus which were collected and studied in Iran by the author, were found to belong to «néobothriotaxie minorante» (a term suggested by VACHON, 1973) of the type A. As he did not have access to the type species, it is stipulated that if his specimens have different trichobothriotaxies than those of the type-species, then they must be of a new species.

#### 3. Genus Buthacus Birula, 1908

Type-species: Androctonus (= Leiurus) leptochelys Hemprich & Ehrenberg, 1829. Distribution: the genus is reported from the territories on the west coast of the Atlantic Occean in Africa, eastwards to Ethiopia, extending to the south-west of Asia up to Iran.

Buthacus leptochelys (Hemprich & Ehrenberg, 1829)

Records:

WERNER, 1934 — VACHON, 1966 — HABIBI, 1971

Buthacus palpator (Birula, 1903) (see Kraepelinia palpator)

\*Buthacus tadmorensis (Simon, 1892) (see remarks)

Records:

BIRULA, 1917 (Buthus (Buthacus) tadmorensis) — VACHON, 1966 — HABIBI, 1971 Remarks:

Buthacus tadmorensis could not be identified in Iran. The author, in agreement with LEVY (1973) who studied the type and found no difference between B. tadmorensis and B. leptochelys, omitted this species from the catalogue.

#### 4. Genus Buthotus Vachon, 1949

Type-species: Buthus judaicus Simon, 1872

Distribution: from the west to the east and down to the south of Africa (except Gabon, Angola, Congo and the Kalahari desert) and from Turkey to the west of China, in Asia.

Synonym:

Buthus (Hottentota), Birula, 1908 (see VACHON, 1968)

Buthotus alticola (Pocock, 1895)

Record:

This is the first report of the species from Iran.

Buthotus jayakari (Pocock, 1895)

Record:

This is the first report of the species from Iran.

Buthotus saulcyi (Simon, 1880)

Records:

Buthus (Hottentota) saulcyi BIRULA, 1916 VACHON, 1966 — HABIBI, 1971

Buthotus schach (Birula, 1905)

Records:

Buthus (Hottentota) schach Birula, 1917 Hottentota Werner, 1934 VACHON, 1966 — HABIBI, 1971

5. Genus Compsobuthus Vachon, 1949

Type-species: Buthus acutecarinatus Simon, 1882

Distribution: from Mauritania eastwards to Erythrea in Africa and from Turkey

towards the south and the east of Asia, up to India.

Compsobuthus matthiesseni (Birula, 1917)

Records:

Buthus acutecarinatus matthiesseni BIRULA, 1905 VACHON, 1966 — HABIBI, 1971

Compsobuthus rugulosus (Pocock, 1900)

Records:

Buthus acutecarinatus rugulosus BIRULA, 1917 VACHON, 1966 — HABIBI, 1971

6. Genus Kraepelinia Vachon 1973

Type-species: Buthus palpator Birula, 1903 Distribution: the only report is from Iran.

## Kraepelinia palpator (Birula, 1903)

Synonym:

Buthus (Buthacus) palpator Birula, 1903

Records:

Buthus palpator BIRULA, 1903-

Buthacus palpator VACHON, 1966 — HABIBI, 1971

7. Genus Liobuthus Birula, 1899

Type-spècies: Liobuthus kessleri Birula, 1899 Distribution: from USSR Turkistan and Iran.

Liobuthus kessleri Birula, 1899

Records:

VACHON, 1966 — HABIBI, 1971.

8. Genus Mesobuthus Vachon, 1950

Type-species: Androctonus eupeus Koch, 1839

Distribution: from Asian USSR down to Turkey, Irak and Iran, extending to the east

up to the southern border of Inner Mongolia, in China.

# \*(?) Mesobuthus agnetis (Werner, 1936)

#### Remarks:

1 — WERNER believes that this species resembles *Mesobuthus* (*Buthus*) zarudnyi sarghadensis. The question then arises as to how it could be considered as a new species if it is so much alike a sub-species. Unfortunately, no adequate description for its creation was provided, and the present author was unable to study the type. In view of this doubt, it is omitted from the catalogue, awaiting further studies.

2 — VACHON (1959) considered it to be a form of Mesobuthus zarudnyi.

#### Mesobuthus caucasicus (see Olivierus caucasicus)

Mesobuthus eupeus (Koch, 1839)

Records: (see remarks)
Buthus phillipsii POCOCK, 1889

Buthus eupeus BIRULA, 1917 — WERNER, 1934

VACHON, 1966 — FARZANPAY, 1968, HABIBI, 1971

Remarks:

Nine sub-species are reported in the eupeus group of Iran, which are: eupeus (Koch, 1839), thersites (Koch, 1839), persicus (Pocock, 1899), phillipsii (Pocock, 1889, spelt phillipsi by BIRULA and VACHON), afghanus (Pocock, 1900), kirmanensis (Birula, 1900), pachysoma (Birula, 1900), phillipovitschi (Birula, 1905) and iranus (Birula, 1917), but after examining more than 5000 specimens of eupeus of Iran, the author believes in five sub-species, at most: afghanus, eupeus, kirmanensis, phillipovitschi and phillipsi, noting that further studies are needed.

## \*Mesobuthus gabrielis (Werner, 1929)

#### Remarks:

- 1 The creation is based only on one male specimen from Rudbar (north of Iran) and even that, referring to WERNER's description, could be taken as *Olivierus caucasicus*.
- 2 Both VACHON and HABIBI recorded it in their lists by reference to WERNER, but although the author has studied many *Mesobuthus* from Rudbar, this species was never encountered. So, till further studies, it is omitted from the catalogue.

## \*Mesobuthus zarudnyi

#### Remarks:

BIRULA, in 1900, created the species zarudnyi in the Buthus group and later added two sub-species: gracilis (1900) and sarghadensis (1903) to it. VACHON, after creating Mesobuthus (1950) put them into the new genus. Our studies (VACHON and FARZANPAY, unpublished) came to the conclusion that they must be classified in two new different genera, namely: Sassanidothus (for M. z. gracilis Birula, 1900) and Razianus (for M. z. sarghadensis Birula, 1903). See the two new genera.

## 9. Genus Odontobuthus Vachon, 1950

Type-species: Buthus doriae Thorell, 1876

Distribution: the only report of the genus is from Iran and Pakistan.

## Odontobuthus doriae (Thorell, 1876)

#### Records:

Buthus doriae Thorell, 1876 — POCOCK, 1900 — BIRULA, 1917 VACHON, 1966 — FARZANPAY, 1968 — HABIBI, 1971.

#### Odontobuthus odonturus (Pocock, 1897)

#### Records:

Buthus odonturus BIRULA, 1900 VACHON, 1966 — HABIBI, 1971

#### Remarks:

It is not clear why VACHON (1966), with reference to POCOCK (1897) has recorded this species from Iran, while the latter author had related this species to India. However, the author has captured this species from the southern region of Iran.

# 10. Genus Olivierus (n. gen. to be described by Farzanpay & Vachon)

Type-species: Androctonus caucasicus Nordmann, 1840 Distribution: the genus is Asiatic and is reported from all over Eastern Transcaucasia, Central Asia in USSR, Iran and as far as Eastern China.

#### Olivierus caucasicus (Nordmann, 1840)

#### Synonyms:

Scorpio caucasius Fischer, 1831 (considered as a nomen nudum) Androctonus caucasicus Nordmann, 1840 Buthus caucasicus Birula, 1897 Mesobuthus caucasicus Vachon, 1950

Records:

Buthus caucasicus POCOCK, 1900 — BIRULA, 1917 Mesobuthus caucasicus VACHON, 1966 — HABIBI, 1971

#### 11. Genus Orthochirus Karsch, 1891

Type-species: Androctonus scrobiculosus Grubb, 1873

Distribution: from north to north-eastern Africa and from Arabia up to India in

Asia.

## Orthochirus scrobiculosus (Grubb, 1873)

Records:

BIRULA, 1917 — VACHON, 1966 — HABIBI, 1971

Remarks:

- 1 KARSCH who created the genus *Orthodactylus* in 1881, replaced it by *Orthochirus* in 1891. KRAEPELIN (1891) considered *Orthochirus* as a synonym of *Butheolus* Simon, 1833, but SIMON (1910) re-established the status of *Orthochirus*, which he considered to be distinct from *Butheolus*. This decision was supported by VACHON (1949).
- 2 BIRULA (1900) added *persa* as a form of *Orthochirus scrobiculosus*, but VACHON (1958) considered this form as a distinct species. The author believes only in one species (*scrobiculosus*), with four forms, which need more studies to put them in appropriate places.
  - 12. Genus Razianus (n. gen. to be described by Vachon & Farzanpay)

Type-species: Hemibuthus zarudnyi Birula, 1903

Distribution: southern Iran onto Baluchistan of Pakistan up to eastern Sind.

Razianus zarudnyi (Birula, 1903)

Synonyms (see remarks):

Buthus zarudnyi sarghadensis Birula, 1903

Hemibuthus zarudnyi Birula, 1903

Buthus zarudnianus Birula, 1905

Mesobuthus zarudnyi sarghadensis Vachon, 1966

Records:

Buthus zarudnyi sarghadensis BIRULA, 1917

Mesobuthus zarudnyi sarghadensis VACHON, 1966 — HABIBI, 1971

Remarks .

BIRULA (1903), created *Hemibuthus zarudnyi* as a new species. In 1905, transfering this species to the genus *Buthus*, he changed it to *Buthus zarudnianus* as a new name for homonymy with his previously described (1900) *Buthus zarudnyi*, but VACHON considered for a time *Buthus zarudnianus* as a synonym of *Mesobuthus zarudnyi* (personal communication).

13. Genus Sassanidothus (n. gen. to be described by Farzanpay & Vachon)

Type-species: Buthus zarudnyi Birula, 1900

Distribution: it is only reported from south eastern of Iran.

## Sassanidothus zarudnyi (Birula, 1900)

Records:

Buthus zarudnyi gracilis BIRULA, 1900 Mesobuthus zarudnyi gracilis VACHON, 1966 — HABIBI, 1971

14. Genus Simonoides (n. gen. to be described by Vachon) Simonoides farzanpayi (n. sp. to be described by Vachon)

Distribution: from the southern region of Iran (see remarks).

Remarks:

The genus is reported from Iran for the first time by the author, although VACHON has stated that he is in possession of specimens of this genus, but the site of their capture is not yet clear to the author. They probably must be from some Arabian countries in the Persian Gulf.

- B. Family Scorpionidae Pocock, 1893
- a. Sub-family Hemiscorpioninae Pocock, 1899
  - 1. Genus Habibiella Vachon, 1973

Distribution: only reported from Iran.

Remarks:

VACHON, on finding extra-trichobothria on the tibia (15 on the external surface and 10-12 on the ventral surface in the new genus, instead of respectively 13 and 3 in *Hemiscorpius*), created the genus *Habibiella*.

Habibiella gaillardi Vachon, 1973

Holotype: a female from east of Iran.

Record: VACHON, 1973

Habibiella persica? (Birula, 1903)

Synonym:

Hemiscorpius persicus Birula, 1903

Remarks:

VACHON, who is the creator of the genus *Habibiella*, is of opinion that this species should be classified into this new genus instead of *Hemiscorpius*. But it is yet to be determined whether *persicus* is specifically identical with *gaillardi*. However, the author has studied some specimens from the south of Iran and has found them to be different from the description given for *Habibiella gaillardi* (i.e., they have 13 trichobothrie on the external surface of tibia instead of 15...). As he did not have access to the type specimen of *Hemiscorpius persicus* which is in the Leningrad Museum, he postulates that if BIRULA's *Hemiscorpius persicus* is identical with *Habibiella gaillardi*, then his finding is a new species, but if these specimens are identical to BIRULA's type specimen, then there are two species in *Habibiella*, namely: *gaillardi* and *persica*.

Records:

Hemiscorpius persicus BIRULA, 1917 — VACHON, 1966 — HABIBI, 1971

# 2. Genus Hemiscorpius (= Hemiscorpion) Peters, 1861

Type-species: Hemiscorpius lepturus Peters, 1861

Distribution: from North-East Africa to the Middle East countries, India and Soco-

tra in Asia.

## Hemiscorpius lepturus Peters, 1861

Records:

BIRULA, 1917 — VACHON, 1966 — FARZANPAY, 1968 — HABIBI, 1971.

Hemiscorpius persicus (see Habibiella persica)

b. Sub-family Scorpioninae Pocock, 1893

Genus Scorpio Linnaeus, 1758

Type-species: Scorpio maurus Linnaeus, 1758

Distribution: from eastern, northern and western regions of Africa to the western-

most regions of the Middle East in Asia.

Remarks:

POCOCK (1900) suggested Heterometrus as a synonym of Scorpio.

Scorpio maurus Linnaeus, 1758

Records:

Heterometrus townsendi POCOCK, 1900

BIRULA, 1917 — VACHON, 1966 — FARZANPAY, 1968 — HABIBI, 1971

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#### References

- BIRULA, A., 1896. Miscellanae scorpiologicae. I. Zur Synonymie der russischen Skorpione. Ezheg. zool. Muz.
- BIRULA, A., 1897. Miscellanae scorpiologicae. II. Zur Synonymie der russischen Skorpione (Fortsetzung). Ezheg. zool. Muz.
- BIRULA, A., 1899. Miscellanae scorpiologicae. III. Zur Synonymie der russischen Skorpione. Ezheg. zool. Muz., 4.
- BIRULA, A., 1900. Beitrage zur Kenntnis der Skorpionefauna Ost-Persiens. Bull. Acad. imp. Sci. St Petersbourg, 12.
- BIRULA, A., 1903. Beitrage zur Kenntnis der Skorpionefauna Ost-Persiens (zweiter Beitrage). Bull. Acad. imp. Sci., St Petersbourg, 19.

- BIRULA, A., 1905. Beitrage zur Kenntnis der Skorpionefauna Persien (dritter Beitrage). Bull. Acad. imp. Sci., St Petersbourg, 23.
- BIRULA, A., 1917. Arthrogastric Arachnida of Caucasia, part 1, Scorpions (English translation by IPST, 1964).
- BIRULA, A., 1918. Miscellanae scorpiologicae, XI. Matériaux pour servir à la scorpiofaune de la Mésopotamie inférieure, du Kurdistan et de la Perse septentrionale. Ann. Mus. Zool. Sci. Russie, 22.
- FARZANPAY, R., 1968. A preliminary list of scorpions occuring in Iran. Abstracts and Reviews of Eighth International Congress on Tropical Medecine and Malaria.
- FARZANPAY, R. & PRETZMANN, G., 1974. Ergebnisse einiger Sammelreisen nach vorderasien, 4 Teil: Skorpione aus Iran. Ann. Naturhistorie Mus. Wien, 78.
- FINNEGAN, S., 1932. Report on the scorpions collected by Mr. Bertram Thomas in Arabia. Linn. Soc. J. Zool., 38.
- HABIBI, T., 1971. List de scorpions de l'Iran. Bull. Faculty of Science, Teheran University, vol. 2, n°4.
- LEVY, G., AMITAI, P. & SHULOV, A., 1973. New scorpions from Israel, Jordan and Arabia. Zool. J. Linn. Soc., 52.
- OLIVIER, G.A., 1807. Voyage dans l'empire Ottoman, l'Egypte et la Perse. Paris, t.5.
- POCOCK, R.I., 1897. Description of some new species of Scorpions from India. J. Bombay Nat. Hist. Soc., 11.
- POCOCK, R.I., 1899. Chilopoda and Arachnida. In: Contributions to the Natural History of Lake Urmi, N.W. Persia, and its neighbourhood. J. Linn. Soc. (zool.), 27.
- POCOCK, R.I., 1900. Arachnida. in: Fauna of the British India, including Ceylon and Burma. London, Taylor and Francis, vol. 1.
- POCOCK, R.I., 1900. Arachnida, Chilopoda and Crustacea. In: On the Zoology of the Afghan commission delimitation. Trans. Linn. Soc. London (zool.), 5.
- VACHON, M., 1951. A propos de quelques Scorpions de Turquie collectés par M. le Professeur Dr. Curt Kosswig. Revue de la Faculté des Sciences de l'Université d'Istambul, série B, t. XVI, fasc. 4.
- VACHON, M., 1958. A propos de Liobuthus kessleri Birula, Scorpion psammophile nouveau pour la faune Irannienne. Bull. Mus. nat. Hist. nat. Paris, 2° sér., t. 30, n°5.
- VACHON, M., 1959. Scorpionidae (Chelicerata) de l'Afghanistan. The 3rd Danish Expedition to Central Asia, Results 23. Vidensk. Meddl. Dansk naturh. Foren., 120.
- VACHON, M., 1960. Quelques remarques sur Apistobuthus pterygocercus Finnegan, Scorpion (Buthidae) habitant l'Arabie. Arch. Institut Pasteur d'Algérie, t. 38, n°3.
- VACHON, M., 1966. Liste des scorpions connus en Egypte, Arabie, Israël, Liban, Jordanie, Turquie, Irak, Iran. *Toxicon*, vol. 4.

- VACHON, M., 1973. Etudes des caractères utilisés pour les familles et les genres de scorpions (Arachnides). Bull. Mus. nat. Hist. nat. 3° sér., n°140.
- VACHON, M., 1979. Arachnids of Saudi Arabia. Scorpiones. In: Fauna of Saudi Arabia, 1.
- WERNER, Fr., 1929. Beitrage zur Kenntnis von Syrien und Persien. Zool. Anzegen, Bd. 80.
- WERNER, Fr., 1936. Reptilien und Gliedertiere aus Persien. Festsch. Embrik Strand, Riga, 2.