

**MESOBUTHUS EUPEUS, AN INDIGENOUS SCORPION
FROM IRAN. ORIGIN AND ITS GEOGRAPHICAL
DISTRIBUTION ***

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ABSTRACT

The issue of the origin of *M. eupeus* has been approached in the light of its geographical distribution and a preliminary view has been suggested, hoping this to be an incentive for a concerted effort on the part of faunists, ecologists, paleontologists and other related scientists, to elucidate the question in future.

All reported scorpions from Iran belonging either to Scorpionidae or Buthidae families. The Buthidae of Iran, with two sub-families (Buthinae and Orthochirinae) and 14 genera, is the dominant and widely distributed scorpion in the country.

According to BIRULA (1917), these two sub-families originated from an Ethiopian form. Therefore, one can conclude that all Iranian scorpions are from Ethiopian faunal region. But at present we believe, at least, in one indigenous element in Iranian Buthidae family, known as *Mesobuthus eupeus*. The genus with 6 species, is an asian restricted scorpion. Apart from *M. gibbosus*, which is not reported from Iran, the other 5 species occur in this country (VACHON, 1966), of which only one (*M. eupeus*) can be encountered outside the Iranian boundaries.

Although this species which has many sub-species, is an ubiquitous scorpion in Iran, but has a limited range of distribution outside this country. In our belief, the reported species and sub-species of this genus in the neighbouring countries, may have originated from a penetrating element from Iran, which due to ecological conditions and subsequent modifications brought about in succeeding generations have given rise to the new species or sub-species and forms that follows:

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I. WEST BOUNDRIES:

A. Turkey

Two species of *Mesobuthus* are reported from this country:

1. *M. gibbosus* (Brullé 1832), which has almost a wide range of distribution in this area. It is also encountered in Balkan Peninsula and the adjacent islands of the Adriatic and the Aegean Sea (Crete, Cyclade, Pleponesi and Macdoni in Grece). This species is also reported from Eastern Turkey, next to Iran, i.e. behind the connecting line from Adana up to Erzurum, so it could be considered as a native race of Turkey.

2. *M. eupeus* (Koch 1939). Although the range of distribution of this species is quite extensive in Iran, but the extent of the area of its habitation in Turkey, is limited to the eastern part of that country, i.e. Eastern Anatolia (Asian Turkey), up to eastern limit of the Black Sea. It can be said that it stops behind the line of eastern distribution of *M. gibbosus*.

B. Iraq

M. eupeus mesopotamicus (Penther 1921). This is the only form of *M. eupeus* which is reported from eastern region of Iraq (around Moussel).

We do not encountered *Mesobuthus* in other countries west of Iran. VACHON (1959) with reference to POCOCK's report (1889), mistakenly has cited *M.e. phillipsi* from "Arabistan". The POCOCK's report is from Bushehr, which is an Iranian port in the Persian Gulf.

II. EAST BOUNDRIES:

C. Afghanistan

The following sub-species of *M. eupeus* are reported from Afghanistan:

1. *M.e. afghanus* (Pocock 1900), which is collected from north-eastern part of the country, i.e. the land between valley of Harri-Roud and Meshed.

2. *M.e. haarlovi* (Vachon 1959), from north eastern part of Harat, not so far away from Iran.

D. Pakistan

Two forms of *M. eupeus* inhabit Pakistan and are:

1. *M.e. macmahoni* (Pocock 1900). This form is captured from Balouchistan of Pakistan, next to Sistan Province in Iran.

2. **M.e. atrostriatus** (Pocock 1897). The range of distribution of this form extends up to Sind and Punjab, in India.

In relation to geographical distribution of **Mesobuthus** in area east to Iran, we must refer to **M.e. mongolicus** (Birula 1911) from Mongolia. This sub-species can be found down in inner Mongolia of China.

III. NORTH BOUNDRIES:

They consist of southern part of U.S.S.R., which is divided by Caspian Sea into two distinct regions: The regions on the west of the Caspian Sea and those on the east of the Caspian Sea.

E. The western regions

This part which is known as transcaucasia, lies from Caucasian mountains up to Groznyy city and consists of: Azerbaydzhaskaya, Gruzinskaya, Armyanskaya and Dagestan republics, from where the following **M. eupeus** are reported.

1. **M.e. bogdoensis** (Birula 1896), which is found in Bogdo mountain, near Astrakhan.

2. **M.e. volgoensis** (Birula 1925), which is reported from the banks of the Volga River, in Astrakhan Province.

F. The eastern regions

This part includes all republics of Russian Central Asia, namely Turkmenskaya, Tadzhikskaya, Uzbekskaya Kirgizskaya and Kazakhskaya. The reported **M. eupeus** of these regions are as follows:

1. **M.e. thersites** (Koch 1839), which is captured from west of Bokhara, around Amour Daria, Sir Daria, Khiva up to Ural Lake. The most eastern capture site of this form is from around Semipalatinisk in republic of Kazakhskaya. This form has been also reported by BIRULA (1917) from north of Khorassan.

2. **M.e. barszcevskii** (Birula 1917), which is reported from Bokhara.

IV. SOUTH BOUNDRIES:

They consist of the countries on the west coast of the Persian Gulf and Oman Sea. The only reported **M. eupeus** from these areas is by SIMON (**Bull. Mus. d'hist. nat. Paris**, VIII, 1912, p. 254), from the portheastern coast of the Arabian Peninsula, namely from Oman (Dibbah, not so far away from the Strait of Hormuz).

As **M. caucasicus**, is reported from Iran, Iraq, Turkey and Ca-

ucasia, it is transferred to the new genus **Olivierus** (VACHON and FARZANPAY, unpublished work) so it has not been dealt with in this text.

SUGGESTION:

1. Asia and Africa were connected at the beginning of the Quaternary period, i.e. before the existence of the Red Sea, and the general theory is that the Asian scorpions have spread from Africa, but the restriction of **M. eupeus** to Asia, before and after the separation of the two continents could be accepted as a reasonable ground to argue that this species is the indigenous of Iran.

2. The majority of the reported **Mesobuthus** under new species or sub-species have only minor morphological differences upon which the creators have been persuaded to give them new names. How often the varieties of **M. eupeus**, which are the results of ecological conditions are considered as a new species or sub-species. It is strongly recommended that those to be considered as nomen dubium.

3. By taking into account the trades between Central Asia and the Far East in the past, it seems sound to accept that the diffusion of **Mesobuthus** to China started from Iran.

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