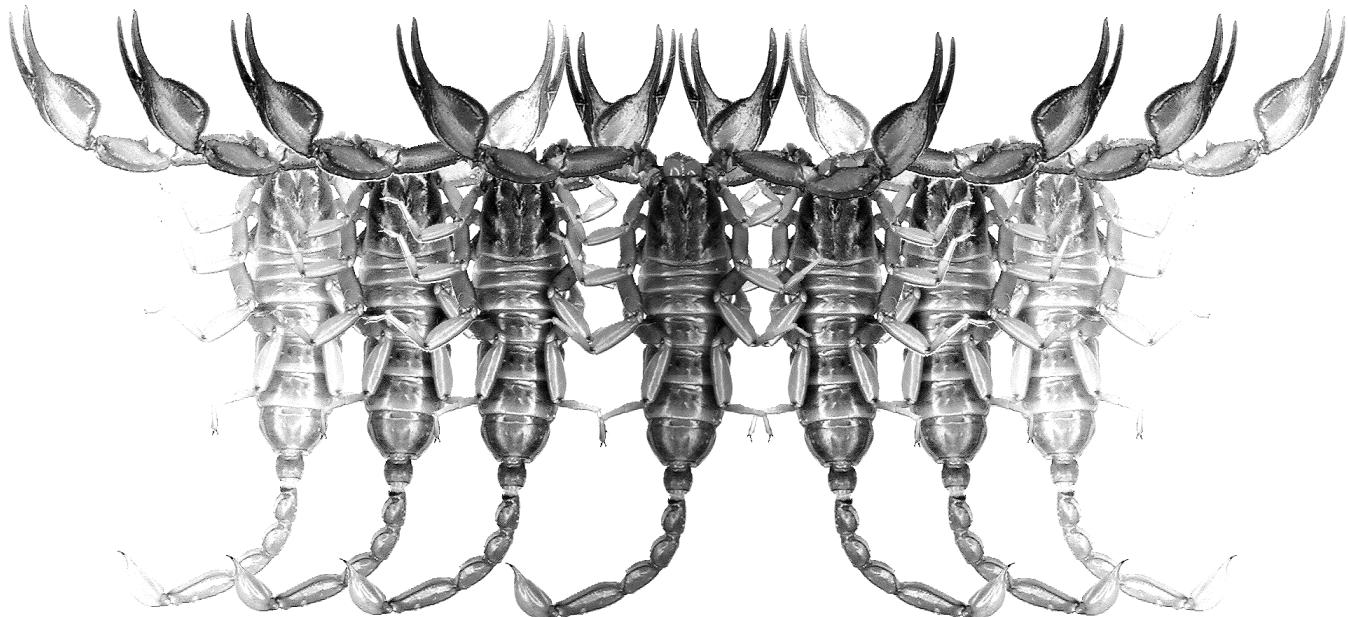


Euscorpius

Occasional Publications in Scorpiology



Scorpions of Iran (Arachnida: Scorpiones). Part VII. Kerman Province

**Shahrokh Navidpour, Majeed Ezatkhan, František Kovářík,
Michael E. Soleglad & Victor Fet**

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Euscorpius

Occasional Publications in Scorpiology

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- **AMNH**, American Museum of Natural History, New York, USA
- **CAS**, California Academy of Sciences, San Francisco, USA
- **FMNH**, Field Museum of Natural History, Chicago, USA
- **MCZ**, Museum of Comparative Zoology, Cambridge, Massachusetts, USA
- **MNHN**, Museum National d'Histoire Naturelle, Paris, France
- **NMW**, Naturhistorisches Museum Wien, Vienna, Austria
- **BMNH**, British Museum of Natural History, London, England, UK
- **MZUC**, Museo Zoologico “La Specola” dell’Universita de Firenze, Florence, Italy
- **ZISP**, Zoological Institute, Russian Academy of Sciences, St. Petersburg, Russia
- **WAM**, Western Australian Museum, Perth, Australia
- **NTNU**, Norwegian University of Science and Technology, Trondheim, Norway
- **OUMNH**, Oxford University Museum of Natural History, Oxford, UK
- **NEV**, Library Netherlands Entomological Society, Amsterdam, Netherlands

Scorpions of Iran (Arachnida: Scorpiones). Part VII. Kerman Province

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Summary

Thirteen species of scorpions belonging to two families are reported from the Kerman Province of Iran. Of these, the species *Compsobuthus kaftani* Kovařík, 2003, *Mesobuthus macmahoni* (Pocock, 1900), *Orthochirus farzanpayi* (Vachon et Farzanpay, 1987), *Polisius persicus* Fet, Capes et Sissom, 2001, *Sassanidotus gracilis* (Birula, 1900), and *Hemiscorpius lepturus* Peters, 1861 are recorded from the province for the first time. Kerman Province contains type localities of six species of scorpions, of which *Kraepelinia palpator* (Birula, 1903) and *Orthochirus gruberi* Kovařík et Fet, 2006 are valid. *Prionurus crassicauda orientalis* Birula, 1900 is a synonym of *Androctonus crassicauda* (Olivier, 1807), *Buthus eupeus kirmanensis* Birula, 1900 and *Buthus pachysoma* Birula, 1900 are probably synonyms of *Mesobuthus eupeus persicus* (Pocock, 1899), and *Buthus gabrielis* Werner, 1929, according to published information and occurrences near the type locality, probably is a synonym of *Sassanidotus gracilis* (Birula, 1900). These taxonomic problems are discussed below. Also, *Buthus astrostriatus* Pocock, 1897 is transferred to genus *Compsobuthus*. A key to all species of scorpions found in Kerman Province is presented.

Introduction

Many papers deal with the scorpions of Iran to some extent but a comprehensive study of the scorpion fauna has been lacking. We have therefore decided to survey the scorpions of Iran thoroughly, province by province. The fieldwork is conducted by the RRLS team under Shahrokh Navidpour and includes documentation of habitats diversity, revisititation of previously known sites, some of them type localities, and sampling of all the encountered scorpion species. All specimens were collected by UV light (night catch). Kerman (Persian: کرمان, Kermān) is one of the 30 provinces of Iran, located in the southeastern part of the country. It borders Yazd and South Khorasan Provinces in the north, Sistan and Baluchistan Provinces in the east, Hormozgan Province in the south and Fars and Yazd Provinces in the west. Kerman is the second largest province in Iran, with an area of 180,836 km² and the 9th most populous, with a population of 2,432,927 (2005). It has 14 counties, and its center is the city of Kerman. Most of the province is largely steppe or sandy desert, although there are some oases where dates, oranges (said to be the best in Iran), and pistachios are cultivated. In antiquity,

“Carmanian” wine was famed for its quality. Kerman Province is dependent on *qanats* (underground water channels) for its irrigation. In the central parts, Mount Hezar is the highest peak, 4465 meters above sea level.

The climate of Kerman varies in different regions. The north, northwest, and central areas experience a dry and moderate climate, whereas in the south and southeast, the weather is warm and relatively humid. The city of Kerman and the surrounding regions have a semi-moderate and dry climate, with a maximum and minimum temperature of 39.6° C, and -7° C, respectively. The average temperature during the months of March – June has been recorded as 20°–25° C. These months are the most suitable period for traveling and tourism.

ABBREVIATIONS. The institutional abbreviations listed below and used throughout are mostly after Arnett et al. (1993).

BMNH – The Natural History Museum, London, United Kingdom.

FKCP – František Kovařík Collection, Praha, Czech Republic.

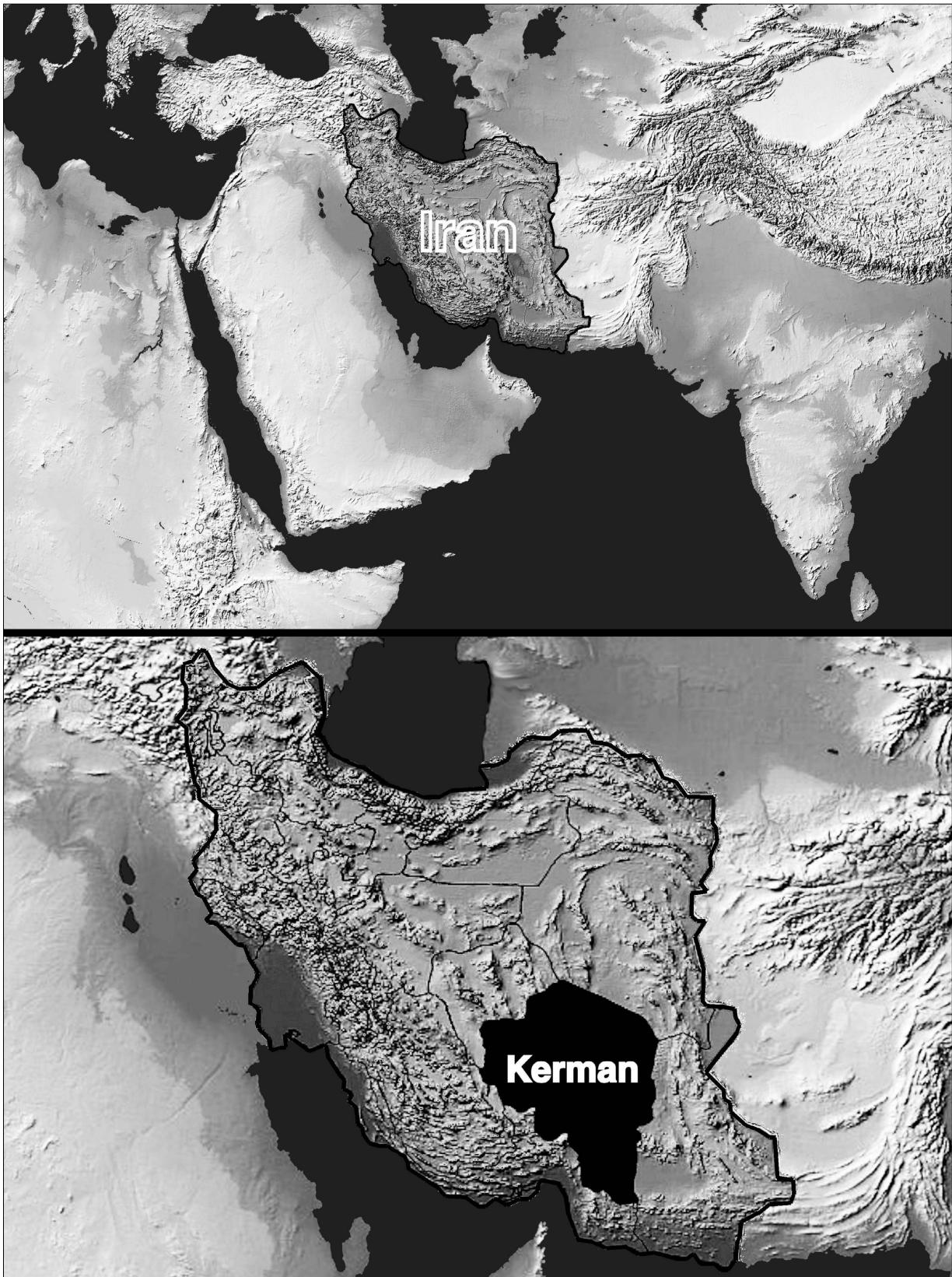


Figure 1: Map of southwestern Asia highlighting Iran (top) and closeup of Iran showing the Kerman Province depicted in black (bottom).

FMNH – Field Museum of Natural History, Chicago, Illinois, USA.
 MCSN – Museo Civico de Storia Naturale “Giacomo Doria”, Genova, Italy.
 MNHN – Muséum National d’Histoire Naturelle, Paris, France.
 NHMW – Naturhistorisches Museum Wien, Vienna, Austria.
 RRLS – Razi Reference Laboratory of Scorpion, Razi Vaccine and Serum Research Institute, Sepah St., Hejrat Sq., Ahvaz, Khoozestan, Iran.
 USNM – United States National Museum, Washington, DC, USA.
 ZISP – Zoological Institute, Russian Academy of Sciences, St. Petersburg, Russia.
 ZMHB – Museum für Naturkunde der Humboldt-Universität zu Berlin, Germany.

List of scorpions of Kerman Province

Family *Buthidae* C. L. Koch, 1837

- Androctonus crassicauda* (Olivier, 1807)
- Compsobuthus kaftani* Kovařík, 2003 (first report)
- Compsobuthus matthieseni* (Birula, 1905)
- Kraepelinia palpator* (Birula, 1903)
- Mesobuthus eupeus persicus* (Pocock, 1899)
- Mesobuthus macmahoni* (Pocock, 1900) (first report)
- Odontobuthus doriae* (Thorell, 1876)
- Orthochirus farzanpayi* (Vachon et Farzanpay, 1987) (first report)
- Orthochirus gruberi* Kovařík et Fet, 2006
- Orthochirus zagrosensis* Kovařík, 2004
- Polisius persicus* Fet, Capes et Sissom, 2001 (first report)
- Sassanidotus gracilis* (Birula, 1900) (first report)

Family *Hemiscorpiidae* Pocock, 1893

- Hemiscorpius lepturus* Peters, 1861 (first report)

Systematics

Family *Buthidae* C. L. Koch, 1837

- Androctonus crassicauda* (Olivier, 1807)
 (Figs. 4, 10, 17–20)

Scorpio crassicauda Olivier, 1807: 97, pl. XLII, fig. 2.

Buthus crassicauda: Simon, 1872: 247 (in part); Simon, 1879: 99; Simon, 1892: 83; Kraepelin, 1899: 16; Pocock, 1902: 373; Kraepelin, 1913: 124; Lampe, 1918: 190.

Androctonus crassicauda: Kraepelin, 1891: 175 (in part); Vachon, 1951: 343; Khalaf, 1962: 1; Khalaf, 1963: 60; Habibi, 1971: 42; Farzanpay &

Pretzmann, 1974: 215; Pérez Minoccii, 1974: 17; Vachon, 1974: 909, fig. 40; Vachon, 1979: 31, figs. 1, 2, 4; Farzanpay, 1987: 141; Farzanpay, 1988: 36; Fet, 1989: 78; Sissom, 1994: 36; Al-Safadi, 1992: 96; Amr & El-Oran, 1994: 187; Dupré et al., 1998: 59; Kovařík, 1998: 104; Crucitti, 1999: 83; Kabakibi et al., 1999: 80, fig. 3; Fet & Lowe, 2000: 72; Stathi & Mylonas, 2001: 288; Kovařík, 2002: 5; Crucitti & Vignoli, 2002: 439; Vignoli et al., 2003: 2; Fet & Kovařík, 2003: 180; Kovařík & Whitman, 2005: 105; Lourenço, 2005: 149; Hendrixson, 2006: 38, figs. 1a–f, Pl. 1; Akbari, 2007: 76, fig. p. 62; Navidpour et al., 2008a: 5, figs. 5, 12, 44–45; Navidpour et al., 2008b: 3, figs. 4, 20, 25–28; Navidpour et al., 2008c: 3, figs. 2, 3, 8, 13–16; Navidpour et al., 2008d: 3, figs. 4, 9, 15–18; Pirali-Kheirabadi et al., 2009: 3, figs. 3–4, 12–15; Navidpour et al., 2010: 3, fig. 4.

Prionurus crassicauda: Pocock, 1895: 292; Tullgren, 1909: 2; Birula, 1904: 29; Birula, 1905: 120; Masi, 1912: 91; Penther, 1912: 110.

Androctonus crassicauda crassicauda: Vachon, 1959: 124; Vachon, 1966: 210; Habibi, 1971: 42; Vachon, 1979: 34; Levy & Amitai, 1980: 23–29, figs. 30–34; Kovařík, 1997a: 49.

= *Prionurus crassicauda orientalis* Birula, 1900a: 355; Birula, 1903: 67 (syn. by Fet, 1989: 79).

Buthus (Prionurus) crassicauda orientalis: Birula, 1917: 93, 240.

Buthus crassicauda orientalis: Kraepelin, 1913: 124.

Androctonus crassicauda orientalis: Vachon, 1959: 124; Vachon, 1966: 210; Habibi, 1971: 42; Pérez Minoccii, 1974: 18.

Androctonus amoreuxi baluchicus: Kovařík, 1997a: 39 (see Vignoli et al., 2003: 4).

TYPE LOCALITY AND TYPE REPOSITORY. Kashan, Persia, now Iran, Esfahan Province; MNHN.

KERMAN PROVINCE MATERIAL EXAMINED [12 localities].

Iran, Kerman Province, 5 km NW of Fahrej, 28°59'N 58°50'E (28.9833, 58.8333), 6.V1997, 1♂ (FKCP), leg. M. Kaftan; Ghaleh Ganj, Tarik Mah (Dark Moon) vil., 27°38'14"N 57°56'12"E (27.6372, 57.9367), 417 m a.s.l. (Locality No. KE-14), V.2009, 1♀ (RRLS), leg. Koohpaye, Jamalizadeh and Ebrahimi; Kerman, Jupar road, 30°07'25"N 57°11'26"E (30.1236, 57.1906), 1819 m a.s.l. (Locality No. KE-29), V.2009, 3♀ (RRLS), 1♀im. (FKCP), leg. Koohpaye, Jamalizadeh and Ebrahimi; Zarand, 30°47'42"N 56°35'19"E (30.7950, 56.5886), 1678 m a.s.l. (Locality No. KE-36), V.2009, 1♂2♀ (RRLS), 1♂ (FKCP), leg. Koohpaye, Jamalizadeh and Ebrahimi; Rafsanjan road, Sarcheshmeh (Gode Ahmar), 30°02'53"N 55°53'54"E (30.0481, 55.8983), 2316 m a.s.l. (Locality No. KE-41), V.2009, 1♀ (RRLS), leg. Koohpaye, Jamalizadeh and Ebrahimi;



Figures 2–3: Iran, Kerman Province. 2 (top). Ghaleh ganj, Bolbol Abad vil., 27°38'38"N 57°56'22"E, 419 m a.s.l. (Locality No. KE-15). Recorded occurrence of *Mesobuthus eupeus persicus* (Pocock, 1899) and *Sassanidotus gracilis* (Birula, 1900). **3 (bottom).** Jamalizadeh and Ebrahimi; Badr abad, Narmashir, 28°54'36"N 58°42'14"E, 775 m a.s.l. (Locality No. KE-26). Recorded occurrence of *Mesobuthus macmahoni* (Pocock, 1900).

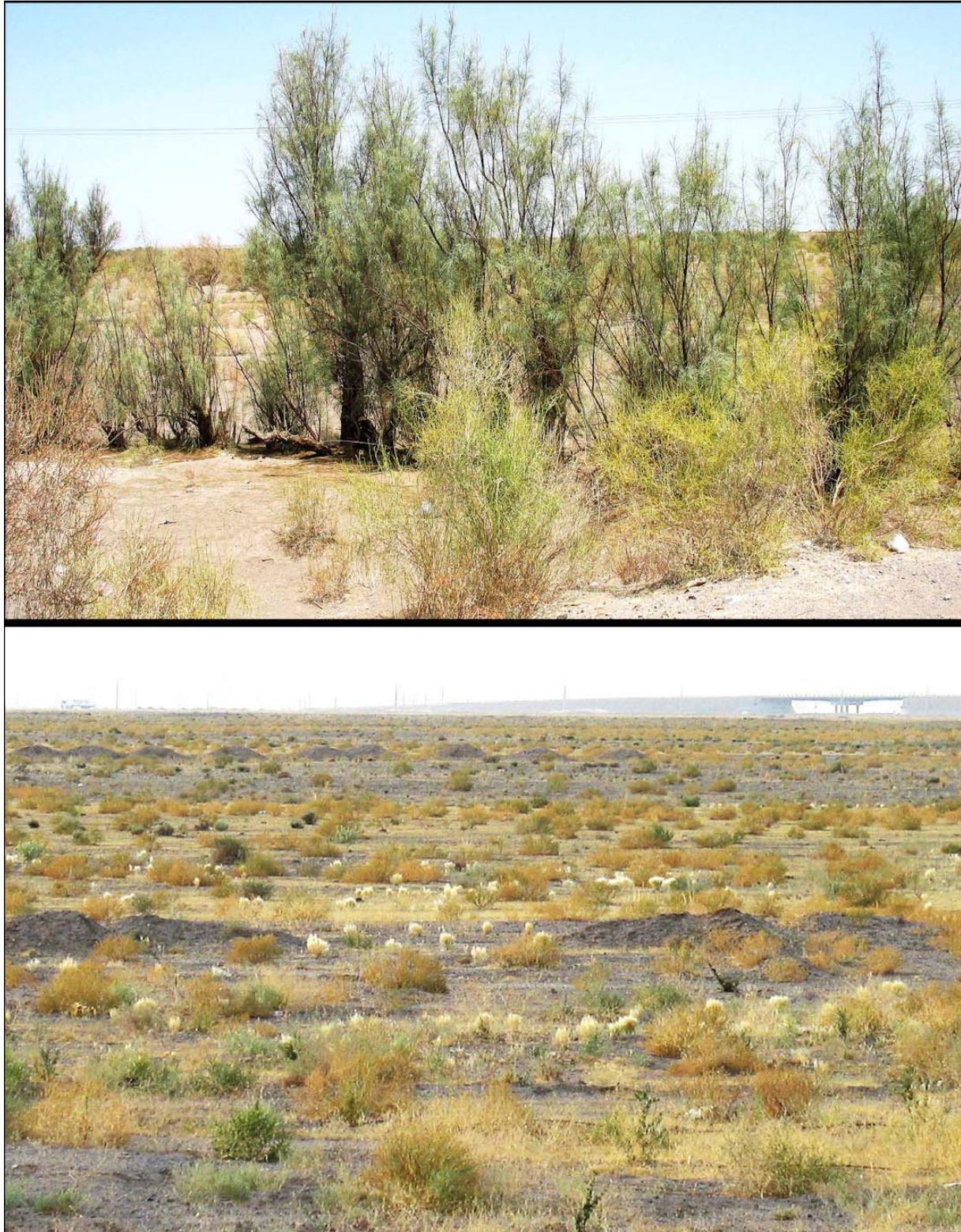


Figure 4–5: Iran, Kerman Province. 4 (top). Rafsanjan road, Zarand, $30^{\circ}32'22''N$ $56^{\circ}04'42''E$, 1547 m a.s.l. (Locality No. KE-46). Recorded occurrence of *Androctonus crassicauda* (Olivier, 1807), *Compsobuthus kaftani* Kovařík, 2003, *Mesobuthus macmahoni* (Pocock, 1900), and *Polisius persicus* Fet, Capes & Sissom, 2001. 5 (bottom). Jamalizadeh and Ebrahimi; Sirjan-Kerman road, $29^{\circ}28'55''N$ $55^{\circ}42'13''E$, 1790 m a.s.l. (Locality No. KE-60). Recorded occurrence of *Odontobuthus doriae* (Thorell, 1876).

Rafsanjan road, Zarand, 30°32'22"N 56°04'42"E (30.5394, 56.0783), 1547 m a.s.l. (Locality No. KE-46), V.2009, 1♂ (RRLS), leg. Koohpaye, Jamalizadeh and Ebrahimi; Shahre Babak, Marza, 30°01'43"N 55°05'41"E (30.0286, 55.0947), 1789 m a.s.l. (Locality No. KE-54), V.2009, 1♂ (RRLS), leg. Koohpaye, Jamalizadeh and Ebrahimi; Sirjan-Kerman road, 29°30'41"N 55°43'20"E (29.5114, 55.7222), 1814 m a.s.l. (Locality No. KE-62), V.2009, 1♂ (RRLS), leg. Koohpaye, Jamalizadeh and Ebrahimi; Jupar-Mahan road, Esmaael Abad vil., 30°04'48"N 56°05'58"E (30.0800, 56.1156), 1835 m a.s.l. (Locality No. KE-107), V.2009, 1♂ (RRLS), leg. Koohpaye, Jamalizadeh and Ebrahimi; Mahan, Shahzadeh garden, 30°01'32"N 57°16'07"E (30.0256, 57.2686), 2016 m a.s.l. (Locality No. KE-113), V.2009, 1♂ (RRLS), leg. Koohpaye, Jamalizadeh and Ebrahimi; Mahan-Kerman road, 30°09'21"N 57°09'58"E (30.1558, 57.1661), 1801 m a.s.l. (Locality No. KE-114), V.2009, 1♂1♀ (RRLS), leg. Koohpaye, Jamalizadeh and Ebrahimi; Kerman-Bagheyn road, 30°14'04"N 56°55'18"E (30.2344, 56.9217), 1758 m a.s.l. (Locality No. KE-131), V.2009, 1♀ (RRLS), leg. Koohpaye, Jamalizadeh and Ebrahimi.

DISTRIBUTION: Widespread in Iran, found in most provinces. Recorded also from Armenia (Kraepelin, 1899: 17), Azerbaijan (Fet, 1989: 79), Bahrain (Crucitti & Vignoli, 2002: 439), Egypt (Fet & Lowe, 2000: 72), Iraq (Kennedy, 1937: 745), Israel (Simon, 1872: 247; Levy & Amitai, 1980), Jordan (Amr & El-Oran, 1994: 187), Kuwait (Kettel, 1982: 6), Lebanon (El-Hennawy, 1992: 100), Oman (Birula, 1917: 229; Hendrixson, 2006: 39), Qatar (El-Hennawy, 1992: 100), Saudi Arabia (Pocock, 1895: 292; Hendrixson, 2006: 39), Syria (Birula, 1900b: 9), Tunisia (Kraepelin, 1901: 266), Turkey (Pocock, 1902: 373), United Arab Emirates (Hendrixson, 2006: 40), Yemen (Birula, 1937: 101).

***Compsobuthus kaftani* Kovařík, 2003**
(Figs. 4, 11, 25–28)

Compsobuthus kaftani Kovařík, 2003: 95, fig. 1; Vignoli et al., 2003: 2; Vignoli, 2005: 85; Vignoli & Crucitti, 2005: 5, fig. 2b; Kovařík & Ahmed, 2007: 5.

TYPE LOCALITY AND TYPE REPOSITORY. Iran, Esfahan Province, Jafar abad SEE of Kashan, 33°55'N 51°53'E; FKCP.

TYPE MATERIAL EXAMINED. Iran, Esfahan Province, Jafar Abad SEE of Kashan, 33°55'N 51°53'E, ca 800 m a.s.l., 26-27.IV.1996, (locality No. 2 see Frynta et al., 1997), 1♂ (holotype) 1♀im. (paratype No. 1) (FKCP), leg. V. Šejna; 5 km N of Natanz, 6. IV.2000, 33°32'N, 51°52'E, alt. 1903 m a.s.l., 1♀ (allotype) (FKCP), leg. M. Kaftan; Teppe-Sialk (Esfahan), 33°58'N 51°24'E, 1000

(-) m a.s.l., 2.V.1997, 1♂1♀ (paratypes Nos. 2 and 3) (FKCP), leg. M. Kaftan; Emam Sadeh, 5.IV.2000, 2♀ims. (paratypes Nos. 4 and 5) (FKCP), leg. Jan Šobotník; Dodehak, 24. IV.2000, 34°07'N 50°37'E, alt. 1420 m a.s.l., 1♀im. (paratype No. 6) (FKCP), 1♀im. (paratype No. 7) (CASC), leg. M. Kaftan.

KERMAN PROVINCE MATERIAL EXAMINED [13 localities].

Iran, Kerman Province, Bam, Fahraj, 28°56'45"N 58°53'55"E (28.9458, 58.8999), 658 m a.s.l. (Locality No. KE-22), IV.2009, 2♂4♀2juvs. (RRLS), leg. Koohpaye, Jamalizadeh and Ebrahimi; Bam-Fahraj road, 28°56'05"N 58°52'48"E (28.9347, 58.8800), 688 m a.s.l. (Locality No. KE-23), IV.2009, 6♂10♀ (RRLS), leg. Koohpaye, Jamalizadeh and Ebrahimi; Bam, Sar Telo, Khajeh Askar Vill., 29°10'01"N 58°16'27"E (29.1670, 58.2742), 1155 m a.s.l.. (Locality No. KE-27), V.2009, 3♂3♀ (RRLS), leg. Koohpaye, Jamalizadeh and Ebrahimi; Kerman, Jupar road, 30°07'25"N 57°11'26"E (30.1236, 57.1906), 1819 m a.s.l. (Locality No. KE-29), V.2009, 1♂ (RRLS), 3♂ (FKCP), leg. Koohpaye, Jamalizadeh and Ebrahimi; Zarand, 30°47'42"N 56°35'19"E (30.9856, 56.5889), 1678 m a.s.l. (Locality No. KE-36), V.2009, 1♂2♀ (RRLS), leg. Koohpaye, Jamalizadeh and Ebrahimi; Zarand-Kerman road, 30°48'38"N 56°55'30"E (30.8106, 56.9250), 1688 m a.s.l. (Locality No. KE-37), V.2009, 1♂2♀ (RRLS), 1♂ (FKCP), leg. Koohpaye, Jamalizadeh and Ebrahimi; Rafsanjan road, Zarand, 30°32'22"N 56°04'42"E (30.5394, 56.0783), 1547 m a.s.l. (Locality No. KE-46), V.2009, 2♂2♀ (RRLS), 1♂ (FKCP), leg. Koohpaye, Jamalizadeh and Ebrahimi; Shahre Babak, Marza, 30°01'43"N 55°05'41"E (30.0286, 55.0947), 1789 m a.s.l. (Locality No. KE-54), V.2009, 2♂1♀ (RRLS), 1♀ (FKCP), leg. Koohpaye, Jamalizadeh and Ebrahimi; Shahre Babak, Estabragh, 30°28'12"N 55°05'36"E (30.4700, 55.0933), 1768 m a.s.l. (Locality No. KE-56), V.2009, 1♀ (RRLS), 1juv. (FKCP), leg. Koohpaye, Jamalizadeh and Ebrahimi; Shahre Babak-Herat road, 30°05'50"N 54°51'30"E (30.0972, 54.8583), 1700 m a.s.l. (Locality No. KE-59), V.2009, 1♂ (RRLS), leg. Koohpaye, Jamalizadeh and Ebrahimi; Jupar-Mahan road, Esmaael Abad vil., 30°04'48"N 56°05'58"E (30.0806, 56.0994), 1835 m a.s.l. (Locality No. KE-107), V.2009, 1♂ (RRLS), 1♂ (FKCP), leg. Koohpaye, Jamalizadeh and Ebrahimi; Jupar-Kerman road, 30°11'56"N 57°03'18"E (30.1989, 57.0550), 1778 m a.s.l. (Locality No. KE-109), VI.2009, 1♂3♀ (RRLS), 1♂ (FKCP), leg. Koohpaye, Jamalizadeh and Ebrahimi; Jupar-Kerman road, 30°10'48"N 57°03'02"E (30.1533, 57.0506), 1788 m a.s.l. (Locality No. KE-110), VI.2009, 1♂ (RRLS), leg. Koohpaye, Jamalizadeh and Ebrahimi.

DISTRIBUTION: Iran, Esfahan Province (Kovařík, 2003: 95), Yazd Province (Vignoli & Crucitti, 2005: 5) and Kerman (first report).



Figure 6–7: Iran, Kerman Province. 6 (top). Ravar-Mashhad road, $31^{\circ}21'44''N$ $56^{\circ}50'08''E$, 1100 m a.s.l. (Locality No. KE-84). Recorded occurrence of *Kraepelinia palpator* (Birula, 1903), *Mesobuthus eupeus persicus* (Pocock, 1899), and *Mesobuthus macmahoni* (Pocock, 1900). 7 (bottom). Baft, Rabar, Nanuk vil., $29^{\circ}19'51''N$ $56^{\circ}50'21''E$, 2873 m a.s.l. (Locality No. KE-91). Recorded occurrence of *Hemiscorpius lepturus* Peters, 1861.



Figures 8–9: Iran, Kerman Province. **8 (top).** Jamalizadeh and Ebrahimi; Jupar-Mahan road, 30°04'04"N 57°12'28"E, 1885 m a.s.l. (Locality No. KE-112). Recorded occurrence of *Odontobuthus doriae* (Thorell, 1876) and *Sassanidotus gracilis* (Birula, 1900). **9 (bottom).** Jupar-Kerman road, 30°07'25"N 57°11'26"E, 1819 m a.s.l. (Locality No. KE-134). Recorded occurrence of *Kraepelinia palpator* (Birula, 1903).

Compsobuthus matthiesseni (Birula, 1905)
(Fig. 11, 29–32)

Buthus acutecarinatus matthiesseni Birula, 1905: 142;
Birula, 1937: 107.

Buthus (Buthus) acutecarinatus matthiesseni: Birula,
1917: 229, 240; Birula, 1918: 25.

Buthus (Hottentotta) acutecarinatus matthiesseni:
Vachon, 1940: 173.

Compsobuthus matthiesseni: Pringle, 1960: 77, fig. 3;
Habibi, 1971: 43; Levy et al., 1973: 114; Levy &
Amitai, 1980: 60; Farzanpay, 1987: 149; Farzanpay,
1988: 37; Kovařík, 1992: 183; Kovařík, 1996: 53;
Kovařík, 1997a: 40, 49; Kovařík, 1997b: 179;
Kovařík, 1998: 109; Sissom & Fet, 1998: 1, figs. 1–
12; Crucitti, 1999: 84; Fet & Lowe, 2000: 127;
Lourenço & Vachon, 2001: 180; Kovařík, 2002: 7;
Crucitti & Vignoli, 2002: 441, figs. 6–7; Kovařík,
2003: 97; Vignoli et al., 2003: 2; Vignoli, 2005: 85;
Akbari, 2007: 76, fig. p. 64; Kovařík & Ahmed,
2007: 6; Navidpour et al., 2008a: 9, figs. 3–4, 17,
60–63; Navidpour et al., 2008b: 9, figs. 19, 45–48;
Navidpour et al., 2008c: 8, figs. 2, 4–6, 33–36;
Navidpour et al., 2008d: 3, figs. 3, 4, 7, 9, 31–34;
Pirali-Kheirabadi et al., 2009: 3, figs. 4, 6, 28–31;
Navidpour et al., 2010: 3, fig. 4.

Compsobuthus acutecarinatus matthiesseni: Vachon &
Kinzelbach, 1987: 101; El-Hennawy, 1992: 123.

TYPE LOCALITY AND TYPE REPOSITORY. Iran, “Kum,
Province Irak-Adschemi” now Qum (Qom); ZISP.

KERMAN PROVINCE MATERIAL EXAMINED [2 localities].
Iran, Kerman Province, Deh Bakri, 7.IV.2000, 29°
05.370'N 57°55.539'E (29.0895, 57.9257), alt. 1957 m
a.s.l., 1♀ (FKCP), leg. M. Kaftan; Baft, Rabar, Eshgh
Abad vil., 29°21'04"N 56°49'05"E (29.3511, 56.8181),
2873 m a.s.l. (Locality No. KE-93), VI.2009, 2♂1♀
(RRLS), leg. Koohpaye, Jamalizadeh and Ebrahimi.

DISTRIBUTION: Iran, known from provinces Kermanshah
(formerly Bahtaran), Bushehr, Fars, Hamadan, Ilam,
Khoozestan, Kerman, Kordestan, Lorestan, Markazi,
Qom (Sissom & Fet, 1998; Kovařík, 2003: 100; Akbari,
2007: 76), Kohgilouyeh & Boyer Ahmad (Navidpour et
al., 2008d: 3), and Chahar Machal & Bakhtiari Prov-
ince (Pirali-Kheirabadi et al., 2009: 5); Iraq (Birula,
1917: 240; Pringle, 1960: 77), Syria (Kovařík, 2002: 7),
Turkey (Kovařík, 1996: 53).

Kraepelinia palpator (Birula, 1903)
(Figs. 6, 9, 10, 33–36)

Buthus palpator Birula, 1903: 72.

Buthacus palpator: Vachon, 1966: 210; Habibi, 1971:
43.

Kraepelinia palpator: Vachon, 1974: 950–951, figs.
235–239; Fet, 1984: 37–42, fig. 1; Fet, 1989: 82–83;
Farzanpay, 1988: 38; Fet, 1994: 531; Kovařík, 1997a:
49; Kovařík, 1998: 112; Fet & Lowe, 2000: 154; Vignoli
et al., 2003: 3.

TYPE LOCALITY AND TYPE REPOSITORY. Persia, now
Iran, Kerman Province, between Sia-Kuhi (Godar-i-Sia-
Kuhi) Pass and Bid (Kale-i-Bid) Springs, ca. 30 km
NNW Ladiz “Ssarghad” (now Serhed); ZISP.

KERMAN PROVINCE MATERIAL EXAMINED [7 localities].
Iran, Kerman Province, Kerman Province, Jupar road,
30°07'25"N 57°11'26"E (30.1236, 57.1906), 1819 m
a.s.l. (Locality No. KE-29), V.2009, 3♂1♀ (RRLS), 1♂
(FKCP), leg. Koohpaye, Jamalizadeh and Ebrahimi;
Shahdad, Dehghan Abad vil., 30°27'20"N 57°49'01"E
(30.4556, 57.8169), 334 m a.s.l. (Locality No. KE-63),
V.2009, 1♂2♀ (RRLS), leg. Koohpaye, Jamalizadeh and
Ebrahimi; Ravar-Mashhad road, 31°21'44"N 56°50'08"E
(31.3622, 56.8356), 1100 m a.s.l.(Locality No. KE-84),
V.2009, 1♂ (RRLS), leg. Koohpaye, Jamalizadeh and
Ebrahimi; Ravar-Mashhad road, Yusef Abad vil.,
31°20'51"N 56°48'21"E (31.3475, 56.8058), 1139 m
a.s.l. (Locality No. KE-90), V.2009, 1juv. (RRLS), leg.
Koohpaye, Jamalizadeh and Ebrahimi; Jupar-Kerman
road, 30°11'56"N 57°03'18"E (30.1989, 57.0550), 1778
m a.s.l. (Locality No. KE-109), VI.2009, 1♂ (RRLS),
leg. Koohpaye, Jamalizadeh and Ebrahimi; Jupar-
Kerman road, 30°10'48"N 57°03'02"E (30.1800,
57.0506), 1788 m a.s.l. (Locality No. KE-110), VI.2009,
1♀ (FKCP), leg. Koohpaye, Jamalizadeh and Ebrahimi;
Jupar-Kerman road, 30°07'25"N 57°11'26"E (30.1236,
57.1833), 1819 m a.s.l. (Locality No. KE-134), VI.2009,
1♂2♀ (RRLS), leg. Koohpaye, Jamalizadeh and
Ebrahimi.

DISTRIBUTION: Iran, Kerman Province (Birula, 1903:
72); Turkmenistan (Fet, 1984: 37).

Mesobuthus eupeus persicus (Pocock, 1899)
(Figs. 2, 6, 12, 41–44)

Buthus caucasicus persicus Pocock, 1899: 404; Pocock,
1900: 19.

Buthus eupeus persicus: Birula, 1905: 119, 122, 124–
126; Birula, 1918: 10–13, figs. 1–2, 6.

Mesobuthus eupeus persicus: Vachon, 1959: 155, fig.
37; Vachon, 1966: 212; Habibi, 1971: 44;
Farzanpay, 1988: 38; Fet, 1994: 527; Kovařík,
1997a: 49; Kovařík, 1998: 114; Fet & Lowe, 2000:
174.

Mesobuthus caucasicus persicus: Pérez Minoccí, 1974:
25; Capes & Fet, 2001: 303.

= ? *Buthus eupeus kirmanensis* Birula, 1900a: 364 (see
Fet & Lowe, 2000: 173).

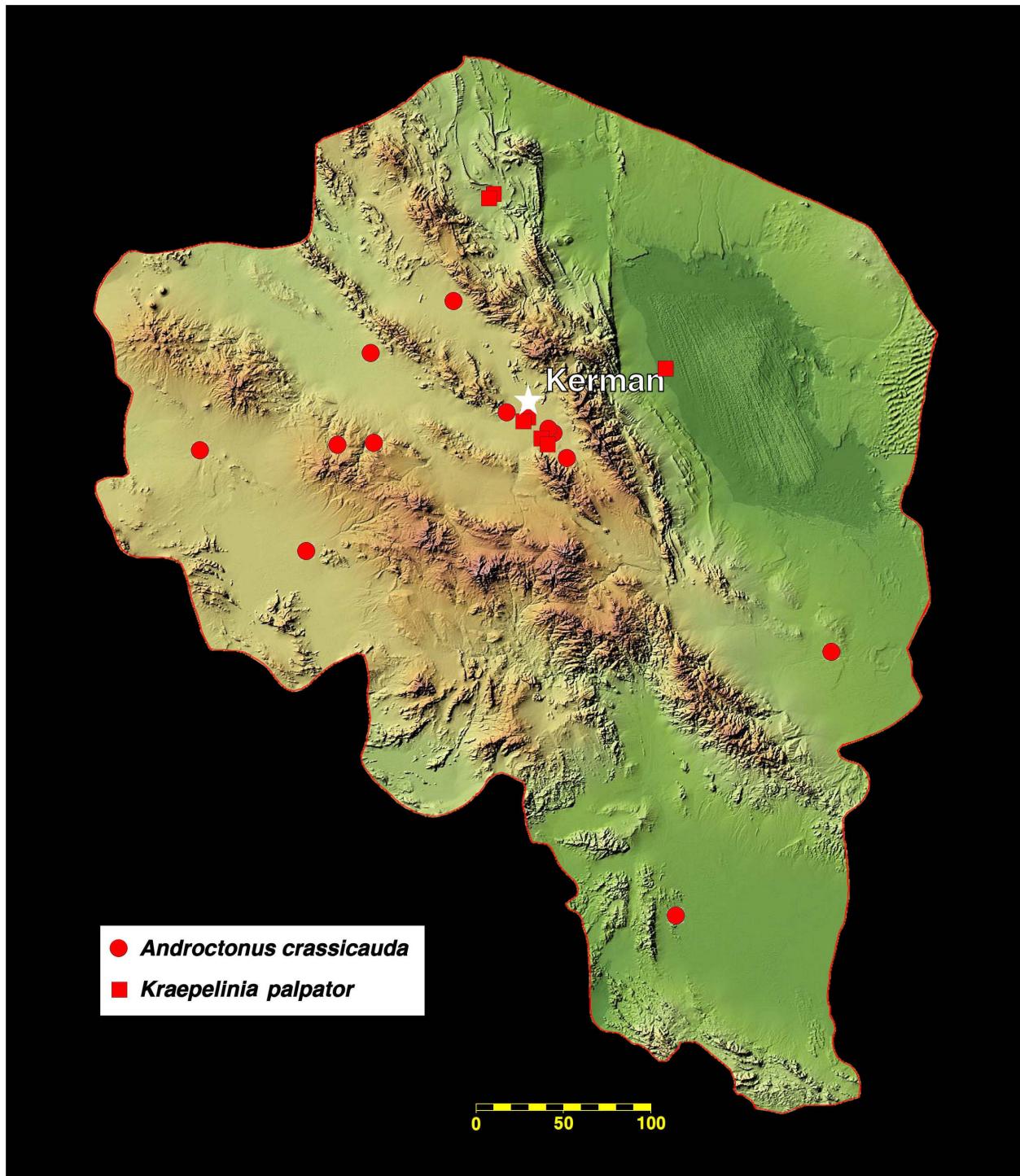


Figure 10: Map of Kerman Province showing distribution of *Androctonus crassicauda* (Olivier, 1807), and *Kraepelinia palpator* (Birula, 1903) collected in this study.

Buthus (Buthus) eupeus kirmanensis: Birula, 1917: 239; 1988: 38; Fet, 1994: 527; Kovařík, 1997a: 49; Birula, 1918: 14. Kovařík, 1998: 114; Fet & Lowe, 2000: 173.

Mesobuthus eupeus kirmanensis: Vachon, 1959: 155; = ? *Buthus pachysoma* Birula, 1900a: 370, **syn.n.(?)**. Vachon, 1966: 212; Habibi, 1971: 43; Farzanpay, *Buthus eupeus pachysoma*: Birula, 1905: 128.

Buthus (Buthus) eupeus pachysoma: Birula, 1917: 239.
Mesobuthus eupeus pachysoma: Vachon, 1959: 155;
 Vachon, 1966: 212; Habibi, 1971: 43; Farzanpay, 1988: 38; Fet, 1994: 527; Kovářík, 1997a: 49; Kovářík, 1998: 114; Fet & Lowe, 2000: 174.

TYPE LOCALITY AND TYPE REPOSITORY. Persia, now Iran, East Azarbaijan, Seir, E side of Lake Urmia (Urmi); BMNH.

TYPE MATERIAL EXAMINED. Iran, East Azarbaijan Province, Seir, Lake Urmi, 1♀ lectotype hereby designated (see Figs. 43–44) (BMNH No. 1900.1.15).

KERMAN PROVINCE MATERIAL EXAMINED [19 localities]. Iran, Kerman Province, Deh Bakri, 7.IV.2000, 29°05'370"N 57°55'539"E (29.0895, 57.9257), 1957 m a.s.l., 1♀A, leg. M. Kaftan; 45 km NNE Sabzvárán (Jiroft), 28°58'N 57°54'E (28.9667, 57.9000), 2231 m a.s.l., 2♀2juvs. (FKCP), 19.VII.2004, leg. P. Kabátek; Jiroft, Tavakol Abad vil., 28°26'25"N 56°49'37"E (28.4403, 56.8269), 580 m a.s.l. (Locality No. KE-07), IV.2009, 8♂3♀ (RRLS), 1♂1♀ (FKCP), leg. Koohpaye, Jamalizadeh and Ebrahimi; Jiroft, Rumrez vil., 28°30'03"N 57°47'01"E (28.5008, 57.7836), 577 m a.s.l. (Locality No. KE-09), IV.2009, 21♂18♀ (RRLS), 1♂1♀ (FKCP), leg. Koohpaye, Jamalizadeh and Ebrahimi; Jiroft, Khadang vil., 28°31'01"N 57°47'49"E (28.5169, 57.7969), 590 m a.s.l. (Locality No. KE-10), IV.2009, 5♀ (RRLS), leg. Koohpaye, Jamalizadeh and Ebrahimi; Jiroft, Poshtelor vil., 28°36'41"N 57°45'40"E (28.6114, 57.7611), 640 m a.s.l. (Locality No. KE-11), IV.2009, 1♂6♀ (RRLS), leg. Koohpaye, Jamalizadeh and Ebrahimi; Ghaleh ganj, Bolbol Abad vil., 27°38'38"N 57°56'22"E (27.6439, 57.9394), 419 m a.s.l. (Locality No. KE-15), IV.2009, 3♂5♀ (RRLS), 1♂1♀ (FKCP), leg. Koohpaye, Jamalizadeh and Ebrahimi; Rafsanjan road, Sarcheshmeh (Gode Ahmar), 30°02'53"N 55°53'54"E (30.0481, 55.8983), 2316 m a.s.l. (Locality No. KE-41), V.2009, 10♂15♀ (RRLS), 1♂2♀1juv. (FKCP), leg. Koohpaye, Jamalizadeh and Ebrahimi; Shahre Babak, Marza, 30°01'43"N 55°05'41"E (30.0286, 55.0947), 1789 m a.s.l. (Locality No. KE-54), V.2009, 2♂1♀ (RRLS), 1♀ (FKCP), leg. Koohpaye, Jamalizadeh and Ebrahimi; Sirjan-Baft road, 29°24'01"N 55°58'42"E (29.4003, 55.9783), 1905 m a.s.l. (Locality No. KE-73), V.2009, 2♂ (RRLS), leg. Koohpaye, Jamalizadeh and Ebrahimi; Baft-Kerman road, 29°14'31"N 56°40'50"E (29.2419, 56.6806), 2398 m a.s.l. (Locality No. KE-75), V.2009, 2♂1♀ (RRLS), 1♂ (FKCP), leg. Koohpaye, Jamalizadeh and Ebrahimi; Baft, Nanook vil., 29°20'28"N 56°50'20"E (29.3411, 56.8389), 2748 m a.s.l. (Locality No. KE-77), V.2009, 4♂2♀ (RRLS), 2♂ (FKCP), leg. Koohpaye, Jamalizadeh and Ebrahimi; Baft, Nanook vil., Rabar, 29°20'45"N 56°50'19"E (29.3458, 56.8386), 2798 m a.s.l. (Locality No. KE-78),

V.2009, 5♂3♀ (RRLS), 1♂1♀ (FKCP), leg. Koohpaye, Jamalizadeh and Ebrahimi; Baft-Orzouyeh road, 29°06'56"N 56°36'52"E (29.1156, 56.6144), 2228 m a.s.l. (Locality No. KE-79), V.2009, 1♂3♀ (RRLS), 1♂1♀im. (FKCP), leg. Koohpaye, Jamalizadeh and Ebrahimi; Baft-Orzouyeh road, 29°08'19"N 56°36'55"E (29.1392, 56.6153), 2250 m a.s.l. (Locality No. KE-80), V.2009, 3♂2♀ (RRLS), 2♂ (FKCP), leg. Koohpaye, Jamalizadeh and Ebrahimi; Baft-Orzouyeh road, 29°09'21"N 56°37'14"E (29.1558, 56.6206), 2174 m a.s.l. (Locality No. KE-81), V.2009, 1♂1♀ (RRLS), 1♂1♀im. (FKCP), leg. Koohpaye, Jamalizadeh and Ebrahimi; Baft-Sirjan road, 29°15'23"N 56°29'12"E (29.2564, 56.4867), 2275 m a.s.l. (Locality No. KE-83), V.2009, 2♂ (RRLS), leg. Koohpaye, Jamalizadeh and Ebrahimi; Ravar-Mashhad road, 31°21'44"N 56°50'08"E (31.3622, 56.8356), 1100 m a.s.l. (Locality No. KE-84), V.2009, 1♂1♀ (RRLS), leg. Koohpaye, Jamalizadeh and Ebrahimi; 8 km N Bardsir, 29.95°N 56.58°E, 2050 m a.s.l., 6.VI.2010, 1♂im.1♀1juv. (FKCP), leg. W. Grosser.

DISCUSSION: *Buthus pachysoma* Birula, 1900 was based on a single female 49 mm long from Kerman Province (Bampur River, eastern Kerman, Persia, now Iran), which has not been revised and no author other than Birula has mentioned other specimens. It is interesting that Birula (1900: 370–373) compared this taxon with *Buthus rugiscutis* and *Buthus nigrolineatus*, which are today placed in the genus *Hottentotta*. Subsequently Birula (1905: 128) called this taxon *Buthus eupeus pachysoma* and listed other specimens, primarily from Baluchistan. Unfortunately, neither these specimens could be revised. Birula (1905: 129) compared *Buthus eupeus pachysoma* also with *Buthus atrostriatus*, whose types one of authors (FK) have examined. They resemble species of the genus *Mesobuthus*, in which *Buthus atrostriatus* has been so far placed, but have central median and posterior median carinae of carapace joined to form a continuous linear series of granules reaching posterior margin, which indicates assignment to the genus *Compsobuthus*. We therefore conclude that *Buthus atrostriatus* Pocock, 1897 = *Compsobuthus atrostriatus* (Pocock, 1897), comb. n. It should be noted that Birula (1905: 128) also distinguished *Buthus eupeus pachysoma* from *Buthus eupeus eupeus* from Caucasus primarily by different carinae on the carapace. Consequently, until the type of *Buthus pachysoma* Birula, 1900 can be revised we will not know whether it is *Mesobuthus*, *Hottentotta*, *Compsobuthus* or *Sassanidotus*. Since we have been able to examine large numbers of specimens from different localities in the province and to become familiar with the species composition in the region, we currently believe that *Buthus pachysoma* is most likely a synonym of *Mesobuthus eupeus persicus* (Pocock, 1899); however, we also have to admit to the possibility of synonymy.

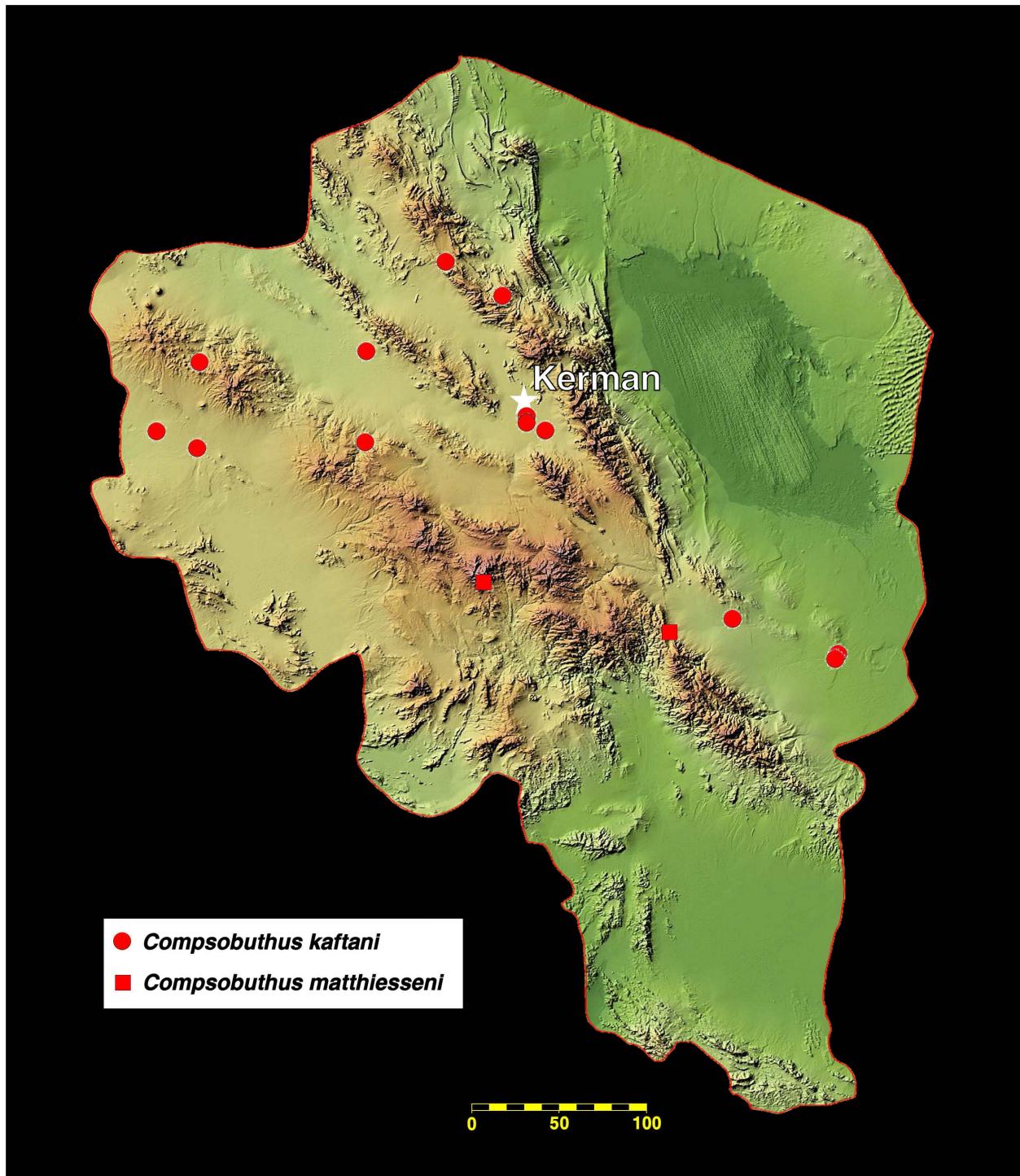


Figure 11: Map of Kerman Province showing distribution of *Compsobuthus kaftani* Kovařík, 2003 and *Compsobuthus matthiesseni* (Birula, 1905) collected in this study.

zation with *Mesobuthus macmahoni* (Pocock, 1900) or *Sassanidotus gracilis* (Birula, 1900).

It is reasonable to assume that *Mesobuthus eupeus persicus* (Pocock, 1899) is widely distributed primarily over the central and southeastern provinces of Iran. Be-

cause of the difficulties with taxa placed in the “*Mesobuthus eupeus*” complex and our so far incomplete efforts to determine their distributional limits, in our “Scorpions of Iran” series we list only those occurrences whose taxonomic position can be clarified. It

should be noted that the type locality of *Mesobuthus eupeus persicus* is near the northwestern limit of its distribution, which might have contributed to previous assignments of the Kerman population to other taxa within the “*Mesobuthus eupeus*” complex.

DISTRIBUTION: Iran, East Azarbaijan Province (Pocock, 1899: 404), Kerman and Sistan & Baluchistan Provinces (Birula, 1900a: 364; Fet & Lowe, 2000: 173); Pakistan (Pocock, 1900: 20).

***Mesobuthus macmahoni* (Pocock, 1900)**

(Figs. 3, 4, 6, 12, 37–40)

Buthus macmahoni Pocock, 1900: 18; Kraepelin, 1913: 125; Weidner, 1959: 99.

Buthus (Buthus) macmahoni: Birula, 1917: 214.

Buthus (Buthus) zarudnyi macmahoni: Birula, 1917: 240.

Mesobuthus macmahoni: Vachon, 1950: 153 (1952: 325); Vachon, 1959: 146, figs. 30–31; Habibi, 1971: 44; Fet & Lowe, 2000: 177; Capes & Fet, 2001: 303.

Mesobuthus eupeus macmahoni: Farzanpay, 1986: 334; Kovařík, 1998: 114.

TYPE LOCALITY AND TYPE REPOSITORY. Northern Baluchistan, now Pakistan; BMNH.

TYPE MATERIAL EXAMINED. Pakistan, Baluchistan, Mekran, Ormara, 1♀ syntype (BMNH No. 1904.9.30.3., rev. Vachon, 1953).

KERMAN PROVINCE MATERIAL EXAMINED [14 localities].

Iran, Kerman Province, Bam, Badr abad, Abuzari vil., 28°54'05"N 58°41'05"E (28.9014, 58.6847), 785 m a.s.l. (Locality No. KE-25), IV.2009, 1♂15♀ (RRLS), 1♂ (FKCP), leg. Koohpaye, Jamalizadeh and Ebrahimi; Badr Abad, Narmashir, 28°54'36"N 58°42'14"E (28.9100, 58.7039), 775 m a.s.l. (Locality No. KE-26), IV.2009, 2♂1♀ (RRLS), leg. Koohpaye, Jamalizadeh and Ebrahimi; Bam, Sar Telo, Khajeh Askar Vill., 29°10'01"N 58°16'27"E (29.1669, 58.2742), 1155 m a.s.l. (Locality No. KE-27), V.2009, 3♂3♀ (RRLS), 3♀2 ims. (FKCP), leg. Koohpaye, Jamalizadeh and Ebrahimi; Zarand, 30°49'59"N 56°37'31"E (30.8331, 56.6167), 1775 m a.s.l. (Locality No. KE-30), V.2009, 2♂1♀ (RRLS), 1♂1♀ (FKCP), leg. Koohpaye, Jamalizadeh and Ebrahimi; Zarand, 30°50'18"N 56°36'53"E (30.8383, 56.6147), 1805 m a.s.l. (Locality No. KE-31), V.2009, 2♂ (RRLS), leg. Koohpaye, Jamalizadeh and Ebrahimi; Dehdasht, Pabdana, 30°57'24"N 56°32'23"E (30.9567, 56.5397), 1975 m a.s.l. (Locality No. KE-34), V.2009, 1♀ (RRLS), 1♀ (FKCP), leg. Koohpaye, Jamalizadeh and Ebrahimi; Zarand-Kerman road, 30°48'38"N 56°55'30"E (30.8106, 56.9250), 1688 m a.s.l. (Locality No. KE-37), V.2009, 3♂1♀ (RRLS), 1♂ (FKCP), leg.

Koohpaye, Jamalizadeh and Ebrahimi; Rafsanjan road, Zarand, 30°32'22"N 56°04'42"E (30.5394, 56.0783), 1547 m a.s.l. (Locality No. KE-46), V.2009, 3♂2♀ (RRLS), 1♂ (FKCP), leg. Koohpaye, Jamalizadeh and Ebrahimi; Baft-Sirjan road, 29°15'23"N 56°29'12"E (29.2564, 56.4867), 2275 m a.s.l. (Locality No. KE-83), V.2009, ♂ (RRLS), leg. Koohpaye, Jamalizadeh and Ebrahimi; Ravar-Mashhad road, 31°21'44"N 56°50'08"E (31.3622, 56.8356), 1100 m a.s.l. (Locality No. KE-84), V.2009, 1♂1♀ (RRLS), 1♀im. (FKCP), leg. Koohpaye, Jamalizadeh and Ebrahimi; Ravar-Mashhad road, 31°23'31"N 56°50'50"E (31.3919, 56.8472), 1070 m a.s.l. (Locality No. KE-87), V.2009, 1♂1♀ (RRLS), leg. Koohpaye, Jamalizadeh and Ebrahimi; Ravar-Mashhad road, Yusef abad vil., 31°20'51"N 56°48'21"E (31.3475, 56.8058), 1139 m a.s.l. (Locality No. KE-90), V.2009, 1♂1♀1juv. (RRLS), leg. Koohpaye, Jamalizadeh and Ebrahimi; Shahdad, 30°29'06"N 57°48'28"E (30.4850, 57.8078), 331 m a.s.l. (Locality No. KE-116), V.2009, 3♀ (RRLS), 1♀ (FKCP), leg. Koohpaye, Jamalizadeh and Ebrahimi; Shahdad, 30°27'54"N 57°48'47"E (30.4650, 57.8131), 338 m a.s.l. (Locality No. KE-117), V.2009, 1♀ (RRLS), leg. Koohpaye, Jamalizadeh and Ebrahimi.

DISTRIBUTION: Iran, Sistan & Baluchistan Province (Vachon, 1959: 147; Habibi, 1971: 44), Kerman (first report); Afghanistan (Vachon, 1959: 146); Pakistan (Pocock, 1900: 20).

***Odontobuthus doriae* (Thorell, 1876)**

(Figs. 5, 8, 13, 21–24)

Buthus doriae Thorell, 1876: 107; Kraepelin, 1891: 57–58, pl. I, fig. 6, 10; Kraepelin, 1899: 27.

Odontobuthus doriae: Pringle, 1960: 83; Khalaf, 1963: 66; Vachon, 1966: 213; Habibi, 1971: 44; Pérez Minoccia, 1974: 28; Farzanpay, 1988: 39; Kovařík, 1997a: 47; Kovařík, 1998: 115; Fet & Lowe, 2000: 187; Kovařík, 2002: 9; Lourenço & Pézier, 2002: 116; Vignoli et al., 2003: 4; Pirali-Kheirabadi et al., 2009: 9, figs. 10, 24–27.

TYPE LOCALITY AND TYPE REPOSITORY. Iran, Teheran; MCSN.

KERMAN PROVINCE MATERIAL EXAMINED [18 localities].

Iran, Kerman Province, 2 km NW of Anár, 30°53'N 55°15'E (30.8833, 55.2500), 05.V.1997, 1440 m a.s.l., 1♀ (FKCP), leg. M. Kaftan; Jiroft, Khadang vil., 28°31'01"N 57°47'49"E (28.5169, 57.7969), 590 m a.s.l. (Locality No. KE-10), IV.2009, 1♂im.1♀ (RRLS), leg. Koohpaye, Jamalizadeh and Ebrahimi; Jupar-Kerman road, 30°07'25"N 57°11'26"E (30.1236, 57.1906), 1819 m a.s.l. (Locality No. KE-29 and KE-132), V.2009, 2♂1♂im. 2♀ and VI.2009, 1♂ (RRLS), leg. Koohpaye,

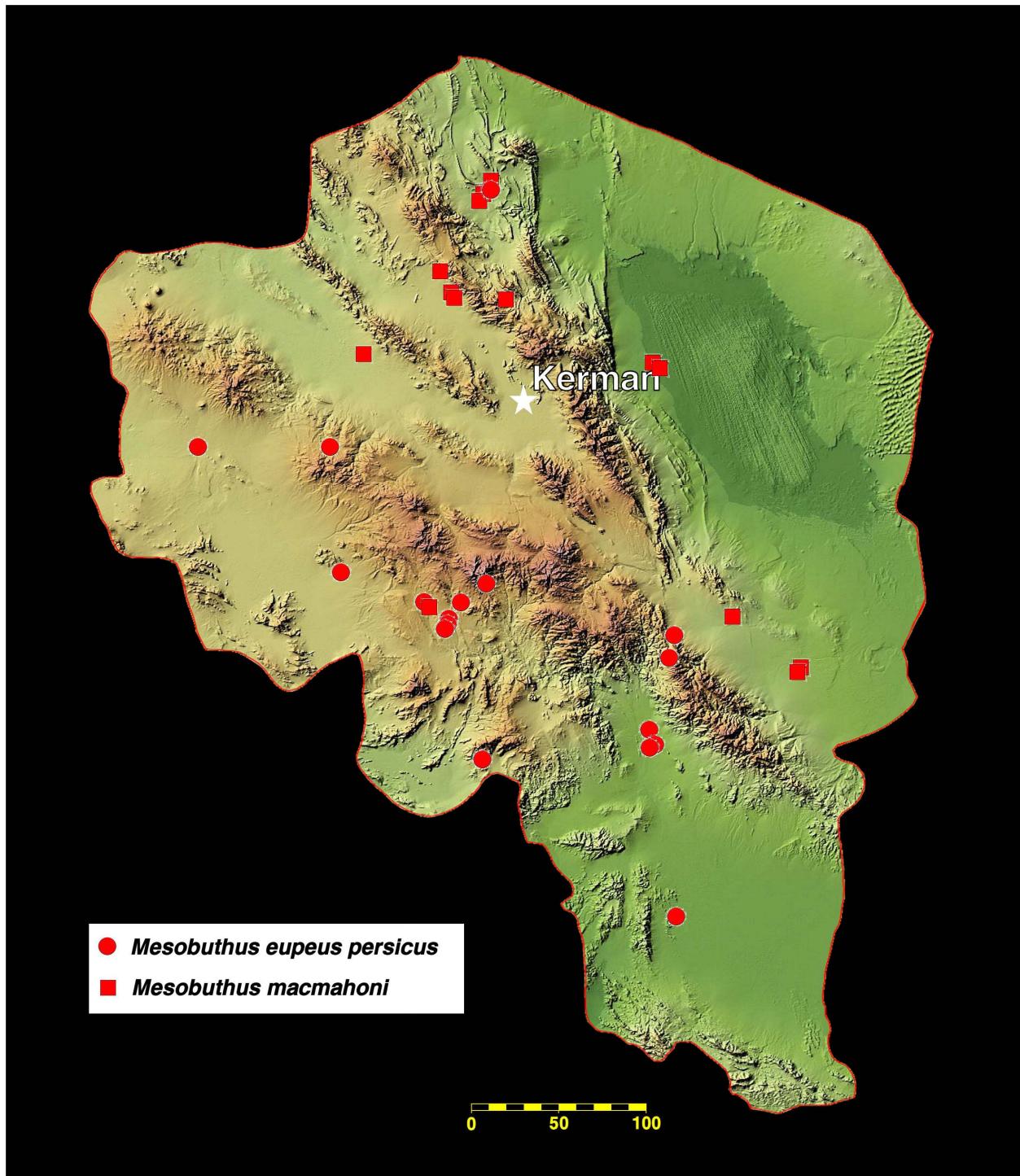


Figure 12: Map of Kerman Province showing distribution of *Mesobuthus eupeus persicus* (Pocock, 1899) and *Mesobuthus macmahoni* (Pocock, 1900) collected in this study.

Jamalizadeh and Ebrahimi; Zarand, 30°47'42"N 56°35'19"E (30.7950, 56.5886), 1678 m a.s.l. (Locality No. KE-36), V.2009, 1♀ (RRLS), leg. Koohpaye, Jamalizadeh and Ebrahimi; Shahre Babak, Marza, 30°01'43"N 55°05'41"E (30.0286, 55.0947), 1789 m a.s.l. (Locality No. KE-54), V.2009, 4♂3♀ (RRLS), 1♂ (FKCP), leg. Koohpaye, Jamalizadeh and

a.s.l. (Locality No. KE-47), V.2009, 5♂5♀ (RRLS), leg. Koohpaye, Jamalizadeh and Ebrahimi; Shahre Babak, Marza, 30°01'43"N 55°05'41"E (30.0286, 55.0947), 1789 m a.s.l. (Locality No. KE-54), V.2009, 4♂3♀ (RRLS), 1♂ (FKCP), leg. Koohpaye, Jamalizadeh and

Ebrahimi; Shahre Babak, Estabragh, 30°28'12"N 55°05'36"E (30.4633, 55.0933), 1768 m a.s.l. (Locality No. KE-56), V.2009, 4♂4♀ (RRLS), leg. Koohpaye, Jamalizadeh and Ebrahimi; Sirjan-Kerman road, 29°28'55"N 55°42'13"E (29.4819, 55.7036), 1790 m a.s.l. (Locality No. KE-60), V.2009, 2♂2♀ (RRLS), leg. Koohpaye, Jamalizadeh and Ebrahimi; Sirjan-Kerman road, 29°29'43"N 55°43'20"E (29.4953, 55.7222), 1813 m a.s.l. (Locality No. KE-61), V.2009, 2♂ (RRLS), leg. Koohpaye, Jamalizadeh and Ebrahimi; Sirjan - Bandar Abbas road, 29°18'13"N 55°42'15"E (29.3036, 55.7042), 1748 m a.s.l. (Locality No. KE-70), V.2009, 2♂ (RRLS), leg. Koohpaye, Jamalizadeh and Ebrahimi; Sirjan-Bandar Abbas road, 29°16'56"N 55°42'22"E (29.2822, 55.7061), 1714 m a.s.l. (Locality No. KE-71), V.2009, 2♂ (RRLS), leg. Koohpaye, Jamalizadeh and Ebrahimi; Sirjan-Baft road, 29°23'50"N 55°42'45"E (29.3972, 55.7125), 1847 m a.s.l. (Locality No. KE-72), V.2009, 2♂1♀ (RRLS), leg. Koohpaye, Jamalizadeh and Ebrahimi; Sirjan-Baft road, 29°24'01"N 55°58'42"E (29.4003, 55.9783), 1905m. (Locality No. KE-73), V.2009, 2♂7♀ (RRLS), leg. Koohpaye, Jamalizadeh and Ebrahimi; Baft-Orzouyeh road, 29°08'19"N 56°36'55"E (29.1386, 56.6153), 2250 m a.s.l. (Locality No. KE-80), V.2009, 1♂2♀ (RRLS), 2♂im. (FKCP), leg. Koohpaye, Jamalizadeh and Ebrahimi; Bardsir-Sirjan road, 29°56'48"N 56°33'10"E (29.9467, 56.5528), 2036 m a.s.l. (Locality No. KE-104), V.2009, 2♂4♀ (RRLS), 1juv. (FKCP), leg. Koohpaye, Jamalizadeh and Ebrahimi; Jupar-Mahan road, 30°04'32"N 56°06'46"E (30.0756, 56.1128), 1837 m a.s.l. (Locality No. KE-108), VI.2009, 9♂5♀ (RRLS), leg. Koohpaye, Jamalizadeh and Ebrahimi; Jupar-Mahan road, 30°04'06"N 57°08'35"E (30.0683, 57.1431), 1849 m a.s.l. (Locality No. KE-111), VI.2009, 1♂1♀ (RRLS), leg. Koohpaye, Jamalizadeh and Ebrahimi; Jupar-Mahan road, 30°04'04"N 57°12'28"E (30.0678, 57.2078), 1885 m a.s.l. (Locality No. KE-112), VI.2009, 6♂2♀ (RRLS), leg. Koohpaye, Jamalizadeh and Ebrahimi.

DISTRIBUTION: Iran, Esfahan, Fars, Hamadan, Kerman, Kermanshah, Mazandaran, Markazi, Teheran, West Azarbajian, Yazd Provinces (Kovařík, 1997a: 47, Lourenço & Pézier, 2002: 116, 117, 124), Chahar Machal & Bakhtiyari Province (Pirali-Kheirabadi et al., 2009: 10), and Sistan & Baluchistan Province (Pirali-Kheirabadi et al., 2009: 14).

***Orthochirus farzanpayi* (Vachon et Farzanpay, 1987)**
(Figs. 14, 53–56)

Simonoides farzanpayi Vachon et Farzanpay in Farzanpay, 1987: 162; Farzanpay, 1988: 41; Fet & Lowe, 2000: 223.

Orthochirus farzanpayi Kovařík & Fet, 2006a: 1, figs. 1–3; Navidpour et al., 2008a: 14; Navidpour et al., 2008b: 15, figs. 2, 23, 61–64.
= *Orthochirus sobotniki* Kovařík, 2004: 20 (syn. by Kovařík & Fet, 2006a: 1).

TYPE LOCALITY AND TYPE REPOSITORY. Iran, 215 km N of Bandar-e-Abbas; NHMW.

TYPE MATERIAL EXAMINED. Iran, 215 km N of Bandar-e-Abbas, 22.III.1972, 1♀ (lectotype) 1♂1♀ (paralectotypes) (NHMW Nos. 68–70, rev. Max Vachon in 1977, No. VA 1910); 5 km SE of Posht Chenar, 19–20 April 2000, 29°12.941'N 53°20.014'E, 1692 m a.s.l., 1♂1♀1im. ♂ (holotype, allotype, and paratype of *Orthochirus sobotniki*) (FKCP), leg. J. Šobotník.

KERMAN PROVINCE MATERIAL EXAMINED [5 localities]. **Iran**, Kerman Province, Deh Bakri, 7.IV.2000, 29°05.370'N 57°55.539'E (29.0895, 57.9257), 1957 m a.s.l., 1♀ (FKCP), leg. M. Kaftan; Bam, Sar Telo, Khajeh Askar Vill., 29°10'01"N 58°16'27"E (29.1668, 58.2742), 1155 m a.s.l. (Locality No. KE-27), V.2009, 3♂ (RRLS), 2♂2♀ (FKCP), leg. Koohpaye, Jamalizadeh and Ebrahimi; Chat Rood – Kerman road, 30°25'09"N 57°01'15"E (30.4192, 57.0208), 1781 m a.s.l. (Locality No. KE-115), V.2009, 3♀ (RRLS) (FKCP), leg. Koohpaye, Jamalizadeh and Ebrahimi; Shahdad, 30°29'06"N 57°48'28"E (30.4850, 57.8078), 331 m a.s.l. (Locality No. KE-116), V.2009, 1♂ (RRLS), 1♂ (FKCP), leg. Koohpaye, Jamalizadeh and Ebrahimi; Deh Bakri, Gebal Barez Mts, 29.08°N, 57.91°E, 2300 m a.s.l., 2.VI.2010, 1♀ (FKCP), leg. W. Grosser.

DISTRIBUTION: Iran, Hormozgan and Fars Provinces (Kovařík & Fet, 2006a: 1–3), Khoozestan Province (Navidpour et al., 2008a: 15), Bushehr Province (Navidpour et al., 2008b: 15) and Kerman Province (first report).

***Orthochirus gruberi* Kovařík et Fet, 2006**
(Figs. 14, 57–60)

Orthochirus gruberi Kovařík & Fet, 2006a: 4, figs. 4–6.

TYPE LOCALITY AND TYPE REPOSITORY. Iran, Kerman Province, near Čoupār, 30°08' N, 57°09' E; FKCP.

TYPE MATERIAL EXAMINED [1 locality]. Iran, Kerman Province, Čoupār env., 30°08' N 57°09' E (), IV.2004, 1♀ (holotype) (FKCP), leg. R. Demis.

OTHER KERMAN PROVINCE MATERIAL EXAMINED [3 localities]. **Iran**, Kerman Province, Mahan-Kerman road, 30°07'19"N 57°03'54"E (30.1219, 57.0650), 1873 m a.s.l. (Locality No. KE-01), V.2009, 2♀ (RRLS), 1♀

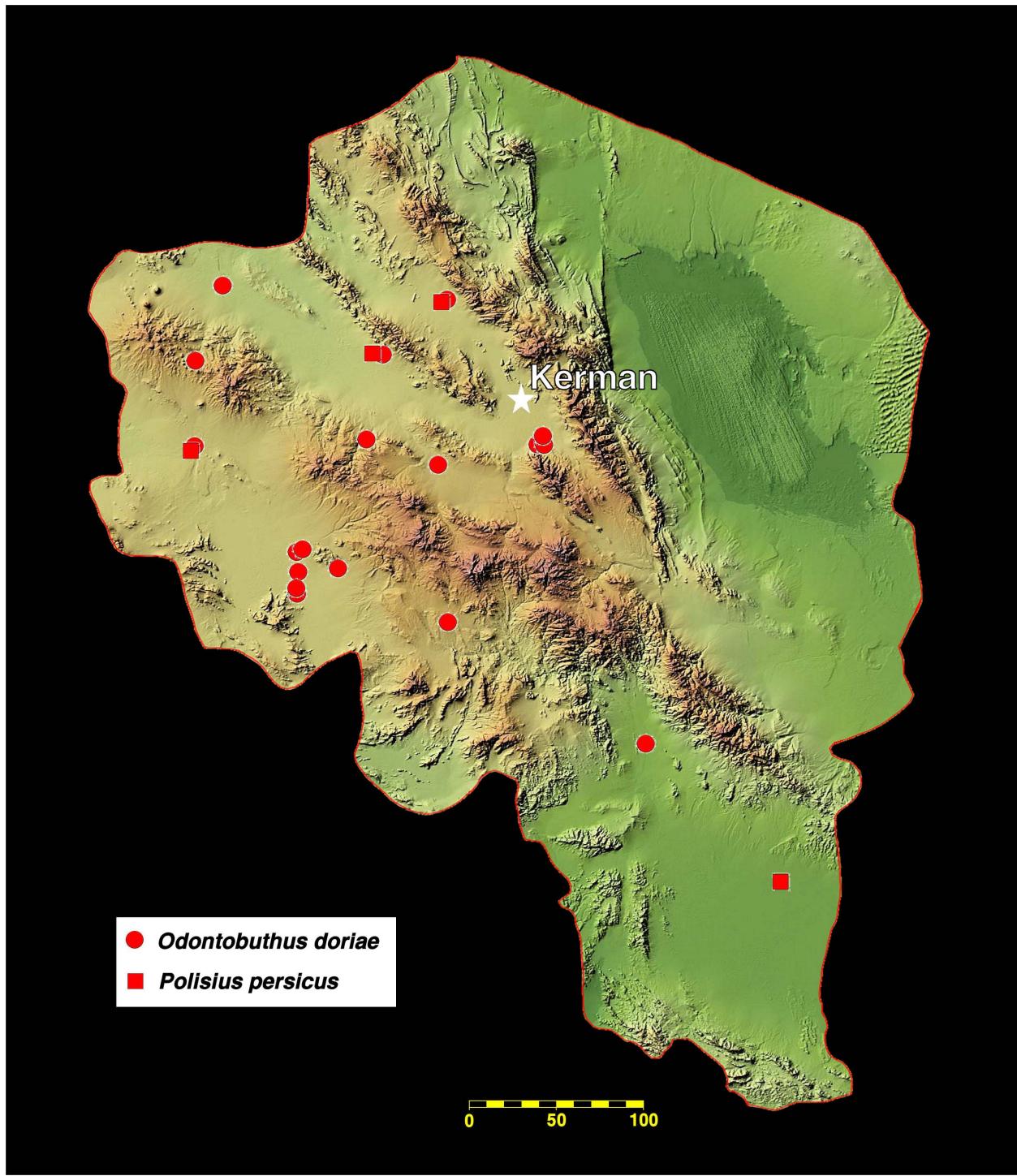


Figure 13: Map of Kerman Province showing distribution of *Odontobuthus doriae* (Thorell, 1876) and *Polisius persicus* Fet, Capes et Sissom, 2001 collected in this study.

(FKCP), leg. Koohpaye, Jamalizadeh and Ebrahimi; Jupar-Kerman road, 30°07'25"N 57°11'26"E (30.1236, 57.1906), 1819 m a.s.l. (Locality No. KE-29 and KE-132), V.2009, 2♂9♀ and VI.2009, 1♂ (RRLS), leg.

Koohpaye, Jamalizadeh and Ebrahimi; Jupar-Mahan road, 30°04'06"N 57°08'35"E (30.0683, 57.1431), 1849 m a.s.l. (Locality No. KE-111), VI.2009, 1♂ (RRLS), leg. Koohpaye, Jamalizadeh and Ebrahimi.

DISTRIBUTION: Iran, known only from Kerman Province (Kovařík & Fet, 2006a: 4).

Orthochirus zagrosensis Kovařík, 2004
(Figs. 14, 49–52)

Orthochirus sp. n. ?: Kovařík, 1997a: 47 (in part).

Orthochirus zagrosensis Kovařík, 2004: 22; Kovařík & Fet, 2006a: 8, figs. 7–8; Navidpour et al., 2008a: 20; Navidpour et al., 2008d: 7; Pirali-Kheirabadi et al., 2009: 10, figs. 2–3, 5, 8, 10, 36–39.

TYPE LOCALITY AND TYPE REPOSITORY. Iran, Fars Province, Dasht-e-Arshan, 29°34'N 51°56'E, 2000 m. a.s.l.; FKCP.

TYPE MATERIAL EXAMINED. Iran, Fars Province, Dasht-E-Arshan, 29°34'N 51°56'E, 2000 m. a.s.l., 21–22. IV.2000, 1♂ (holotype) (FKCP), leg. J. Šobotník.

KERMAN PROVINCE MATERIAL EXAMINED [8 localities]. **Iran**, Kerman Province, Dehdasht, Pabdana, 30°57'24"N 56°32'23"E (30.9567, 56.5397), 1975 m a.s.l. (Locality No. KE-34), V.2009, 1♂3♀ (RRLS), 1♀ (FKCP), leg. Koohpaye, Jamalizadeh and Ebrahimi; Zarand, 30°47'42"N 56°35'19"E (30.7117, 56.5886), 1678 m a.s.l. (Locality No. KE-36), V.2009, 3♀ (RRLS), 1♀ (FKCP), leg. Koohpaye, Jamalizadeh and Ebrahimi; Shahre Babak-Anar road, 30°10'53"N 55°04'56"E (30.1814, 55.0822), 1906 m a.s.l. (Locality No. KE-52), V.2009, 5♂7♀ (RRLS), 1♂1♀ (FKCP), leg. Koohpaye, Jamalizadeh and Ebrahimi; Shahre Babak-Anar road, 30°12'15"N 55°04'25"E (30.2042, 55.0736), 1936 m a.s.l. (Locality No. KE-53), V.2009, 6♂3♀ (RRLS), leg. Koohpaye, Jamalizadeh and Ebrahimi; Sirjan-Bandar Abbas road, 29°16'56"N 55°42'22"E (29.2822, 55.7061), 1714 m a.s.l. (Locality No. KE-71), V.2009, 4♂ (RRLS), leg. Koohpaye, Jamalizadeh and Ebrahimi; Baft-Kerman road, 29°13'58"N 56°40'02"E (29.2328, 56.6672), 2365 m a.s.l. (Locality No. KE-71b), V.2009, 2♂2♀ (RRLS), leg. Koohpaye, Jamalizadeh and Ebrahimi; Bardsir-Sirjan road, 29°56'59"N 56°38'17"E (29.9497, 56.6381), 2036 m a.s.l. (Locality No. KE-103), V.2009, 1♀ (RRLS), 1♀ (FKCP), leg. Koohpaye, Jamalizadeh and Ebrahimi; Bardsir-Sirjan road, 29°56'48"N 56°33'10"E (29.9467, 56.5528), 2036 m a.s.l. (Locality No. KE-104), V.2009, 1♀ (RRLS), leg. Koohpaye, Jamalizadeh and Ebrahimi;

DISTRIBUTION: Iran, Esfahan, Fars, Kerman, Kohgilouyeh & Boyer Ahmad, Yazd Provinces (Kovařík, 1997a; Kovařík, 2004: 22), and Chahar Machal & Bakhtiari Province (Pirali-Kheirabadi et al., 2009: 10).

Polisius persicus Fet, Capes et Sissom, 2001
(Figs. 4, 13, 61–64)

Polisius persicus Fet, Capes & Sissom, 2001: 187, figs. 1–9; Soleglad & Fet, 2003: 7; Vignoli et al., 2003: 5; Soleglad & Fet, 2003b: 5; Navidpour et al., 2008c: 11, figs. 10, 54–57.

TYPE LOCALITY AND TYPE REPOSITORY. Iran, Sistan & Baluchistan Province, 85 km N of Zahedan; USNM.

TYPE MATERIAL EXAMINED. Iran, Sistan & Baluchistan Province, 85 km N of Zahedan, II.1963, 1♀ (holotype) (USNM), leg. L. H. Herman.

KERMAN PROVINCE MATERIAL EXAMINED [4 localities]. **Iran**, Kerman Province, Zehkaloot-Jazmuriyan, 27°47'18"N 58°35'07"E (27.7883, 58.5853), 378 m a.s.l. (Locality No. KE-19), IV.2009, 1♂2♀ (RRLS), leg. Koohpaye, Jamalizadeh and Ebrahimi; Zarand, 30°47'42"N 56°35'19"E (30.7950, 56.5886), 1678 m a.s.l. (Locality No. KE-36), V.2009, 1♀ (RRLS), leg. Koohpaye, Jamalizadeh and Ebrahimi; Rafsanjan road, Zarand, 30°32'22"N 56°04'42"E (30.5394, 56.0783), 1547 m a.s.l. (Locality No. KE-46), V.2009, 1♂ (RRLS), leg. Koohpaye, Jamalizadeh and Ebrahimi; Shahre Babak, Marza, 30°01'43"N 55°05'41"E (30.0286, 55.0947), 1789 m a.s.l. (Locality No. KE-54), V.2009, 1♀ (RRLS), 1♀im. (FKCP), leg. Koohpaye, Jamalizadeh and Ebrahimi.

DISTRIBUTION: Iran, Sistan & Baluchistan Province (Fet, Capes & Sissom, 2001: 187), Esfahan Province (Vignoli et al., 2003: 5), Ilam Province (Navidpour et al., 2008c: 11), Kerman Province (first report).

Sassanidotus gracilis (Birula, 1900)
(Figs. 2, 15, 16, 45–48)

Buthus zarudnyi gracilis Birula, 1900a: 368.

Buthus (Buthus) zarudnyi gracilis: Birula, 1917: 240

Mesobuthus zarudnyi gracilis: Vachon, 1959: 141–146, figs. 23–26, 28–29, 31, 51; Vachon, 1966: 213; Habibi, 1971: 44; Farzanpay, 1988: 39; Kovařík, 1998: 115.

Sassanidothus zarudnyi gracilis: Fet & Lowe, 2000: 223.

Sassanidotus gracilis Kovařík & Fet, 2006b: 4, figs. 2, 6–9.

= *Buthus zarudnyi sarghadensis* Birula, 1903: 70–71 (syn. by Kovařík & Fet, 2006b: 6)

Buthus (Buthus) zarudnyi sarghadensis: Birula, 1917: 240.

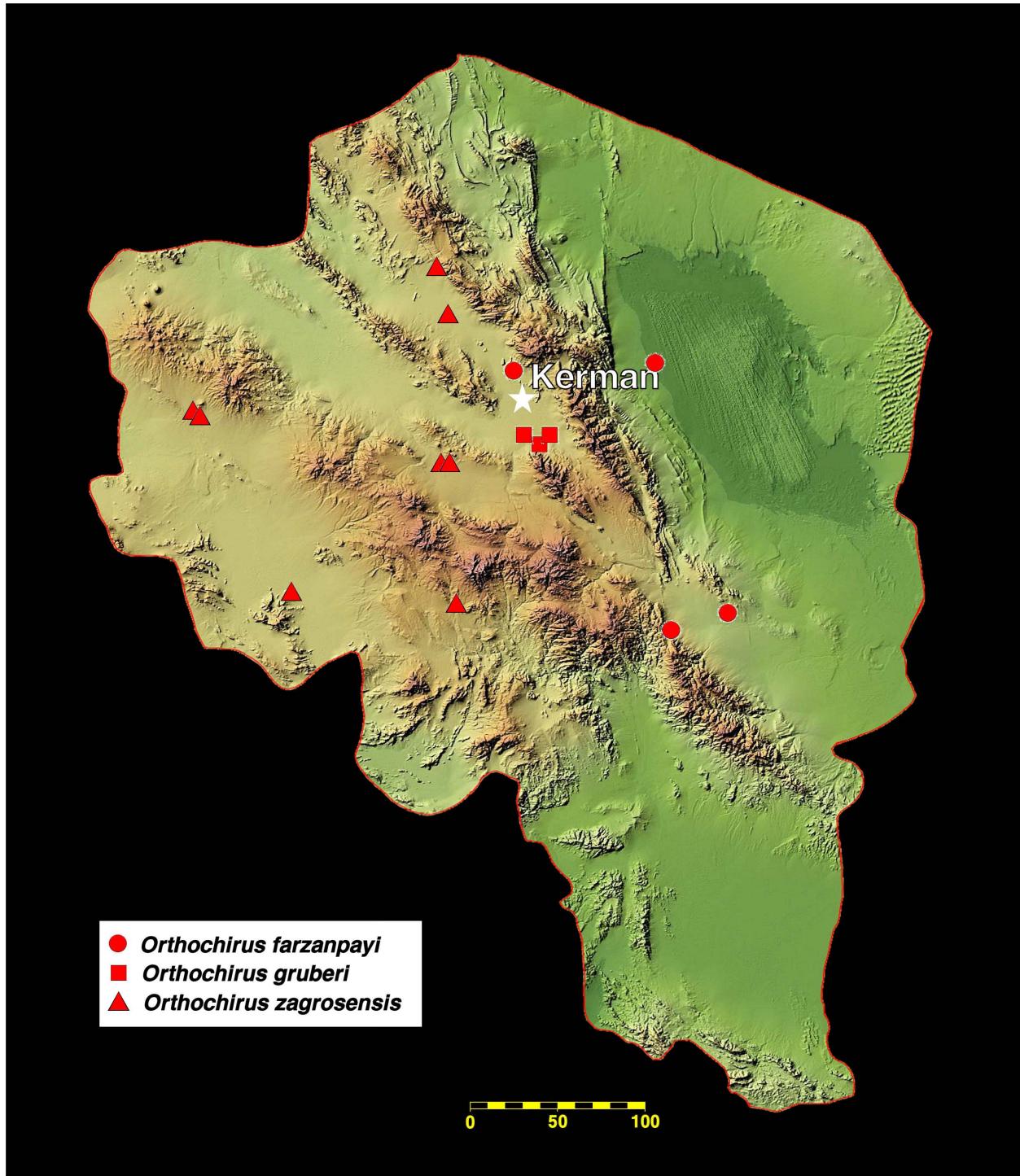


Figure 14: Map of Kerman Province showing distribution of *Orthochirus farzanpayi* (Vachon & Farzanpay, 1987), *Orthochirus gruberi* Kovářík & Fet, 2006, and *Orthochirus zagrosensis* Kovářík, 2004 collected in this study.

Mesobuthus zarudnyi sarghadensis: Vachon, 1959: 141, fig. 31; Vachon, 1966: 213; Habibi, 1971: 44; Farzanpay, 1988: 39; Kovářík, 1998: 115.

Sassanidothus zarudnyi sarghadensis: Fet & Lowe, 2000: 223.
=? *Buthus gabrielis* Werner, 1929: 244, syn.n. (?)

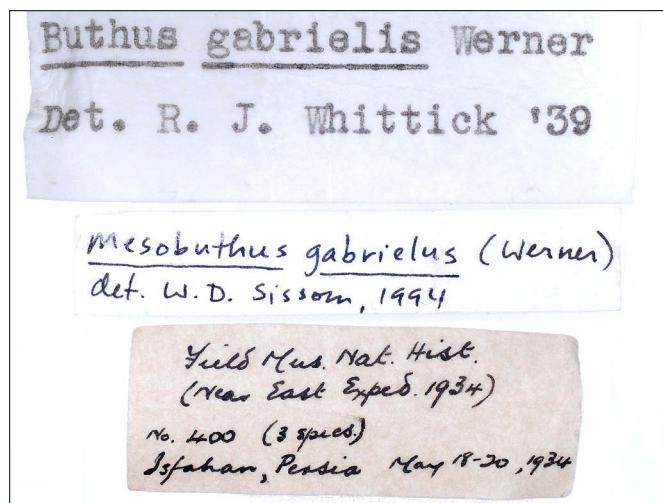


Figure 15: Labels by Whittick in 1939 from FMNH.

Mesobuthus gabrielis: Vachon, 1950: 153 (1952: 325); Vachon, 1966: 213; Habibi, 1971: 44; Farzanpay, 1988: 39.

Mesobuthus vesiculatus: Fet & Lowe, 2000: 180 (in part).

TYPE LOCALITY AND TYPE REPOSITORY. Nasirabad, Seistan, eastern Persia, now Iran; ZISP.

TYPE MATERIAL EXAMINED. Iran, Sistan & Baluchistan Province, Nasirabad, Seistan, eastern Persia, 1♀ (holotype), coll. N. A. Zarudny (ZISP No. 598); between Djuan-kan and Mirkala (Kala-i-mir), Mashkil and Djalak, Baluchistan, eastern Persia, 26–29 January 1901, 1♀ 1 juv. (lectotype and paralectotype of *Buthus zarudnyi sarghadensis*), coll. N. A. Zarudny (ZISP No. 1356); between Mirkuh and Rik-i-malik, Sargad, Baluchistan, eastern Persia, 14–19 January 1901, 2♀ 4 juvs. (paralectotypes of *Buthus zarudnyi sarghadensis*), coll. N. A. Zarudny (ZISP No. 1355).

KERMAN PROVINCE MATERIAL EXAMINED [6 localities]. **Iran**, Kerman Province, Ghaleh ganj, Tarik mah vil., 27°37'40"N 57°56'26"E (27.6278, 57.9406), 417 m a.s.l. (Locality No. KE-12), IV.2009, 13♂ 8♀ (RRLS), leg. Koohpaye, Jamalizadeh and Ebrahimi; Ghaleh Ganj, Bolbol Abad vil., 27°38'38"N 57°56'22"E (27.6439, 57.9394), 419 m a.s.l. (Locality No. KE-15), IV.2009, 4♂ 5♀ (RRLS), 2♂ 1♀ (FKCP), leg. Koohpaye, Jamalizadeh and Ebrahimi; Zehkaloot-Jazmuriyan, 27°47'18"N 58°35'07"E (27.7883, 58.5853), 378 m a.s.l. (Locality No. KE-19), IV.2009, 2♂ 4♀ (RRLS), 1♀ (FKCP), leg. Koohpaye, Jamalizadeh and Ebrahimi; Bam-Fahraj road, 28°56'05"N 58°52'48"E (28.9347, 58.8800), 688 m a.s.l. (Locality No. KE-23), IV.2009, 2♂ 1♀ (RRLS), 3♂ 4♀ lim., leg. Koohpaye, Jamalizadeh and Ebrahimi; Bam-Fahraj road, Mozi Abad vil., 28°57'02"N 58°52'01"E (28.9506, 58.8669), 680 m a.s.l. (Locality No. KE-24), IV.2009, 1♀ (RRLS), 1♀ (FKCP), leg. Koohpaye, Jamalizadeh and Ebrahimi; Jupar-Mahan road, 30°04'04"N 57°12'28"E (30.0678,

57.2078), 1885 m a.s.l. (Locality No. KE-112), VI.2009, 2♀ (RRLS), 1♀ (FKCP), leg. Koohpaye, Jamalizadeh and Ebrahimi.

DISCUSSION: The holotype of *Buthus gabrielis* Werner, 1929 was never revised and probably was destroyed during World War II. Fet & Lowe (2000: 180) synonymized this species with *Mesobuthus vesiculatus* (Pocock, 1899) on the basis of Werner's description and FMNH specimens labeled as *Buthus gabrielis* by Whittick in 1939 (see Fig. 15). These specimens indeed are *Mesobuthus vesiculatus*, but rather than from Kerman they come from Esfahan Province. Near Rudbar (or Bam), the type locality of *Buthus gabrielis* in Kerman Province, Navidpour's team (Koohpaye, Jamalizadeh and Ebrahimi) collected *Mesobuthus macmahoni* (Pocock, 1900) and, more importantly, *Sassanidotus gracilis* (Birula, 1900), which is surprisingly similar to *Mesobuthus vesiculatus* (large telson, narrow metasoma) but differs in the granules on the movable fingers. It is thus possible that the morphological similarity confused Whittick, and led him to erroneously identify the FMNH specimens, and that *Mesobuthus vesiculatus* in fact does not occur in Kerman. Therefore, if we judge *Buthus gabrielis* Werner, 1929 by the type locality rather than by the FMNH specimens, we must allow for the possibility that it may be a synonym of *Sassanidotus gracilis*.

DISTRIBUTION: Iran, Sistan & Baluchistan Province (Birula, 1900a: 368), Kerman Province (first report); Afghanistan (Vachon, 1959: 144); Pakistan (Kovařík & Fet, 2006b: 6).

Family Hemiscorpiidae Pocock, 1893

Hemiscorpius lepturus Peters, 1861
(Figs. 7, 16, 65–68)

Hemiscorpius lepturus Peters, 1861a: 426, 8 figs.; Karsch, 1879: 15, 21; Birula, 1905: 146; Birula,

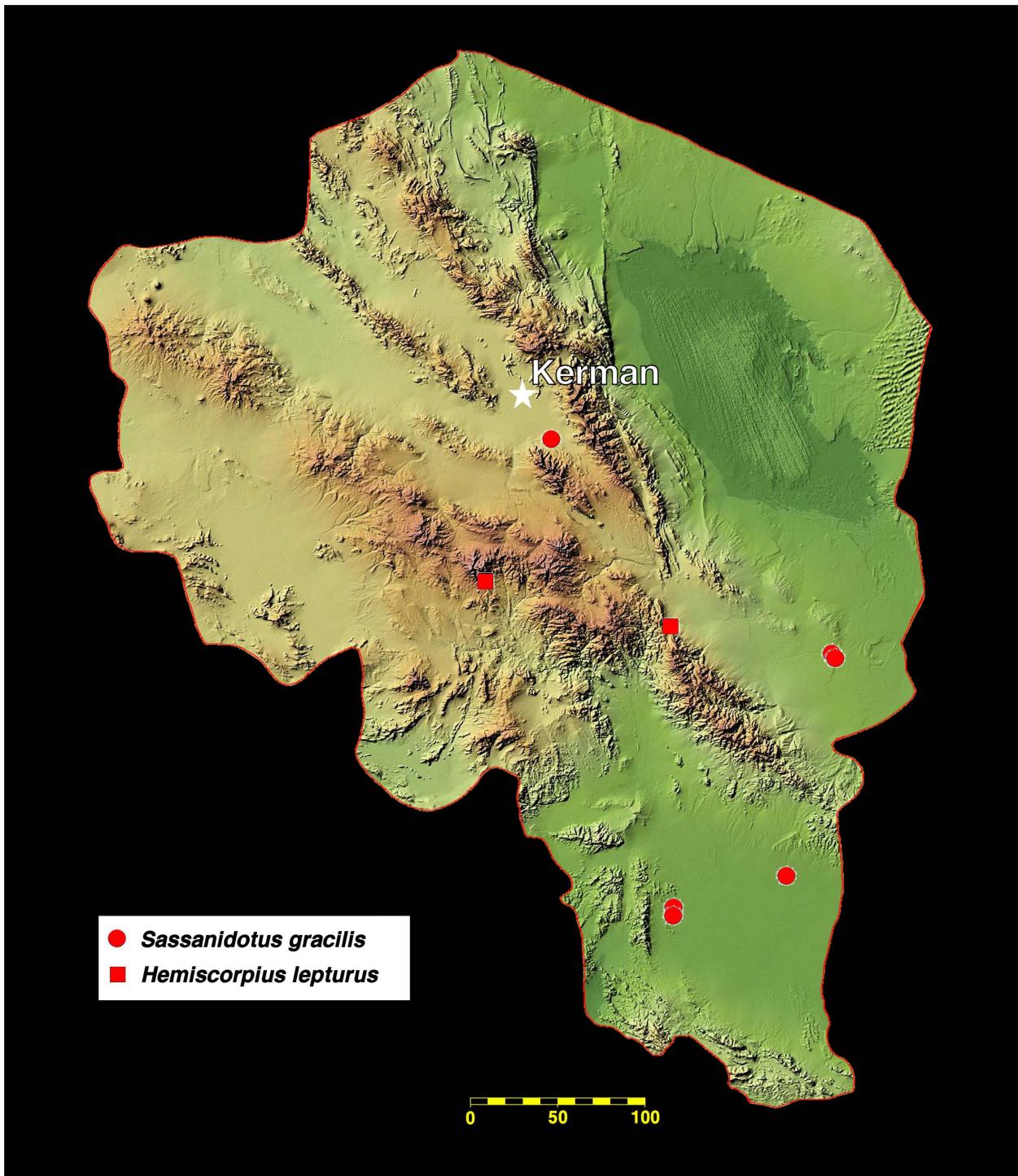
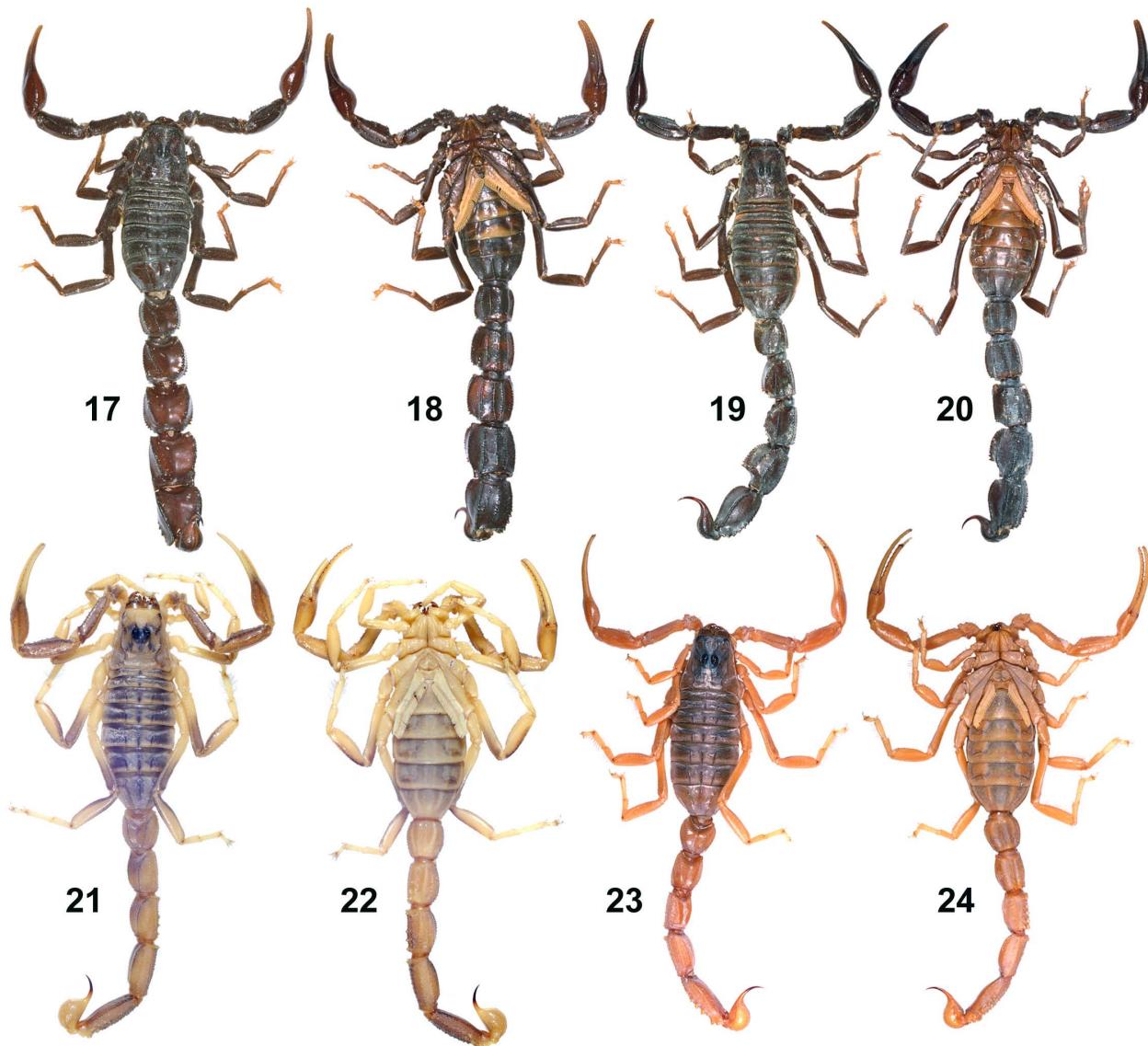


Figure 16: Map of Kerman Province showing distribution of *Sassanidotus gracilis* (Birula, 1900) and *Hemiscorpius lepturus* Peters, 1861 collected in this study.

1917: 215; Birula, 1918: 42, fig. 7; Weidner, 1959: 100; Pringle, 1960: 84, fig. 9; Khalaf, 1962: 2; Khalaf, 1963: 68; Vachon, 1966: 214; Habibi, 1971: 44; Farzanpay & Pretzmann, 1974: 217; Pérez Minoccia, 1974: 36; Vachon, 1977: 213; Vachon, 1979: 59; Farzanpay, 1987: 141, 168; Farzanpay, 1988: 42; Simard & Watt, 1990: 441; Sissom, 1990: 75; El-Hennawy, 1992: 135; Kovařík, 1997a: 48; Kovařík, 1998: 136; Fet, 2000: 429; Prendini, 2000: 44; Capes & Fet, 2001: 303; Monod & Lourenço,



Figures 17–24: 17–18. *Androctonus crassicauda* (Olivier, 1807), dorsal and ventral views, ♂ (73 mm), Iran, Bushehr Province, Chahak district, 29°38'32"N 50°26'56"E, FKCP. 19–20. *Androctonus crassicauda* (Olivier, 1807), dorsal and ventral views, ♀ (85 mm), Egypt, FKCP. 21–22. *Odontobuthus doriae* (Thorell, 1876), dorsal and ventral views, ♂ (65 mm), Iran, Kerman Province, Baft-Orzouyeh road, 29°08'19"N 56°36'55"E, 2250 m a.s.l. (Locality No. KE-80), FKCP. 23–24. *Odontobuthus doriae* (Thorell, 1876), dorsal and ventral views, ♀ (70 mm), Iran, Sistan & Baluchistan Province, 30 km N of Espake by road, 27°05'07"N 60°01'02"E, alt. 540 m, FKCP.

2005: 902, figs. 1a–b, 16–21, 27e–f, 36; Akbari, 2007: 76, fig. p. 68; Navidpour et al., 2008a, figs. 20–21, 43, 107–110: 26; Navidpour et al., 2008b: 20, figs. 2, 5, 7, 24, 78–81; Navidpour et al., 2008c: 15, figs. 4, 12, 67–70; Navidpour et al., 2008d: 14, figs. 3, 6–7, 9, 14, 56–59; Pirali-Kheirabadi et al., 2009: 12, figs. 3, 11, 49–52; Navidpour et al., 2010: 17.

Hemiscorpius lepturus: Peters, 1861b: 511; Ausserer, 1880: 466; Kraepelin, 1899: 142; Werner, 1934: 276; Moritz & Fischer, 1980: 317; Kovařík, 2002: 14.

Hemiscorpius lepturus: Simon, 1880: 29.

TYPE LOCALITY AND TYPE REPOSITORY. Iraq, “Mendeli bei Baghdad” (Mendeli near Baghdad); ZMHB.

TYPE MATERIAL EXAMINED. Iraq, Mendeli bei Baghdad, 2♂2♀ (syntypes) (ZMHB 43a–d), leg. Petermann.

KERMAN PROVINCE MATERIAL EXAMINED [2 localities]. **Iran**, Kerman Province, Deh Bakri, 7.IV.2000, 29°05.370'N 57°55.539"E (29.0895, 57.9257), 1957 m a.s.l., 3♀3juvs. (FKCP), leg. J. Šobotník; Baft, Rabar,

Nanuk vil., 29°19'51"N 56°50'21"E (29.3308, 56.8392), 2873 m a.s.l. (Locality No. KE-91), VI.2009, 2♂3♀ (RRLS), leg. Koohpaye, Jamalizadeh and Ebrahimi.

DISTRIBUTION: Iran, Fars, Hormozgan, Kohgilouyeh & Boyer Ahmad, Lorestan Provinces (Kovařík, 1997a: 48), Bushehr, Ilam, Khoozestan Province (Farzanpay, 1987: 141; Monod & Lourenço, 2005: 902; Akbari, 2007: 76), Chahar Machal & Bakhtiari Province (Pirali-Kheirabadi et al., 2009: 12), and Kerman (first report); Iraq (Peters, 1861a: 426).

Key of scorpions of Kerman Province

1. Pedipalp patella without ventral trichobothria
..... **Buthidae** 2
- Pedipalp patella with ventral trichobothria
..... **Hemiscorpius lepturus** Peters, 1861
2. Carapace in lateral view distinctly inclined downward from median eyes to anterior margin. Total length less than 50 mm. 3
 - Carapace in lateral view with entire dorsal surface horizontal or nearly so (possibly with a slight anterior decline) 5
3. Entire metasoma and telson hirsute.
..... **Orthochirus gruberi** Kovařík et Fet, 2006
 - Entire metasoma and telson glabrous (short, thin setae may originate from some punctae). 4
4. Tarsi of first to third legs without bristlecombs.
.... **Orthochirus farzanpayi** (Vachon et Farzanpay, 1987)
 - Tarsi of first to third legs with bristlecombs.
..... **Orthochirus zagrosensis** Kovařík, 2004
5. Trichobothrium *eb* located in distal part of manus of chela rather than on fixed finger
..... **Kraepelinia palpator** (Birula, 1903)
 - Trichobothrium *eb* located on fixed finger of chela. .. 6
6. Ventral carinae of second and third metasomal segments and ventral transverse carina of fourth segment armed with very strong teeth
..... **Odontobuthus doriae** (Thorell, 1876)
 - Ventral carinae of metasomal segments without very strong teeth 7
7. Dentate margin of pedipalp chela movable finger with 4 terminal granules (3 terminal and one basal terminal)
..... 8
 - Dentate margin of pedipalp chela movable finger with 5-7 terminal granules (4-6 terminal and one basal terminal) 10
8. Carinae of tergites project beyond posterior margin as distinct spiniform processes
..... **Sassanidotus gracilis** (Birula, 1900)
- Carinae of tergites do not project beyond posterior margin as distinct spiniform processes 9
9. Total adult length less than 50 mm.
..... **Polisius persicus** Fet, Capes et Sissom, 2001
 - Total adult length more than 50 mm.
..... **Androctonus crassicauda** (Olivier, 1807)
10. Central median and posterior median carinae of carapace joined to form a continuous linear series of granules to posterior margin 11
 - Central median and posterior median carinae of carapace not joined to form a continuous linear series of granules to posterior margin 12
11. Rows of granules on movable finger without external granules. Male has longer metasoma than female **Compsobuthus matthieseni** (Birula, 1905)
 - Rows of granules on movable finger with external, often very small granules. Length of metasoma the same in both sexes. **Compsobuthus kaftani** Kovařík, 2003
12. First metasomal segment of male equidimensional or longer than wide. Metasoma narrow in both sexes **Mesobuthus macmahoni** (Pocock, 1900)
 - First metasomal segment of male usually wider than long or as long as wide. Metasoma of male usually wider than in female and usually also concave
..... **Mesobuthus eupeus persicus** (Pocock, 1899)

Acknowledgments

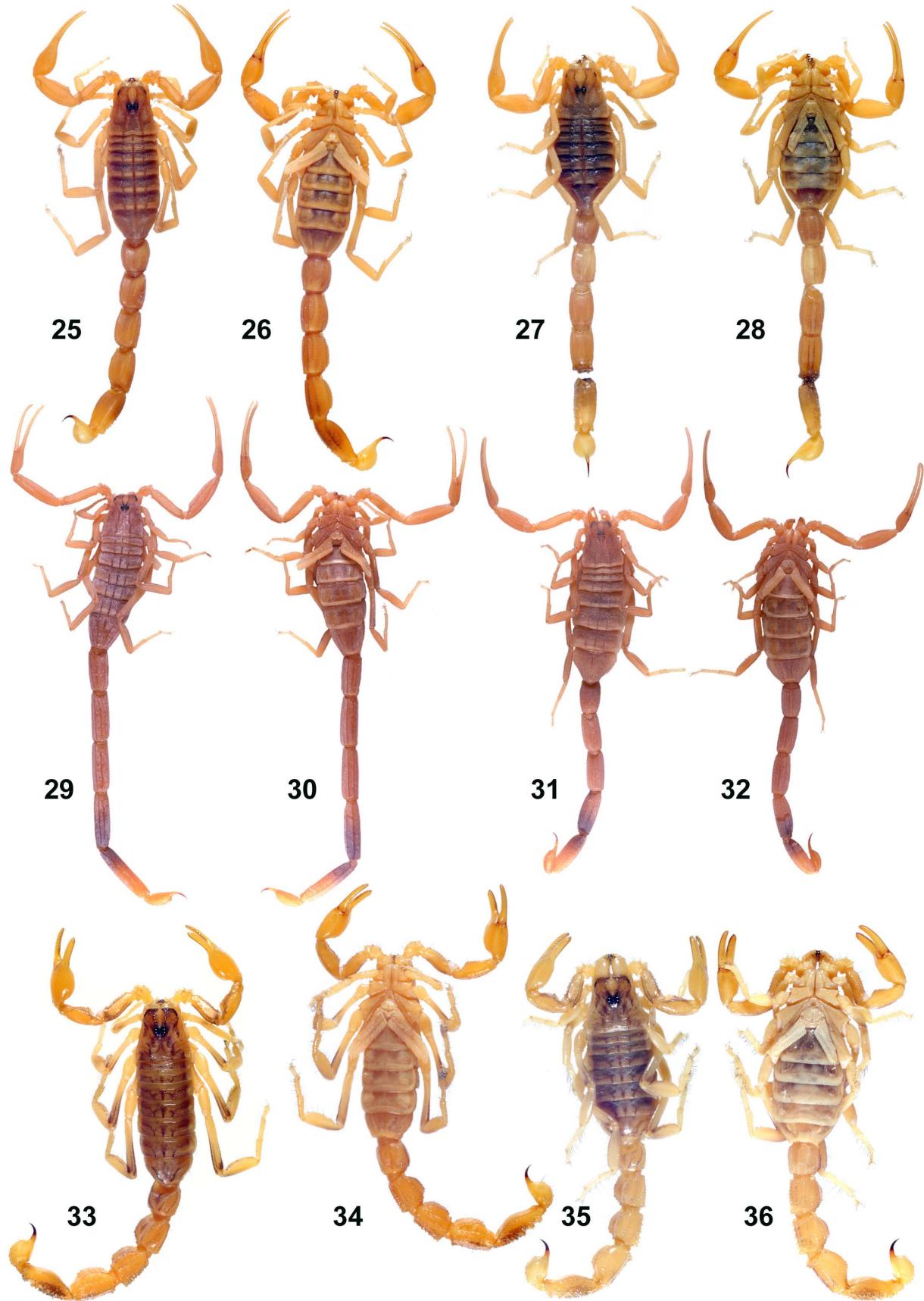
We are greatly indebted to our dear colleagues in Razi Vaccine & Research Institute for their kind help and also to Miss M. Tavighi, Mrs. Abed Koohpaye, Hamid Jamalizadeh and Ali Reza Ebrahimi for their help in collecting Kerman scorpions.

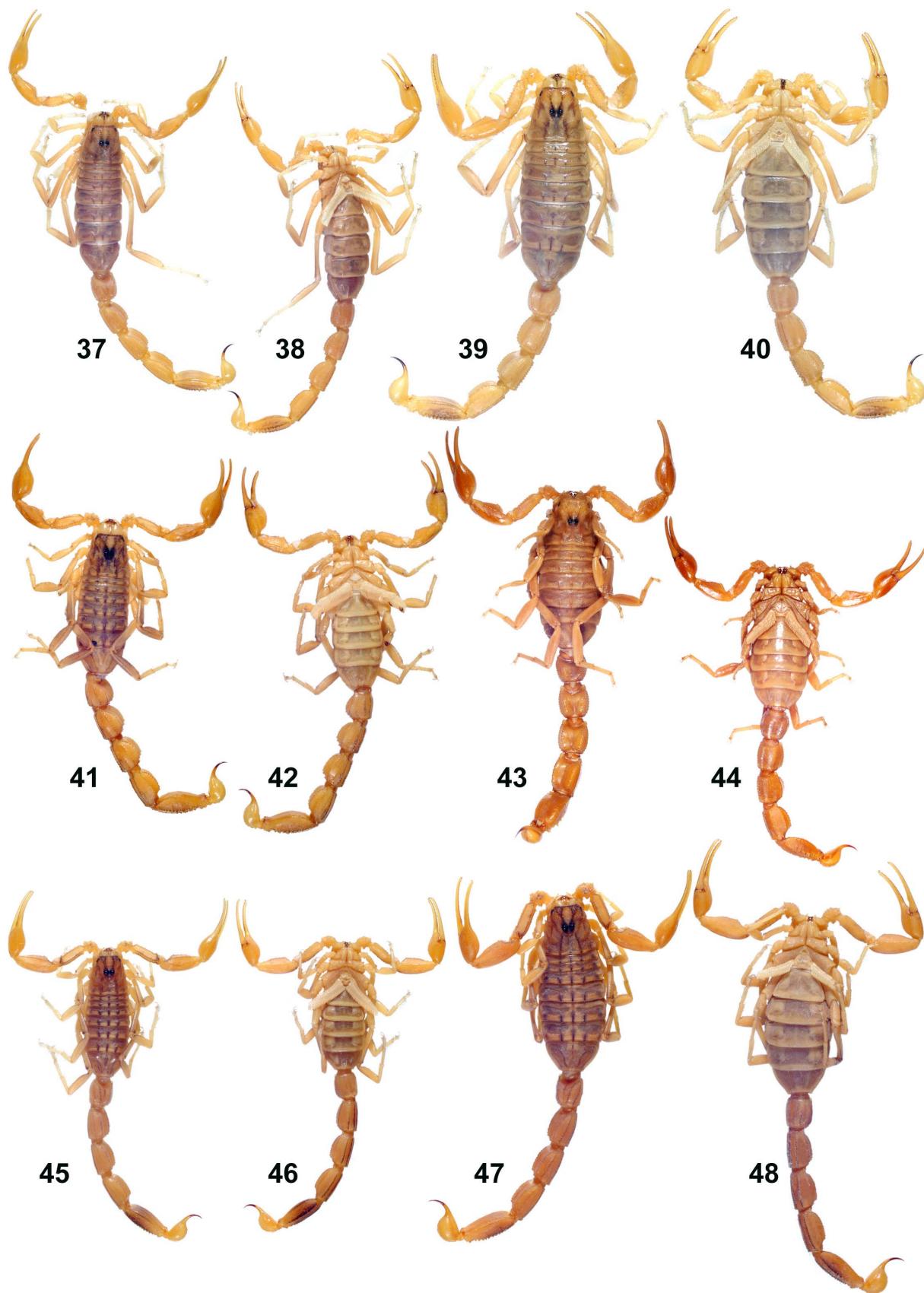
Figures 25–36 ➔: 25–26. *Compsobuthus kaftani* Kovařík, 2003, dorsal and ventral views, ♂ (40 mm), Iran, Kerman Province, Zarand-Kerman road, 30°48'38"N 56°55'30"E, 1688 m a.s.l. (Locality No. KE-37), FKCP. 27–28. *Compsobuthus kaftani* Kovařík, 2003, dorsal and ventral views, ♀ (42 mm), Iran, Kerman Province, Shahre babak, Marza, 30°01'43"N 55°05'41"E, 1789 m a.s.l. (Locality No. KE-54), FKCP. 29–30. *Compsobuthus matthieseni* (Birula, 1905), dorsal and ventral views, ♂ (38 mm), Iran, Lorestan Province, 10 km SE Bavineh, 1100 m a.s.l., 33°36'08"N 47°11'59"E, FKCP. 31–32. *Compsobuthus matthieseni* (Birula, 1905), dorsal and ventral views, ♀ (38 mm), Iran, Lorestan Province, same locality as in Figs. 29–30, FKCP. 33–34. *Kraepelinia palpator* (Birula, 1903), dorsal and ventral views, ♂ (32 mm), Iran, Kerman Province, Jupar road, 30°07'25"N 57°11'26"E, 1819 m a.s.l. (Locality No. KE-29), FKCP. 35–36. *Kraepelinia palpator* (Birula, 1903), dorsal and ventral views, ♀ (30 mm), Iran, Kerman Province, Jupar-Kerman road, 30°10'48"N 57°03'02"E, 1788 m a.s.l. (Locality No. KE-110), FKCP.

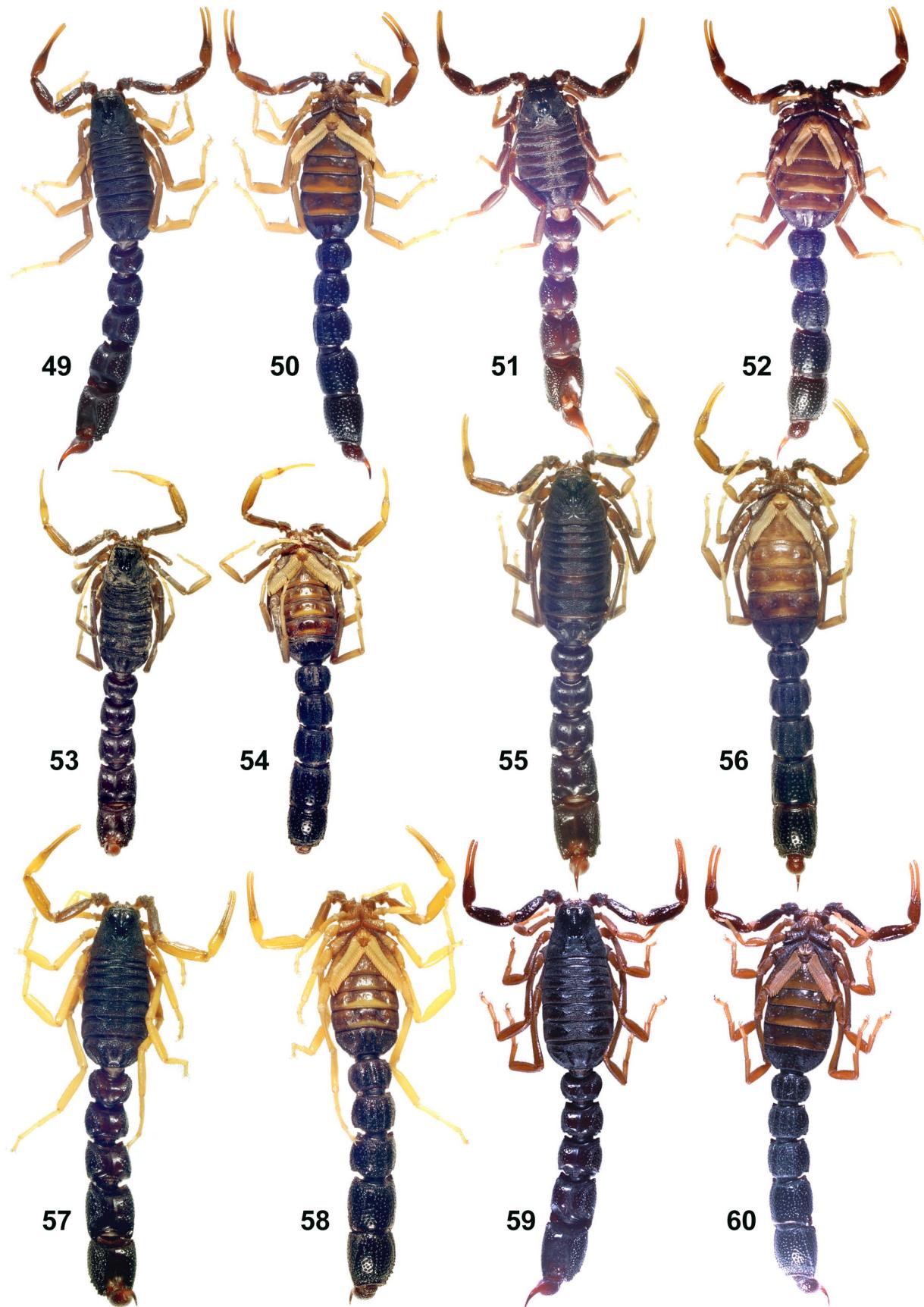
Figures 37–48 ➔: 37–38. *Mesobuthus macmahoni* (Pocock, 1900), dorsal and ventral views, and chela, ♂ (46 mm), Iran, Kerman Province, Zarand, 30°49'59"N 56°37'31"E, 1775 m a.s.l. (Locality No. KE-30), FKCP. 39–40. *Mesobuthus macmahoni* (Pocock, 1900), dorsal and ventral views, carapace, fifth metasomal segment and telson, and chela, ♀ (53 mm), Iran, Kerman Province, same locality as in Figs. 37–38, FKCP. 41–42. *Mesobuthus eupeus persicus* (Pocock, 1899), dorsal and ventral views, ♂ (49 mm), Iran, Kerman Province, Baft-Orzouyeh road, 29°08'19"N 56°36'55"E, 2250 m a.s.l. (Locality No. KE-80). 43–44. *Mesobuthus eupeus persicus* (Pocock, 1899), dorsal and ventral views, ♀ lectotype (53 mm), Iran, East Azarbaijan Province, Seir, Lake Urmia, BMNH No. 1900.1.15. 45–46. *Sassanidotus gracilis* (Birula, 1900), dorsal and ventral views, ♂ (35 mm), Iran, Kerman Province, Ghaleh ganj, Bolbol abad vil., 27°38'38"N 57°56'22"E, 419 m a.s.l. (Locality No. KE-15), FKCP. 47–48. *Sassanidotus gracilis* (Birula, 1900), dorsal and ventral views, ♀ (43 mm), Iran, Kerman Province, same locality as in Figs. 46–47, FKCP.

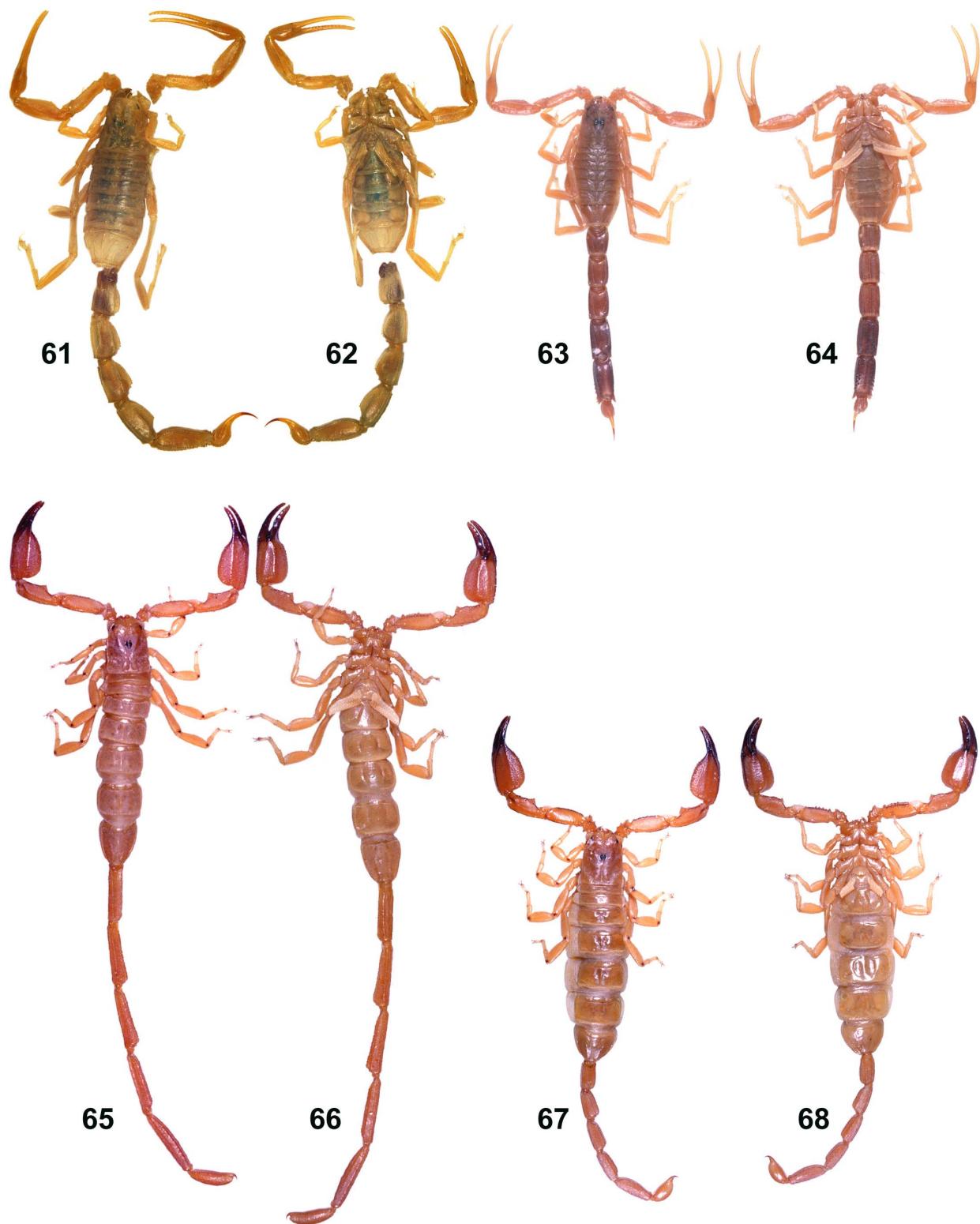
Figures 49–60 ➔: 49–50. *Orthochirus zagrosensis* Kovařík, 2004, dorsal and ventral views, ♂ (40 mm), Iran, Chahar Mahal & Bakhtiari Province, Lordegan, Giloreh and Sini Villages, 31°32'02"N 51°02'38"E, 1856 m (Locality No. SH-12-13), FKCP. 51–52. *Orthochirus zagrosensis* Kovařík, 2004, dorsal and ventral views, ♀ (46 mm) alogue, Kohgilouyeh & Boyer Ahmad Province, Zagros Mts., Kuh-e-Dinar ridge, 10 km N of Yasuj by road, 30°39'N, 51°36'E, 1800–2500 m a.s.l., FKCP. 53–54. *Orthochirus farzanpayi* (Vachon et Farzanpay, 1987), dorsal and ventral views, ♂ (28 mm), Iran, Kerman Province, Bam, Sar telo, Khajeh Askar Vill., 29°10'01"N 58°16'27"E, 1155 m a.s.l.. (Locality No. KE-27), FKCP. 55–56. *Orthochirus farzanpayi* (Vachon et Farzanpay, 1987), dorsal and ventral views, ♀ (41 mm), Iran, Kerman Province, same locality as in Figs. 53–54, FKCP. 57–58. *Orthochirus gruberi* Kovařík & Fet, 2006, dorsal and ventral views, ♂ (35 mm), Iran, Kerman Province, Jupar-Kerman road, 30°07'25"N 57°11'26"E, 1819 m a.s.l. (Locality No. KE-132), FKCP. 59–60. *Orthochirus gruberi* Kovařík & Fet, 2006, dorsal and ventral views, ♀ (37 mm) holotype, Iran, Kerman Province, Čoupār env., 30°08' N, 57°09' E, FKCP.

Figures 61–68 ➔: 61–62. *Polisius persicus* Fet, Capes & Sissom, 2001, dorsal and ventral views, ♀ (41 mm) holotype, Iran, Sistan & Baluchistan Province, 85 km N of Zahedan, USNM. 63–64. *Polisius persicus* Fet, Capes & Sissom, 2001, dorsal and ventral views, ♀ im. (22 mm), Iran, Ilam Prov., Dashte Abbas, Ein Saleh village, 32°25.24'N 47°43.86"E, 182 m a.s.l., (Locality No. IL-828), FKCP. 65–66. *Hemiscorpius lepturus* Peters, 1862, dorsal and ventral views, ♂ (72 mm), Iran, Khoozestan Province, Chogha Zanbil (zikkurat), 32°00'55"N 48°31'04"E, 68.5 m a.s.l. (Locality No. Ch-102), FKCP. 67–68. *Hemiscorpius lepturus* Peters, 1862, dorsal and ventral views, ♀ (58 mm), Iran, Khoozestan Province, same locality as in Figs. 65–66, FKCP.









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