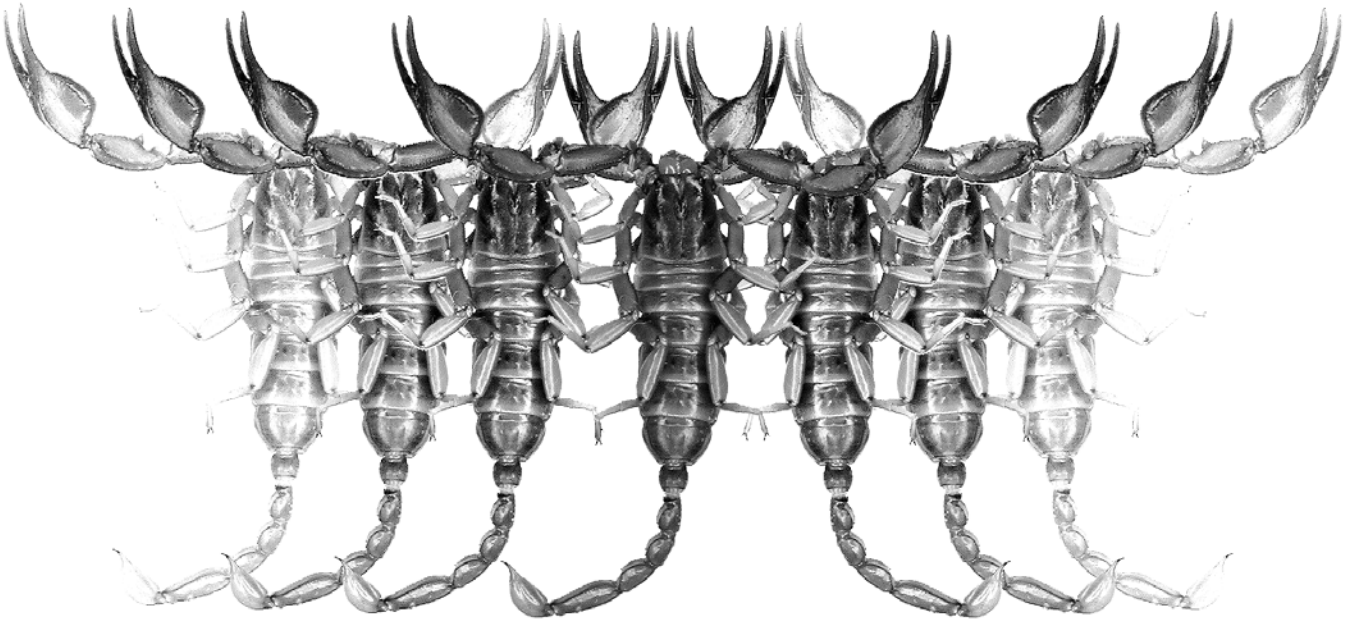
# *Euscorpius*

## Occasional Publications in Scorpiology

# Scorpions of Iran (Arachnida, Scorpiones). Part VIII. Fars Province


**Shahrokh Navidpour, Victor Fet, František Kovařík & Michael E. Soleglad**



**May 2012 – No. 139**

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## Occasional Publications in Scorpiology

*EDITOR*: **Victor Fet**, Marshall University, **'fet@marshall.edu'**

*ASSOCIATE EDITOR*: **Michael E. Soleglad, 'soleglad@la.znet.com'**

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**Derivatio Nominis**

The name *Euscorpius* Thorell, 1876 refers to the most common genus of scorpions in the Mediterranean region and southern Europe (family Euscorpiidae).

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- **USNM**, United States National Museum of Natural History (Smithsonian Institution), Washington, DC, USA
- **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

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**Publication date: 19 May 2012**

*Euscorpius* — Occasional Publications in Scorpiology. 2012, No. 139

# Scorpions of Iran (Arachnida, Scorpiones). Part VIII. Fars Province

**Shahrokh Navidpour [1], Victor Fet [2], František Kovařík [3] & Michael E. Soleglad [4]**

[1] Razi Reference Laboratory of Scorpion Research, Razi Vaccine and Serum Research Institute, P.O. Box 31975/148, Department of Venomous Animals & Toxins, Hesarak, Karaj, Iran
[2] Department of Biological Sciences, Marshall University, Huntington, WV 25755, USA
[3] P.O. Box 27, CZ-145 01 Praha 45, Czech Republic; www.kovarex.com/scorpio
[4] P.O. Box 250, Borrego Springs, CA 92004, USA

## Summary

18 species of scorpions belonging to three families are reported from the Fars Province of Iran. Of these, four species are recorded from the province for the first time: *Compsobuthus persicus* Navidpour, Soleglad, Fet et Kovařík, 2008, *Mesobuthus eupeus persicus* (Pocock, 1899), *Odontobuthus bidentatus* Lourenço et Pézier, 2002, and *Scorpio maurus townsendi* (Pocock, 1900). Also presented is a key to all species of scorpions found in the province.

## Introduction

This paper continues a comprehensive field study of the scorpion fauna of Iran, province by province, by the RRLS team under Shahrokh Navidpour. This work includes documentation of biotope diversity, revisitation of previously known sites, some of them type localities, and sampling of all the encountered scorpion species. All specimens are collected with the help of UV light (night catch). Fars (Persian: فارس, *Fârs*) is one of the 30 provinces of Iran. It lies in the south of the country and its administrative center is Shiraz. It has an area of 122,400 km². Fars borders Bushehr Province to the west, Hormozgān Province to the south, Kerman and Yazd Provinces to the east, Isfahan Province to the north and Kohgilouyeh & Boyer Ahmad Province to the northwest. There are three distinct climatic regions within the Fars Province. First is the mountainous area of the north and northwest with moderate cold winters and mild summers. Second includes the central regions, with relatively rainy mild winters, and hot dry summers. The third region, located in the south and southeast, has moderate winters with very hot summers. The average annual temperature in Shiraz is 16.8°C, ranging between 4.7° and 29.2°C. The geographical and climatic variation of Fars Province allows for its diverse plant and animal life.

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;
MHNG – Museum d`Histoire naturelle, Geneva, Switzerland;
MNHN – Muséum National d´Histoire Naturelle, Paris, France;
NHMW – Naturhistorisches Museum Wien, Vienna, Austria;
RRLS – Razi Reference Laboratory of Scorpion Research, Razi Vaccine and Serum Research Institute, Sepah st., Hejrat sq., Ahvaz, Khoozestan, Iran;
VVZC – Valerio Vignoli Collection, Italy;
ZISP – Zoological Institute, Russian Academy of Sciences, St. Petersburg, Russia;
ZMHB – Museum für Naturkunde der Humboldt-Universität zu Berlin, Germany;
ZMUH – Zoologisches Institut und Zoologisches Museum, Universität Hamburg, Germany.

### List of scorpions of Fars Province

Family **Buthidae** C. L. Koch, 1837
***Androctonus crassicauda*** (Olivier, 1807)
***Compsobuthus persicus*** Navidpour, Soleglad, Fet et Kovařík, 2008 (first report)
***Compsobuthus matthiesseni*** (Birula, 1905)
***Compsobuthus petriolii*** Vignoli,2005
***Hottentotta saulcyi*** (Simon, 1880)
***Hottentotta schach*** (Birula, 1905)

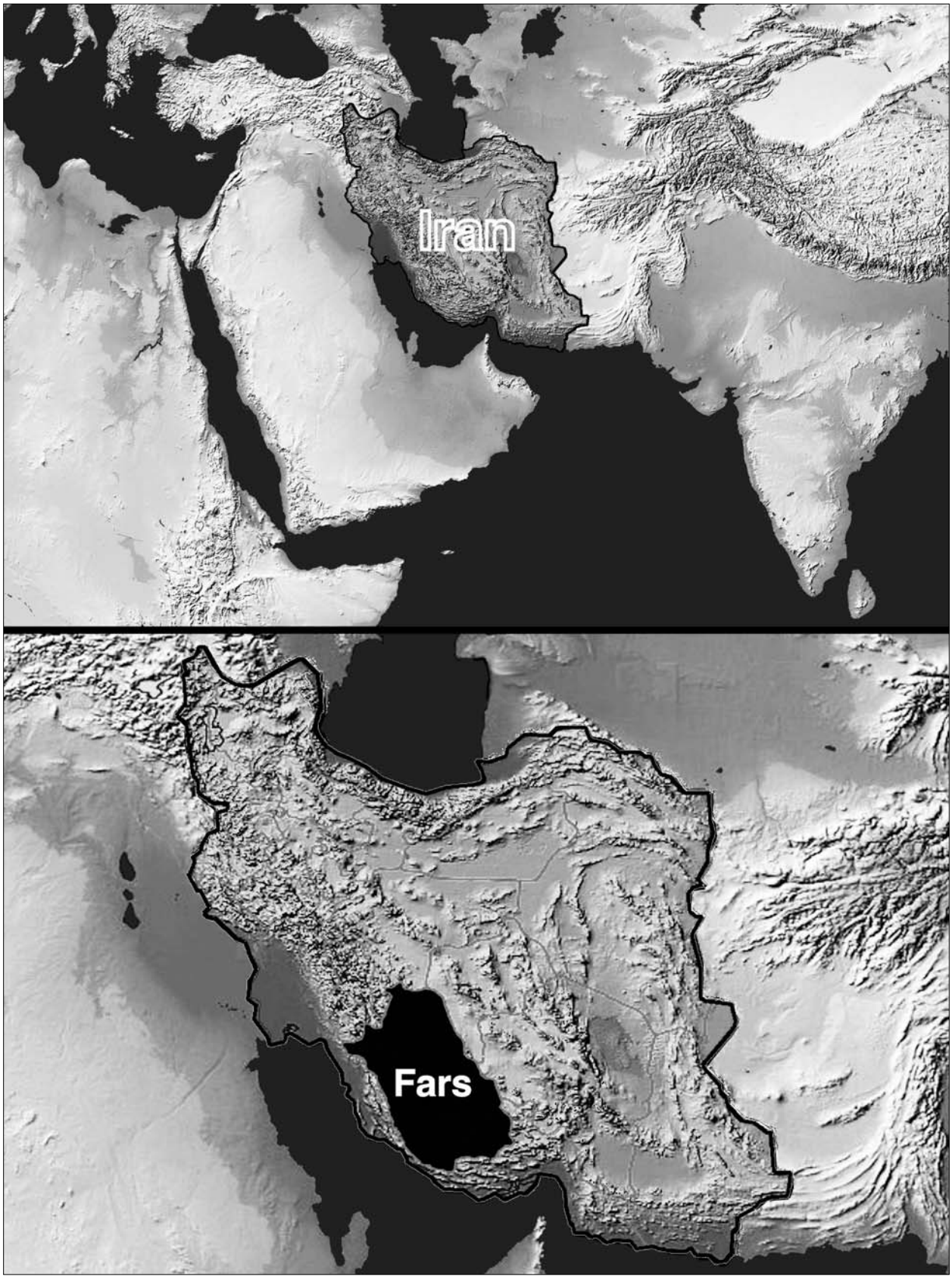



**Figure 1:** Map of southwestern Asia highlighting Iran (top) and closeup of Iran showing provinces, the Fars Province depicted in black (bottom).

***Hottentotta zagrosensis*** Kovařík, 1997
***Iranobuthus krali*** Kovařík, 1997
***Mesobuthus eupeus persicus*** (Pocock, 1899) (first report)
***Mesobuthus phillipsii*** (Pocock, 1889)
***Odontobuthus bidentatus*** Lourenço et Pézier, 2002 (first report)
***Odontobuthus doriae*** (Thorell, 1876)
***Orthochirus farzanpayi*** (Vachon et Farzanpay, 1987)
***Orthochirus zagrosensis*** Kovařík, 2004
***Razianus zarudnyi*** (Birula, 1903)

Family **Scorpionidae** Latreille, 1802
***Scorpio maurus townsendi*** (Pocock, 1900) (first report)

Family **Hemiscorpiidae** Pocock, 1893
***Hemiscorpius lepturus*** Peters, 1861
***Hemiscorpius* sp.** (? ***H. gaillardi*** (Vachon, 1974))

## Systematics

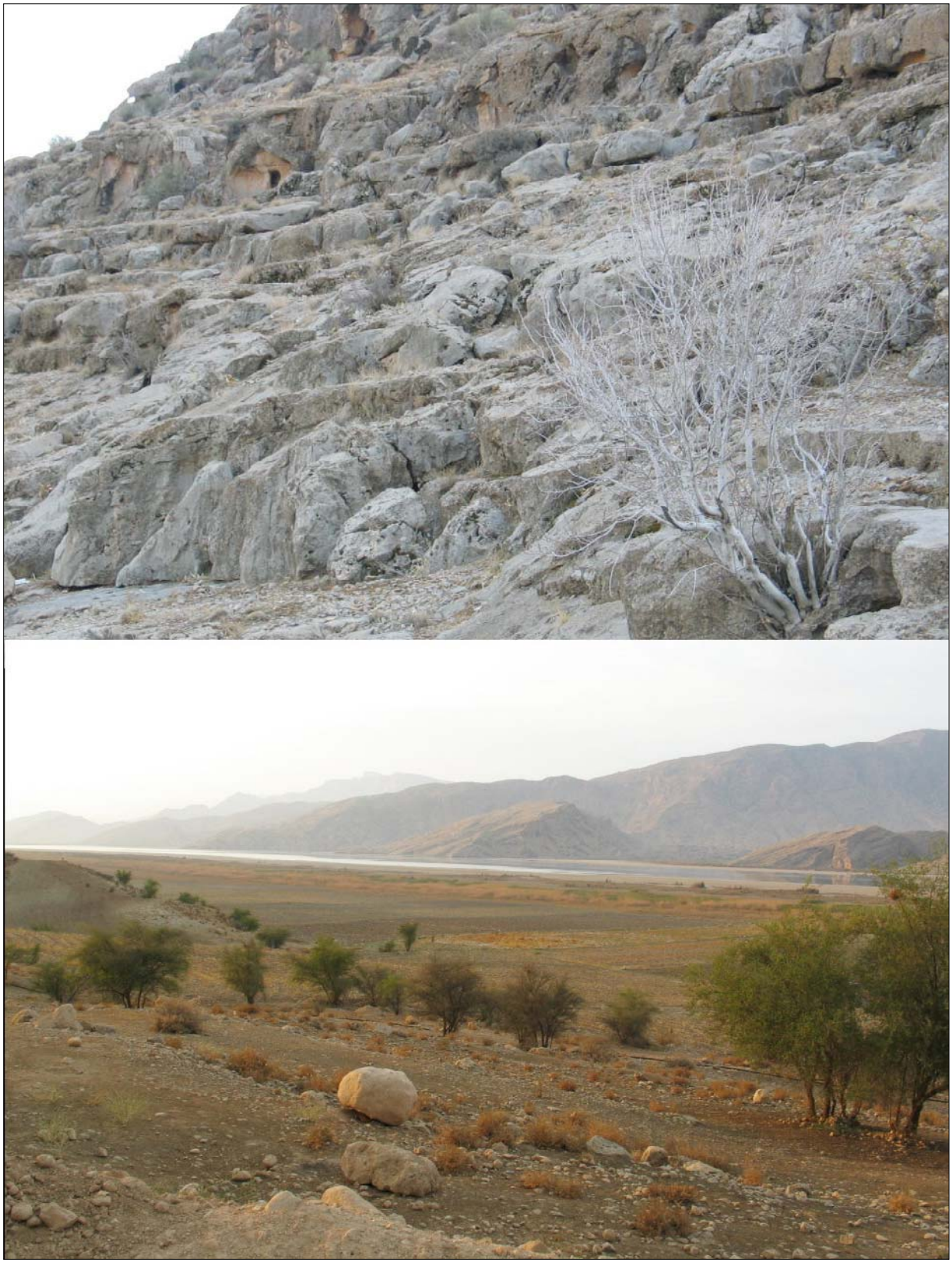
Family **Buthidae** C. L. Koch, 1837
***Androctonus crassicauda*** (Olivier, 1807)
(Fig. 6)

*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 Minocci, 1974: 17; Vachon, 1974: 909, fig. 40; Vachon, 1979: 31, figs. 1, 2, 4; Farzanpay, 1987: 141; Farzanpay, 1988: 36; Fet, 1989: 78; Al-Safadi, 1992: 96; Amr & El-Oran, 1994: 187; Sissom, 1994: 36; 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; Crucitti & Vignoli, 2002: 439; Kovařík, 2002: 5; Fet & Kovařík, 2003: 180; Vignoli et al., 2003: 2; 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; Navidpour et al., 2011: 3, figs. 4, 10, 17–20.
*Prionurus crassicauda*: Pocock, 1895: 292; Tullgren, 1909: 2; Birula, 1904: 29; Birula, 1905a: 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, 1900: 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 Minocci, 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.

FARS PROVINCE MATERIAL EXAMINED. **Iran**, Fars Province, Pasargad, Saadat Shahr, 30°17'59"N 52° 10'29"E, 1862 m a.s.l. (Locality No. Fa-859), IX.2008, 1♂ (RRLS), leg. Masihipour, Hayader & Bahrani; Kazeroon, Farashband road, 29°29'10"N 51°49'54"E, 832 m a.s.l. (Locality No. Fa-847), IX.2008, 1♀ (RRLS), leg. Habibzadeh, Hayader & Masihipour; Kazeroon, Farashband, 29°25'03"N 52°14'31"E, 814 m a.s.l. (Locality No. Fa-844), IX.2008, 2♂ (RRLS) 1♂ (FKCP), leg. Bahrani, Habibzadeh, Masihipour & Hayader; Gheer-Khonj, 28°14'34"N 53°06'41"E, 638 m a.s.l. (Locality No. Fa-867), X.2008, 1♀ (RRLS), leg, Masihipour & Hayader; Juym-Lar, 28°14'45"N 54° 03'15"E, 732 m a.s.l. (Locality No. Fa-877), X.2008, 1im (RRLS), leg. Habibzadeh, Hayader & Masihipour; Jahrom-Lar (5 km to Lar), 27°42'30"N 54°19'33"E, 861 m a.s.l. (Locality No. Fa-890), X.2008, 2♂ 1♀ (RRLS), leg. Bahrani, Habibzadeh, Masihipour & Hayader.

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, 1892: 83), 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 (Simon, 1872: 247), Tunisia (Kraepelin, 1901: 266), Turkey (Pocock, 1902: 373), United Arab Emirates (Hendrixson, 2006: 40), and Yemen (Birula, 1937: 101).



**Figures 2–3:** Iran, Fars Province. **2.** Parishan, 29°20'10"N 51°49'54"E, 867 m a.s.l. (Locality No. Fa-848). Recorded occurrence of *Mesobuthus phillipsii* (Pocock, 1889), *Odontobuthus bidentatus* Lourenço et Pézier and *Razianus zarudnyi* (Birula, 1903). **3.** Marvdasht, 29°58'20"N 52°55'50"E, 1467 m a.s.l. (Locality No. Fa-860). Recorded occurrence of *Hottentotta schach* (Birula, 1905), *Razianus zarudnyi* (Birula, 1903) and *Hemiscorpius lepturus* Peters, 1861.

**Figure 4–5:** Iran, Fars Province. 4. Marvdasht-Shiraz road, 29°57'59"N 51°55'41"E, 1632 m a.s.l. (Locality No. Fa-861). Recorded occurrence of *Hottentotta schach* (Birula, 1905), *Iranobuthus krali* Kovařík, 1997, *Odontobuthus bidentatus* Lourenço et Pézier, *Razianus zarudnyi* (Birula, 1903) and *Hemiscorpius lepturus* Peters, 1861. **5.** Bastak-Lar road, Ooneh Village, 27°23'26"N 54°13'28"E, 540 m a.s.l. (Locality No. Fa-880). Recorded occurrence of *Odontobuthus bidentatus* Lourenço et Pézier.

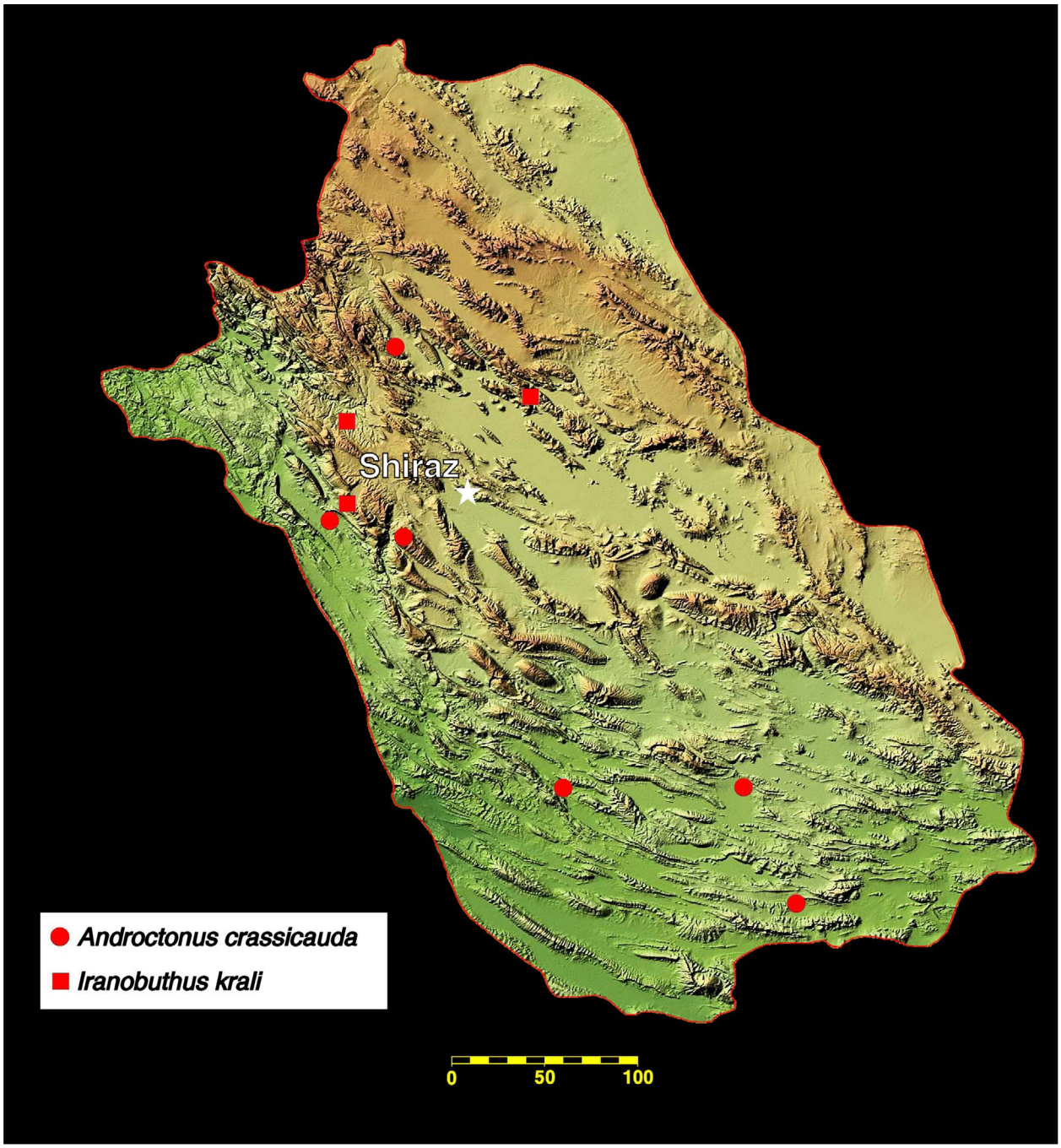



**Figure 6:** Map of Fars Province showing distribution of *Androctonus crassicauda* (Olivier, 1807) and *Iranobuthus krali* Kovařík, 1997 collected in this study.

***Compsobuthus persicus*** Navidpour, Soleglad, Fet et Kovařík, 2008
(Fig. 7)

*Compsobuthus persicus* Navidpour et al., 2008b: 9, figs. 2, 5, 7, 9–15, 16–18, 19, 37–40.

TYPE LOCALITY AND TYPE REPOSITORY. Iran, Bushehr Province, Borazjan, Dalaki, 29°23'27"N 51°16'00"E, 100 m a.s.l.; RRLS and FKCP.

TYPE MATERIAL EXAMINED. **Iran**, Bushehr Province, Borazjan, Dalaki, 29°23'27"N 51°16'00"E, 100 m a.s.l. (Locality No. Bu-19), XI.2007, 1♂2♀(holotype and paratypes) (RRLS), 1♂(paratype) (FKCP), leg. Masihipour & Bahrani; Borazjan, 29°16'56"N 51°15'26"E, 200 m a.s.l. (Locality No. Bu-18), II.2007, 2♀(paratypes) (FKCP), leg. Masihipour, Bahrani & Habibzadeh; Dayer, 27°49'35"N 52°04'44"E, 4 m a.s.l. (Locality No. Bu-25), XI.2007, 1♀(paratype) (RRLS), leg. Masihipour, Bahrani & Habibzadeh; Tangestan,

Ahram, 28°51'45"N 51°20'50"E, 123 m a.s.l. (Locality No. Bu-36), XI.2007, 1♂2♀(paratypes) (RRLS), 1im. (paratype) (FKCP), leg. Masihipour, Bahrani & Habibzadeh; Tangestan to Farashband, 29°52'49"N 51°22' 31"E, 227 m a.s.l. (Locality No. Bu-37), XI.2007, 2♂ 4♀(paratypes) (RRLS) 2♀(paratypes) (FKCP), leg. Masihipour, Bahrani & Habibzadeh; Deylam road, Khite Amareh Village, 30°42'52"N 49°44'59"E, 41 m a.s.l. (Locality No. OM-801), VII.2007, 1♂(paratype) (RRLS), leg. Navidpour, Masihipour & Habibzadeh.

FARS PROVINCE MATERIAL EXAMINED. **Iran**, Fars Province, 85 km to Lar, 28°13'07"N 54°04'25"E, 865 m a.s.l. (Locality No. Fa-862), X.2008, 1♂3♀ (RRLS), leg. Bahrani, Habibzadeh, Masihipour & Hayader; Gheer, 28°15'16"N 53°05'04"E, 657 m a.s.l. (Locality No. Fa-868), X.2008, 2♂4♀ (RRLS), 1♂2♀ (FKCP), leg. Hayader, Bahrani, Masihipour & Habibzadeh; Gheer-Hengam, 28°32'26"N 52°41'25"E, 1219 m a.s.l. (Locality No. Fa-874), X.2008, 3♂2♀ (RRLS), 1♀ (FKCP), leg. Masihipour & Hayader; Gheer-Hengam road, 29° 31'08"N 52°52'02"E, 987 m a.s.l. (Locality No. Fa-875), X.2008, 4♂1♀ (RRLS), 2♂ (FKCP), leg. Bahrani, Habibzadeh, Masihipour & Hayader.

DISTRIBUTION: Iran, eastern Bushehr (Navidpour et al., 2008b: 9), and Fars (first report) Provinces.

***Compsobuthus petriolii*** Vignoli, 2005
(Fig. 7)

*Compsobuthus petriolii* Vignoli, 2005: 80, figs. 1–10; Kovařík & Ahmed, 2007: 6; Karataş et al., 2012: 112.

TYPE LOCALITY AND TYPE REPOSITORY. **Iran**, Fars Province, Persepolis, Tahr-e-Gamsisd, 29º54'N 52º54'E, 1100 m a.s.l.; VVZC.

DISTRIBUTION: Iran, Fars (Vignoli, 2005: 80), East Azarbaijan, West Azarbaijan, and Qom (Karataş et al., 2012: 112) Provinces.

***Compsobuthus matthiesseni*** (Birula, 1905)
(Fig. 7)

*Buthus acutecarinatus matthiesseni* Birula, 1905a: 142; Birula, 1937: 107.
*Buthus* (*Buthus*) *acutecarinatus matthiesseni*: Birula, 1917: 229, 240; Birula, 1918: 25.
*Buthus* (*Hottentotta*) *acutecarinatus matthiesseni*: Vachon, 1940a: 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; Crucitti & Vignoli, 2002: 441, figs. 6–7; Kovařík, 2002: 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; Navidpour et al., 2011: 9, figs. 11, 29–32; Karataş et al., 2012: 112.
*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.

FARS PROVINCE MATERIAL EXAMINED. **Iran**, Fars Province, 10 km E of Sivand, 30°05'N 52°55'E, ca 1700 m a.s.l., 29.- 30.IV.1996, 5♀ (FKCP), leg. M. Kaftan, D. Král, and J. Pitulová; Zagros Mts., Abshar env., 30°23'N 51°30'E, ca 1000 m a.s.l., 2.-3.V.1996, 1♀ (FKCP), leg. M. Kaftan; 5 km SE of Posht Chenár, 29°12'N 53°20'E, 1692 m a.s.l., 19.-20.IV.2000, 2♀1juv. (FKCP), leg. J. Šobotník; 2 km W of Khollar, 29°59'N 52°12'E, 2130 m a.s.l., 22.-23.IV.2000, 1♀ (FKCP), leg. J. Šobotník; 10 km S of Firuz Abad, 28°55'N 52°31'E, 1412 m a.s.l., 20.-21.IV.2000, 1♀1juv. (FKCP), leg. J. Šobotník; Firoozabad – Gheer road, 29°40'39"N 52°44'34"E, 1207 m a.s.l. (Locality No. Fa-850), IX.2008, 2♂ (RRLS), leg. Masihipour & Habibzadeh; Kazeroon-Borazjan road, 29°33'36"N 51°23'58"E, 724 m a.s.l. (Locality. No. Fa-841), IX.2008, 1♂1♀ (RRLS), leg. Masihipour, Bahrani & Habibzadeh.

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 & Bakhtiyari (Pirali-Kheirabadi et al., 2009: 5); Iraq (Birula, 1917: 240; Pringle, 1960: 77), Syria (Kovařík, 2002: 7), Turkey (Kovařík, 1996: 53).

***Hottentotta saulcyi*** (Simon, 1880)
(Fig. 8)

*Buthus saulcyi* Simon, 1880a: 378; Simon, 1880b: 29; Kraepelin, 1899: 18; Kraepelin, 1901: 267; Weidner, 1959: 99.
*Buthus* (*Hottentotta*) *saulcyi*: Birula, 1905a: 136; Birula, 1917: 214; Birula, 1918: 30; Vachon, 1940b: 255.
*Buthotus saulcyi*: Vachon, 1949: 147 (1952: 233); Vachon, 1959: 134; Pringle, 1960: 79, fig. 5;

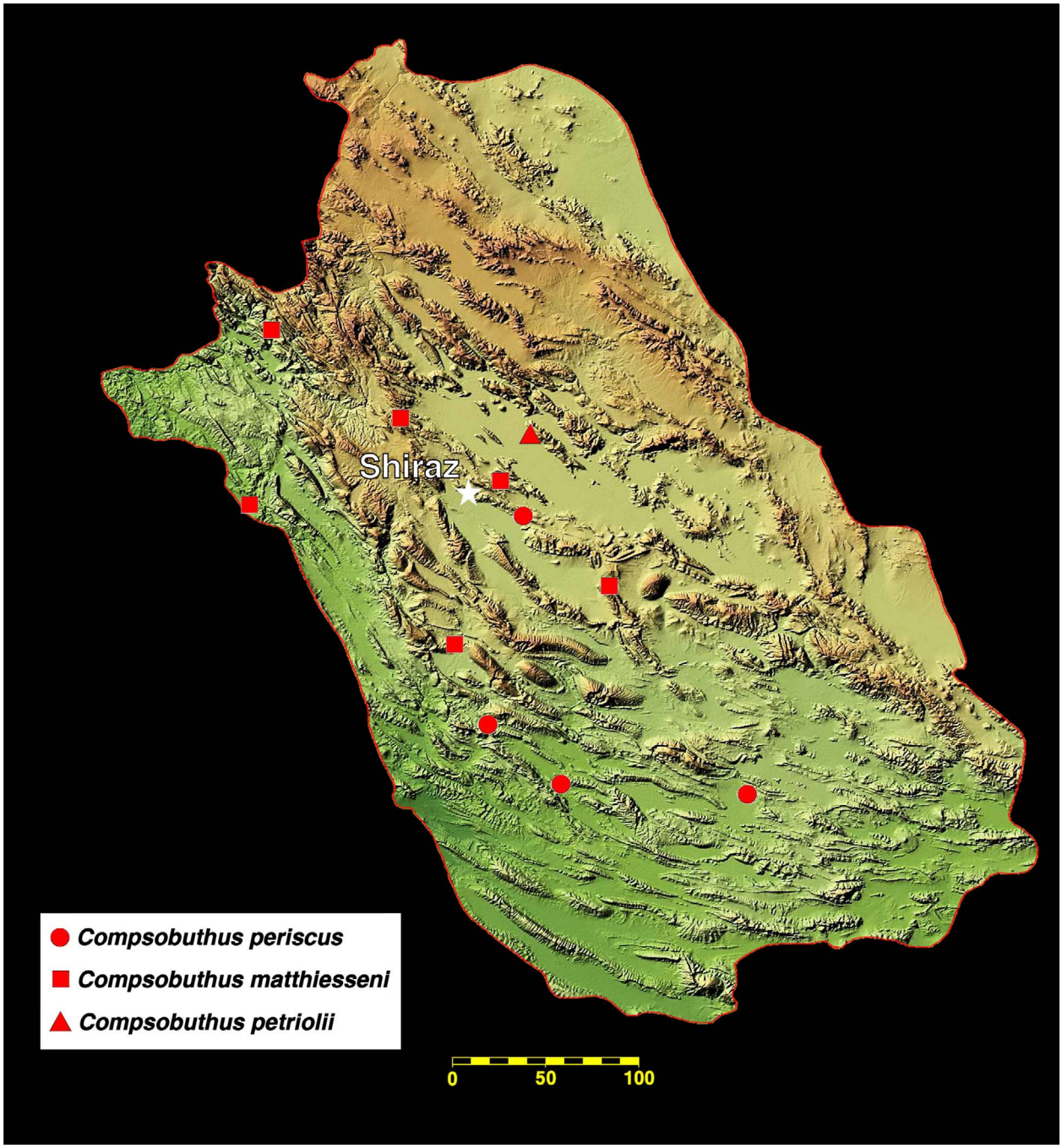



**Figure 7:** Map of Fars Province showing distribution of *Compsobuthus persicus* Navidpour, Soleglad, Fet et Kovařík, 2008, *Compsobuthus matthiesseni* (Birula, 1905) and *Compsobuthus petriolii* Vignoli, 2005 collected in this study.

Khalaf, 1962: 2; Khalaf, 1963: 64; Vachon, 1966: 210; Vachon & Stockmann, 1968: 91; Habibi, 1971: 43; Pérez Minocci, 1974: 21; Farzanpay, 1987: 148; Farzanpay, 1988: 37; El-Hennawy, 1992: 118; Kovařík, 1992: 183; Dupré et al., 1998: 70; Akbari et al., 1997: 112; Akbari, 2007: 76, fig. p. 63.

*Hottentotta saulcyi*: Kovařík, 1997a: 40; Crucitti & Vignoli, 2002: 446, figs. 8–10; Karataş, 2003: 315; Vignoli et al., 2003: 4; Kovařík, 2007: 61, figs. 17, 95–99; Navidpour et al., 2008b: 13, figs. 2, 22, 29–32; Navidpour et al., 2008c: 8, figs. 9, 17–20; Navidpour et al., 2008d: 5, figs. 4, 7, 19–22; Pirali-Kheirabadi et al., 2009: 6, figs. 9, 16–19; Navidpour et al., 2010: 10, figs. 5, 15; Karataş et al., 2012: 113.

*Hottentotta* (*Hottentotta*) *saulcyi*: Kovařík, 1998: 110; Fet & Lowe, 2000: 143.

*Buthus hottentotta*: Kraepelin, 1891: 185 (in part).

TYPE LOCALITY AND TYPE REPOSITORY. Iraq, Mosul; MNHN, ZMUH.

FARS PROVINCE MATERIAL EXAMINED. **Iran**, Fars Province, Gheer-Hengam, 28°32'26"N 52°41'25"E, 1219 m a.s.l. (Locality No. Fa-874), X.2008, 5♂3♀ (RRLS), 1juv. (FKCP), leg, Masihipour & Hayader.

DISTRIBUTION: Iran, known from Kermanshah (formerly Bachtaran), Fars, Hamadan, Hormozgan, Ilam, Lorestan (Kovařík, 2007: 65), Bushehr and Khoozestan (Akbari, 2007: 76, Akbari et al., 1997: 112), Kohgilouyeh & Boyer Ahmad (Navidpour et al., 2008d: 5), and Chahar Machal & Bakhtiyari (Pirali-Kheirabadi et al., 2009: 6) Provinces; Afghanistan (Kovařík, 1997a: 40), Iraq (Simon, 1880a: 379), Turkey (Crucitti & Vignoli, 2002: 446).

***Hottentotta schach*** (Birula, 1905)
(Figs. 3–4, 8)

*Buthus schach* Birula, 1905a: 134.
*Buthus* (*Hottentotta*) *schach*: Birula, 1914: 652; Birula, 1917: 214; Birula, 1918: 31.
*Buthotus schach*: Vachon, 1949: 147 (1952: 233); Vachon, 1959: 134; Vachon, 1966: 211; Vachon & Stockmann, 1968: 91; Habibi, 1971: 43; Pérez Minocci, 1974: 20; Farzanpay, 1988: 37; El-Hennawy, 1992: 118.
*Hottentotta schach*: Farzanpay & Pretzmann, 1974: 215; Kovařík, 1997a: 40, Kovařík, 2007: 69; Kovařík, 1998: 62; Navidpour et al., 2008: 10, figs 9, 72–73; Navidpour et al., 2010: 12, fig. 16; Karataş et al., 2012: 114.
*Hottentotta* (*Hottentotta*) *schach*: Kovařík, 1998: 110; Fet & Lowe, 2000: 143.

TYPE LOCALITY AND TYPE REPOSITORY. Dech-i-Dis (now Dehdez), Arabistan (now Khoozestan Province, Iran); ZISP.

FARS PROVINCE MATERIAL EXAMINED. **Iran**, Fars Province, 10 km E of Sivand, 30°05'N 52°55'E, ca 1700 m a.s.l., 29.- 30.IV.1996, 1♂2♀ (FKCP), leg. M. Kaftan and V. Šejna; Marvdasht, 29°58'20"N 52°55'50"E, 1467 m a.s.l. (Locality No. Fa-860), IX.2008, 2♂2♀ (RRLS), 1♀ (FKCP), leg. Hayader, Bahrani, Masihipour & Habibzadeh; Marvdasht-Shiraz road, 29°57'59"N 51°55'41"E, 1632 m a.s.l. (Locality No. Fa-861), IX.2008, 1♀ (RRLS), leg. Masihipour, Bahrani & Habibzadeh.

DISTRIBUTION: Iran, Esfahan (Karataş et al., 2012: 114), Khoozestan (Birula, 1905a: 134) and Fars (Kovařík, 2007: 69) Provinces; Iraq (Vachon, 1966: 211).

***Hottentotta zagrosensis*** Kovařík, 1997
(Fig. 8)

*Hottentotta zagrosensis* Kovařík, 1997a: 41, figs. 1–3, 14; Kovařík, 1998: 111; Fet & Lowe, 2000: 144, Kovařík, 2007: 86, figs. 1–3, 126–129; Navidpour et al., 2008a: 10, figs. 11, 17, 77–80; Navidpour et al., 2008d: 5, figs. 3–4, 23–26; Pirali-Kheirabadi et al., 2009: 6, figs. 2, 6–7, 9, 20–23; Navidpour et al., 2010: 13, figs. 5, 18; Karataş et al., 2012: 114.

TYPE LOCALITY AND TYPE REPOSITORY. Iran, Fars Province, Zagros Mts., Abshar env., 30°23'N 51°30'E, ca. 1000 m a.s.l.; FKCP.

TYPE MATERIAL EXAMINED. **Iran**, Fars Province, Zagros Mts., Abshar env., 30°23'N 51°30'E, ca. 1000 m a.s.l., 2.-3.V.1996 1♂ (holotype) 1♂im. and its ecdysis (paratype No. 1), leg. J. Pitulová, 1♀ (allotype) 2juvs. (paratypes No. 2 and No. 3), leg. V. Šejna, 1juv. (paratype No. 4), leg. D. Král, FKCP.

OTHER FARS PROVINCE MATERIAL EXAMINED. **Iran**, Fars Province, 5 km SE of Posht Chenár, 29°12'N 53°20'E, 1692 m a.s.l., 20.IV.2000, 1♀ (FKCP), leg. M. Kaftan.

DISTRIBUTION: Iran, Fars, West Azarbaijan, Khoozestan (Kovařík, 2007: 86; Navidpour et al., 2008a: 10), Kohgilouyeh & Boyer Ahmad (Navidpour et al., 2008d: 5), Chahar Machal & Bakhtiyari (Pirali et al., 2009: 6), and Qazvin (Karataş et al., 2012: 114) Provinces.

***Iranobuthus krali*** Kovařík, 1997
(Figs. 4, 6, 9, 19 and 24)

*Iranobuthus krali* Kovařík, 1997a: 45, figs. 4–10, 15; Kovařík, 1998: 111; Fet & Lowe, 2000: 145; Vignoli, Kovařík & Crucitti, 2003: 2; Fet et al., 2005: 12.

TYPE LOCALITY AND TYPE REPOSITORY. Iran, Fars Province, 10 km E of Sivand, 30º05'N 52º55'E, ca 1700 m a.s.l.; FKCP.

TYPE MATERIAL EXAMINED. **Iran**, Fars Province, 10 km E of Sivand, 30º05'N 52º55'E, ca 1700 m a.s.l., 29.-30.IV.1996, 1♂ (holotype) (FKCP), leg. D. Král.

OTHER FARS PROVINCE MATERIAL EXAMINED. **Iran**, Fars Province, Dasht-e-Artzan, 29°34'N 51°56'E, 2000 m a.s.l., 21.-22.IV.2000, 1♂2♀ (FKCP), leg. J. Šobotník; Marvdasht-Shiraz road, 29°57'59"N 51°55'41"E, 1632 m a.s.l. (Locality No. Fa-861), IX.2008, 1♀ (RRLS), 1♂ (FKCP), leg. Masihipour, Bahrani & Habibzadeh.

DISTRIBUTION: Iran, Fars (Kovařík, 1997: 45), and Qom (Karataş et al., 2012: 114).

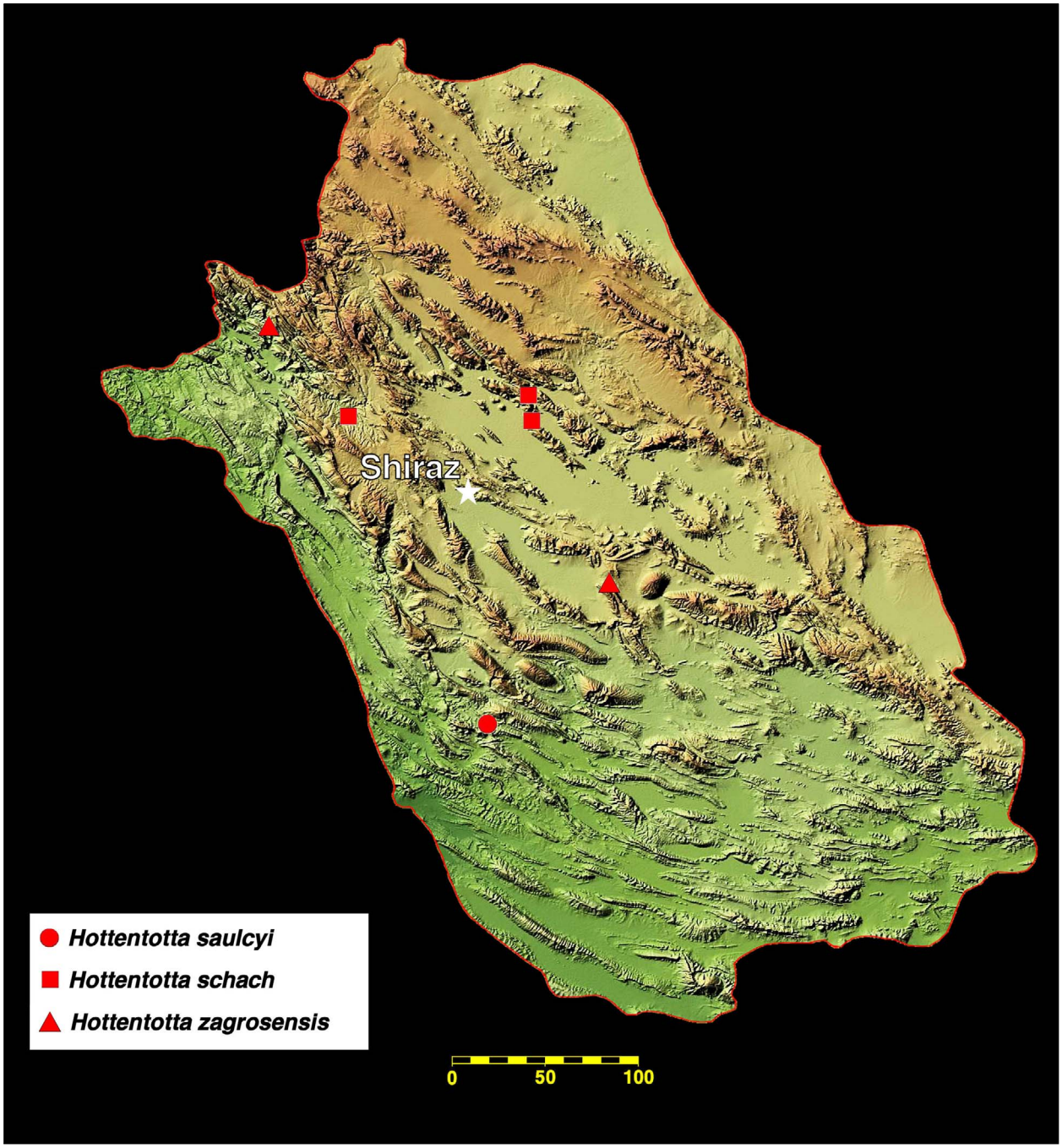



**Figure 8:** Map of Fars Province showing distribution of *Hottentotta saulcyi* (Simon, 1880), *Hottentotta schach* (Birula, 1905), and *Hottentotta zagrosensis* Kovařík, 1997 collected in this study.

***Mesobuthus eupeus persicus*** (Pocock, 1899)
(Figs. 10 and 22)

*Buthus caucasicus persicus* Pocock, 1899: 404; Pocock, 1900: 19.
*Buthus eupeus persicus*: Birula, 1905a: 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; Navidpour et al., 2011: 9, figs. 2, 6, 12, 41–44.
*Mesobuthus caucasicus persicus*: Pérez Minocci, 1974: 25; Capes & Fet, 2001: 303.

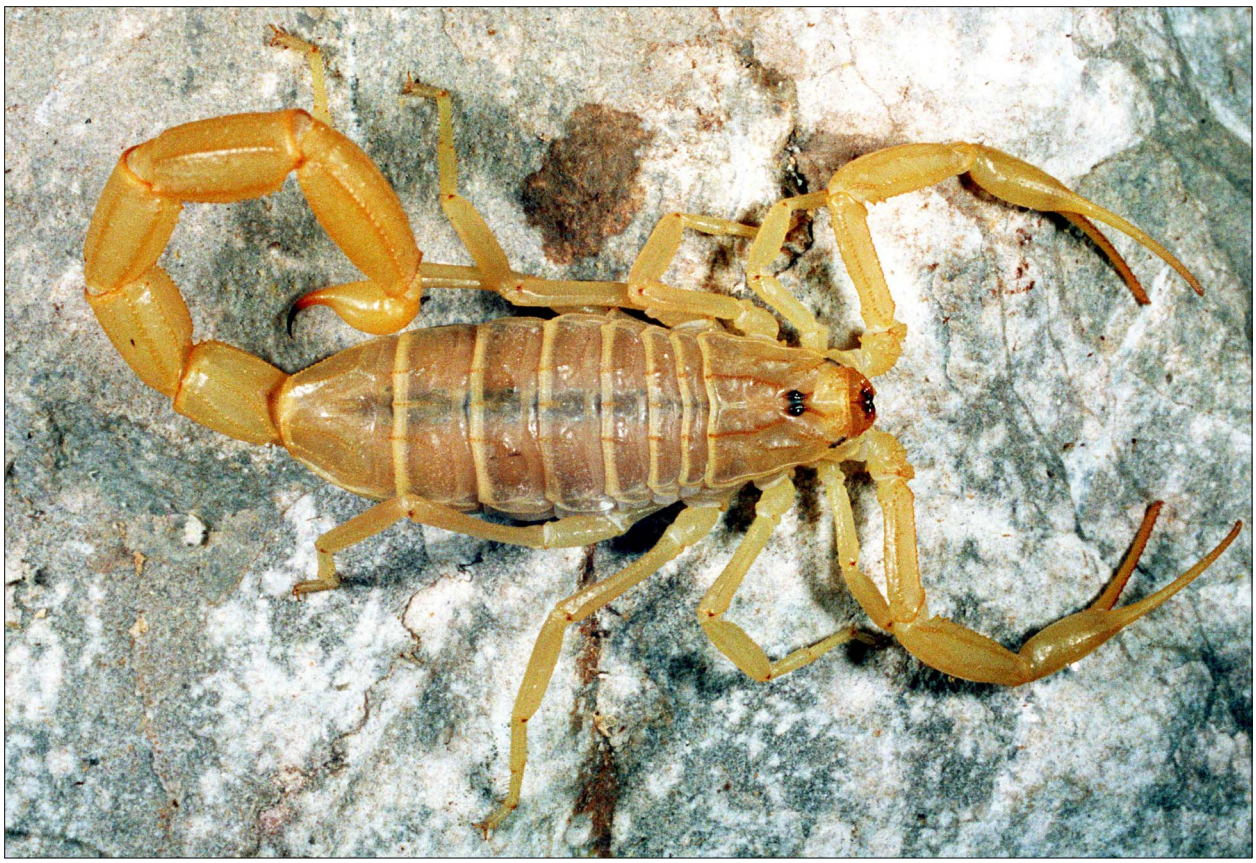


**Figure 9:** *Iranobuthus krali* Kovařík, 1997, live female from Iran, Fars Province, Dasht-e-Artzan, 29°34'N 51°56'E, 2000 m a.s.l., FKCP.

= ? *Buthus eupeus kirmanensis* Birula, 1900: 364 (see Fet & Lowe, 2000: 173).
*Buthus* (*Buthus*) *eupeus kirmanensis*: Birula, 1917: 239; Birula, 1918: 14.
*Mesobuthus eupeus kirmanensis*: Vachon, 1959: 155; Vachon, 1966: 212; Habibi, 1971: 43; Farzanpay, 1988: 38; Fet, 1994: 527; Kovařík, 1997a: 49; Kovařík, 1998: 114; Fet & Lowe, 2000: 173; Mirshamsi et al., 2011: 9.
= ? *Buthus pachysoma* Birula, 1900: 370 (syn. by Navidpour et al., 2011: 9).
*Buthus eupeus pachysoma*: Birula, 1905a: 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; Kovařík, 1997a: 49; Kovařík, 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, BMNH No. 1900.1,15.

FARS PROVINCE MATERIAL EXAMINED. **Iran**, Fars Province, 10 km E of Sivand, 30º05'N 52º55'E, ca 1700 m a.s.l., 29.-30.IV.1996, 1♀ (FKCP), leg. M. Kaftan; Rustai Kanj, 28°10'N 55°26'E (altered), 760 m a.s.l., 19.IV.2000, 1♀ (FKCP), leg. M. Kaftan; 10 km S of Firuz Abad, 28°55'N 52°31'E, 1412 m a.s.l., 20.-21.IV.2000, 1♀ (FKCP), leg. J. Šobotník; Kazeroon-Farashband, Safar Hussain Village, 29°00'28"N 52°22'21"E, 761 m a.s.l. (Locality No. Fa-845), IX.2008, 1♂3♀2juvs. (RRLS), 3♂1im. (FKCP), leg. Bahrani, Habibzadeh, Masihipour & Hayader; Firoozabad – Gheer road, 29°25'49"N 52°55'04"E, 1251 m a.s.l. (Locality No. Fa-852), IX.2008, 2♂2♀ (RRLS), leg. Bahrani, Habibzadeh, Masihipour; Meymand-Firoozabad road, 29°47'32"N 52°49'41"E, 1441 m a.s.l. (Locality No. Fa-853-4), IX.2008, 2♂1♀ (RRLS), leg. Bahrani, Habibzadeh, Masihipour; Abadeh, Semirom road, 31°08'03"N 52°19'50"E, 2288 m a.s.l. (Locality No. Fa-857), IX.2008, 3♂1♀ (RRLS), 4♂ (FKCP), leg. Masihipour, Hayader, Bahrani; Abadeh, Semirom road, 31°44'N 52°12'E (altered), 1862 m a.s.l. (Locality No. Fa-858), IX.2008, 4♂ (RRLS), leg. Masihipour, Hayader & Bahrani; Pasargad, Saadat Shahr, 30°17'59"N 52°10'29"E, 1862 m a.s.l. (Locality No. Fa-859),

IX.2008, 6♂1♀4juvs. (RRLS), 2♂ (FKCP), leg. Masihipour, Hayader, Bahrani; Khonj, 28°25'00"N 53°03' 29"E, 731 m a.s.l. (Locality No. Fa-863), X.2008, 16♂ 12♀4juvs (RRLS), leg. Masihipour, Hayader & Bahrani; Gheer-Khonj, Seifabad Village, 28°14'39"N 53°06'28"E, 639 m a.s.l. (Locality No. Fa-864), X.2008, 1♂ (RRLS), leg. Bahrani, Habibzadeh, Masihipour & Hayader; Gheer-Khonj, Kahnooyeh Village, 29°07'55"N 53°08' 22"E, 578 m a.s.l. (Locality No. Fa-865), X.2008, 5♂6♀ (RRLS), 2♀ (FKCP), leg. Bahrani, Habibzadeh, Masihipour & Hayader; Gheer-Khonj, Oskooyeh Village, 29°06'03"N 53°12'39"E, 581 m a.s.l. (Locality No. Fa-866), X.2008, 2♂ (RRLS), 1♀1juv. (FKCP), leg. Bahrani, Habibzadeh, Masihipour & Hayader; Gheer-Khonj, 28°14'34"N 53°06'41"E, 638 m a.s.l. (Locality No. Fa-867), X.2008, 12♂17♀2juvs. (RRLS), 1♂3♀1im. (FKCP), leg. Hayader, Bahrani, Masihipour & Habibzadeh; Gheer, 28°15'16"N 53°05'04"E, 657 m a.s.l. (Locality No. Fa-868), X.2008, 4♂1♀im. (RRLS), leg. Hayader, Bahrani, Masihipour & Habibzadeh; Gheer-Khonj, Mozafary Village, 29°24'21"N 53°03' 04"E, 581 m a.s.l. (Locality No. Fa-869), X.2008, 15♂13♀2juvs. (RRLS), 5♀ (FKCP), leg. Bahrani, Habibzadeh, Masihipour & Hayader; Gheer-Hengam road, 28°30'20"N 52°53'48"E, 1170 m a.s.l. (Locality No. Fa-870), X.2008, 3♂9♀1juv. (RRLS), leg. Bahrani, Habibzadeh, Masihipour & Hayader; Gheer-Hengam road, 28°32'36"N 52°47'54"E, 1173 m a.s.l. (Locality No. Fa-871), X.2008, 6♂8♀10juvs. (RRLS), 1juv. (FKCP), leg. Bahrani, Habibzadeh, Masihipour & Hayader; Gheer-Hengam road, 28°27'28"N 52°37'31"E, 817 m a.s.l. (Locality No. Fa-872), X.2008, 3♂ (RRLS), leg. Bahrani, Habibzadeh, Masihipour & Hayader; Gheer-Hengam road, 28°27'51"N 52°40'13"E, 928 m a.s.l. (Locality No. Fa-872a), X.2008, 3♀ (RRLS), leg. Bahrani, Habibzadeh, Masihipour & Hayader; Gheer-Hengam road, 29°31'07"N 52°52'02"E, 987 m a.s.l. (Locality No. Fa-875), X.2008, 5♀ (RRLS), 2♀ (FKCP), leg. Bahrani, Habibzadeh, Masihipour & Hayader; Juym-Lar, 28°14'45"N 54°03'15"E, 732 m a.s.l. (Locality No. Fa-877), X.2008, 1♀ (RRLS), leg. Habibzadeh, Hayader & Masihipour; Juym-Lar, Banaruyeh, 29°05'39"N 54°06'16"E, 864 m a.s.l. (Locality No. Fa-878), X.2008, 2 juvs. (RRLS), 1juv. (FKCP), leg. Habibzadeh, Hayader & Masihipour.

DISTRIBUTION: Iran, East Azarbaijan (Pocock, 1899: 404), Fars (first report), Kerman, Sistan & Baluchistan (Birula, 1900: 364; Fet & Lowe, 2000: 173) and Yazd (Mirshamsi et al., 2011: 9) Provinces; Pakistan (Pocock, 1900: 20).

### ***Mesobuthus phillipsii*** (Pocock, 1889)
(Figs. 2, 10, 21 and 23)

*Buthus phillipsii* Pocock, 1889: 341, pl. XV, fig. 6; Weidner, 1959: 99.

*Buthus phillipsi*: Kraepelin, 1899: 24; Birula, 1905a: 131; Borelli, 1915: 460; Werner, 1916: 80; Lampe, 1918: 191.

*Mesobuthus phillipsi*: Vachon, 1950: 153 (1952: 325); Pérez Minocci, 1974: 25; Mirshamsi et al., 2011: 15.

*Buthus* (*Buthus*) *eupeus phillipsi*: Birula, 1917: 228.

*Mesobuthus eupeus phillipsi*: Vachon, 1959: 148; Vachon, 1966: 213; Habibi, 1971: 44; Farzanpay, 1986: 334; Fet, 1994: 527; Kovařík, 1997a: 49; Kovařík, 1998: 114; Fet & Lowe, 2000: 175.

*Mesobuthus eupeus phillipsii*: Farzanpay, 1987: 150; Farzanpay, 1988: 38; Navidpour et al., 2008a: 11, figs. 22, 81–84; Navidpour et al., 2008b: 13, figs. 2–3, 5, 21–22, 49–52; Navidpour et al., 2008c: 11, figs. 4, 7–9, 37–40; Navidpour et al., 2008d: 5, figs. 2–3, 5–9, 35–38; Pirali-Kheirabadi et al., 2009: 6, figs. 5, 10, 32–35; Navidpour et al., 2010: 13, fig. 19; Kovařík et al., 2011: 5, figs. 12–15, 17–18, 21–22, 24–26.

*Mesobuthus eupeus*: Akbari, 2007: 76.

*Buthus hottentotta*: Kraepelin, 1891: 185 (part?).

= *Buthus eupaeus mesopotamicus* Penther, 1912: 111 (syn. by Kovařík et al., 2011: 5).

TYPE LOCALITY AND TYPE REPOSITORY. Iran, Bushir (now Bushehr) Province; BMNH.

FARS PROVINCE MATERIAL EXAMINED. **Iran**, Fars Province, Zagros Mts., Abshar env., 30º23'N 51º30'E, ca 1000 m a.s.l., 2.-3.V.1996, 1♀ (FKCP), leg. J. Pitulová; Kazeroon-Borazjan, Konar Takhteh, 29°31'58"N 51°25'22"E, 568 m a.s.l. (Locality No. Fa-840), IX.2008, 16♂13♀4 juvs. (RRLS), leg. Bahrani, Habibzadeh, Masihipour & Hayader; Kazeroon-Borazjan road, 29°33'36"N 51°23'58"E, 724 m a.s.l.(Locality. No. Fa-841), IX.2008, 12♂6♀7 juvs. (RRLS), leg. Masihipour, Bahrani & Habibzadeh; Kazeroon-Borazjan road, 29°33'32"N 51°30'14"E, 963 m a.s.l. (Locality No. Fa-842), X.2008, 3♂1♀ (RRLS), leg. Habibzadeh, Hayader & Masihipour; Kazeroon, 29°42'03"N 51°41'24"E, 772 m a.s.l. (Locality No. Fa-843), IX.2008, 3♂6♀3juvs. (RRLS), 1♀im. (FKCP), leg. Habibzadeh, Hayader & Masihipour; Kazeroon-Farshband road, 29°10'32"N 52°00'57"E, 871 m a.s.l. (Locality No. Fa-846), IX.2008, 6♂3♀2juvs. (RRLS), 2♀1im, (FKCP), leg. Habibzadeh, Hayader & Masihipour; Farashband road, 29°29'10"N 51°49'54"E, 832 m a.s.l. (Locality No. Fa-847), IX.2008, 25♂31♀10♀ims.11juvs. (RRLS), leg. Habibzadeh, Hayader & Masihipour; Parishan, 29°20'10"N 51°49'54"E, 867 m a.s.l. (Locality No. Fa-848), IX.2008, 5♂4♀ (RRLS), 1♂1♀ (FKCP), leg. Habibzadeh, Hayader & Masihipour; Bastak-Lar road, 27°30'40"N 54°13'55"E, 779 m a.s.l. (Locality No. Fa-884), X.2008, 1♀ (RRLS), 1♀im. (FKCP), leg. Bahrani, Habibzadeh, Masihipour; Bastak-Lar, 27°31'23"N 54°27'10"E, 772 m

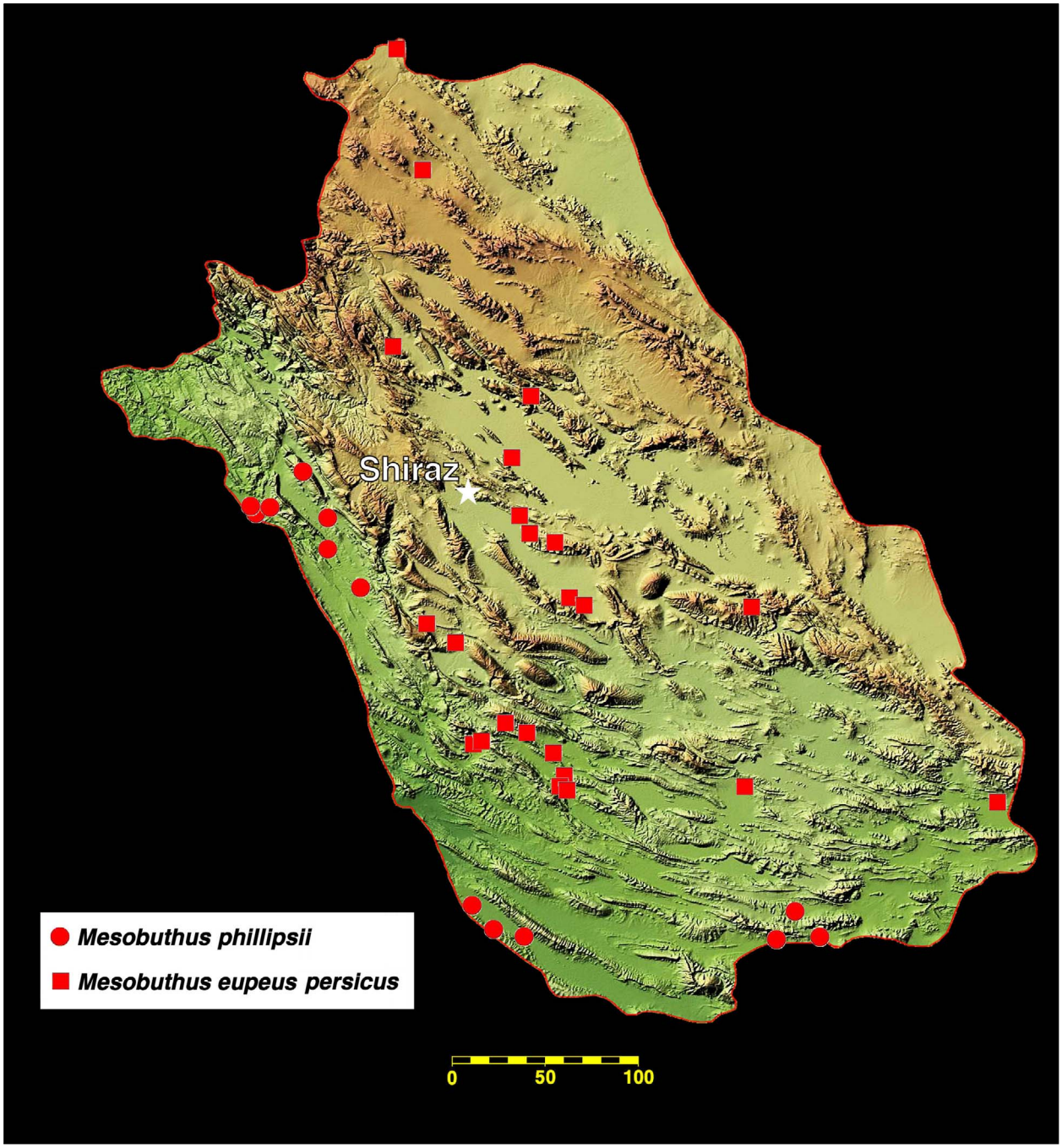



**Figure 10:** Map of Fars Province showing distribution of *Mesobuthus phillipsii* (Pocock, 1889) and *Mesobuthus eupeus persicus* (Pocock, 1899) collected in this study.

a.s.l. (Locality No. Fa-885), X.2008, 1♀ (RRLS), leg. Bahrani, Habibzadeh & Masihipour; Lar, 27°40'06"N 54°19'36"E, 917 m a.s.l. (Locality No. Fa-886), X.2008, 6♂1♀ (RRLS), 2♀1im. (FKCP), leg. Bahrani, Habibzadeh & Masihipour; Mehr-Galedar, Chahoo Village, 27°34'27"N 52°50'36"E, 434 m a.s.l. (Locality No. Fa-887), IX.2008, 1♀ (RRLS), 1♀ (FKCP), leg. Bahrani, Habibzadeh, Masihipour & Hayader; Mehr-Galedar, Fal Village, 27°35'53"N 52°42'11"E, 475 m a.s.l. (Locality No. Fa-888), IX.2008, 6♂1♀2juvs. (RRLS), leg. Bahrani, Habibzadeh, Masihipour & Hayader; Galedar-Jam (Noorabad), 27°42'15"N 52°36' 29"E, 490 m a.s.l. (Locality No. Fa-889), X.2008, 2♀1juv. (RRLS), leg. Habibzadeh, Hayader & Masihipour.

DISTRIBUTION: Iran, Bushehr (Pocock, 1889: 341), Chahar Machal & Bakhtiyari (Pirali-Kheirabadi et al.,

2009: 6), Esfahan (Kovařík et al., 2011: 6), Fars (Kovařík et al., 2011: 6), Ilam (Akbari, 2007: 76), Khoozestan (Navidpour et al., 2008a: 9), Kohgilouyeh & Boyer Ahmad (Kovařík, 1997), and Lorestan (Navidpour et al., 2010: 13) Provinces; Iraq (Vachon, 1966: 213; Fet & Lowe, 2000: 175); Turkey, Adıyaman, Diyarbakir, Gaziantep, Kahramanmaraş, Kilis, Mardin, Şanlıurfa, and Şirnak Provinces (Kovařík et al., 2011: 8-10).

***Odontobuthus bidentatus*** Lourenço et Pézier, 2002
(Figs. 2, 4–5, 11 and 26)

*Odontobuthus odonturus*: Habibi, 1971: 44 (in part); Farzanpay, 1987: 155; Farzanpay, 1988: 39; Kovařík, 1997a: 47; Kovařík, 1998: 115 (in part); Fet & Lowe, 2000: 188 (in part); Akbari, 2007: 76.

*Odontobuthus bidentatus* Lourenço & Pézier, 2002: 118; Navidpour et al., 2008a: 13; Navidpour et al., 2008b: 15; Navidpour et al., 2008c: 11; Navidpour et al., 2008d: 9, figs. 2, 5, 27–30; Lowe, 2010: 13, figs. 31–32, 43–48, 58–59, 65; Karataş et al., 2012: 116.

TYPE LOCALITY AND TYPE REPOSITORY. Iraq, 180 km north of Baghdad, Khanagin-Dyala; MHNG.

FARS PROVINCE MATERIAL EXAMINED. **Iran**, Fars Province, Kazeroon, 29°42'03"N 51°41'24"E, 772 m a.s.l. (Locality No. Fa-843), IX.2008, 1♀ (RRLS), leg. Habibzadeh, Hayader & Masihipour; Kazeroon, Farashband, 29°25'03"N 52°14'31"E, 814 m a.s.l. (Locality No. Fa-844), IX.2008, 1♂4♀ (RRLS), leg. Bahrani, Habibzadeh, Masihipour & Hayader; Kazeroon-Farshband road, 29°10'32"N 52°00'57"E, 871 m a.s.l. (Locality No. Fa-846), IX.2008, 3♂1♀5juvs. (RRLS), leg. Habibzadeh, Hayader & Masihipour; Farashband road, 29°29'10"N 51°49'54"E, 832 m a.s.l. (Locality No. Fa-847), IX.2008, 5♂12♀5ims. (RRLS), 1im.1juv. (FKCP), leg. Habibzadeh, Hayader & Masihipour; Parishan, 29°20'10"N 51°49'54"E, 867 m a.s.l. (Locality No. Fa-848), IX.2008, 1♀ (RRLS), leg. Habibzadeh, Hayader & Masihipour; Firoozabad-Gheer road, Hasanabad, 29°41'55"N 52°42'34"E, 1277 m a.s.l. (Locality No. Fa-849), IX.2008, 2♂1♀juv. (RRLS), leg. Bahrani, Habibzadeh, Masihipour & Hayader; Firoozabad-Gheer road, 29°40'39"N 52°44'34"E, 1207 m a.s.l. (Locality No. Fa-850), IX.2008, 1♀3♀ims. (RRLS), leg. Hayader, Bahrani, Masihipour & Habibzadeh; 85 km to Lar, 28°13'07"N 54°04'25"E, 865 m a.s.l. (Locality No. Fa-862), X.2008, 1♂2♀1im. (RRLS), leg. Bahrani, Habibzadeh, Masihipour & Hayader; Gheer-Khonj, Seifabad Village, 28°14'39"N 53°06'28"E, 639 m a.s.l. (Locality No. Fa-864), X.2008, 1♂ (RRLS), leg. Bahrani, Habibzadeh, Masihipour & Hayader; Gheer-Khonj, Oskooyeh Village, 29°06'03"N 53°12'39"E, 581 m a.s.l. (Locality No. Fa-866), X.2008, 1♂1♀ (RRLS), leg. Bahrani, Habibzadeh, Masihipour & Hayader; Gheer-Khonj, 28°14'34"N 53°06'41"E, 638 m a.s.l. (Locality No. Fa-867), X.2008, 2ims. (RRLS), leg. Hayader, Bahrani, Masihipour & Habibzadeh; Gheer, 28°15'16"N 53°05'04"E, 657 m a.s.l. (Locality No. Fa-868), X.2008, 2♂ (RRLS), leg. Hayader, Bahrani, Masihipour & Habibzadeh; Gheer-Hengam road, 28°30'20"N 52°53'48"E, 1170 m a.s.l. (Locality No. Fa-870), X.2008, 1♂4♀ (RRLS), leg. Bahrani, Habibzadeh, Masihipour & Hayader; Gheer-Hengam road, 28°32'36"N 52°47'54"E, 1173 m a.s.l. (Locality No. Fa-871), X.2008, 1♂ (RRLS), leg. Bahrani, Habibzadeh, Masihipour & Hayader; Gheer-Hengam road, 28°27'28"N 52°37'31"E, 817 m a.s.l. (Locality No. Fa-872), X.2008, 3♂ (RRLS), leg. Bahrani, Habibzadeh, Masihipour & Hayader; Juym-Lar, Dehkooyeh Village, 27°54'40"N 54°24'30"E, 1052 m a.s.l. (Locality No. Fa-877), X.2008, 1♂2♀2ims. (RRLS), leg. Habibzadeh, Hayader & Masihipour; Juym-Lar, 28°14'45"N 54°03'15"E, 732 m a.s.l. (Locality No. Fa-877a), X.2008, 1juv. (RRLS), leg. Habibzadeh, Hayader & Masihipour; Juym-Lar, Banaruyeh, 29°05'39"N 54°06'16"E, 864 m a.s.l. (Locality No. Fa-878), X.2008, 2♂3♀ (RRLS), leg. Habibzadeh, Hayader & Masihipour; Bastak-Lar road, Ooneh Village, 27°31'N 54°13'E (altered), 540 m a.s.l. (Locality No. Fa-880), X.2008, 4♂6♀juvs. (RRLS), 1♀1juv. (FKCP), leg. Bahrani, Habibzadeh, Masihipour; Bastak-Lar road, 27°30'40"N 54°13'55"E, 779 m a.s.l. (Locality No. Fa-884), X.2008, 5 juvs. (RRLS), leg. Bahrani, Habibzadeh & Masihipour; Bastak-Lar, 27°31'23"N 54°27'10"E, 772 m a.s.l. (Locality No. Fa-885), X.2008, 1♀1juv. (RRLS), leg. Bahrani, Habibzadeh & Masihipour; Mehr-Galedar, Chahoo Village, 27°34'27"N 52°50'36"E, 434 m a.s.l. (Locality No. Fa-887), IX.2008, 1♀4♀ims. (RRLS), leg. Bahrani, Habibzadeh, Masihipour & Hayader; Jahrom-Lar (5 kms to Lar), 27°42'30"N 54°19'33"E, 861 m a.s.l. (Locality No. Fa-890), X.2008, 7♂4♀11ims. (RRLS), 3juvs. (FKCP), leg. Bahrani, Habibzadeh, Masihipour & Hayader.

DISTRIBUTION: Iran, Bushehr (Lourenço & Pézier, 2002: 118), Fars (first report), Khoozestan (Navidpour et al., 2008a: 13), Ilam (Navidpour et al., 2008c: 11), and Kohgilouyeh & Boyer Ahmad (Navidpour et al., 2008d: 9) Provinces; Iraq (Lourenço & Pézier, 2002: 118).

***Odontobuthus doriae*** (Thorell, 1876)
(Figs. 11 and 25)

*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 Minocci, 1974: 28; Farzanpay, 1988: 39; Kovařík, 1997a: 47; Kovařík, 1998: 115; Fet & Lowe, 2000:

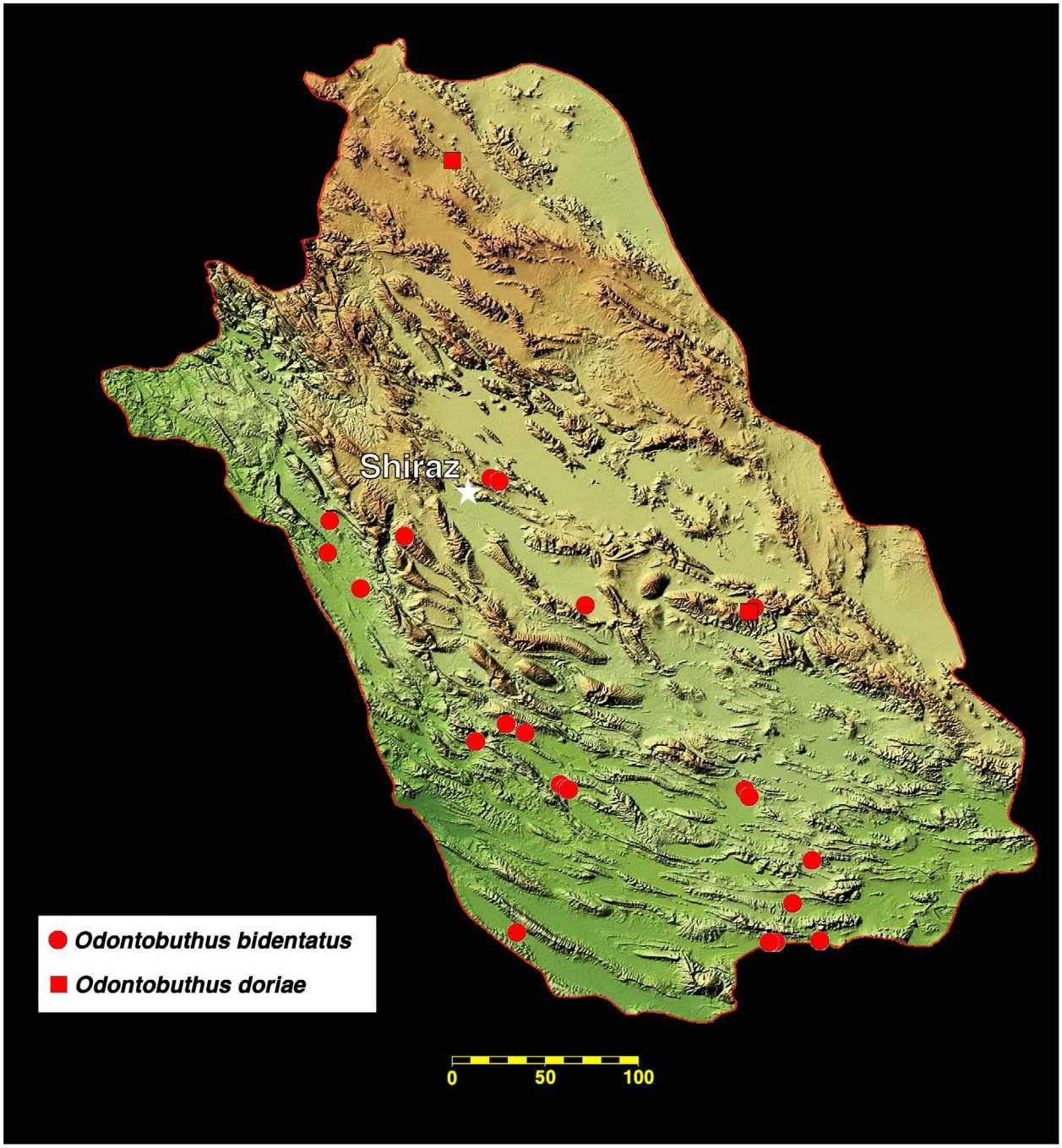



**Figure 11:** Map of Fars Province showing distribution of *Odontobuthus bidentatus* Lourenço et Pézier, 2002 and *Odontobuthus doriae* (Thorell, 1876) collected in this study.

187; Kovařík, 2002: 9; Lourenço & Pézier, 2002: 116; Vignoli et al., 2003: 4; Pirali-Kheirabadi et al., 2009: 9, figs. 10, 24–27; Navidpour et al., 2011: 13, figs. 5, 8, 13, 21–24; Karataş et al., 2012: 116.

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

FARS PROVINCE MATERIAL EXAMINED. **Iran**, Fars Province, Abadeh, 31°10'53"N 52°28'39"E, 2169 m a.s.l. (Locality No. Fa-856), X.2008, 2♂2♀ (RRLS), 1♂ (FKCP), leg. Habibzadeh, Hayader & Masihipour; Juym-Lar,Banaruyeh, 29°05'39"N 54°06'16"E, 864 m a.s.l. (Locality No. Fa-878), X.2008, 1♂2♀juvs. (RRLS), leg. Habibzadeh, Hayader & Masihipour.

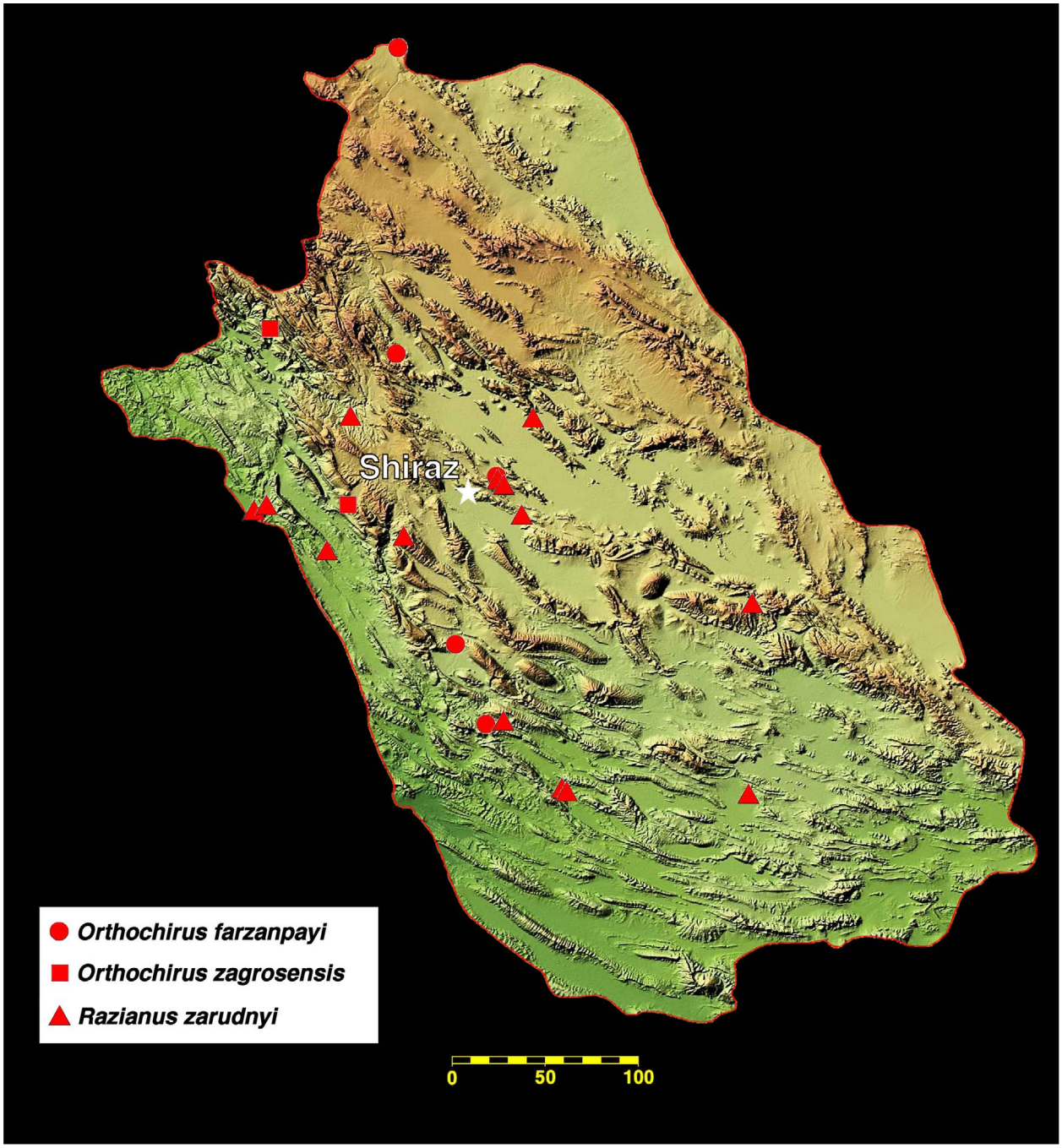



**Figure 12:** Map of Fars Province showing distribution of *Orthochirus farzanpayi* (Vachon et Farzanpay, 1987), *Orthochirus zagrosensis* Kovařík, 2004 and *Razianus zarudnyi* (Birula, 1903) collected in this study.

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

***Orthochirus farzanpayi*** (Vachon et Farzanpay, 1987) (Fig. 12)

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

*Orthochirus farzanpayi* Kovařík & Fet, 2006: 1, figs. 1–3; Navidpour et al., 2008a: 14; Navidpour et al., 2008b: 15, figs. 2, 23, 61–64; Navidpour et al., 2011: 15, figs. 14, 53–56.
= *Orthochirus sobotniki* Kovařík, 2004: 20 (syn. by Kovařík & Fet, 2006: 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.

FARS PROVINCE MATERIAL EXAMINED. **Iran**, Fars Province, 10 km S of Firuz Abad, 28°55'N 52°31'E, 1412 m a.s.l., 20.-21.4.2000, 10♂6♀13juvs. (FKCP), leg. J. Šobotník; 10 km S of Firuz Abad, 28°55'N 52°31'E, 1412 m a.s.l., 20.-21.IV.2000, 1juv. (FKCP), leg. J. Šobotník; Firoozabad-Gheer road, 29°40'39"N 52°44'34"E, 1207 m a.s.l. (Locality No. Fa-850), IX.2008, 1♀ (RRLS), 2♂1♀ (FKCP), leg. Hayader, Bahrani, Masihipour & Habibzadeh; Abadeh, Semirom road, 31°44'N 52°12'E (altered), 1862 m a.s.l. (Locality No. Fa-858), IX.2008, 1♂ (RRLS), leg. Masihipour, Hayader & Bahrani; Pasargad, Saadat Shahr, 30°17'59"N 52°10'29"E, 1862 m a.s.l. (Locality No. Fa-859), IX.2008, 1♀ (RRLS), 1♂ (FKCP), leg. Masihipour, Hayader & Bahrani; Gheer-Hengam, 28°32'26"N 52°41'25"E, 1219 m a.s.l. (Locality No. Fa-874), X.2008, 2♂1♀ (RRLS) 1♀ (FKCP), leg. Masihipour & Hayader.

DISTRIBUTION: Iran, Hormozgan, Fars (Kovařík & Fet, 2006: 1–3), Khoozestan (Navidpour et al., 2008a: 15), Bushehr (Navidpour et al., 2008b: 15) and Kerman (Navidpour et al., 2011: 15) Provinces.

### ***Orthochirus zagrosensis*** Kovařík, 2004
(Fig. 12)

*Orthochirus* sp. n.?: Kovařík, 1997a: 47 (in part).
*Orthochirus zagrosensis* Kovařík, 2004: 22; Kovařík & Fet, 2006: 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; Navidpour et al., 2011: 17, figs. 14, 49–52.

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

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

OTHER FARS PROVINCE MATERIAL EXAMINED. **Iran**, Fars Province, Zagros Mts., Abshar env., 30º23'N 51º30'E, ca 1000 m a.s.l., 2.-3.V.1996, 2juvs. (FKCP), leg. V. Šejna.

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

### ***Razianus zarudnyi*** (Birula, 1903)
(Figs. 2–4, 12)

*Hemibuthus zarudnyi* Birula, 1903: 75; Vachon, 1966: 211.
*Razianus zarudnyi*: Farzanpay, 1987: 159; Farzanpay, 1988: 41; Fet & Lowe, 2000: 216; Akbari, 2007: 76, fig. p. 66; Navidpour et al., 2008a: 20, figs. 42, 89–92; Navidpour et al., 2008b: 17, figs. 2, 5, 23, 57–60; Navidpour et al., 2008c: 14, figs. 2, 4, 10, 58–61; Navidpour et al., 2008d: 11, figs. 3, 9, 13, 47-50; Pirali-Kheirabadi et al., 2009: 10, figs. 2, 11, 40–43; Navidpour et al., 2010: 15; Karataş et al., 2012: 117.
= *Buthus zarudnianus* Birula, 1905a: 144; Birula, 1905b: 450; Kraepelin, 1913: 127; Vachon, 1966: 211; Habibi, 1971: 43 (syn. by Fet, 1997: 66).
= *Neohemibuthus kinzelbachi* Lourenço, 1996: 94, figs. 2–8; Kovařík, 1997a: 49 (syn. by Fet, 1997: 66).
*Neohemibuthus zarudnyi*: Fet, 1997: 65; Kovařík, 1998: 115.

TYPE LOCALITY AND TYPE REPOSITORY. "Persia, Kalagan Province, Beludjistan, and Geh Provinces, Makran", now Sistan & Baluchistan Province, Iran (Fet, 1977); ZISP.

FARS PROVINCE MATERIAL EXAMINED. **Iran**, Fars Province, Kazeroon, Kazeroon-Borazjan, Konar Takhteh, 29°31'58"N 51°25'22"E, 568 m a.s.l. (Locality No. Fa-840), IX.2008, 1♂2♀ (RRLS), leg. Bahrani, Habibzadeh, Masihipour & Hayader; Kazeroon-Borazjan road, 29°33'32"N 51°30'14"E, 963 m a.s.l. (Locality No. Fa-842), X.2008, 1♀ (RRLS), leg. Habibzadeh, Hayader & Masihipour; Farashband, 29°25'03"N 52°14' 31"E, 814 m a.s.l. (Locality No. Fa-844), IX.2008, 2♂3♀ (RRLS), leg. Bahrani, Habibzadeh, Masihipour & Hayader; Parishan, 29°20'10"N 51°49'54"E, 867 m a.s.l. (Locality No. Fa-848), IX.2008, 1♀ (RRLS), leg. Habibzadeh, Hayader & Masihipour; Firoozabad-Gheer road,Hasanabad, 29°41'55"N 52°42'34"E, 1277 m a.s.l. (Locality No. Fa-849), IX.2008, 1♂ (RRLS), leg. Bahrani, Habibzadeh, Masihipour & Hayader; Firoozabad-

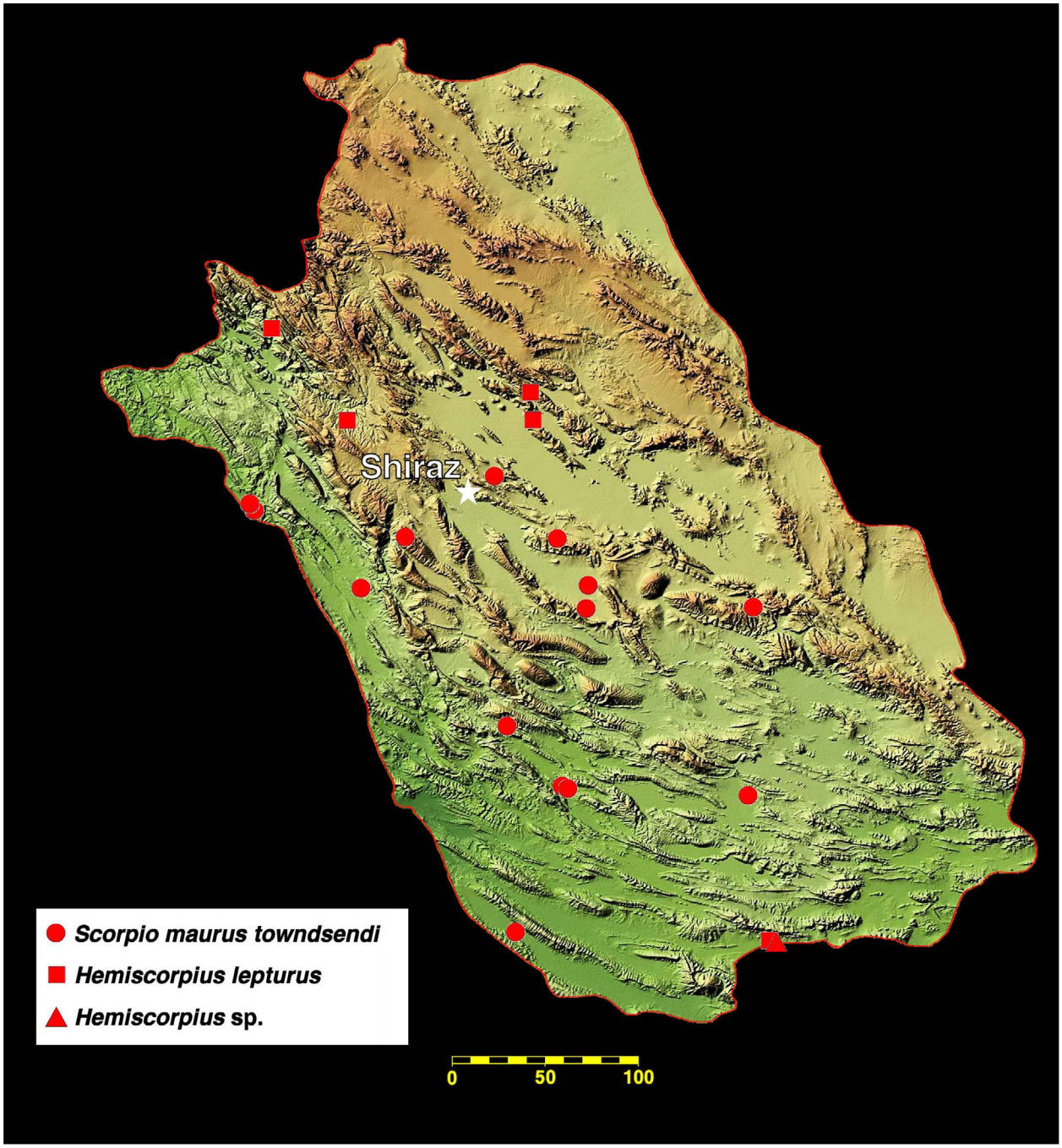
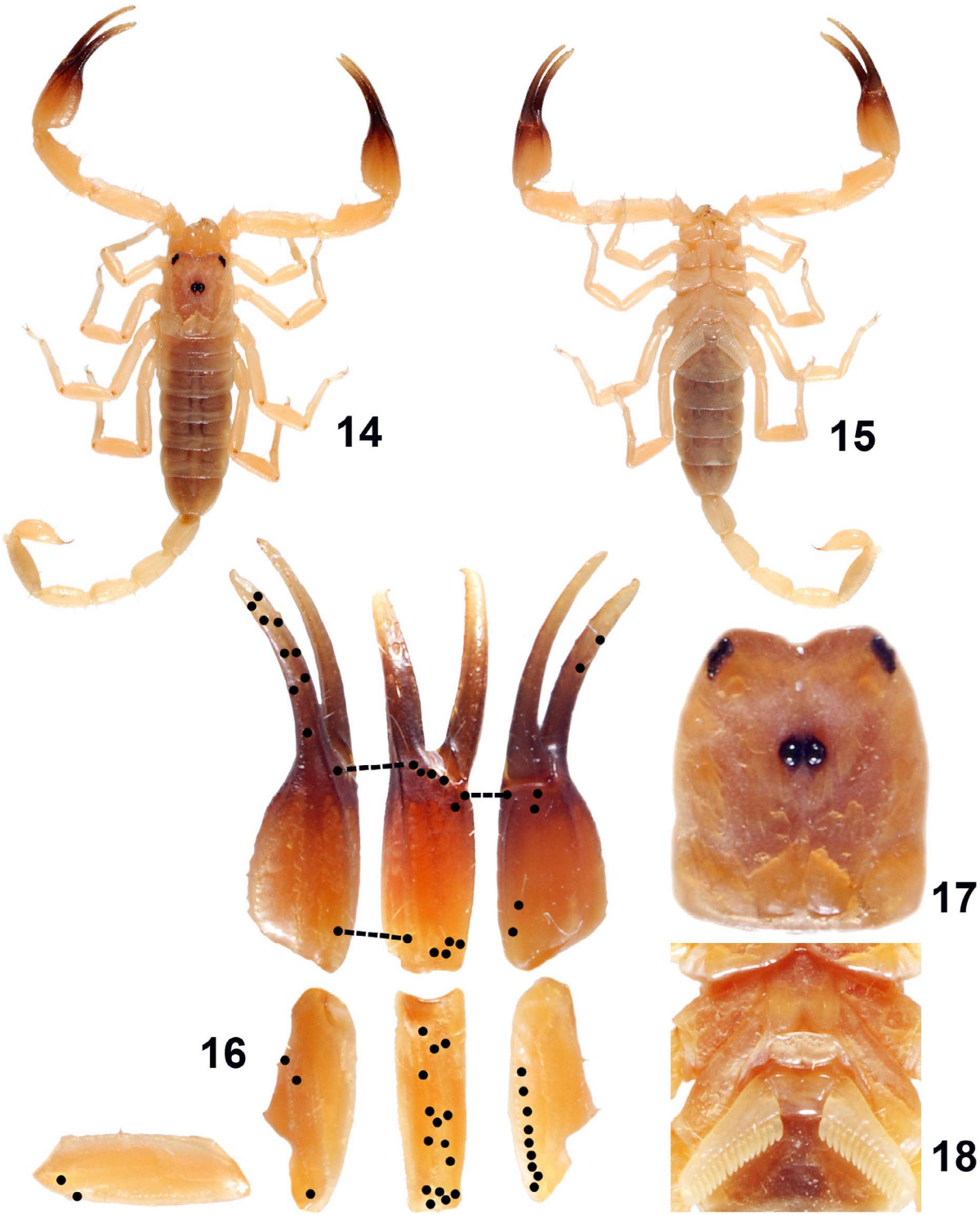



**Figure 13:** Map of Fars Province showing distribution of *Scorpio maurus townsendi* (Pocock, 1900), *Hemiscorpius lepturus* Peters, 1861 and *Hemiscorpius* sp. (? *H. gaillardi* (Vachon, 1974)**)** collected in this study.

Gheer road, 29°40'39"N 52°44'34"E, 1207 m a.s.l. (Locality No. Fa-850), IX.2008, 1♀ (RRLS), 1♂1♀ (FKCP), leg. Hayader, Bahrani, Masihipour & Habibzadeh; Marvdasht, 29°58'20"N 52°55'50"E, 1467 m a.s.l. (Locality No. Fa-860), IX.2008, 1♀ (RRLS), leg. Hayader, Bahrani, Masihipour & Habibzadeh; Marvdasht-Shiraz road, 29°57'59"N 51°55'41"E, 1632 m a.s.l. (Locality. No. Fa-861), IX.2008, 2♂1♀ (RRLS), leg. Masihipour, Bahrani & Habibzadeh; 85 kms to Lar, 28°13'07"N 54°04'25"E, 865 m a.s.l. (Locality No. Fa-862), X.2008, 1♂2♀1im. (RRLS), leg. Bahrani, Habibzadeh, Masihipour & Hayader; Gheer-Khonj, 28°14' 34"N 53°06'41"E, 638 m a.s.l. (Locality No. Fa-867), X.2008, 1♂ (RRLS), leg. Hayader, Bahrani, Masihipour & Habibzadeh; Gheer, 28°15'16"N 53°05'04"E, 657 m a.s.l. (Locality No. Fa-868), X.2008, 2♂ (RRLS), leg.




**Figures 14–18:** *Hemiscorpius* sp. (? *H. gaillardi* (Vachon, 1974)), dorsal and ventral views, trichobothrial pattern, carapace and pectinal areas, juvenile male (25 mm).

Hayader, Bahrani, Masihipour & Habibzadeh; Gheer-Hengam road, 28°32'36"N 52°47'54"E, 1173 m a.s.l. (Locality No. Fa-871), X.2008, 1♂ (RRLS), leg. Bahrani, Habibzadeh, Masihipour & Hayader; Gheer-Hengam road, 29°31'08"N 52°52'02"E, 987 m a.s.l. (Locality No. Fa-875), X.2008, 2♂ (RRLS), leg. Bah-

rani, Habibzadeh, Masihipour & Hayader; Juym-Lar, Banaruyeh, 29°05'39"N 54°06'16"E, 864 m a.s.l. (Locality No. Fa-878), X.2008, 1♀ (RRLS), leg. Habibzadeh, Hayader & Masihipour.

DISTRIBUTION: Iran, Bushehr (Akbari, 2007: 76), Chahar Machal & Bakhtiyari (Fet, 1997: 67), Fars (Fet, 1997: 68), Ilam (Akbari, 2007: 76), Khoozestan (Lourenço, 1996: 94; Fet, 1997: 67-68), Kohgilouyeh & Boyer Ahmad (Navidpour et al., 2008d: 11), Lorestan (Navidpour et al., 2010: 15), and Sistan & Baluchistan (Fet, 1997: 66) Provinces.

Family **Hemiscorpiidae** Pocock, 1893
***Hemiscorpius lepturus*** Peters, 1861
(Figs. 3–4, 13)

*Hemiscorpius lepturus* Peters, 1861a: 426, 8 figs.; Karsch, 1879: 15, 21; Birula, 1905a: 146; Birula, 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 Minocci, 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, 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; Navidpour et al., 2011: 19, figs. 7, 16, 65–68; Karataş et al., 2012: 118.

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

*Hemiscorpio lepturus*: Simon, 1880b: 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.

FARS PROVINCE MATERIAL EXAMINED. **Iran**, Fars Province, 10 km E of Sivand, 30º05'N 52º55'E, ca 1700 m a.s.l., 29.- 30.IV.1996, 1♀ (FKCP), leg. M. Kaftan, 2♀2juvs. (FKCP), leg. J. Pitulová; Zagros Mts., Abshar env., 30º23'N 51º30'E, ca 1000 m a.s.l., 2.-3.V.1996, 2♀1juv. (FKCP), leg. M. Kaftan and D. Král; Marvdasht, 29°58'20"N 52°55'50"E, 1467 m a.s.l. (Locality No. Fa-860), IX.2008, 2♂2♀ (RRLS), leg. Hayader, Bahrani, Masihipour & Habibzadeh; Marvdasht-Shiraz road, 29°57'59"N 51°55'41"E, 1632 m a.s.l. (Locality. No. Fa-861), IX.2008, 1♀ (RRLS), leg. Masihipour, Bahrani & Habibzadeh; Lar, 27°34'N 54°10'E (altered), 674 m a.s.l. (Locality No. Fa-881), X.2008, 1♂, (FKCP), leg. Bahrani, Habibzadeh, Masihipour & Hayader.

DISTRIBUTION: Iran, Ardabil (Karataş et al., 2012: 118), Fars, Hormozgan, Kohgilouyeh & Boyer Ahmad, Lorestan (Kovařík, 1997a: 48), Bushehr, Ilam, Khoozestan (Farzanpay, 1987: 141; Monod & Lourenço, 2005: 902; Akbari, 2007: 76), Chahar Machal & Bakhtiyari (Pirali-Kheirabadi et al., 2009: 12), and Kerman (Navidpour et al., 2011: 19) Provinces; Iraq (Peters, 1861a: 426).

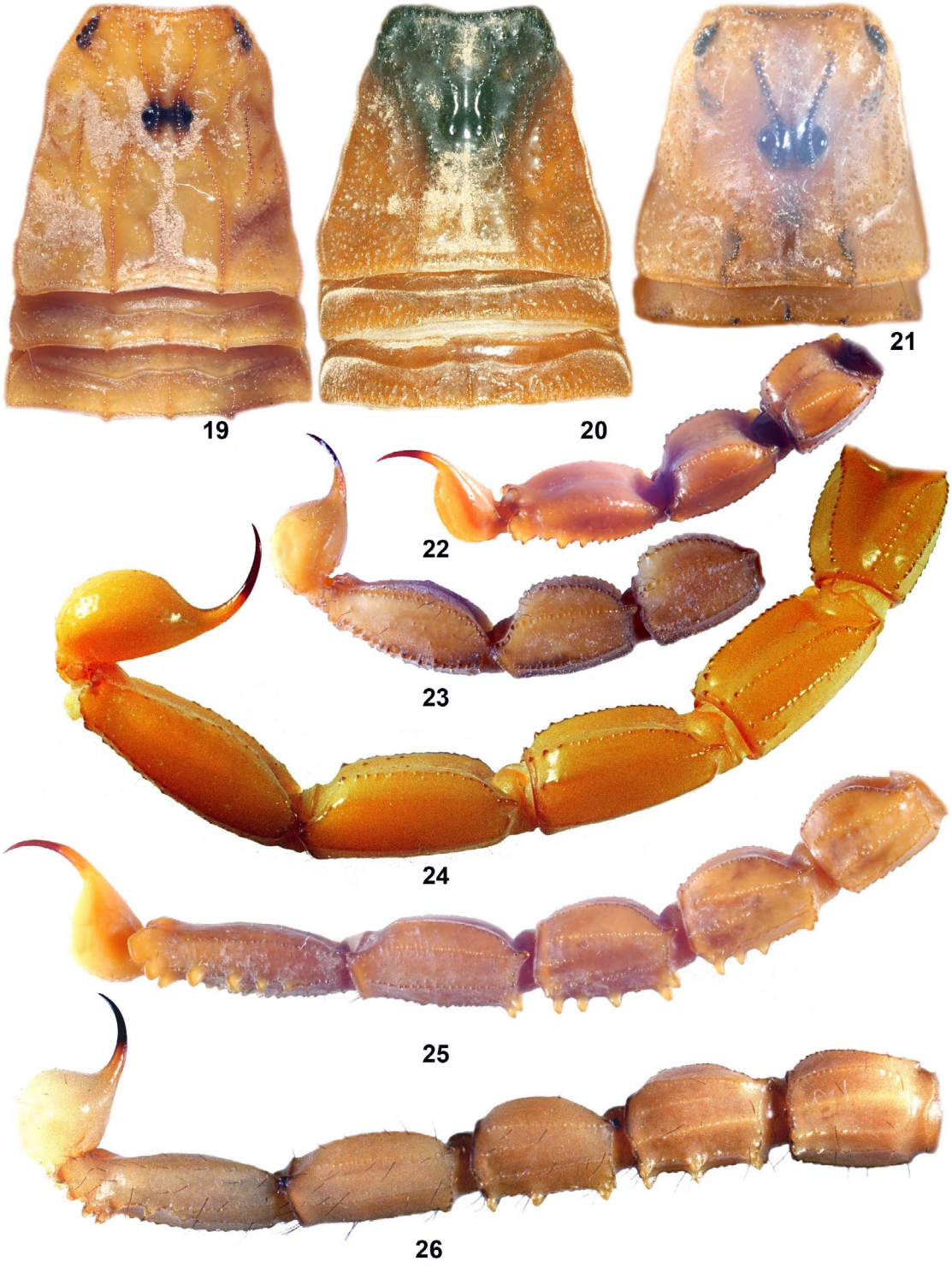
***Hemiscorpius* sp.** (? ***H. gaillardi*** (Vachon, 1974))
(Figs. 13–18)

FARS PROVINCE MATERIAL EXAMINED. **Iran**, Fars Province, near border with Hormozgan Province, Lar, 27°34'N 54°10'E (altered), 674 m a.s.l. (Locality No. Fa-881), X.2008, 1juv.♂ (FKCP), leg. Bahrani, Habibzadeh, Masihipour & Hayader.

DIAGNOSIS. Total length of juvenile male 25 mm. Color yellow to yellowish brown, pedipalp fingers reddish brown to black, darker than chela. Patella of pedipalp with 15 external (5 *eb*, 3 *esb*, 3 *em*, 1 *est*, 3 *et*) and 8 or 9 ventral trichobothria. All metasomal segments longer than wide. Telson bulbous, with aculeus shorter than vesicle. Pectinal teeth number 15–16. Setation formula of tarsomere II of legs: 6/5: 6-7/6: 7/6: 7/6.

MEASUREMENTS IN MM. Total length of juvenile male 25; carapace length 3.5, width 2.95; metasoma and telson length 12.4; first metasomal segment length 1.65, width 1.2; second metasomal segment length 1.85, width 1.05; third metasomal segment length 1.95, width 0.95; fourth metasomal segment length 2.05, width 0.9; fifth metasomal segment length 2.4, width 0.85; telson length 2.5; telson width 1.0; pedipalp femur length 3.25, width 1.05; pedipalp patella length 3.25, width 1.3; chela length 6.15; manus width 1.7; movable finger length 3.65.

COMMENTS. *Hemiscorpius gaillardi* (Vachon, 1974) is known only from the holotype female from eastern Iran, without precise locality data. The male and juvenile are unknown. This juvenile male has neobothriotaxy similar to *H. gaillardi*, with the patella of pedipalp having 15 external trichobothria. Similarity is apparent also in the number of ventral trichobothria on the patella, 10 in *H. gaillardi* and 8 or 9 in the examined juvenile. A similar number of ventral trichobothria on the patella (10-12) is




**Figures 19–26: Figures 19–21:** Carapace and mesosomal tergite I or I and II. **Figure 19:** *Iranobuthus krali* Kovařík, 1997, ♂ holotype. **Figure 20:** *Hottentotta schach* (Birula, 1905), ♀, Iran, Fars Province, 10 km E of Sivand, 30°05'N 52°55'E, ca 1700 m a.s.l., FKCP. **Figure 21:** *Mesobuthus phillipsii* (Pocock, 1889), ♂, Iran, Bushehr Province, Khormuj, 28°41'46"N 51°21'49"E, 83 m a.s.l. (Locality No. Bu-31), FKCP. **Figures 22-26:** Telson and fifth to third or first metasomal segments. **Figure 22:** *Mesobuthus eupeus persicus* (Pocock, 1899), ♀ syntype, Iran, East Azarbaijan Province, Seir, Lake Urmi, BMNH No. 1900.1,15. **Figure 23:** *Mesobuthus phillipsii* (Pocock, 1889), ♀, Iran, Bushehr Province, Genaveh, 29°13'42″N 50°14'22″E, 227 m a.s.l. (Locality No.Bu-G1), FKCP. **Figure 24:** *Iranobuthus krali* Kovařík, 1997, ♂ holotype. **Figure 25:** *Odontobuthus doriae* (Thorell, 1876), ♀, Iran, Zenjan Province, FKCP. **Figure 26:** *Odontobuthus bidentatus* Lourenço et Pézier, 2002, ♀, Iran, Bushehr Province, Bushehr to Dayer road, Jeirani village, 27°50'47"N 51°45'33"E (Locality No. Bu-22), FKCP.

also found in *H. enischnochela* Monod et Lourenço, 2005, which however has only 14 external trichobothria and a different shape of the chela. The remaining three species of *Hemiscorpius* known from Iran, *H. Acanthocercus* Monod et Lourenço, 2005, *H. lepturus* Peters, 1861 and *H. persicus* Birula, 1903, have only three ventral trichobothria on the patella of pedipalp. To ascertain whether the population really belongs to *H. gaillardi* or represents an undescribed species will require the discovery of adult specimens.

Family **Scorpionidae** Latreille, 1802
***Scorpio maurus townsendi*** (Pocock, 1900)
(Fig. 13)

*Heterometrus townsendi* Pocock, 1900: 364.
? *Scorpio townsendi*: Birula, 1905a: 147 (Birula, 1910: 184).
*Scorpio maurus townsendi*: Birula, 1910: 184; Birula, 1917: 231; Vachon, 1950: 164 (1952: 336); Vachon, 1966: 215; Habibi, 1971: 44; Pérez Minocci, 1974: 40; Kovařík, 1997a: 50; Kovařík, 1998: 141; Fet, 2000: 479; Navidpour et al., 2008a: 26, figs. 2, 43, 103–106; Navidpour et al., 2008b: 20, figs. 20–21, 24, 73–77; Navidpour et al., 2008c: 14, figs. 11, 12, 62–66; Navidpour et al., 2008d: 12, figs. 2, 14, 51–55; Kovařík, 2009: 62–63, figs. 436-440 and p. 63; Pirali-Kheirabadi et al., 2009: 10, figs. 11, 44–48; Navidpour et al., 2010: 17; Karataş et al., 2012: 117.
*Scorpio maurus*: Farzanpay, 1987: 165; Farzanpay, 1988: 42; Akbari, 2007: 76, fig. p. 67.

TYPE LOCALITY AND TYPE REPOSITORY. Iran, Bushehr Province, Fort Reshire near Bushire, Persian Gulf, Iran; BMNH.

TYPE MATERIAL EXAMINED. **Iran**, Bushehr Province, Fort Reshire near Bushire, Persia, 1 ♀ (holotype) leg. F. W. Townsend, BMNH No. 1900.5.9.1. (see photograph in Kovařík, 2009: 63).

FARS PROVINCE MATERIAL EXAMINED. **Iran**, Fars Province, Qasr-e-Sásán, 29°11'N 53°13'E, 1567 m a.s.l., 20.IV.2000, 1juv. (FKCP), leg. J. Šobotník; Kazeroon-Borazjan, Konar Takhteh, 29°31'58"N 51°25'22"E, 568 m a.s.l. (Locality No. Fa-840), IX.2008, 1♂1♀ (RRLS), leg. Bahrani, Habibzadeh, Masihipour & Hayader; Kazeroon-Borazjan road, 29°33'36"N 51°23'58"E, 724 m a.s.l. (Locality. No. Fa-841), IX.2008, 1♀ (FKCP), leg. Masihipour, Bahrani & Habibzadeh; Kazeroon, Farashband, 29°25'03"N 52°14'31"E, 814 m a.s.l. (Locality No. Fa-844), IX.2008, 1♂ (RRLS), leg. Bahrani, Habibzadeh, Masihipour & Hayader; Kazeroon-Farshband road, 29°10'32"N 52°00'57"E, 871 m a.s.l. (Locality No. Fa-846), IX.2008, 3♂2♀ (RRLS), leg. Habibzadeh, Hayader & Masihipour; Firoozabad-Gheer road, Hasanabad, 29°41'55"N 52°42'34"E, 1277 m a.s.l. (Locality No. Fa-849), IX.2008, 1♂ (RRLS), leg. Bahrani, Habibzadeh, Masihipour & Hayader; 85 kms to Lar, 28°13'07"N 54°04'25"E, 865 m a.s.l. (Locality No. Fa-862), X.2008, 1♂2♀1im (RRLS), leg. Bahrani, Habibzadeh, Masihipour & Hayader; Gheer-Khonj, Oskooyeh Village, 29°06'03"N 53°12'39"E, 581 m a.s.l. (Locality No. Fa-866), X.2008, 1♂1♀2juvs. (RRLS), leg. Bahrani, Habibzadeh, Masihipour & Hayader; Gheer-Khonj, 28°14'34"N 53°06'41"E, 638 m a.s.l. (Locality No. Fa-867), X.2008, 1♂1♀3♂juvs.5♀juvs. (RRLS), leg. Hayader, Bahrani, Masihipour & Habibzadeh; Gheer, 28°15'16"N 53°05'04"E, 657 m a.s.l. (Locality No. Fa-868), X.2008, 1♂ (RRLS), leg. Hayader, Bahrani, Masihipour & Habibzadeh; Gheer-Khonj, Mozafary Village, 29°24'21"N 53°03'04"E, 581 m a.s.l. (Locality No. Fa-869), X.2008, 1♂2♀2♂juvs. (RRLS), 2juvs. (FKCP), leg. Bahrani, Habibzadeh, Masihipour & Hayader; Gheer-Hengam road, 28°32' 36"N 52°47'54"E, 1173 m a.s.l. (Locality No. Fa-871), X.2008, 1♂ (RRLS), leg. Bahrani, Habibzadeh, Masihipour & Hayader; Juym-Lar, Banaruyeh, 29°05'39"N 54°06'16"E, 864 m a.s.l. (Locality No. Fa-878), X.2008, 1♀juv. (RRLS), leg. Habibzadeh, Hayader & Masihipour; Mehr-Galedar, Chahoo Village, 27°34'27"N 52° 50' 36"E, 434 m a.s.l. (Locality No. Fa-887), IX. 2008, 1im. (RRLS), leg. Bahrani, Habibzadeh, Masihipour & Hayader.

DISTRIBUTION: Iran, Bushehr (Pocock, 1900: 364), Chahar Machal & Bakhtiyari (Pirali-Kheirabadi et al., 2009: 10), Fars (first report), Ilam (Akbari, 2007: 76), Kerman (Karataş et al., 2012: 117), Khoozestan (Navidpour et al., 2008a: 26), Kohgilouyeh & Boyer Ahmad (Navidpour et al., 2008d: 12), and Lorestan (Navidpour et al., 2010: 17) Provinces.

**Key to Scorpions of Fars Province**

1. Pedipalp patella without ventral trichobothria..... ..... **Buthidae** ..... 4
– Pedipalp patella with ventral trichobothria. ..... 2

2. Lateroapical margins of leg tarsi shaped into rounded lobes. ..... ***Scorpio maurus townsendi*** (Pocock, 1900)
– Lateroapical margins of leg tarsi straight. ..... 3

3. Pedipalp patella with 3 ventral trichobothria..... ..... ***Hemiscorpius lepturus*** Peters, 1861
– Pedipalp patella with 8 or 9 ventral trichobothria (Fig. 16)..... ***Hemiscorpius*** **sp.** (? ***H. gaillardi*** (Vachon, 1974))

4. Carapace in lateral view distinctly inclined downward from median eyes to anterior margin. Total length less than 50 mm. ..... ***Orthochirus*** ..... 5

– Carapace in lateral view with entire dorsal surface horizontal or nearly so (possibly with a slight anterior decline). ..... 6

5. 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

6. Cheliceral fixed finger with a single ventral denticle. ..... ***Razianus zarudnyi*** (Birula, 1903)
– Cheliceral fixed finger with two ventral denticles. .... 7

7. Ventral carinae of second and third metasomal segments and ventral transverse carina of fourth segment armed with very strong teeth. ..... ***Odontobuthus*** .... 8
– Ventral carinae of metasomal segments without very strong teeth. ..... 9

8. Ventral margin of fourth metasomal segment with transverse row of 4 enlarged granules. Ventral carinae of third metasomal segment with three pairs of strong teeth (Fig. 25). ..... ***Odontobuthus doriae*** (Thorell, 1876)
– Ventral margin of fourth metasomal segment with transverse row of 8 enlarged granules.Ventral carinae of third metasomal segment with two pairs of strong teeth (Fig. 26). ..... ..... ***Odontobuthus bidentatus*** Lourenço et Pézier, 2002

9. Dentate margin of pedipalp chela movable finger with 4 terminal granules (3 terminal and one basal terminal). ..... ***Androctonus crassicauda*** (Olivier, 1807)
– Dentate margin of pedipalp chela movable finger with 5–7 terminal granules (4–6 terminal and one basal terminal) ..... 10

10. Central median and posterior median carinae of carapace joined to form a continuous linear series of granules to posterior margin (Fig. 19). ..... 11
– Central median and posterior median carinae of carapace not joined to form a continuous linear series of granules to posterior margin (Figs. 20 and 21) ..... 14

11. Total adult length less than 55 mm. ..... ..... ***Compsobuthus*** ..... 12
– Total adult length more than 80 mm. ..... ..... ***Iranobuthus krali*** Kovařík, 1997

12. Rows of granules on movable finger without external granules. ..... 13
– Rows of granules on movable finger with external, very small granules ..... ..... ***Compsobuthus petriolii*** Vignoli, 2005

13. Male has longer metasoma than female. ..... ..... ***Compsobuthus matthiesseni*** (Birula, 1905)
– Length of metasoma the same in both sexes..... ..... ***Compsobuthus persicus*** Navidpour et al., 2008

14. Trichobothrium *db* on fixed finger of pedipalp chela located usually between *est* and *dt*. Trichobothrium *db* may be on level with trichobothrium *est* or rarely between *est* and *esb*. Carinae of carapace not forming a lyre-shaped configuration. Ventrolateral carinae on the fifth metasomal segment with all granules more or less equal in size. ..... ***Hottentotta*** ..... 15
– Trichobothrium *db* on fixed finger of pedipalp chela always located between *est* and *esb*. Carinae of carapace forming a lyre-shaped configuration. Ventrolateral carinae on the fifth metasomal segment with irregular granules. ..... 17

15 Color black except reddish brown chela of pedipalp. Legs may also be reddish brown. ..... ..... ***Hottentotta zagrosensis*** Kovařík, 1997
– Color not entirely black. ..... 16

16. Chela of pedipalp always darker than femur of pedipalp. ..... ***Hottentotta schach*** (Birula, 1905)
– Chela of pedipalp of same color as femur of pedipalp, not darker. ..... ***Hottentotta saulcyi*** (Simon, 1880)

17. Telson bulbous, especially in female (Fig. 23). Specimens in which this character is not well defined are usually smaller, lighter-colored, and have smooth or weakly granulated mesosomal tergites VI and VII. ..... ..... ***Mesobuthus phillipsii*** (Pocock, 1889)
– Telson elongate in both sexes (Fig. 22). Mesosomal tergites VI and VII granulated, usually densely..... ..... ***Mesobuthus eupeus persicus*** (Pocock, 1899)

## Acknowledgments

We are grateful to Dr. Jahanifard, Mr. Masihipour, Mr. Hadiyan, Mr. Hayader, Mr. Habibzadeh, Mr. Bahrani, and Mr. Ghafarnia (Iran) for their kind support.

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