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New record of Sandfish Skink, *Scincus scincus conirostris* Blanford, 1881 (Sauria: Scincidae) from southeastern Iran

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Abstract: One adult female specimen of the Sandfish Skink (*Scincus scincus conirostris*) was collected in southeastern Iran during fieldwork on 20 January 2009. Interestingly, the new locality of the species is situated approximately 700 km east of the nearest previously known locality. This record indicates a larger distribution of *Scincus scincus conirostris* on the Iranian plateau than previously known. Information on morphological characters and habitat are presented herein.

Key words: Sandfish Skink, *Scincus scincus conirostris*, distribution, Iran

The Saharo-Sindian genus *Scincus* Laurenti, 1768 contains four species, all occurring in northern Africa and the Middle-East (Sindaco and Jeremčenko 2008). According to Anderson (1999), species of this genus are characterized by their palatine bones not meeting on midline of palate; pterygoids toothed; single premaxillary prolonged forward into a sharp rostrum; postorbitals and prefrontals completely fused. Maxillary teeth conical or with obtuse tubercular crowns. Eyelids well developed, scaly. Ear opening more or less completely hidden under scales. Snout depressed, cuneiform, mouth inferior; nostril between an upper and lower nasal. Supranasals, prefrontals, frontoparietals, and interparietal distinct. Limbs well developed, pentadactyl; digits flattened, fringed laterally, with transverse lamellae inferiorly; tail shorter than body. Only two species are known to occur in Iran: *Scincus mitranus* Anderson, 1871 and *Scincus scincus* (Linnaeus, 1758) (Anderson 1999; Fahimi et al. 2009; Rastegar-Pouyani et al. 2008). According to Leviton et al. (1992) and Anderson (1999), the *Scincus scincus* specimens belong to subspecies *S. scincus conirostris* Blanford, 1881. Interestingly during fieldwork on the herpetofauna of the southeastern Iranian Plateau during January 2009 one specimen of *S. scincus conirostris* (Figure 1) was collected from Kerman province. The new locality of this species is situated approximately 770 km east of the type locality. Information on morphological characters and habitat are presented below.

One adult female specimen of *Scincus scincus conirostris* was collected from Gonbaki District, Rigan County, Kerman Province (28°42′12.4″ N, 058°52′22.3″ E) at an elevation of 700 m above sea level. The specimen was deposited in the Zoological Museum, Shahid Bahonar University of Kerman, Iran (ZMSBUK 60). Morphometric measurements were taken by caliper to the nearest 0.1 mm, and meristic characters were recorded by stereomicroscope in a zoological lab.

Identification. External ear orifice relatively large, its upper margin reaching continuation of line made by lower edges of upper labilal scales and typically covered by two serrated scales. Six supraoculars, anterior not in contact with frontal; supranasals in contact behind rostral; frontoparietals in extensive contact; parietals two times length of adjoining nuchals; rostrals and loreals separated from frontonasal; 29 scale rows at midbody. Snout-vent length 95.3 mm and tail length

Figure 1. *Scincus scincus conirostris* from Gonbaki, Kerman Province, Iran.

Figure 2. Microhabitat of *Scincus scincus conirostris* around Gonbaki, Kerman province, Iran.

62.3 mm. Body color cream, each dorsal scale edged with light brown, dark spot near posterior margin of each scale, white mark on either side of dark marking. Nine vertical orange-yellow bars on sides of body extend onto dorsum.

Microhabitat. Like the other members of the genus, this species inhabits dunes of windblown sand (Anderson 1999). The new locality includes the loose sand which carried by the wind and sediment behind the enclosures (Figure 2). This is a suitable bed for spending the night or hibernation. This specimen was collected, around Gonbaki, at 1530 hrs, by digging 1 m under the sand while the specimen was in hibernation, air temperature 17°C.

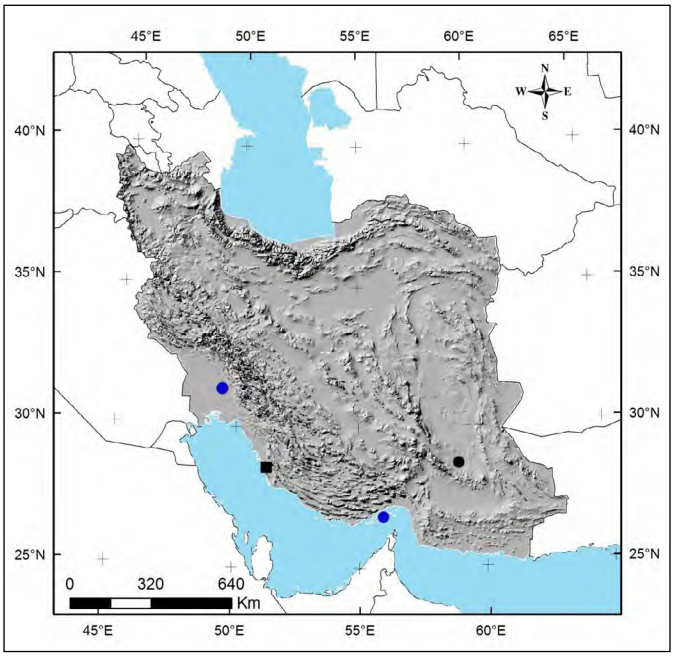

Figure 3. Distribution of the genus *Scincus* in Iran. Blue circles, *S. mitranus* (based on Fahimi et al. 2009; Hosseinian Yousefkhani et al. 2013), black circle, *S. s. conirostris* from Kerman province, black square, type locality of *S. s. conirostris* in Tangyak, 11 km southeast of Bushir, Iran (Blanford 1881).

Scincus scincus is considered a Saharan and Arabian element (Sindaco and Jeremčenko 2008). Four subspecies are recognized; *S. s. scincus* from Central Algeria, Egypt, northern Sinai and southwest Israel; *S. s. cucullatus* F. Werner, 1914 from northern Algeria, Tunisia, and northwest Libya. In Arabia there are two other subspecies: *S. s. conirostris* ranges from Arabian Peninsula (excluding western areas) to Khuzestan and Bushehr coastal provinces in southwestern Iran (Anderson 1999), and *S. s. meccensis* Wiegmann, 1837 ranges from western Arabia, to Jordan and southeastern Syria.

According to Sindaco and Jeremčenko (2008), there are three herpetogeographic sectors in the Iranian Plateau: "Arabian", "western Asian mountain transition zone", and "Iranian". Arnold (1987) described an Arabian "region" comprising the entire Arabian Peninsula, most of Mesopotamia, the Syrian Desert and part of the Iranian coast that borders the Persian Gulf. The borders of this region are Wadi Araba, the Mediterranean bioclimatic zone to the Middle and Near East, and the western and southwestern slops of the Zagros Mountains. *Scincus s. conirostris* is generally distributed in the southwest of Iran, but the present study indicates that this subspecies is present in the southeast of the central Iranian Plateau range in the "Iranian" region. There are unconfirmed records in central Sistan and Baluchistan province (Šmíd et al. 2014) and due to some similarities between habitats a wider distribution of this subspecies to the southeast is possible. Nonetheless, this record confirms the range extension of *S. s. conirostris* in Iran (Figure 3).

Sandfish Skinks are harvested by local people in Arabia and exported illegally to several countries in the Middle East (e.g. Iran) and the Far East. These harvests are sun-dried and used as an infertility drug. Thus, this contributed to our comparing of the intended specimen with them. According to Leviton et al. (1992) there are some definitive characters between *S. s. conirostris* and *S. s. meccensis*: frontonasals rarely in contact with either rostral or loreals; no dark vertical bars or spots on flanks, however in *S. s. meccensis*, frontonasal usually in contact with both rostral and anterior loreal; dark vertical bars or spots present on flanks of adults. Recently, *S. mitranus* was recorded for the first time from Iran. This species has also been reported from Khuzestan, suggesting that it extends into Iranian territory from the Mesopotamian Plain (Fahimi et al. 2009). *Scincus mitranus* occurs within the same range as *S. s. conirostris* in the southwest of Iran, however, according to Leviton et al. (1992) there are some definitive characters between *S. mitranus* and *S. s. conirostris*: ear opening in *S. s. conirostris* clearly visible and relatively large, its upper border reaching the backward continuation of the line made by lower edges of the upper labial scales while, in *S. mitranus* ear opening very small but usually visible, nearly always situated well below the line made by the lower edges of

the upper labial scales; dorsum more or less uniform; vertical bars or spots usually present on flanks of adults and rostral in broad contact with frontonasal scale. In pholidosis and coloration, the Gonbaki specimen agrees in general with the descriptions of *S. s. conirostris* given by Anderson (1999) and Leviton et al. (1992), except for the scale rows at midbody (29 instead of 26–28). The habitats are similar despite the wide distances between localities and the elevational range differences. The new locality of this species is situated approximately 770 km east of the type locality in a different herpetogeographic region.

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