

Distribution of the Gekkonidae Species in Southeast Anatolia, Turkey, and New Localities

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Abstract: The distribution of Gekkonidae in southeast Anatolia was examined. Specimens were caught during field excursions between 2000 and 2002. The localities of the samples are marked on the provided maps and the distribution of the species is explained. Some habitat and ecological features are also given. *Hemidactylus turcicus* (Linnaeus, 1758) was recorded for the first time in Şanlıurfa and its distribution extended towards eastern Turkey. In addition, we added new localities to the distribution range of *Cyrtopodion scaber* (Heyden, 1827), which was previously only known from Şanlıurfa.

Key Words: Southeast Anatolia, Turkey, Gekkonidae, *Hemidactylus turcicus*, *Asaccus elisae*, *Cyrtopodion kotschy syriacus*, *Cyrtopodion heterocercus mardinensis*, *Cyrtopodion scaber*

Güneydoğu Anadolu'da Yaşayan Gekkonidae Familyasına Ait Türlerin Dağılışı ve Yeni Lokaliteler

Özet: Bu çalışmada, güneydoğu Anadolu'da yaşayan Gekkonidae familyasına ait türlerin dağılışı incelenmiştir. 2000-2002 yılları arasında yapılan arazi çalışmalarından elde edilen örneklerin yakalandığı lokaliteler haritalar üzerinde gösterilerek türlerin bu bölgedeki dağılışı açıklanmıştır. Bunlara ilaveten habitat ve ekolojik özellikleri verilmiştir. Ayrıca *Hemidactylus turcicus* (Linnaeus, 1758) türü ilk defa Şanlıurfa ilinden bulunarak bu türün dağılışının doğuya doğru devam ettiği bulunmuştur. Buna ilaveten sadece Şanlıurfa'dan bilinen *Cyrtopodion scaber* türünün dağılışına yeni lokaliteler eklenmiştir.

Anahtar Sözcükler: Güneydoğu Anadolu Bölgesi, Türkiye, Gekkonidae, *Hemidactylus turcicus*, *Asaccus elisae*, *Cyrtopodion kotschy syriacus*, *Cyrtopodion heterocercus mardinensis*, *Cyrtopodion scaber*

Introduction

The southeast Anatolian region of Turkey is zoogeographically located at an important transition between Asia and Europe. The southeastern Anatolian region has biotopes similar to those of Syria and Iraq (Baran et al., 2004). The presence of different ecozones resulted in considerable heterogeneity of the herpetofauna of southeast Anatolia and Syria, where 4 kinds of faunal elements meet: Palearctic, Sahara-Arabian, Oriental, and Afrotropical (Disi and Böhme, 1996). Moreover, there are no natural boundaries between southeast Anatolia and neighboring countries, allowing range extension for a couple of species. During a field trip to southeast Anatolia covering a large area and various habitat types, new information about the family Gekkonidae was collected, which expands our knowledge on its distribution.

There are several other studies on Gekkonidae species from southeast Anatolia (Böhme, 1973; Başoğlu and Baran, 1977; Baran and Gruber, 1982; Mulder, 1995; Tok et al., 1997; Baran and Atatür, 1998; Sindaco et al., 2000; Tok et al., 2002; Franzen et al., 2002; Baran et al., 2003).

Materials and Methods

Material List

Family: Gekkonidae

Hemidactylus turcicus (Linnaeus, 1758): n = 12 ♂+♀

Asaccus elisae (Werner, 1895): n = 22 ♂+♀

Cyrtopodion kotschy syriacus (Stepanek, 1937) n = 1 ♂

Cyrtopodion heterocercus mardinensis (Mertens, 1924) n = 41 ♂+♀

Cyrtopodion scaber (Heyden, 1827) n = 50 ♂+♀

The present work was based on 126 specimens of Gekkonids (belonging to 3 genera and 5 species) that were collected in southeast Anatolia, Turkey, between 2000 and 2002. All the specimens were deposited in the Uludağ University Zoology Museum. The specimens were anaesthetized with ether, fixed in 10% formalin, and later deposited in 70% ethanol.

Results and Discussion

Hemidactylus turcicus (Linnaeus, 1758)

Specimens examined: n = 12 ♂+♀; 2002/400-403, 25.08.2002, Kilis; 2002/434-437, 26.08.2002, Birecik, Şanlıurfa; 2002/451-454, 27.08.2002, Şanlıurfa (Figure 1).

Hemidactylus turcicus (Linnaeus, 1758) was recorded for the first time in Şanlıurfa and the distribution of this species was extended towards eastern Turkey.

General distribution: This species is widely distributed around the Mediterranean Basin and East through West Asia, as far as India (Baran and Atatür, 1998).

Distribution in Turkey: Found in all coastal zones of Turkey (Baran and Atatür, 1998).

Information on its habitat and ecology: It is found in scrubland, rocky areas, cliffs, caves, and on stonewalls in agricultural areas. It is common in urban environments, including inside buildings.

The distribution of this species was previously known up to the Antakya (Hatay) region. Finding this species in Şanlıurfa shows that the distribution of the species extends towards eastern Turkey.

Asaccus elisae (Werner, 1895)

Specimens examined: n = 22 ♂+♀; 2000/29, 07.09.2000, Harran Ruins, Şanlıurfa; 2002/309-314, 12.06.2002, Harran Ruins, Şanlıurfa; 2002/419-433, 26.08.2002, Birecik, Şanlıurfa (Figure 2).

General distribution: Known from Turkey, Iran, and Iraq (Baran and Atatür, 1998).

Distribution in Turkey: In the vicinity of Birecik, Harran, and Nusaybin in southeast Anatolia (Baran and Atatür, 1998).

Information on its habitat and ecology: This species is found in rocky areas with sparse vegetation. It can also be found in the ruins of old buildings.

Cyrtopodion kotschy syriacus (Stepanek, 1937)

Specimens examined: n = 1 ♂; 2000/31, 08.09.2000, Harran, Şanlıurfa (Figure 2).

General distribution: Its range extends from southern Italy and Greece to the Aegean Islands, Turkey,

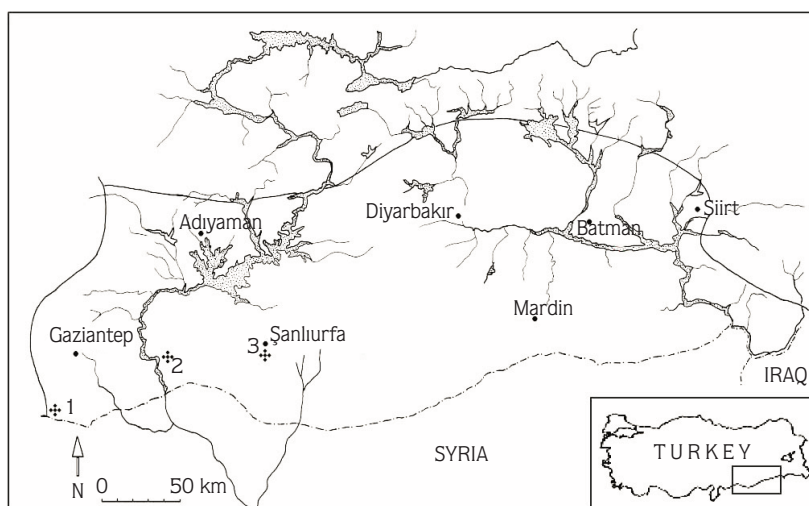


Figure 1. The southeast Anatolian localities (Turkey) in which *Hemidactylus turcicus* (*) (Gekkonidae) specimens were collected. 1. Kilis; 2. Birecik, Şanlıurfa; 3. Şanlıurfa.

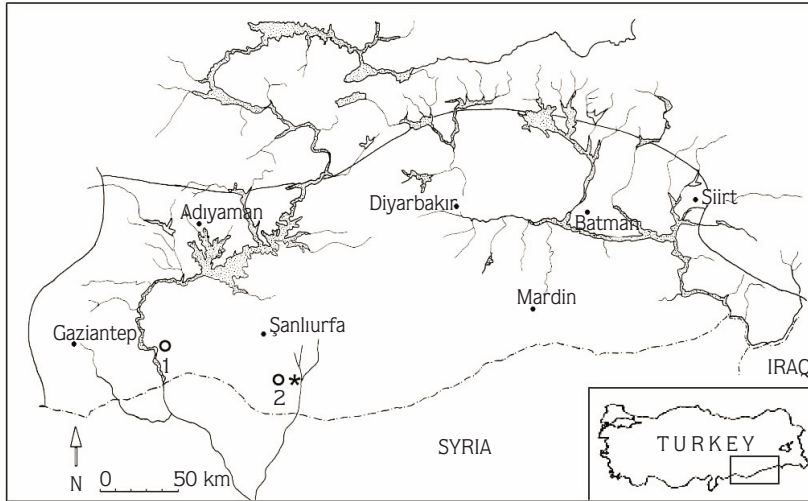


Figure 2. The southeast Anatolian localities (Turkey) in which *Asaccus elisae* (o) and *Cyrtopodion kotschy syriacus* (*) (Gekkonidae) specimens were collected. 1. Birecik-Şanlıurfa; 2. Harran Ruins-Şanlıurfa.

Syria, Israel, northwest Iran, and the Transcaucasus region (Baran and Atatür, 1998).

Distribution in Turkey: It is distributed widely in Turkey (Baran and Atatür, 1998; Tok et al., 2002).

Information on its habitat and ecology: This species is found climbing or on the ground in dry, rocky, or stony places. It can be found in scrubland, on cliffs, on stonewalls, and on the exterior walls of buildings.

Cyrtopodion heterocercus mardinensis (Mertens, 1924)

Specimens examined: n = 41 ♂+♀; 2002/287-292, 09.06.2002, Yeniçağlar Village, Kozlu, Batman; 2002/299-301, 11.06.2002, Siverek, Şanlıurfa; 202/302-304, 11.06.2002, Şanlıurfa 5 km W, 2002/404, 02.08.2002, Kilis; 2002/438-440, 26.08.2002, Birecik, Şanlıurfa; 2002/456, 27.08.2002, Şanlıurfa; 2002/488, 29.08.2002, Beşdeğirmenler, Kızıltepe, Mardin; 2002/528-532, 31.08.2002, Midyat, Mardin; 2002/543-551, 01.09.2002, Diyarbakır; 2002/558-565, 02.09.2002, Siverek, Şanlıurfa; 2004/708, 13.05.2004, Hasankeyf, Suçeken, Batman (Figure 3).

General distribution: Known from Turkey, Iraq, and Iran (Baran and Atatür, 1998).

Distribution in Turkey: Southeast Anatolia (Baran and Atatür, 1998).

Information on its habitat and ecology: It occurs in rocky areas with sparse vegetation, in scrubland, and semi-desert habitat. It can also be found in the ruins of old buildings near human populations.

Cyrtopodion scaber (Heyden, 1827)

Specimens examined: n = 50 ♂+♀; 2002/305-308, 12.06.2002, Harran Ruins, Şanlıurfa; 2002/444-450, 27.08.2002, Şanlıurfa; 2002/455, 27.08.2002, Şanlıurfa; 2002/492-498, 29.08.2002, Akçatarla, Nusaybin, Mardin; 2002/499-506, 29.08.2002, Nusaybin, Mardin; 2002/509-526, 30.08.2002, Cizre, Şırnak; 2002/527, 31.08.2002, Midyat, Mardin; 2002/566-570, 02.09.2002, Siverek, Şanlıurfa (Figure 4).

In this study, new localities were added to the distribution range of *Cyrtopodion scaber* (Heyden, 1827), which was previously only known from Şanlıurfa.

General distribution: Its range includes Turkey, Egypt, the Middle East, Ethiopia, and Pakistan (Baran and Atatür, 1998).

Distribution in Turkey: Southeast Anatolia (Baran and Atatür, 1998).

This species was previously only known from Şanlıurfa (Baran and Atatür, 1998). With this study new localities were added to the distribution of this species (Figure 4).

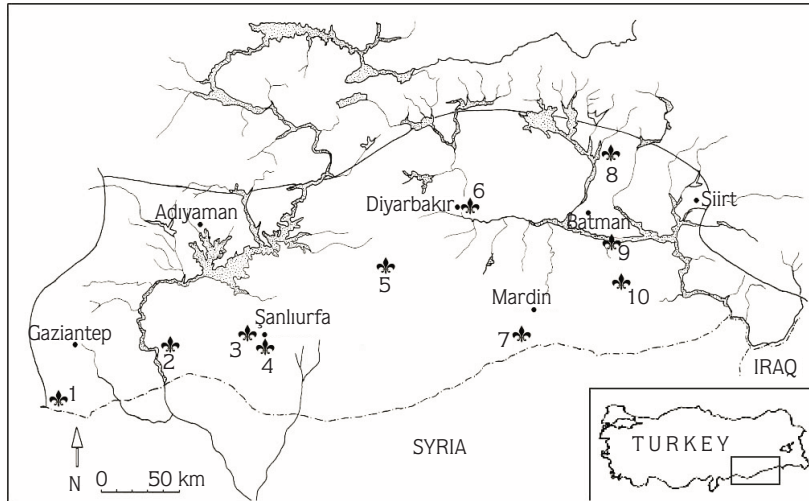


Figure 3. The southeast Anatolian localities (Turkey) in which *Cyrtopodion heterocercus mardinensis* (♣) (Gekkonidae) specimens were collected. 1. Kilis; 2. Birecik, Şanlıurfa; 3. 5 km west of Şanlıurfa; 4. Şanlıurfa; 5. Siverek, Şanlıurfa; 6. Diyarbakır; 7. Beşdeğirmenler, Kızıltepe, Mardin; 8. Yeniçağlar Village, Kozlu, Batman; 9. Hasankeyf, Suçeken, Batman; 10. Midyat, Mardin.

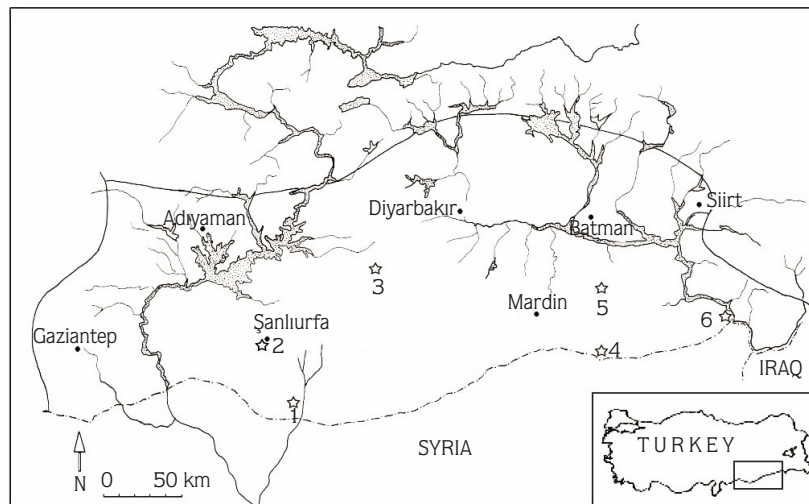


Figure 4. The southeast Anatolian localities (Turkey) in which *Cyrtopodion scaber* (☆) (Gekkonidae) specimens were collected. 1. Harran Ruins, Şanlıurfa; 2. Şanlıurfa; 3. Siverek, Şanlıurfa; 4. Akçatarla, Nusaybin, Mardin; 5. Midyat, Mardin; 6. Cizre, Şırnak.

Information on its habitat and ecology: This species is found in rocky-stony areas. It occurs in stony areas and on gravelly plains. It can be found in villages and on the exterior walls of old buildings.

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