СОВРЕМЕННАЯ ГЕРПЕТОЛОГИЯ. 2021. Т. 21, вып. 3/4. С. 151 – 154

Current Studies in Herpetology, 2021, vol. 21, iss. 3–4, pp. 151–154

https://sg.sgu.ru

A new record of the Bogdanov's thin-toed gecko, Tenuidactylus bogdanovi (Sauria, Gekkonidae), in South Kazakhstan

M. A. Chirikova [™], K. A. Amirekul

Institute of Zoology of the Republic of Kazakhstan 93 al-Farabi Avenue, Almaty 050060, Kazakhstan

Article info

Short Communication https://doi.org/10.18500/1814-6090-2021-21-3-4-151-154

Received 18 August 2021, revised 20 September 2021, accepted 25 September 2021

This is an open access article distributed under the terms of Creative Commons Attribution 4.0 International License (CC-BY 4.0)

Abstract. In the Shymkent city (South Kazakhstan) in 2019 and 2021 several specimens of Bogdanov's thin-toed gecko (*Tenuidactylus bogdanovi*) were found. The find was located 129 km north of the nearest known location in the Tashkent city in Uzbekistan. The repeated finding of Bogdanov's gecko in Shymkent confirms the eligibility of including this species in the list of herpetofauna of Kazakhstan.

Keywords: Gekkonidae, Tenuidactylus bogdanovi, Kazakhstan

Funding: This work was supported by a grant from the Ministry of Education and Science of the Republic of Kazakhstan (IRN No. 08855821).

For citation: Chirikova M. A., Amirekul K. A. A new record of the Bogdanov's thin-toed gecko, *Tenuidactylus bogdanovi* (Sauria, Gekkonidae), in South Kazakhstan. *Current Studies in Herpetology*, 2021, vol. 21, iss. 3–4, pp. 151–154. https://doi.org/10.18500/1814-6090-2021-21-3-4-151-154

The Bogdanov's thin-toed gecko, Tenuidactylus bogdanovi (Nazarov et Poyarkov, 2013), has been described as a separate species from the polyphyletic group Tenuidactylus fedtschenkoi (Nazarov, Poyarkov, 2013). According to known data, the gecko inhabits Uzbekistan, eastern Turkmenistan, and it is also likely to be found in the adjacent areas of Afghanistan and southwestern Tajikistan (Nazarov, Poyarkov, 2013). The first reports on the finds of the Bogdanov's gecko on the territory of Kazakhstan were given in the article by T. N. Dujsebayeva under the specific name of the Turkestan naked-toed gecko (T. fedtschenkoi (Strauch, 1887)) based on the oral report of R. A. Nazarov (Dujsebayeva, 2010; Dujsebayeva et al., 2018). The find of the gecko was indicated for the territory south of the Shardara reservoir. However, since then there have been no other reports of the location of this species from the territory of Kazakhstan.

The northernmost finds of the Bogdanov's gecko belong to the city of Tashkent (Uzbekistan) (Nazarov, Poyarkov, 2013). It would have been expected to find this species in the adjacent southern border regions of Kazakhstan. However, despite the annual survey of the territories of South Kazakhstan since 2016, Bogdanov's gecko was not found.

Two Bogdanov's thin-toed geckos were found in 2019 in the private sector, located in Shymkent city center (South Kazakhstan): adult specimen (29.04.2019) (Fig. 1, *a*) and then another immature specimen (31.08.2019) (Fig. 1, b). Another adult was found on April 29, 2021. Geckos were observed on the same brick plastered fence around a private house during the nighttime. At the same time, the first gecko was found simultaneously with two specimens of the grey thin-toed gecko (Mediodactylus russowii (Strauch, 1887)). It should be noted that until 2018, gray geckos had been constantly found in this place. During the hours of activity, up to 8 individuals could be observed simultaneously. However, after the fence was plastered in the spring 2018, their hiding places decreased abruptly (Fig. 2), and the number of geckos dropped significantly. And in 2019, Bogdanov's gecko was first recorded.

New plots are being built in neighboring areas, and workers from the Republic of Uzbekistan are often involved in the construction. In this regard, we do not exclude the possibility of importing this species from Uzbekistan with construction materials or workers' belongings. Many species of geckos that live on vertical surfaces often settle on the walls of buildings

Corresponding author. Laboratory of Ornithology and Herpetology, Institute of Zoology of the Republic of Kazakhstan, Kazakhstan.

ORCID and e-mail addresses: Marina A. Chirikova: https://orcid.org/000-0002-0515-598X, m.chirikova@mail.ru; Kudajbergen A. Amirekul: amirequl@gmail.com.



Fig. 1. Bogdanov's thin-toed gecko adult (a) and immature (b) specimens

in settlements, including large cities. There are known cases of a successful introduction of geckos, including in settlements remote from natural habitats. For example, the Caspian gecko (*Tenuidactylus caspius* (Eichwald, 1831)) successfully settles through transport communications in Georgia, Dagestan, Armenia, Abkhazia (Kukushkin et al., 2017), and the Astrakhan region (Pestov et al., 2009). There is a known case of accidental introduction of the gray gecko to Barsa-

Fig. 2. The fence, where gray geckos and Bogdanov's thintoed geckos were found, before plastering

kelmes Island in the Aral Sea (Eliseev, 2007). Geckos colonize even in completely different climatic conditions, such as the Turkestan gecko (later redefined as Boganov's gecko), which was discovered in Ukraine in the city of Odessa (3000 km! from the natural range of the species) (Duz et al., 2012; Krasylenko, Kukushkin, 2017).

The aforementioned find of Boganov's gecko was located 129 km north of Tashkent and about 200 km north of the first find from the vicinity of Shardara (Dujsebayeva, 2010). The repeated finding of Bogdanov's gecko in Shymkent confirms the eligibility of including this species in the list of herpetofauna of Kazakhstan and suggests the emergence of a full-fledged population in this region in the near future. It is necessary to conduct an additional survey of nearby settlements and habitats suitable for geckos in the territories located between Shymkent and Uzbekistan.

Acknowledgements

The authors express to Roman A. Nazarov for clarifying the species of the gecko and for valuable comments on the text.

REFERENCES

Dujsebaeva T. N. Short review of last changes in the checklist of amphibians and reptiles of Kazakhstan. In: *Herpetological Studies in Kazakhstan and Neighboring Countries*. Alamaty, ASBK – SOPK Publ., 2010, pp. 37–52 (in Russian).

Dujsebayeva T. N., Barabanov A. V., Ananjeva N. B. Lizards of the Kazakhstan: Stages of study and actual taxonomy. In: *Herpetological and Ornithological Research: Current Aspects. Dedicated to the 100th Anniversary of A. K. Rustamov* (1917–2005). Saint Petersburg, Moscow, KMK Scientific Press, 2018, pp. 78–87 (in Russian).

Duz S. L., Kukushkin O. V., Nazarov R. A. A record of the Turkestan naked-toed gecko, *Tenuidactylus fedtschenkoi* (Sauria, Gekkonidae), in the south-western Ukra-

ine. *Current Studies in Herpetology*, 2012, vol. 12, iss. 3–4, pp. 123–133 (in Russian).

Eliseev D. O. The current state of the vertebrate fauna of Barsakelmes Island and its dynamics over the past 50 years. In: *Proceedings of the Barsakelmes State Natural Reserve*, 2007, pp. 107–128 (in Russian).

Krasylenko Yu. A., Kukushkin O. V. An update of thin-toed gecko *Tenuidactylus bogdanovi* (Reptilia, Gekkonidae) population status in Odessa City, Ukraine. *Zbìrnik prac' Zoologìčnogo muzeû* (Kiïv), 2017, no. 48, pp. 3–12.

Kukushkin O. V., Doronin I. V., Tuniev B. S., Ananjeva N. B., Doronina M. A. Introduction of amphibians and reptiles in the Caucasus and Crimea: General

overview and some facts. *Current Studies in Herpetology*, 2017, vol. 17, iss. 3–4, pp. 157–197 (in Russian).

Nazarov R. A., Poyarkov N. A. Taxonomic revision of the genus *Tenuidactylus* Szczerbak et Golubev 1984 (Reptilia, Squamata, Gekkonidae) with a description of a new species from Central Asia. *Zoologicheskii zhurnal*, 2013, vol. 92, no. 11, pp. 1312–1332 (in Russian).

Pestov M. V., Kalinina O. N., Grankina L. I. The Caspian gecko – *Cyrtopodion caspius* (Sauria, Gekkonidae) – a new species for the Astrakhan region and the Volga region. *Samarskaya Luka: Problems of Regional and Global Ecology*, 2009, vol. 18, no. 1, pp. 108–110 (in Russian).

M. A. Chirikova, K. A. Amirekul

Новая находка геккона Богданова, Tenuidactylus bogdanovi (Sauria, Gekkonidae) в Южном Казахстане

М. А. Чирикова [™], К. А. Амирекул

Институт зоологии Республики Казахстан Казахстан, 050060, г. Алматы, просп. аль-Фараби, д. 93

Информация о статье

Краткое сообщение УДК 598.112 https://doi.org/10.18500/1814-6090-2021-21-3-4-151-154

Поступила в редакцию 18.08.2021, после доработки 20.09.2021, принята 25.09.2021

Статья опубликована на условиях лицензии Creative Commons Attribution 4.0 International (CC-BY 4.0)

Аннотация. В г. Шымкент (Южный Казахстан) в 2019 и 2021 гг. обнаружено несколько особей геккона Богданова (*Tenuidactylus bogdanovi*). Находка расположена на 129 км севернее ближайшего известного местонахождения в г. Ташкент в Узбекистане. Неоднократное нахождение геккона Богданова в г. Шымкент подтверждает правомочность внесения этого вида в список герпетофауны Казахстана.

Ключевые слова: Gekkonidae, Tenuidactylus bogdanovi, Казахстан

Финансирование. Работа выполнена при поддержке гранта Министерства образования и науки Республики Казахстан (ИРН № 08855821).

Образец для **цитирования:** Chirikova M. A., Amirekul K. A. A new record of the Bogdanov's thin-toed gecko, *Tenuidactylus bogdanovi* (Sauria, Gekkonidae), in South Kazakhstan [Чирикова М. А., Амирекул К. А. Новая находка геккона Богданова, *Tenuidactylus bogdanovi* (Sauria, Gekkonidae) в Южном Казахстане]. Современная герпетология. 2021. Т. 21, вып. 3/4. С. 151 – 154. https://doi.org/10.18500/1814-6090-2021-21-3-4-151-154

 $^{^{}oxtimes}$ Для корреспонденции. Лаборатория орнитологии и герпетологии Института зоологии Республики Казахстан, Казахстан.

ORCID и e-mail адреса: Чирикова Марина Александровна: https://orcid.org/000-0002-0515-598X, m.chirikova@mail.ru; Амирекул Кудайберген Алтынулы: amirequl@gmail.com.