Captive breeding of the Caspian lizard (*Darevskia caspica*) (Reptilia, Lacertidae)

A. A. Kidov ✉, A. A. Ivanov, V. O. Erashkin, T. E. Kondratova

Russian State Agrarian University – Timiryazev Moscow Agricultural Academy
49 Timiryazevskaya St., Moscow 127550, Russia

Article info

Short Communication
https://doi.org/10.18500/1814-6090-2022-22-3-4-131-136
EDN: OUSPBT

Received 26 August 2022,
revised 29 September 2022,
accepted 29 September 2022

Abstract. The Caspian lizard (*Darevskia caspica*) is a recently described endemic of the Hyrcanian forests of Northern Iran. The paper presents new data on the reproductive biology of *D. caspica* obtained in laboratory conditions. Breeding females have a body length of 53.4–64.4 mm and a mass of 2.96–3.60 g. Females produce from one to three clutches per season, each of which contains 1–6 eggs. The length of these eggs is 10.35–13.95 mm, width 6.19–7.59 mm, and weight 0.27–0.45 g. The mass of an entire clutch of eggs is 0.43–1.84 g or 11.94-47.18% of the female's weight. Incubation duration is 55–66 days at a temperature of 25–27°C and 42–49 days at a temperature of 28–30°C, respectively. Newborn lizards have a body length of 24.45–28.56 mm, a tail length of 38.00–53.00 mm and a mass of 0.34–0.53 g. Young females begin laying eggs 319–593 days after their hatching. It is noted that Caspian lizards have reproductive indicators similar to other representatives of the genus *Darevskia*, but are characterized by early puberty and high fertility per season.
Keywords: true lizards, Hyrcanian forests, Iran, captive breeding, fertility

For citation: Kidov A. A., Ivanov A. A., Erashkin V. O., Kondratova T. E. Captive breeding of the Caspian lizard (*Darevskia caspica*) (Reptilia, Lacertidae). *Current Studies in Herpetology*, 2022, vol. 22, iss. 3–4, pp. 131–136 (in Russian). https://doi.org/10.18500/1814-6090-2022-22-3-4-131-136, EDN: OUSPBT

REFERENCES

Bannikov A. G., Darevsky I. S., Ishchenko V. G., Rustamov A. K., Shcherbak N. N. *Opredelitel' zemnovodnykh i presmykayushchikhsya fauny SSSR* [A Guide of Amphibians and Reptiles of Fauna of USSR]. Moscow, Prosveshchenie Publ., 1977. 415 p. (in Russian).

Drozdov N. N. Materials on biology of the green-belly lizards. *The Problems of Herpetology*: *Abstracts of First Herpetological Conference*. Leningrad, Izdatel'stvo Leningradskogo universiteta, 1964, pp. 21–22 (in Russian).

Kidov A. A. On Reproductive biology of the Hyrcanian meadow lizard, *Darevskia praticola hyrcanica* (Lacertidae, Reptilia). *Current Studies in Herpetology*, 2018, vol. 18, iss. 3–4, pp. 118–124 (in Russian). https://doi.org/10.18500/1814-6090-2018-18-3-4-118-124

Kidov A. A. Spring aspect of the herpetofauna in the Iranian Talysh. *University Proceedings*. *Volga Region*. *Natural Sciences*, 2019, no. 1 (25), pp. 50–60 (in Russian). https://doi.org/10.21685/2307-9150-2019-1-6

Kidov A. A. To the study of the reproductie biology of the rock lizard (*Darevskia saxicola*, Reptilia, Lacertidae). *Zoologicheskii zhurnal*, 2020, vol. 99, no. 11, pp. 1293–1297 (in Russian). https://doi.org/10.31857/S004451342008005X

Kidov A. A. *Fauna*, *Ecology and Protection of Amphibians and Reptiles of the South-West Pre-Caspian Region*. Diss. Dr. Sci. (Biol.). Moscow, 2022. 813 p. (in Russian).

Kidov A. A., Kovrina E. G., Timoshina A. L., Baksheyeva A. A., Matushkina K. A., Blinova S. A., Afrin K. A. Breeding of the forest Artvin lizard, *Darevskia derjugini sylvatica* (Bartenjev et Rjesnikowa, 1931) in the valley of the Malaya Laba River (Northwestern Caucasus). *Current Studies of Herpetology*, 2014, vol. 14, iss. 3–4, pp. 103–109 (in Russian).

Kidov A. A., Kovrina E. G., Timoshina A. L., Matushkina K. A., Blinova S. A., Afrin K. A. Reproductive Strategy of the Black Sea lizard (*Darevskia pontica* (Lantz et Cyren, 1919)) on Northwestern Caucasus. *Izvestiya Russian State Agrarian University – Moscow Timiryazev Agricultural Academy*, 2015, no. 6, pp. 47–57 (in Russian).

Kidov A. A., Nemyko E. A., Ivanov A. A., Pykhov S. G. About cases of late reproduction in the Pontic lizard, *Darevskia pontica* (Lantz et Cyren, 1919) on the Northwest Caucasus. *Vestnik of Chuvash State Pedagogical University named after I. Ya. Yakovlev*, 2018, no. 2 (98), pp. 44–49 (in Russian).

✉ *Corresponding author*. Department of Zoology of the Institute of Zootechnics and Biology, Russian State Agrarian University – Timiryazev Moscow Agricultural Academy, Russia.

ORCID and e-mail addresses: Artem A. Kidov: https://orcid.org/0000-0001-9328-2470, kidov_a@mail.ru; Andrey A. Ivanov: https://orcid.org/0000-0002-3654-5411, andrew.01121899@gmail.com; Vladimir O. Erashkin: https://orcid.org/0000-0003-1589-6340, vova.yeashkin@mail.ru; Tatyana E. Kondratova: https://orcid.org/0000-0001-7533-7327, t.kondratova@rgau-msha.ru.

Kidov A. A., Ivanov A. A., Kondratova T. E., Stolyarova E. A., Nemyko E. A. On eggs re-laying of greenbelly lizards from the *Darevskia* (*chlorogaster*) complex (Reptilia, Lacertidae). *Current Studies in Herpetology*, 2019, vol. 19, no. 3–4, pp. 153–159 (in Russian). https://doi.org/10.18500/1814-6090-2019-19-3-4-153-159

Kidov A. A., Ivanov A. A., Erashkin V. O., Kondratova T. E. Reproductive biology of the Persian lizard (*Iranolacerta brandtii*, Reptilia, Lacertidae) in laboratory conditions. *Zoologicheskii zhurnal*, 2022, vol. 101, no. 10, pp. 1136–1139 (in Russian). https://doi.org/10.31857/S0044513422100075

Orlova V. F. *Systematic and Some Ecological-Morphological Characteristics of Forest Lizards of Genus Lacerta*. Diss. Cand. Sci. (Biol.). Moscow, 1975. 164 p. (in Russian).

Tuniyev B. S., Tuniyev S. B. Rare species of amphibians and reptiles of the Sochi National Park. In: *Inventarizatsiia osnovnykh taksonomicheskikh grupp i soobshchestv*, *sozologicheskie issledovaniia Sochinskogo natsional'nogo parka – pervye itogi pervogo v Rossii natsional'nogo parka* [Inventory of the Main Taxonomic Groups and Communities, Sociological Research of the Sochi National Park – the First Results of the First National Park in Russia]. Moscow, Prestizh Publ., 2006, pp. 205–225 (in Russian).

Ahmadzadeh F., Flecks M., Carretero M. A., Mozaffari O., Böhme W., Harris D. J., Freitas S., Rodder D. Cryptic speciation patterns in Iranian rock lizards uncovered by integrative taxonomy. *PLoS ONE*, 2013, vol. 8, no. 12, article number e80563. https://doi.org/10.1371/journal.pone.0080563

Anderson S. C. *The Lizards of Iran*. Oxford, Society for the Study of Amphibians and Reptiles, 1999. 442 p.

Tuniyev S. B., Doronin I. V., Tuniyev B. S., Aghasyan A. L., Kidov A. A., Aghasyan L. A. New subspecies of meadow lizard, *Darevskia praticola loriensis* ssp. nov. (Reptilia: Sauria) from Armenia. *Russian Journal of Herpetology*, 2013, vol. 20, no. 3, pp. 223–237.