



Fig. 320: Portrait of a Mongolian Desert Runner.

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Fig. 321: Barbour's Desert Runner from the Agin (Buryat) Autonomous Region.

N. SCHEPINA

ventral surface is white or yellowish. In males, especially old ones, the throat and collar, the outer tip of ventral scales, and often also the hips, are flesh-pink.

**Distinguishing features:** *Eremias argus* differs from all other species of the genus by having two, instead of one, frontonasal scales.

**Distribution and subspecies:** This is a common lizard in Mongolia, China, and Korea.

In Russia, this species is found in Southern Buryatia, to the north approximately up to the city of Ulan-Ude, and in the extreme south-west of Chita Region. Of the two subspecies recognized, Russia is inhabited by Barbour's Desert Runner, *E. a. barbouri* SCHMIDT, 1925.

**Natural history:** In the Transbaikial region, this species is found on stony slopes with scattered bushes or other vegetation, river terraces, and pine forest edges. Mongolian Desert Runners also inhabit railway embankments and settle not only in dry areas but near water as well. In Mongolia, the species occurs in various steppe, forest-steppe, and semi-desert landscapes between 600–2,050 m elevation, where it is often encountered amidst peashrubs (*Caragana*) or rodent (gerbils, Brandt's vole) colonies, seeking refuge in their burrows. In China, it appears to prefer similar dry habitats, and in Korea, apart from the places typical for this species, it also

settles in rice fields. The Mongolian Desert Runner never coexists with other species of *Eremias* and is scarce almost everywhere. It does not construct its own burrows but retreats into rock crevices or the lairs of small mammals in case of danger.

Its activity is diurnal, with a single peak during the day. In the Transbaikial region, the active season lasts from the end of April to the end of August. In the north of the species' range, mating occurs between the end of April and the end of May. This is an oviparous species, but the exact time of egg deposition and the duration of incubation are unknown. Clutches usually contain 2–4 (sometimes as many as six) eggs. The young emerge at the end of July or beginning of August, and have body lengths of 1.7–1.9 cm upon hatching. Mongolian Desert Runners begin to breed in the second year of their life, after reaching body lengths of 5.1–5.3 cm. The diet consists of a variety of insects, mainly beetles, orthopterans, ants, cicadas, caterpillars, caddisflies, as well as spiders. A case of a Mongolian Desert Runner eating a tree frog metamorph has been recorded in the north of Mongolia. In turn, these lizards are preyed upon by raptors and snakes, such as Steppe Ribbon Racers and, possibly, Asian copperheads.

**Conservation status:** Barbour's Desert Runner is included in the Red Data Books of Russia, Buryatia, and the Agin (Buryat) Autonomous Region.

Map 64: *Eremias argus*.

### Steppe Runner

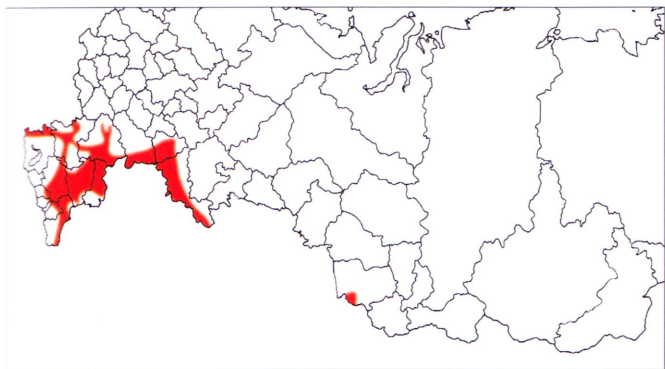
*Eremias arguta* (PALLAS, 1773)

Figs. 322–325, Map 65

The Steppe Runner stands out from other species of *Eremias* by its vast range and unusually high level of variability in size, colour and pattern, associated with the habitat characteristics.

**External appearance:** The habitus is massive or more slender. Body length may reach 9.7 cm, tail length 12.2 cm. Adult body weight varies between 7.1 and 29.8 g. The largest individuals are found in the east of the species' range. In Ciscaucasia, the maximum body





Map 65: *Eremias arguta*.

length of males reaches 8 cm, the tail length 10 cm; in females they are 7.2 cm and 9 cm, respectively. The tail is wide at its base and sharply thins towards the end.

The subocular scute does not touch the edge of the mouth. Supraocular scutes are not separated by granules from the frontal and frontoparietal shields. The dorsal scales are small, granular, smooth, or weakly keeled. The ventrals are quadrangular, smooth, and arranged in oblique rows. The row of femoral pores does not reach the knee joint by 3–4 scales in the vast majority of specimens of *E. a. deserti*. The back of Steppe Runners is grey, fulvous, brownish or pale yellow. The colour of the upper surface of the body often corresponds with the colour of the substrate the lizard lives on. Four pattern types have been described from within the species' range. Most Steppe Runners from Russia have a pattern of longitudinal rows of bright spots and dashes, between which there are dark spots. The underside of the body is white, ashy-blue or



Fig. 322: A Steppe Runner, *Eremias arguta* from the Astrakhan Oblast. Some individuals have green spots on their back.  
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Fig. 323: Steppe Runner from the Astrakhan Oblast.

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Fig. 324: Close-up of the head of a Steppe Runner.

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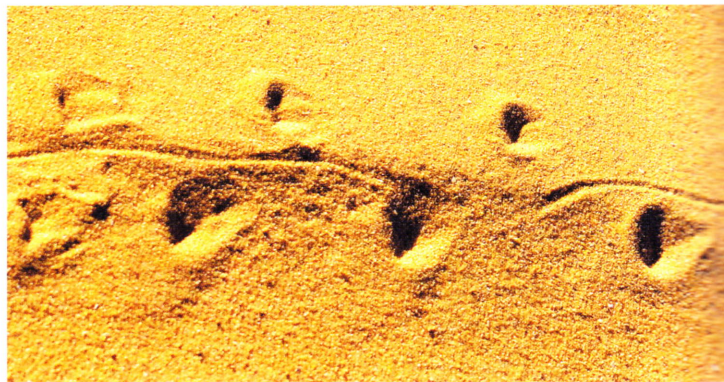


Fig. 325: Track left by a Steppe Runner in loose sand.

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bluish. The top of the tail is dark grey, and the inner sides of the lower leg and thigh are yellow.

**Distinguishing features:** This species differs from the Rapid Racerunner by its massive build, short tail, distinct pattern, and the subocular scale being separated from the supralabial.

**Distribution and subspecies:** The Steppe Runner is widespread from north-eastern Romania in the west, to south-western Mongolia and north-western China in the east. The northern boundary of the species' range passes through the steppe zone of the European part of Russia, whereas the southern limit is in Turkey and Iran. In the former USSR, Steppe Runners inhabit the steppe, semi-desert, and desert zones of the European part of Kazakhstan and the states of Central Asia.

The Russian range extends from the Ural River southwards to Dagestan, northwards up to the Voronezh and Samara regions, where the species occurs in the Khopersky Nature Reserve and the surroundings of the city of Tolyatti.

Within the distribution range, five subspecies are recognized; in Russia, only the western subspecies, *E. arguta deserti* (GMELIN, 1789), is found.

**Natural history:** Steppe Runners occur both in lowlands as well as mountains up to 2,000–2,200 m elevation in Transcaucasia and Kirghizia. They inhabit areas with loose, soft or slightly hard soils with patches of grass and shrub vegetation, where they quickly burrow themselves into loose sand at the sign of danger. In solid ground thinly covered with grass, it digs burrows up to 75 cm long and 20–30 cm deep. The daily activity of this species is diurnal, with a single peak in early spring and late autumn, and with two peaks at other times of the year. Depending on geographic location, hibernation ends between late February and late April; whilst it begins between the second half of September to early or mid-November. Mating is in April or May. Females produce 1–2 clutches containing 2–8 eggs in the reproductive season. In Kalmykia, females lay their eggs in abandoned rodent burrows in hard soil, and in self-constructed, 5–8 cm deep holes in soft soil. The incubation period lasts 50–60 days. The time of hatchling emergence varies significantly in different populations, subject of weather conditions. The young have body lengths of 2.5–3.4 cm at hatching. Sexual maturity is attained at the approximate age of one year, after reaching a body length of 5.5 cm. The diet consists chiefly of beetles, ants, butterflies, caterpillars, dipterans, orthopterans, and bugs. Other insects, slaters, spiders, and molluscs are

less common. Isolated cases of cannibalism are known. Leaves, cruciferous seeds, mulberries and other plant materials are eaten only in small quantities.

Steppe Runners are preyed upon by several species of snakes (sand boas, Smooth Snake, Dione's Snake, Caspian Whip Snake, Four-lined Snake, Steppe Viper), raptors (buzzards, Black Kite, Steppe Eagle) and carnivorous mammals, including dogs.

**Conservation status:** The Steppe Runner is included in the Red Data Books of Ingushetia, the Altai and Krasnodar Territories, and the Lipetsk, Orenburg, Samara, and Saratov regions.

#### Multi-ocellated Racerunner

*Eremias multiocellata* GÜNTHER, 1872

Figs. 326–329, Map 66

The name of this species refers to the dorsal pattern formed by numerous eyespots. It was in this species of racerunners that Russian zoologist V. N. SHNITNIKOV first discovered ovoviviparity.

**External appearance:** Maximum body length 7.4 cm, tail length 9.8 cm. Racerunners inhabiting mountains are usually larger and have a longer tail than those living in the lowlands.

The subocular scale is separated from the mouth edge by the supralabials. Body scales are smooth, granular or flat. The top of the tail is covered with flat smooth scales on its front third, then elongate scales with weak keels. Femoral pores do not reach the knee joint; the gap between the femoral pore rows is relatively wide. Pattern and colouration vary with both age and sex, and also depend on the type of habitat. The dorsal side of the Multi-ocellated Racerunner is grey with a brownish or greenish hue and a pattern of dark spots and ocelli. Males have blue, greenish or yellow ocelli edged with black on their flanks. These ocelli are very bright in the breeding season, and their colour may change from spring to autumn. Females are coloured more dingily and do not have the brightly-coloured ocelli of males. Specimens from mountain populations are darker; in contrast, those living in desert habitats with a yellowish-red substrate and small pebbles, are coloured in sandy tones. Young Multi-ocellated Desert Runners have a contrasting mosaic pattern of pale, dark-edged ocelli on their back, and conspicuous longitudinal stripes on the neck and flanks. In half-grown and adult specimens, the longitudinal stripes are more pronounced. The belly is white or slightly yellowish. In old males