

# Keeping of Spear-point leaf-tailed gecko (*Uroplatus ebenau* (Boettger, 1879)) at BION Terrarium Center

Anastasiia Marushchak<sup>1</sup>, Oleksii Marushchak<sup>2</sup>, Anastasiia Tkach<sup>3</sup>

- <sup>1</sup> – Head, Laboratory of Arboreal Geckos, BION Terrarium Center, Kyiv, Ukraine  
<sup>2</sup> – Head, Research and Development Department, BION Terrarium Center, Kyiv, Ukraine  
<sup>3</sup> – Keeper, Laboratory of Arboreal Geckos, BION Terrarium Center, Kyiv, Ukraine

*Uroplatus ebenau* (Boettger, 1879) is the smallest species of the *Uroplatus* genus. They live in dry deciduous forests (Angel, 1942). *Uroplatus ebenau* was originally described from Nosy Be, but it also occurs in lowland forests stretching from Ankarafantsika to Montagne d'Ambre in the north (<http://uroplatus.info/uroplatus-ebenau>) (Fig. 1). Average SVL of adults is 55–67 mm (2.16-2.64 in), TL is 15–18 mm (0.59-0.70 in) (total length 70–85 mm (2.75-3.35 in)). Total length of juveniles is about 30 mm. The head is not flattened and terminates in a short, rounded snout. 20–22 supralabial scales are present and the tip of the upper jaw (rostrale) is not divided. The body is leaf-shaped and laterally compressed. Some spiny scales are arranged along the dorsal spine, on the elbows and above the eyes (Glaw et al., 2007). Coloring varies from beige to red and chocolate brown with sometimes cream dorsal spine that makes them a perfect example of phytomimesis (phytomimicry). Females are larger than males.



**Figure 1.** *U. ebenau* male sitting on a branch. *U. ebenau* registration points within the natural range.

Males are easy to sex thanks to their hemipenial bulges. Males often have small droplet-like spots under their eyes (Fig. 2). Also males usually have longer tails and

fringes on them are frequently more serrated (Svatek, van Duin, 2001; Gehring, 2020). In contrast, females have smooth tail fringes. Thanks to these features *U. ebenau*i can be easily sexed since the moment of hatching.



**Figure 2.** *Uroplatus ebenau*i female and male. Main distinguishing features are shown.

When they feel badly they sit for a long time with opened mouth. Another sign of bad health is rapid color change and “twisted” tail with the edges up. Animals often die after such signs. They tend to be quite calm and spend most of the time sitting in dry foliage and on branches of Benjamin ficus or other plants.

*U. ebenau*i is a species of relatively dry, lowland deciduous forest. These forests are hot, up to an average maximum temperature of +29 °C (84.2 F) in the rainy season, and +25 °C (77.0 F) in the dry season. However it should be noted that temperatures in the forest level which they inhabit are considerably lower. These geckos are usually found 1–5 m above the ground. They eat insects at night and is mainly inactive during the day (<http://uroplatus.info/uroplatus-ebenau>). Additionally, they sleep flattened against tree trunks to camouflage against the bark or dry foliage (Bauer, 2013; Bohme, 2014).

Due to mass deforestation and destroying of their natural habitat they have IUCN Status indicated as “Vulnerable” (<https://www.iucnredlist.org/species/172792/6919303>), The species is also listed in CITES Ap. II. Therefore development of breeding methods and creation of ex situ populations is extremely important (Dubyna et al., 2019) for conservation of the species.

### **Keeping and breeding requirements**

**Keeping.** We keep adults at 19\*30\*20 cm (7,4\*11,8\*7,8 in) terrariums. Babies are kept at terrariums or plastic lunch boxes 25\*25\*25 cm (5,9\*5,9\*5,9 in). The decoration of the terrarium includes horizontal and vertical thin branches, lianas and living or artificial

plants (Fig. 3). Substrate - crushed small pieces of bark with layer of dry oak leaves. Paper towel instead of substrate will be also a good decision.



**Figure 3.** Interior decoration of a terrarium for *U. ebenau*.

**Lighting.** Zoo Med 5 UVB lamp is used during breeding season for 10-14 hours per day; during winter dormancy – for 4 - 6 hours per day.

**Temperature.** Daytime temperature is +24 - +25 °C (75.2 - 77.0 F), at night – +19 – +21 °C (66.2 - 69.8 F). Heating with 40W incandescent lamp is used only during winter months to maintain daytime temperature. During breeding season we use no heating source. UVB is important for successful breeding.

**Humidity.** Humidity level is maintained at 60-75% with double spraying (morning and evening) during the day.

**Diet.** Diet for adults contains Turkestan cockroaches (*Shelfordella tartara*), and crickets (Jamaican field crickets (*Gryllus assimilis*) and Mediterranean field cricket (*Gryllus bimaculatus*). Locusts and soft-shelled snails are used as additional food and treats, which are given 1-2 times a month. We offer 2–3 insects per head 1–2 times a week. If the animal shows signs of obesity, the frequency of feeding is reduced to 1 time per 2 weeks. There is always a water dish in the terrarium. It is strictly recommended not to use wild caught insects. Sometimes if an animal is still hungry we can offer one or two additional feeding items. For females during ovogenesis we offer soft-shelled snails. All insects should be gut loaded and dusted with vitamin-mineral supplementation every other feeding. Sepia or cuttlefish “bone” powder works well as a source of calcium. We gutload the insects with fruit, greens and vegetables and sometimes bee pollen as an additional source of vitamins and bioactive elements.

Diet for babies is the same as for adults. We use insects of appropriate size. We offer 3 insects per head 2–3 times a week before age of 1.5 months; 3 insects per head 1–2 times a week after age of 1.5 months. We add mineral supplements "Repashy" with D3 with every second feeding.

If problems with shedding in young individuals are detected, we spray them with a solution of the liquid vitamin and mineral product "Chiktonik" twice a week (2–5 sessions per day with concentration: 1 part of vitamin per 100 parts of water).

## References

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