Keeping of East Indian leopard gecko (*Eublepharis hardwickii* Gray, 1827) at BION Terrarium Center

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The East Indian leopard gecko (*Eublepharis hardwickii* Gray, 1827) inhabits the low mountain region of East India and Bangladesh (from low-mountain region Chota Nagput acros Orissa and up to the coast of the Bay of Bengal and adjacent Indian states – West-Bengal, Madhya Pradesh, Maharashtra, Andra Pradesh and Tamil Nadu (Seufer et al., 2005), where it could be found around 500-1,500 m above sea level (Fig. 1). *Eu. hardwickii* is the only *Eublepharis* species inhabiting moist habitats (forests and hilly areas with thorn bushes. Sometimes they can be spotted on open areas in ecotone territories during rainy seasons.

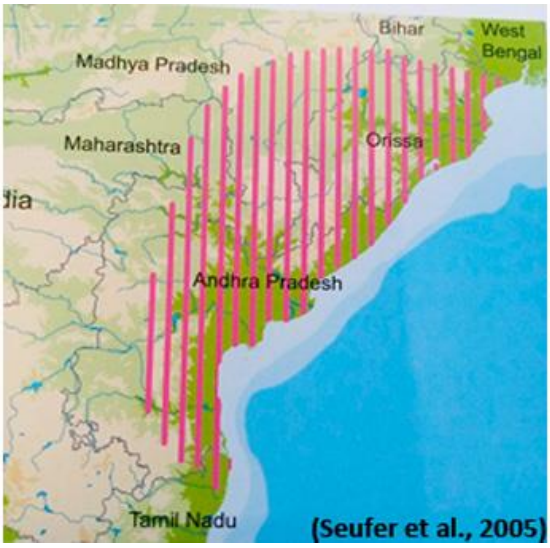

Figure 1. Natural range of *Eu. hardwickii* (Seufer et al., 2005).

Adult animals attain total length of 20-23 cm (7.87-9.05 in). The coloration of adults is similar to Hemitheconyx or Goniurosaurus. “The wedge-shaped head is large and fairly high. The nasals and the rostral do not touch. Both supralabials and sublabials are equipped with 9-10 large scales. The head is covered by irregular and polygonal scales. The eyes are large and equipped with well-developed, movable eyelids lined by 51-56 eyelid fringe scales. Across the middle of the belly 30 rows of scales can be counted, consisting of round imbricate scales. The extremities are short and strong with short fingers and toes. Tail is segmented and shorter than snout-to-vent

length” (Seufer et al., 2005). Background color is reddish-brown. Adult animals have single light scales that are organized in a sort of pattern on the head. This pattern is unique for every single animal and can be used like a “human fingerprint” (Fig. 3) to identify each separate individual. Nuchal loop is light yellow to whitish. There are two reddish-brown to dark-brown bands going horizontally across the back with light creamy to light-brown areas between them. Often light-yellow stripe develops on the spine (Fig. 2). The two dark bands across the back dissolve in dorsolateral and dorsoventral position. There are 4-5 dark cross bands on the tail with whitish gaps between them. Limbs are reddish-olive with black spots on elbow and knees (Seufer et al., 2005).

Adult males can be easily distinguished from females thanks to presence of a row of 13-18 preanal pores. Also they have not well-seen swallowing at the tail base where hemipenises are situated.

Figure 2. Adult and juvenile *Eu. hardwickii*.

Figure 3. Unique individual head patterns of *Eu. hardwickii*.

Eu. hardwickii is a nocturnal insectivorous species. It prefers moist and dry forests and can be found under big boulders and in hollows at the base of the trees. Sometimes it could be found in the human settlements. This species is not listed by CITES. However, it's still rare in captivity and extremely interesting for keeping and breeding. This species is listed in IUCN Red List as "Least Concern" (LC).

Keeping and breeding requirements

Terrarium. For an adult pair or group (1.2-1.3) - not less than of 90*50*45 cm (35.43*19.68*17.71 in) terrarium is used. Important note: the bottom area should be at least 0.2 m². We use paper sheets as substrate. Decoration includes bamboo or stony shelters, a moist chamber (with moss or coconut substrate), and a water bowl.

Lighting: We use a full spectrum lamp for lighting and a 60-W spot lamp for additional heating. Lighting period is 12/12. UV light is not required for adults; a full spectrum lamp is used for babies as well.

Temperature. Daytime temperature is +25 - +36 °C (77.0 - 78.8 F), nighttime - +22 - +23 °C (71.6 - 73.4 F). The temperature should not exceed +28 °C (82.4 F) at daytime.

Humidity: 70-80% (spraying with warm water 3 times a day).

Diet: adult animals receive crickets (*Gryllus assimilis*, *Gryllus bimaculatus*) (4-6 pieces 3-4 times a week), *Shefordella tartara* (5 insects once a week, immobilized), baby mice (once a week for gravid females and females after them making a clutch). We give Calcium 3-4 times a week by dusting the crickets, and there is a dish with Calcium powder with D3 at the enclosure.

Hibernation takes about 75 days (usually, from January to February) and is arranged for adult animals as follows:

- 7 days for the preparatory period, with a temperature of +28 - +32 °C (82.4 - 89.6 F), without food.
- 2 months with a temperature of +17 - +18 °C (62.6 - 64.4 F), without lighting, with only a water bowl and a moist chamber.
- 4-7 days for coming out of hibernation; a gradual increase in temperature by 2-3 °C every day. Then, usual keeping conditions are provided. Before and after wintering, we bring down and raise the temperature gradually during 14 days. During winter dormancy the animals don't take any food and feeding stops at about 2 weeks prior its start (usually along with the decreasing of temperatures).

References

1. Srinivasulu, C., Srinivasulu, B. & Das, I. 2011. Eublepharis hardwickii. The IUCN Red List of Threatened Species 2011: e.T174115A7017428. https://dx.doi.org/10.2305/IUCN.UK.2011-1.RLTS.T174115A7017428.en. Downloaded on 08 April 2021.

2. **http://reptile-database.reptarium.cz/species?genus=Eublepharis&species=hardwickii**

3. The Eyelash Geckos, Care, Breeding and Natural History by Andreas Kirschner, Yuri Kaverkin, Hermann Seufer (Hollywood Import and Export, Inc. 2005)

4. Seufer H., Kaverkin Yu., Kirschner A. The eyelash geckos. Care, Breeding and Natural History. – Kirschner & Seufer Verlag, Karlsruhe, Germany. – 2005. – 238 p.