

Keeping of angle-headed forest dragon (*Hypsilurus magnus* Manthey & Denzer, 2006) at BION Terrarium Center

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DESCRIPTION, DISTRIBUTION AND BIOLOGY

Hypsilurus magnus Kraus, 2013 also known as angle-headed forest dragon or New Guinea tree dragon is a species of big oviparous Agamidae lizards inhabiting Indonesia and Papua New Guinea (Manthey & Denzer, 2016). Its known distribution includes Papua, Province of Indonesia, Papua New Guinea (Prince Alexander Mts., Huriak, 3.5846°S, 143.5007°E, 68 m asl.; Madang, West Sepik) (<https://reptile-database.reptarium.cz/species?genus=Hypsilurus&species=magnus>). However current distribution still needs to be clarified and updated.

H. magnus are large, long-tailed lizards with males' snout-to-vent length (SVL) reaching up to 232 mm (9.13 in), females' - up to 184 mm (7.24 in) with homogeneous dorsal scalation and a discontinuous vertebral crest. Scales below the tympanum are enlarged, at the angle of the mouth sometimes several more enlarged scales are presented. A row of enlarged submaxillaries is present while anterior edge of the gular pouch has no enlarged scales. Coloration is moderately homogenous with domination of olive, dark-green and light-brown shades. Poorly visible cross bands can be seen on the back (dark ones) and along the whole tail (light ones) (Tallowin et al., 2019; <https://reptile-database.reptarium.cz/species?genus=Hypsilurus&species=magnus>).



Adult male of *H. magnus*

These lizards are diurnal, spending most of the daytime hanging on tree trunks and branches in deep tropical forests. Their claws and limbs are well adapted for vertical moving on trees and canopies. Males can be easily distinguished from females thanks to higher cervical crest that can comparably be seen at the age of about 6 months. Another way of sexing can be applied in the first days after hatching. If a torch is placed under the baby's cloaca you will see two dark prolonged regions at the tail base (hemipeneses) if you have a male, or you will see nothing if you have a female. The information on this method and other info that we successfully use and adapt to our facilities was kindly provided by expert in *H. magnus* and other related species – Ivo Aperteur.



H. magnus adult female (left) and male (right)

KEEPING AT BION TERRARIUM CENTER

ADULTS

Keeping. We keep adult *H. magnus* in pairs, however trios are possible as well, (two males should not be kept together) in vertical terrariums of about 70*70*100 cm (27.5*27.5*39.37 in) with frontal, lateral and upper part made of metal net for proper ventilation. However some breeders use 100*100*100 cm (39.37*39.37*39.37 in) cubic enclosures.



Enclosure for *H. magnus* adult pair

The equipment of the enclosure includes vertical, horizontal and angled branches, live (*Dracena* sp.) or artificial plants to imitate the atmosphere of green tropical forest and provide visual barriers between animals and keepers. Water dish and feeding dish are always present. Big broad moist chamber with coconut substrate (about 15-20 cm (5.9-7.87 in) deep) that the female can use for making and hiding her

clutches. Substrate - mulch with small bark chips. Some big pieces of cork can be added as well.

Lighting. Lighting period is 12-14 hours during breeding season, with decrease to 8 hours in winter (December-February). We use UVB 10.0 lamps with a simple incandescent lamp to provide a basking spot.

Temperature. Ambient temperature should be around +25 - +28 °C (77.0 – 82.4 F) at the day and not lower than +24 °C (75.2 F) at night. At basking place the temperature is about +35 - +40 °C (95.0 – 104.0 F).

Humidity. Humidity level is 60-65%. During breeding season we spray the enclosure lightly 3-4 times per day. Every night we turn on the fogger system at evening for 10 hours to provide an effect of wet tropical forest. During light winter dormancy the fogger is turned on for only 2-3 hours in the evening and the number of spraying sessions is reduced to 1-0.

Water. Water dish is placed inside a terrarium with regular change of water.

Diet. Diet consists of various insects (imago of crickets (two-spotted cricket *Gryllus bimaculatus*, house cricket *Acheta domesticus*, Jamaican field cricket *Gryllus assimilis*), locusts (*Locusta migratoria*, *Shistocerca gregaria*) and cockroaches (Turkestan cockroach *Shelfordella tartara*) of appropriate size (5-7 pieces per head 2-3 times a week depending on the animals' appetite and physical state). Along with insects we always offer finely chopped salad mix consisting of: Chinese cabbage, salad, arugula, basil, carrots, sweet pepper, dandelions. Salad is dusted with calcium powder.

References

1. Manthey, U., Denzer W. 2016. Melanesian anglehead lizards of the genus *Hypsilurus* Peters, 1867 – Part 1: Species from New Guinea. *Sauria*, 38(3): 11-36.
2. Tallowin, O.J.S., Shai, M., Stephen, C. D., Stephen, J.R., Christopher, C.A., Paul, M.O. 2019. The other side of the Sahulian coin: biogeography and evolution of Melanesian forest dragons (Agamidae). *Biological Journal of the Linnean Society*, 129: 99-113.
3. <https://reptile-database.reptarium.cz/species?genus=Hypsilurus&species=magnus>
4. <https://www.iucnredlist.org/species/22528914/22528948>