

Keeping of short-snouted New Caledonian gecko (*Mniarogekko chahoua* (Bavay, 1869)) at BION Terrarium Center

Anastasiia Marushchak¹, Oleksii Marushchak²

¹ – Head, Laboratory of Arboreal Geckos, BION Terrarium Center, Kyiv, Ukraine

² – Head, Research and Development Department, BION Terrarium Center, Kyiv, Ukraine

DESCRIPTION, DISTRIBUTION AND BIOLOGY

Mniarogekko chahoua Bauer et al. 2012 also known as mossy New Caledonian gecko, short-snouted New Caledonian gecko, Bavay's giant gecko or mossy prehensile-tailed gecko is a species of arboreal geckos previously belonging to *Rhacodactylus* genus. The species was first described in 1869 as *Platydictylus chahoua* by Arthur Bavay, a French pharmacist and herpetologist (Beolens et al., 2011). These geckos are found in the southern part of the island of New Caledonia and on the outlying islands of Île des Pins. The geckos from these two localities present two distinguished morphs of *M. chahoua* – so called Mainland morph (ML) and Pine Island (PI) morph respectively (Bauer, 2000; Hudel et al., 2020). Geckos from PI locality are generally bigger, with more vibrant coloration (sometimes with white “collars”) than those from ML. However the best comparison can be seen following the next link: <https://www.youtube.com/watch?v=IDjBMqtiTYU>.



Adult female (left) and male (right) of *M. chahoua* (“Mainland” morph)

These oviparous geckos have total length of 20-25 cm (7.84-9.84 in) with SVL of about 14 cm (5.51 in). Average weight of adults range from 45 to 75 g. Lifespan in captivity is believed to be up to 20 years. Head is moderately-sized, dorsal scalation is granular and homogeneous. Loose folds of skin present on margins of mandible and

along ventrolateral border of body. Expanded undivided subdigital lamellae are presented under all toes with webbing between digits being relatively extensive. Precloacal pores in three or four rows in males, anterior two rows extending onto base of thighs (70–120 pores in total). Dorsal coloration is varies consisting of a gray, olive, brown, reddish background usually with dark blotches and/or transverse markings, with one or more patches of ashy to lichen-looking green patches. Ventral part of the body is creamy or greenish (<https://reptile-database.reptarium.cz/species?genus=Mniarogekko&species=chahoua>). When the tail is autotomized, it regenerates within a few months. The literature indicates that the tail does not grow back, but according to our experience this information is not true. Their diet in the wild consists of various insects and fruits, however they prey on small lizards as well in rare cases. They are crepuscular animals, being the most active after the sunset.

M. chahoua gain sexual maturity at the age of 14-18 months. Males have hemipenial swellings and preanal pores, which wilt at size 3 inches. Females become sexually mature at the age of 2 years and males – 1,5 years. Until then, it's best to keep them separate. When mating, the male bites the female and the pair can make clicking sounds and generally be quite noisy (de Vosjoli, Fast, 1995; Stark, 2006; Langner, 2008).

These geckos are quite rare in herpetoculture, but thanks to the efforts of breeders all over the world their population in captivity increases. *M. chahoua* is a non-CITES species, but is currently listed as Vulnerable by the IUCN Red List (Saldier et al., 2021).

KEEPING AT BION TERRARIUM CENTER

ADULTS

Keeping. We keep adult animals in pairs or individually in glass terrariums of minimum volume of 40*40*60 cm (15.74*15.74*23.62 in). Decoration includes paper towel instead of substrate, several thick logs, branches, pieces of bark and water dish. When the animals are fed with fruit puree (mash) it is served in a feeding dish. Moist chamber of 7-10 l that is used by females for making clutches is mandatory. There is a thick layer (5-7 cm (1.96-2.75 in) of coconut substrate that is regularly sprayed to retain moisture. The substrate is covered with several dry oak leaves to provide the female with sufficient number of hiding places even within the moist chamber that is closed with

a non-transparent lid with a hole that is the only enter to the chamber, which also serves as a place for molting. Feces are cleaned regularly. Artificial or living plants are optional as these geckos like to spend time camouflaging on the branches. Males should not be kept together. They are very aggressive and can seriously injure each other. If you keep several individuals together, then it is better to do it with young animals of the same size till they reach sexual maturity.



Adult *M. chahoua* female resting on a branch.

Lighting. Lighting period is 12-14 hours during breeding season, with decrease to 6 hours in winter (December-February). We use UVB 5.0 or 10.0 lamps (tubes) with a simple incandescent lamp to provide a basking spot.

Temperature. Ambient temperature should be around +21 - +25 °C (69.8 – 77.0 F) at the day and not lower than +18 °C (64.4 F) at night. It is important to protect the heat source (lamp) to avoid burns to the animals. Under the heating lamp there should be a temperature of +26 - +28 °C (78.8 – 82.4 F). In the opposite (cold corner) the temperature is +20 - +21 °C (68.0 - 69.8 F).

Humidity. Humidity level is 60-80%. We spray the geckos once a day in the evening that allows the decorations and paper to dry out.

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 (3-5 pieces per head 1-2 times a week depending on the animals' appetite and physical state). Once a week we

always offer fruit puree consisting of various combinations of mango, pear, apricots, peaches, blueberries, sometimes bananas. It should be mentioned that we try to add bananas to their diet rarely as overfeeding with this fruit can lead to decalcination. We always add calcium powder or sepia dust to the puree. In recent years we successfully use fruit formulas that are prepared for human infant feeding that don't contain sugar. All insects and puree are dusted with Ca powder.

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<i>M. chahoua</i> hatchlings (2021).

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