

How to Identify *Lygodactylus williamsi*: A photographic Guide to the Turquoise Dwarf Gecko



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The Mohamed bin Zayed SPECIES CONSERVATION FUND



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Male

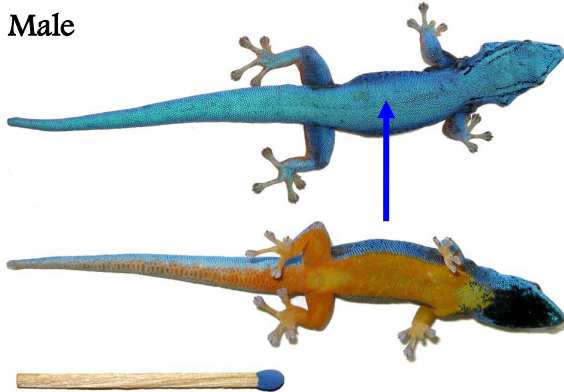


PHOTO: M. Flecks & F. Weinsheimer

Female

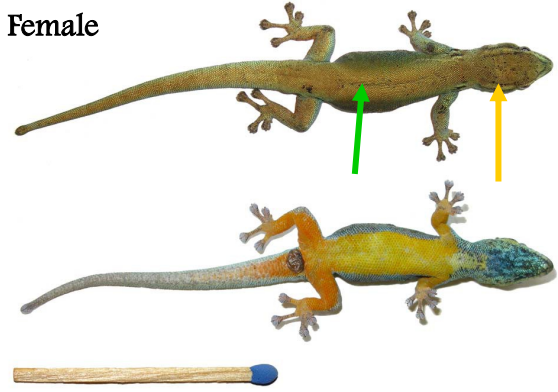


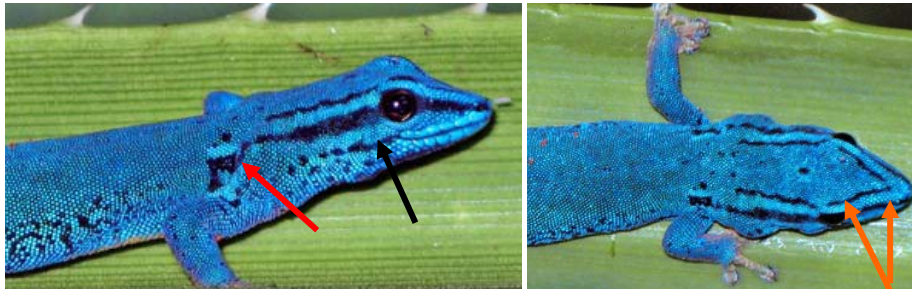
PHOTO: M. Flecks & F. Weinsheimer

Lygodactylus williamsi - Turquoise Dwarf Gecko

Geographical location: Endemic to Kimboza Forest and Ruvu Forest, Morogoro Region in Tanzania.

Description:

- **Size** - Total length: 85mm. Snout-vent (body) length (SVL): 41mm. (Flecks, M. Unpublished data)
Tail about as long as SVL. Weight: 1.8 g (*Spawls et al., 2002*)
 - **General:** Males bluer, with distinct V-shaped lines merging at the forehead, extending to the neck; and another broad black line from tip of snout through the eye to the neck; an ill-defined black line from the corner of the mouth to the neck; very distinct marking on shoulder; females have a greenish-bronze color, head colour similar to body colour with dotted line running from the V.
- Note: Young *L. williamsi* (incl. immature males) have similar colouring to females.



Adult male *L. williamsi* with typical markings. PHOTOS: M. Flecks & F. Weinsheimer

Female



PHOTO: Tony Gamble



PHOTO: P. Schönecker

24 hour old hatchling, similar colouring to female but with orange hue typical of younger juveniles

range of variation in males

range of variation in females



Range of variation of throat colour and markings in *L. williamsi* (left)

PHOTO: M. Flecks & F. Weinsheimer



L. luteopicturatus Male (top left) & Female (Bottom right)
 PHOTO: M. Flecks & F. Weinsheimer

PHOTO: <http://www.geckosunlimited.com/>

***Lygodactylus luteopicturatus* -Yellow Headed Dwarf Gecko**

Geographical location: Endemic to south-eastern Kenya (Mombasa, Shimba Hills) and eastern Tanzania (Unguja, Zanzibar, Rufiji River down to Ruvuma River).

Description:

- **Size** - Total length: up to 90 mm. Average: 80 mm. Snout-vent (body) length (SVL): max 43 mm. Tail about as long as SVL. (Flecks, M. Unpublished data)
 - **General:** Males have **bright yellow head with bold black patterns**, a dark line running from the nostril through the eye, uniform **black throat**, and rest of dorsal surface **blue grey**. Females not as brightly colored as males, relatively **pale brown dorsal surface**
- Taxonomic Notes: Two subspecies occur; *L. l. luteopicturatus* (mainland Kenya and Tanzania) and *L.l. zanzibaritis* (Zanzibar) (*Spawls et al.,2002*).

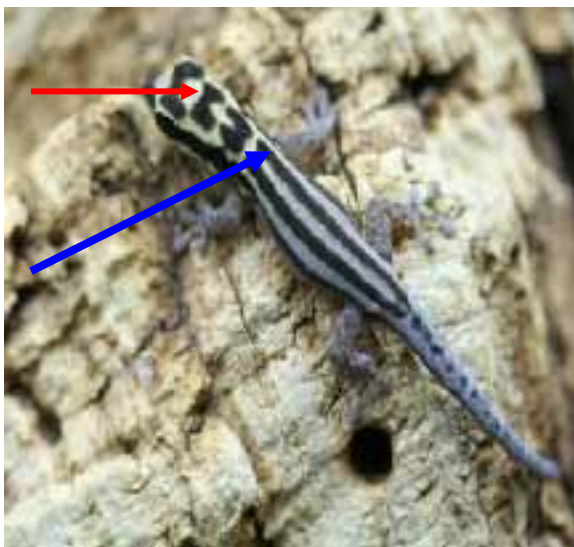


PHOTO: http://www.zwerggeckos.com/Lygodactylus/Lygodactylus_kimhowelli/Lygodactylus_kimhowelli.htm

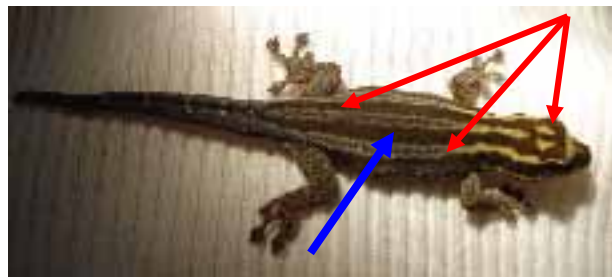


PHOTO: <http://www.geckosunlimited.com/community/> 1



PHOTO: Tony Gamble

***Lygodactylus kimhowelli* - Kim Howell's Dwarf Gecko**

Geographical location: Endemic to areas surrounding Amboni Caves in Tanga, Tanzania.

Description:

- **Size** - Total length: up to 80 mm. Average 70 mm. Snout-vent (body) length (SVL): 36 mm. Tail about as long as SVL. (Flecks, M. Unpublished data)
- **General** - Distinctly striped dwarf gecko with a short **striped yellow head with two dorsal lateral dark stripes that get thinner towards the tail**, rounded snout, toes have large retractile claws, paired oblique scansors slightly dilated at the tips. There is also a **broad dark vertebral stripe**. The throat is grayish-white.



L. capensis (left). **Note:** the Tanzanian *L. capensis* appear to lack the distinct, darkly bordered stripes on the sides. Striped specimens known from Tanzania are *L. grotei* (see below) & may have similar colouration to the southern African *L. capensis*

PHOTO: T. Hofmann



L. grotei (left)

PHOTO: M. Flecks & F. Weinsheimer

***Lygodactylus capensis* - Cape Dwarf Gecko**

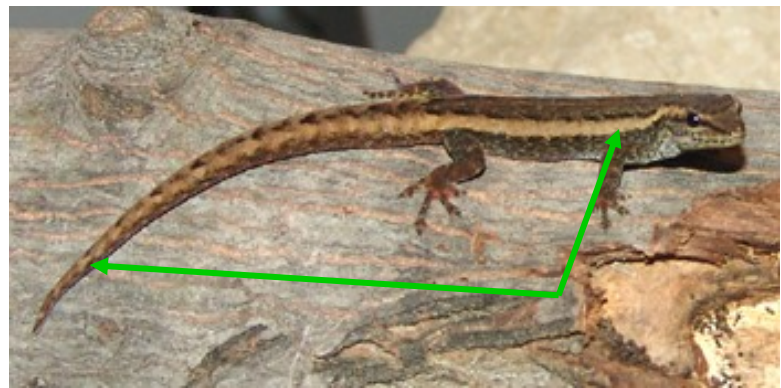
Geographical location: Widely distributed in north-central, north-east and south east Tanzania, Eastern shores of Lake Tanganyika in Ujiji and Lake Rukwa. Infrequent records from southern Kenya in Naivasha and the high savannas south-west of Mt. Kenya. Elsewhere, south to eastern South Africa, south-west to Angola.

Description:

- **Size** – Total length: up to 75 mm. Average: 60-70 mm. Snout-vent (body) length (SVL): max 34 mm. Tail about 1.2 times longer than SVL (Flecks, M. Unpublished data)
- **General:** Small brownish-grey dwarf gecko with a short brown to dark-grey head, rounded snout, large eyes with round pupils, short cylindrical body, a dark streak from the nostril through the eye, scansors slightly dilated at the tips. **Pale dorso-lateral stripe that breaks into spots before the tail and a black bar from the snout to the shoulder.** **Taxonomic notes:** Three subspecies occur in Tanzania: *L. capensis*, *L. c. pakenhami* (Pemba in Tanzania), *L. c. grotei* (from the southern half of Tanzania) (Spawls, et al., 2002).



PHOTO: WingedWolfPision
Wikimedia Commons



L. conradti PHOTO: Tony Gamble

***Lygodactylus conradti* - Conradt's Dwarf Gecko**

Geographical location: Endemic to the forests of Eastern Tanzania; the East Usambara mountains.

Description:

- **Size** – Total length: up to 50 mm. Snout-vent (body) length (SVL): max. 24 mm. Tail slightly longer than SVL (Flecks, M. Unpublished data)
- **General** - A tiny dwarf gecko with a short head, rounded snout, round pupils and distinct eyelids. The toes have a large retractile claws, paired oblique scansors. **Olive, yellowish or dark grey above, a dark streak from the nostril through the eye, sometimes a broad dark-edged pale grey stripe from behind the eye to the base of the tail where it merges with the one on the other side.** Female has a pale grey stripe running through the backbone . **Taxonomic notes:** Identification of this species maybe confused with that of the *Lygodactylus gravis* also known from nearby Amani in the East

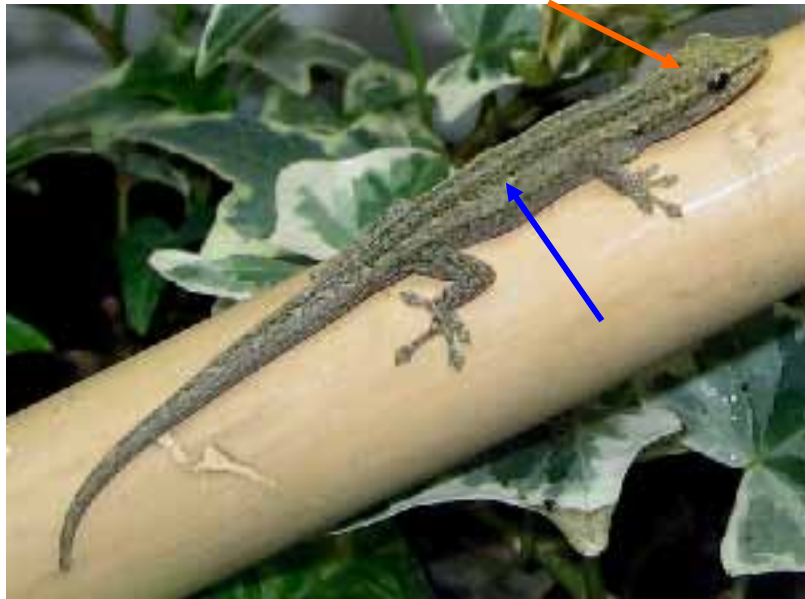


PHOTO: <http://upload.wikimedia.org/wikipedia/commons/3/3c/>

***Lygodactylus angularis* - Angulate Dwarf Gecko**

Geographical location: Mombasa, Kenya. Tongwe forest reserve near Tanga in Tanzania.

Description:

- **Size** - Total length: up to 95 mm. Average: 80-90mm. Snout-vent (body) length (SVL): max 48 mm. Tail about as long as SVL. (Flecks, M. unpublished data)
- **General** - **Short grey-brown head**, rounded snout, large eyes, round pupils. Short, cylindrical body. Indistinct dark streak from the nostril through the eye to above the ear opening, the **back is olive or grey-brown and fawn**. The tail is blotched fawn and brown with dark streaks and spots. Males are pink below, with yellow throats, females lemon-yellow. **Taxonomic notes:** Tanzanian animals belong to the nominate subspecies (*Spawls, et al., 2002*)



Male *L. keniensis*

PHOTO: www.wildabouttheworld.com

***Lygodactylus keniensis* - Kenya Dwarf Gecko**

Geographical location: Dry savanna and semi-desert of northern Kenya, north-east and north-west from Lake Elmenteita. Note: this species only occurs in the Rift Valley of western and northern Kenya, southern Ethiopia and probably Somalia. A single Uganda record.

Description:

- **Size** - Total length: up to 85 mm. Average: 70 mm. Snout-vent (body) length (SVL): max. 42 mm. Tail about as long as SVL. (Flacks, M. Unpublished data)
- **General** - Short head, rounded snout and fairly large eyes with round pupils and distinct eyelids. Broad dark stripe running from the nostril through the eye. The toes have a large retractile claw, and paired oblique scansors; slightly dilated at the tip. The body is short and cylindrical, **the dark pattern breaks up and loses continuity on the light blue-grey to pale grey back**. **Color:** The **head is bright or pale yellow, or creamy white**, underside is white (*Spawls, et al., 2002*)



PHOTO: www.dreamstime.com



PHOTO: G. McWilliam
<http://lygodactylus.com/gallery.html>

L. picturatus female



Male PHOTO: M. Flecks & F. Weinsheimer

***Lygodactylus picturatus* - White Headed Dwarf Gecko**

Geographical location: East African coast; Tanga-Tanzania, Tana and Athi Rivers – Kenya. However, this distribution info needs checking.

Description:

- **Size** - Total length: up to 90 mm. Average: 80 mm. Snout-vent (body) length (SVL): 39 mm. Tail about as long as SVL. (Flecks, M. Unpublished data)
- **General** - Rounded snout, eyes with round pupils, On the top of the head, between the eyes, usually is a black patch with two **enclosed yellow spots, black head markings bold**, toes have retractile claws, black triangle on the extreme tip of the snout, black line running through the eye to the rear of the neck, dorsal part grey to pale grey, no black marks within pale areas, males usually have black throat, throat of female white or dark faint markings.

History of *Lygodactylus williamsi*:

- 1952: Loveridge first describes *Lygodactylus williamsi* based on a single male specimen from Kimboza Forest
- 1985: Lambert notes that the species is dwelling on *Pandanus*
- 2000: A rapid biodiversity assessment by the Uluguru Mountains Biodiversity Conservation Project detects *Lygodactylus williamsi* in Ruvu Forest Reserve
- 2002: Rising awareness due to the first publication of colour pictures in *A Field Guide to the Reptiles of East Africa*
- 2005: First specimens appearing on European and US markets via the pet trade

Evaluation of threats to *Lygodactylus williamsi*

Although most of the area populated by *Lygodactylus williamsi* is within forest reserves, the species is threatened by two main reasons:

1. Continuous destruction and degradation of the remaining habitat even inside the protected areas
 - illegal timber logging
 - pole cutting and firewood collection
 - forest clearings to build traps for hunting
 - slash and burn agriculture
 - bushfires
 - commercial mining for dolomite marble
 - gold digging at Ruvu river (occasionally with dynamite)
2. Catching of *Lygodactylus williamsi* in Kimboza and Ruvu for the pet trade

Impact of Pet trade on *Lygodactylus*

Number of specimens illegally caught in the Catchments Forest Reserve of Kimboza (and occasionally Ruvu FR) and transported to middlemen in Morogoro. These numbers only refer to one group of catchers interviewed during the assessment. Observing the market indicates that more such groups must be involved in catching, as numbers of imported *Lygodactylus williamsi* actually increased since 2008. According to a reptile importer, about 1,000 individuals were imported each month in 2009 to Germany alone.

Period	specimens per month
2004 (only December)	1,500-1,800
2005 (March to December)	1,500-1,800
2006 (March to December)	600-900
2007 (March to December)	600-900
2008 (March to December)	300-400
2009 (March to April)	300
2009 (May to July)	70

For further information and in case you have reports on illegal wildlife trade contact:

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