

L@CERTIDAE

EIDECHSEN ONLINE



2020 Artikel
article 2

L@CERTIDAE EIDECHSEN ONLINE 2020 № 2 - ONLINE VERÖFFENTLICHT / PUBLISHED ONLINE: 2020-01-28



www.lacerta.de



Autor / Author:

MARTEN VAN DEN BERG, Purmerenderweg 141, 1461DH Zuidoostbeemster, The Netherlands. E-Mail: martenvdberg@tiscali.nl

Zitat / Citation:

BERG, M.P. VAN DEN (2020): Could this be the first live image of *Ichnotropis microlepidota*? - L@CERTIDAE (Eidechsen Online), 2020 [2]: 14-18.



Could this be the first live image of *Ichnotropis microlepidota*?

MARTEN VAN DEN BERG, January 2020

Abstract

On October 16, 2019 an image of *Ichnotropis bivittata*, taken on May 12, 2018 in Cassongue county, Cuanza Sul province, Angola, was uploaded on iNaturalist by ROGÉRIO FERREIRA for determination. This specimen may have some features of *Ichnotropis microlepidota*, in which case it would be the first time that this species has been observed since the species description by MARX (1956).

Zusammenfassung

Am 16. Oktober 2019 wurde ein Bild von *Ichnotropis bivittata*, aufgenommen am 12. Mai 2018 im Bezirk Cassongue, Provinz Cuanza Sul, Angola, von ROGÉRIO FERREIRA zur Bestimmung auf iNaturalist hochgeladen. Dieses Exemplar weist möglicherweise einige Merkmale von *Ichnotropis microlepidota* auf. In diesem Fall wäre es das erste Mal, dass diese Art seit der Artbeschreibung durch MARX (1956) beobachtet wurde.

Keywords: *Ichnotropis microlepidota*, *Ichnotropis bivittata*, iNaturalist, Cassongue, Angola.

Introduction

Ichnotropis is today still a relative unknown African lacertid lizard genus, where most of the research dates from the first three-quarters of the last century. Currently five (VAN DEN BERG 2017) respectively six (UETZ, FREED & HOŠEK 2020) species are recognized within *Ichnotropis*, of which only *Ichnotropis capensis* and *Ichnotropis bivittata* played a role in a modern molecular phylogenetic study (EDWARDS et al. 2013), showing the specimens examined do indeed belong to two different species. From the other species only a very few specimens are known, which resides in different herpetological collections (VAN DEN BERG 2017).

In the absence of a genus-wide phylogenetic research we can currently only distinguish between species (with the exception of *Ichnotropis chapini*) using morphological characteristics as indicated by VAN DEN BERG (2017). The keys are as shown in table 1.

The *Ichnotropis* image

One of the lacertid lizard site (www.lacerta.de) editors, SIEGFRIED TROIDL, came across an image of *Ichnotropis* which was taken by the Angolan residing naturalist and photographer ROGÉRIO FERREIRA on May 12, 2018 in Cassongue county, Cuanza Sul province, Angola. This image was uploaded on iNaturalist on October 16, 2019 for determination, with the initial suggestion it could be *Ichnotropis bivittata pallida*. SIEGFRIED pointed this observation (FERREIRA 2018) to me, and asked for my opinion.

My first reaction was that the subspecies designation was probably incorrect, because the terra typica of *Ichnotropis bivittata pallida* is far more to the south of Angola, and although additional specimens of this alleged subspecies might have been collected recently (BUTLER et al. 2019), we at the lacertid lizard site still consider this subspecies, until more details become available, as doubtful.

But the image (see page 15), despite the fact that it clearly represents an *Ichnotropis*, has something odd about it. The pattern and coloration of this specimen does not resembled any of the other *Ichnotropis* images I had a look at in the past. Fortunately the photo is of good quality and high resolution, so I made an attempt to count the scales around the middle of the body. From the complete view of one of the lateral sides, combined with half the dorsal scales we got an estimation of the total of scales lateral and dorsal; 32 scales (see image 1).



Image 1. Partial scale count on one lateral- and half the dorsal side of the *Ichnotropis* specimen photographed by ROGÉRIO FERREIRA in 2018.

In a lot of lacertid lizard species the ventral scales are of different shape and size compared to the lateral and dorsal scales. To make an assessment I used an image of *Ichnotropis capensis* by MIKE BUCKHAM (2013), where the ventral scales are clearly visible. In this image the ventral scales of *Ichnotropis* are quite comparable to the other scales, and we were able to get an estimation of the ventral scales; 10 scales in this specimen of *Ichnotropis capensis* (see image 2).

	<i>I. bivittata</i> n=25	<i>I. capensis</i> n=20	<i>I. chapini</i> n=1	<i>I. microlepidota</i> n=5	<i>I. grandiceps</i> n=3
32-40 scales and plates around middle of the body	32-40	34-38	35	43-50	44-47
Prefrontal plate in contact with anterior of the two large supraocular plates	usually	no	no	yes	no

Table 1. Morphological key to the species of *Ichnotropis*.

The resulting 42 or more scales in the specimen of ROGÉRIO FERREIRA (2018) places this specimen out of the range of *Ichnotropis bivittata*, which has a widely spread distribution in Angola, and inside the range of *Ichnotropis microlepidota*, which species is only known from the type and four paratypes, which were removed from the crop of a shot chanting goshawk (*Melierax metabates*), with as terra typica: “from the foot of Mount Moco, Benguela Province, Angola” (MARX 1956).

This brings us to the second clue; location. The specimen of ROGÉRIO FERREIRA (2018) was photographed in Cassongue county, Angola, approximately at -11.924161 latitude and 14.814987 longitude. This is only 60 km to the northwest of Mount Moco, the terra typica of *Ichnotropis microlepidota*. The area in Cassongue county, also known as the Mount Namba range, has an identical habitat as the Mount Moco area, the only two places in Angola where you can find Afromontane Forest. Several endemic species exist only in these two areas (FERREIRA pers. comm.).

The third clue may be found in the deviant pattern and coloration. At first sight, the two most striking differences are the dorsal pattern and the two black rimmed yellow ocelli on the lateral side of this specimen. But this could also be the result of incomplete development of the pattern and coloration in this probable subadult specimen. When we compare the images of this specimen with an image of *Ichnotropis bivittata* (HULBERT 2004), the



Image 2. Ventral scale count in *Ichnotropis capensis*, photographed by MIKE BUCKHAM in Vaalwater (South Africa) in 2013.

Color (in alcohol): head dark brown above; frontal and first supraocular light gray with dark fine spots; a light stripe running below eye from snout through tympanum to neck, breaking up into light spots on sides of body; lip with black blotches; under surface of head light gray with some black mottling; back with irregular longitudinal black bands, the light gray spots along the center of these bands forming irregular ocelli; ventral plates light gray with numerous tiny black spots except along posterior edges; dorsal surface of tail similar to back but lighter; under surface of tail uniformly light tan.

Image 3. Part of MARX (1956) describing the pattern and coloration of *Ichnotropis microlepidota*.



Image 4. Another view of the *Ichnotropis* specimen photographed by ROGÉRIO FERREIRA in 2018.



Image 5. Head view of the *Ichnotropis* specimen photographed by ROGÉRIO FERREIRA in 2018.

dorsal pattern seems underdeveloped in the FERREIRA (2018) specimen compared to the adult specimen of HULBERT (2004), and also the black rimmed yellow ocelli can be observed in the HULBERT (2004) specimen.

Although MARX (1956) was not very detailed in describing pattern and coloration of *Ichnotropis microlepidota*, and we have to take into account that the specimens MARX (1956) described were already preserved in alcohol, there are similarities with the FERREIRA (2018) image, however no unequivocal conclusions can be drawn.

Conclusion

Real determination from a photograph is difficult. The scale count of the specimen shown in the image (FERREIRA 2018) is speculative, but combined with the location the image was taken, close to the terra typica of *Ichnotropis microlepidota*, it is tempting to consider the possibility that this specimen (FERREIRA 2018) might belong to the long-not seen species of *Ichnotropis microlepidota*.

I am convinced this photo will encourage local herpetologists to further investigate this area, to shed new light on the existence and presence of the *Ichnotropis microlepidota* species. Until more data becomes available, the preliminary determination of the FERREIRA (2018) specimen will remain the “common” species; *Ichnotropis bivittata*.

References

- BERG, M.P. VAN DEN (2017): An annotated bibliographic history of *Ichnotropis* PETERS, 1854 (Reptilia, Lacertidae) with remarks on the validity of some of the including species. - *L@CERTIDAE*, 2017 [4]: 60-138.
- BUCKHAM, M. (2013): *Ichnotropis capensis* - Buckham Birding, accessed January 16, 2020.
- BUTLER, B.O., L.M.P. CERÍACO, M.P. MARQUEZ, S. BANDEIRA, T. JÚLIO, M.P. HEINICKE & A.M. BAUER (2019): Herpetological Survey of Huíla Province, Southwest Angola, Including First Records from Bicular National Park. - *Herpetological Review*, 50 (2), 225–240.
- EDWARDS, S., W.R. BRANCH, B. VANHOYDONCK, A. HERREL, G.J. MEASEY & K.A. TOLLEY (2013): Taxonomic adjustments in the systematics of the southern African lacertid lizards (Sauria: Lacertidae) - *Zootaxa*, 3669 (2): 101–114.
- FERREIRA, R. (2018): *Ichnotropis bivittata pallida* - iNaturalist, accessed January 5, 2020.
- HULBERT, F. (2004): *Ichnotropis bivittata* - www.lacerta.de, accessed January 16, 2020.
- MARX, H. (1956): A new lacertid lizard from Angola. - *Fieldiana: Zoology*, 39 (2): 5-9.
- UETZ, P., P. FREED & J. HOŠEK (eds.) (2020): *Ichnotropis* - *The Reptile Database*, accessed January 16, 2020.



Image 6. *Ichnotropis bivittata* specimen photographed by FELIX HULBERT near Kinshasa (Congo) in 2004.

Acknowledgement

First I like to thank ROGÉRIO FERREIRA for being so observant, which led to the publication on iNaturalist of this unique image. I am also obliged to him for getting his permission using the images for this publication.

Also many thanks to MIKE BUCKHAM, FELIX HULBERT and all other naturalists for sharing their observations, to SIEGFRIED TROIDL to inform me about this very special image, and last but not least to MIKE ZAWADZKI for discussing the draft of this short note.