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Short Communication

Range extension and some morphological characteristics of *Ptychoglossus brevifrontalis*, Boulenger, 1912 (Squamata: Alopoglossidae) in Suriname

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***Abstract.*—We herein document the range extension and morphological features of the second specimen of *Ptychoglossus brevifrontalis* from Suriname, collected at the Brownsberg Nature Park, extending the range of this species by approximately 372 km from the previous known record in Suriname. Morphological features, apart from lamellae under fourth finger and scales around mid-body, fall within the range of characteristics recorded for this species.**

Keywords. Herpetofauna, lizards, Brownsberg Nature Park, morphology, geography,

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Introduction

Although the Herpetofauna of Suriname has been studied to some extent (Hoogmoed 1973; Ouboter and Jairam 2012) new country records and or range extensions are still documented. A recent example is the new country record of *Amapasaurus tetradactylus* found during a Rapid Assessment Program of Conservation International at the Grensgebergte (Jairam and Jairam-Doerga 2015). At present, the genus *Ptychoglossus* comprises 15 valid species (Goicoechea et al. 2016). Of these 15 species, *P. brevifrontalis* is known for having the broadest geographic distribution (Peloso and Avila-Pires 2010). A first revision of the genus was done by Harris (1994) who reported a lower number of mid body scales in the specimens from Peru, Bolivia, and the single specimen from Suriname, in relation to specimens from other localities. A subsequent study by Peloso and Avila-Pires (2010) showed that *P. brevifrontalis* present geographic variation in the number of scale counts, but without a geographic pattern that could indicate specific differentiation. The first specimen of *P. brevifrontalis* in Suriname catalogue number BMNH 1939.1.1.75, male, was collected in 1939 near the border with Brazil, head of the Kutari River. The second individual of *P. brevifrontalis* was collected at the Brownsberg Nature Park (BNP) 01 November 2014 in a dried up depression that is used by the park management to collect water which is then pumped to the various tourist lodges in the park. This paper highlights the range extension of the lizard species *Ptychoglossus brevifrontalis*, previously known from only one specimen (BMNH 1939.1.1.75), collected in Suriname near the border with Brazil, head of the Kutari river, and presents some morphological information on the current collected specimen.

Material and Methods

Located in the north eastern part of Suriname, and slightly northwest of the Brokopondo Reservoir, the Brownsberg Nature Park (BNP) (4°56'N 55°10'W) is operated under the authority of the Foundation for Nature Preservation in Suriname, also known as STINASU (Lim et al. 2005). Located at a distance of approximately 100 km from the capital (De Dijn et al. 2007), BNP is the only nature park in Suriname (Ouboter and Jairam 2012) and one of the most visited nature locations, both by locals and foreigners (ter Steege et al. 2004; Love et al. 2007).

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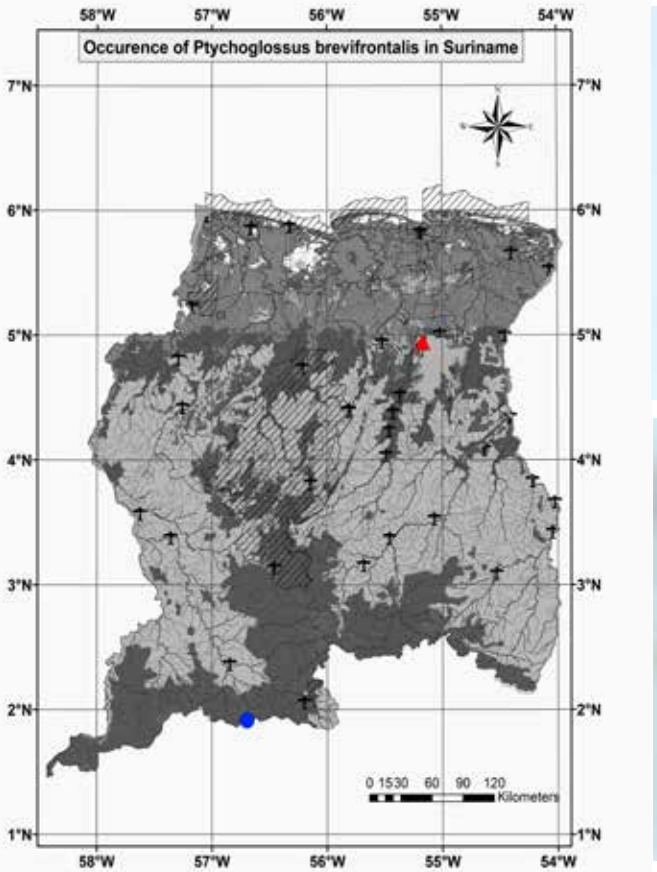

Fig. 1. Map showing the occurrence of *P. brevifrontalis* in Suriname. The blue dot represents the first recorded specimen from Suriname while the red triangle depicts the specimen collected at the BNP. **Fig. 2.** Lateral view of head of *P. brevifrontalis* showing the labials. **Fig. 3.** Anal scales of *P. brevifrontalis.*

The different habitats found on the Brownsberg make this an interesting place in terms of research purposes. Some of these habitats are undisturbed streams and forests, and some are streams disturbed by mining and habitats of recently disturbed forests (De Dijn et al. 2007). The faunal diversity is high and represented by approximately 116 species of mammals, 387 species of birds, and 144 species belonging to the herpetofauna (De Dijn et al. 2007). The collected specimen of *P. brevifrontalis* extends the species range approximately 372 km in northeastern direction, measured from the last known record of this species in Suriname. The specimen was captured by hand during a survey conducted on a trail going towards the Leo falls (Fig. 1). The specimen was euthanized using lidocaïne, subsequently placed in four percent formaldehyde, and later transferred to 70% ethanol for long term preservation and storage at the National Zoological Collection of Suriname. Species identification was facilitated by examination of the following traits: total length (from tip of the snout to the tip of the tail), snout vent length (from the tip of the snout to the cloaca), the number of supraoculars, supra labials, infra labials (Fig. 2), chin shields, lamellae under fourth finger, and fourth toe and anal scales (Hoogmoed 1973; Avila-Pires 1995). Sex was determined by the absence of precloacal pores (Peloso and Avila-Pires 2010). Figure 3 gives an overview of the anal region.

Results

One juvenile female of *P. brevifrontalis*, voucher number NZCS R679, was collected on 01 November 2014. The location where the specimen was collected was covered with dried fallen leaves and consisted of

Fig. 4. Habitat where *Ptychoglossus brevifrontalis* was collected at the BNP. *Picture by A. Gangadin*.

Table 1. A comparison of the *P. brevifrontalis* specimen collected at the BNP with the specimen from the head of the Kutari river and the specimen described by Avila-Pires (1995).

Traits	NZCS R679	BMNH 1939.1.1.75	Avila-Pires (1995)
Total length (mm)	51.9	NA	NA
Snout vent length (mm)	25.4	53	60 (RMNH 26390)
Transverse dorsal scales	29	30	31–33
Transverse ventral scales	19	19	18–19
Scales around mid body	26	29	30–34
Supralabials	6	6	7
Infralabials	5	6	5
Lamellae left finger	8	11	10–12
Lamellae left toe	16	18–19	14–17

a muddy substrate interspersed with sand (Fig. 4). The vegetation around the dry creek bed consists of high forests with large tree species like *Ceiba pentandra* (Malvaceae), *Lecythis* sp. (Lecythidaceae) and *Couratari* sp. (Lecythidaceae), with some signs of disturbance. The understory and herb layer is open with a few saplings and seedlings. The herb layer in and around the creek bed consists of some fern species, *Piper* sp. (Piperaceae) and *Centropogon* sp. (Campanulaceae) (Fitzgerald et al. 2002; ter Steege et al. 2004). Table one gives an overview of the measurements and scale counts for NZCS R679 and at the same time compares NZCS R679 with the specimen from the head of the Kutari river (BMNH 1939.1.1.75) and the specimen described by Avila-Pires (1995). From the information presented in the table and taking into account the morphological variation described by Peloso and Avila-Pires (2010), we tentatively conclude that the collected specimen from the BNP falls within the range of features for *P. brevifrontalis*. The only difference is noted in the number of lamellae under the fourth finger and the scales around mid body. A possible explanation for this might be that scale counts were not made using the same method or might be due to intraspecific variation, given that most specimens in collections are from the western and central part of the Amazon (Peloso and Avila-Pires 2010).

Discussion

The presence of this specimen at the Brownsberg Nature Park in the north eastern part of Suriname is evidence that the herpetofauna of Suriname is yet to be fully investigated in order to attain a more comprehensive overview of this group. A comparison of the single specimen collected at the Brownsberg Nature Park with the specimen described by Hoogmoed (1973) on the basis of traits specified in table one shows no significant differences that would suggest a different taxon. Considering the distance of more than 300 km between the two records in Suriname we are confident that this species is present in more locations and that the range of this species is underestimated. A more thorough survey of the habitat requirements of this species coupled with different sampling methods such as pitfall trapping should elucidate the actual distribution of this species in Suriname.

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