

Amphibia, Anura, Ceratophryidae, *Batrachyla nibaldoi* Formas, 1997: Latitudinal extension in Patagonia, southern Chile, and distributional range actualization

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ABSTRACT: The new record of the anuran species *Batrachyla nibaldoi* Formas, 1997 provided herein extends the latitudinal limit 240 km to the south east of the type locality and 220 km to the south east of what was previously thought to be the southernmost population in Patagonia, Chile.

The genus *Batrachyla* Bell 1843 comprises a total of five anuran species (Frost 2010), all of which are endemic to the temperate *Nothofagus* forests of southern Chile and Argentina (Formas 1997). Three species of *Batrachyla* are shared between Chile and Argentina (*B. antartandica* Barrio, 1967; *B. leptopus* Bell, 1843; and *B. taeniata* (Girard, 1855)); one is endemic to Argentina (*B. fitzroya* Basso, 1994) and one to Chile (*B. nibaldoi* Formas, 1997).

Batrachyla nibaldoi (Figure 1A) is a medium-sized frog, with a slim body, limbs, toes and fingers, orange eyes, and grayish or yellowish skin with dark brown spots that form patterns of longitudinal lines (Rabanal and Nuñez 2009). Morphologically, it resembles *B. taeniata* (Formas 1997).

B. nibaldoi has been reported in the following areas: 1) Puente Traihuanca (the type locality - at approximately 46°25' S, 72°04' W; Formas 1997), 2) Laguna San Rafael National Park (Díaz-Páez and Williams 2001), 3) Kent and Melchor islands (Díaz-Páez and Carreño 2002), and 4) Alao Island (42°35' S, 073°16' W; Pincheira-Donoso and Díaz-Páez 2003) (Figure 2). Its altitudinal range is from 0-500 m a.s.l.

During a field survey conducted on February 5-11, 2010, on the Austral Road, Aysén Region, Chile, new populations of *B. nibaldoi* were discovered. This extends the latitudinal limit of the species 220 km to the south east (1 km northward, by road, from Villa O'Higgins: 48°27'17.5" S, 072°33'57.5" W, 270 m a.s.l.) of what was previously thought to be the southernmost population (Laguna San Rafael National Park), and about 240 km to the south east of the type locality (Figure 2). The specimens collected were deposited in the Herpetological Collection of Universidad Austral de Chile (IZUA 3561-3569).

The new meridional record herein exposed is not an isolated population, but rather a continuous distribution from the Murta River Valley (46°12' S, 72°48' W) to the area of the new record herein provided. Massive choruses of males of this species were registered along the margins of the southern Austral Road, calling from lagoons

and temporary pools of standing water with plenty of vegetation such as ferns (*Blechnum* sp.), rushes (*Juncus* sp.) and moss (*Sphagnum* sp.) (Figure 3). Some mates were also observed in amplexus, laying eggs under logs and ferns close to the bodies of water. The amplexus is axillary (Figure 1B). Although the survey only considered



FIGURE 1. A) Adult male of *Batrachyla nibaldoi*, B) Amplexus of *B. nibaldoi* and their egg clutch recently spawned.

the immediate margin of the road and its adjacent forests, the distribution of this species should be larger than currently understood in a longitudinal way.

This record adds new information to the poorly known biology of *B. nivaldo*, which is currently considered to be in the Data Deficient category by IUCN (2010). Rabanal and Nuñez (2009) suggested that the American mink (*Mustela vison*) represents a possible predatory threat. However, there appears to be little sign of disturbance to the populations of *B. nivaldo* reported in the current work, which would seem to be abundant. In spite of this, it is important that further investigation is carried out to assess the real conservation status and the distribution area of *B. nivaldo*.

Additionally, it is suggested that the taxonomic status of the population from Alao Island (Figure 2) should be re-evaluated, because that population could belong to *Batrachyla taeniata*, a species very abundant in the contiguous islands.

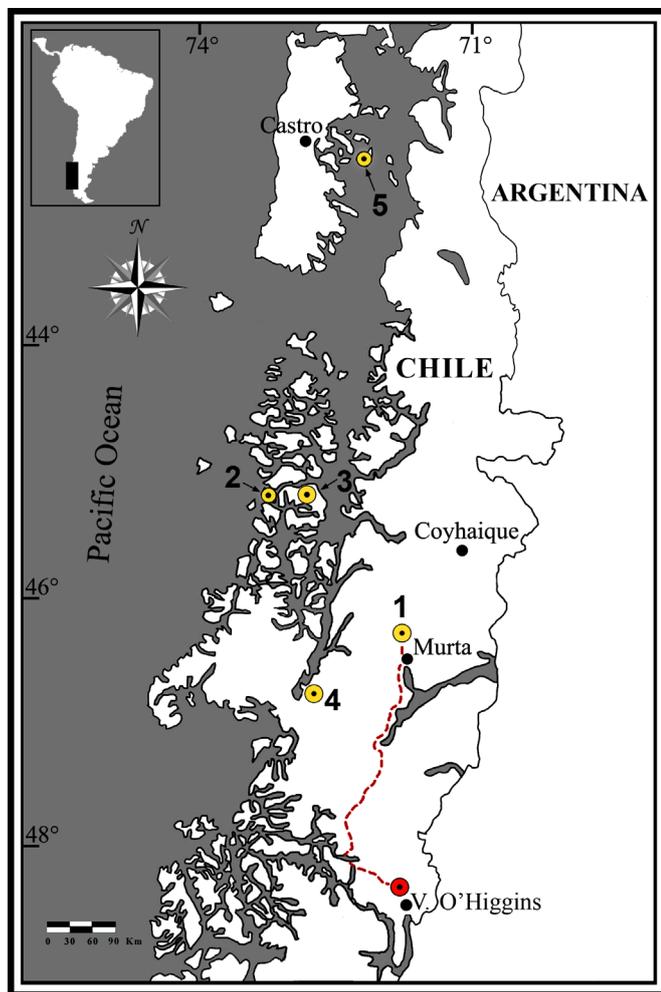


FIGURE 2. Distribution range of *Batrachyla nivaldo* in southern Chile. Yellow circles: the five localities known before this survey, 1) Type locality, Puente Traihuanca; 2) Kent Island; 3) Melchor Island; 4) Laguna San Rafael National Park; 5) Alao Island. Red broken line: Southern Austral Road. Red circle: new record at Villa O'Higgins, Aysén Region.



FIGURE 3. Typical habitats of *Batrachyla nivaldo* in southern Chile.

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