

Reptilia, Sauria, Gymnophthalmidae, *Anadia rhombifera* (Günther, 1859): Distribution extension and first records from Quindío department, Colombia

Jhonattan Vanegas-Guerrero^{1*}, Diego A. Gómez-Hoyos^{1,2}, Carlos M. Gómez-López¹ and Carlos A. Londoño-Guarnizo¹

1 Grupo de Estudio en Herpetología de la Universidad del Quindío (GEHUQ), Línea de Investigación Biología de la Conservación (CIBUQ), Armenia (Quindío - Colombia)

2 Grupo de Investigación y Asesoría en Estadística, Universidad del Quindío, Armenia (Quindío - Colombia)

* Corresponding author. E-mail: jhonattanvanegas@gmail.com

Abstract: We report the lizard *Anadia rhombifera* from the department of Quindío, Central Andes of Colombia. This record fills a gap of about 613 km in the Andean distribution of this species.

Key words: distribution, *Anadia rhombifera*, Quindío, Colombia

Anadia Gray, 1845 is a Neotropical genus of gymnophthalmid lizards that encompasses 19 species distributed in Costa Rica, Panamá, Colombia, Venezuela, Guyana and Ecuador between 0 and 4100 m a.s.l. (above sea level) (Peters and Donoso-Barros 1970; Arredondo 2013; Uetz and Hošek 2014). In Colombia, it is represented by nine species (*A. altaserrania*, *A. antioquiensis*, *A. bogotensis*, *A. bumanguesa*, *A. ocellata*, *A. pamplonensis*, *A. pulchella*, *A. rhombifera* and *A. vittata*) distributed in the western, central and eastern Andes and in the Sierra Nevada de Santa Marta, a mountain range near the Caribbean coast of the country (Oftedal 1974; Arredondo 2013).

Anadia rhombifera was described based on an adult female collected in the Andes of western Ecuador (Günther 1859; Torres-Carvajal 2001) and belonging to *A. ocellata* group (Oftedal 1974). Its known distribution in Colombia consists of the piedmonts of the northeastern central Andes and the northwestern part of the western Andes in the departments of Antioquia, Santander and Boyacá, as well as southwestern Colombia in the department of Huila, between 0 and 1760 m a.s.l. (Ayala 1986; Arredondo 2013; Arteaga *et al.* 2013) (Figure 1). Reports of the species from Meta and Cundinamarca departments (central region) are unconfirmed or inaccurate (Ayala 1986); these records may be based on incorrect specimen identification (Martha Calderon pers. comm.). Figure 1 shows the complete distribution of *A. rhombifera*.

We report the first record of *A. rhombifera* in Quindío department, Colombia, based on two collected specimens (Figures 1 and 2). The first individual was collected in December 2007 at the Distrito de Conservación de Suelos Barbas-Bremen (04°40'07.9" N, 075°40'03.3" W, 1923 m a.s.l.), Filandia municipality. The specimen was photographed and released

(Figure 2A). The second individual was collected in April, 2014 at the "Finca el Jardín" (04°30'23.81" N, 075°36'30.08" W, 1909 m a.s.l.), Vereda San Rafael, Calarcá municipality. The specimen was collected under permit number 374, issued by Corporación Autónoma Regional del Quindío (CRQ), and was deposited in the Herpetological Collection of the University of Quindío (Herpetos-UQ 415). It is a juvenile female, SVL 57.08 mm, TL 148.79 mm (Figure 2B, C). Species identification was based on the diagnosis of Oftedal (1974) and Arteaga *et al.* (2013); individuals of this species may be distinguished from the other species of *Anadia* by the presence of fewer than 49 transverse scales rows large, smooth and subhexagonal dorsal scales.

This report fills a gap of 613 km in the distribution of the species in Colombia, 280 km south of the department of Boyacá and 333 km north of the department of Huila. Furthermore, our records expand the elevational distribution by 163 m a.s.l. The new records suggest that *Anadia rhombifera* occurs throughout the Colombian Andes, in suitable habitat (Figure 1).

ACKNOWLEDGMENTS

The authors thank José Rances Caicedo and Fernando Vargas-Salinas for improving previous versions of this manuscript. Martha P. Ramírez-Pinilla (Colección Herpetológica, Museo de Historia Natural, Universidad Industrial de Santander), Martha L. Calderón-Espinosa (Instituto de Ciencias Naturales, Universidad Nacional de Colombia) and María I. Pérez (Museo de Herpetología, Universidad de Antioquia) shared records of *Anadia rhombifera* from Colombia. Alejandro Arteaga of Tropical Herping, Museo de Zoología de la Pontificia Universidad Católica del Ecuador (QCAZ), Mario Humberto Yanez-Muñoz (División Herpetológica del Museo Ecuatoriano de Ciencias Biológicas) shared records of *A. rhombifera* from Ecuador.

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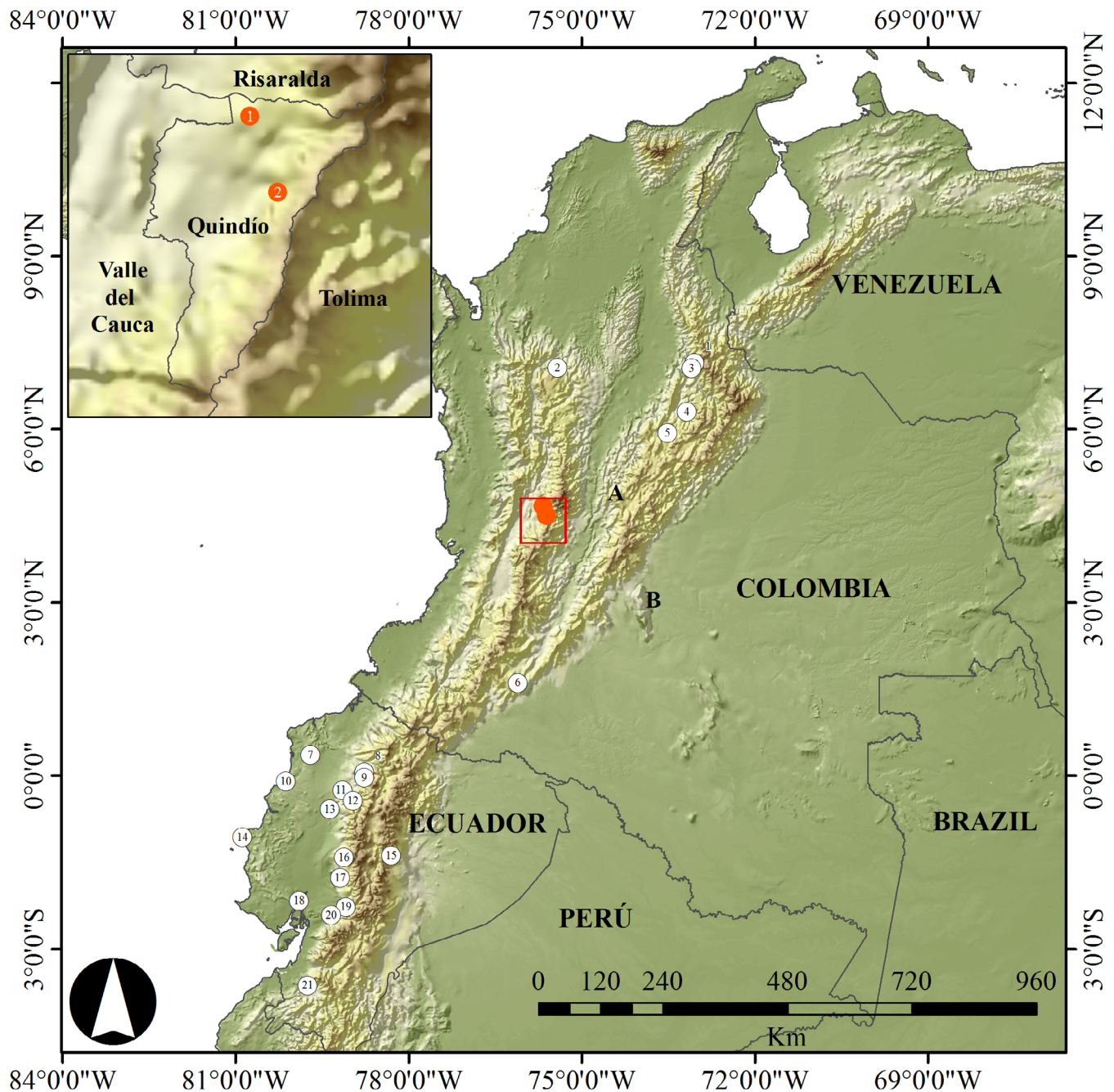


Figure 1. Distribution of *Anadia rhombifera* in Colombia and Ecuador. The orange circles indicate the new records from Quindío, Colombia: 1, Distrito de Conservación de Suelos Barbas-Bremen; 2, Herpetos-UQ 415: Finca el Jardín, Vereda San Rafael, Calarcá municipality. The white circles indicate historical records. Colombia: 1. UIS-R 1624: Santander (Reserva El Brasil (AMB), Tona); 2. MHUA-R 12346-7: Antioquia (La Linda, Yarumal); 3. ICN 10412 (El 18 Vereda El Mortino, Floridablanca); 4. ICN 2926 (Virolín, Km 2 carretera Virolín-Duitama, Charalá); 5. ICN 2187-8, 2258: Boyacá (Finca Versalles, Togüi); 6. ICN 11308: Huila (PNN. Cueva de los Guacharos). Ecuador: 7. DHMECN 3646, QCAZ-R 6873, KU 291234: Esmeraldas (The Bilsa Biological Station); 8. MECN 2009: Pichincha (Las Tolas); 9. Pichincha: QCAZR 10537 (Mindó), QCAZR 10556 (Hostería Yellow House), MZUTI 2648 (Mindó Lago); 10. QCAZR 5782: Manabí (Three Forests Trail); 11. Santo Domingo (Oftedal 1974); 12. QCAZR 3744: Cotopaxi (San Francisco de las Pampas); 13. TH: Los Ríos (Río Palenque); 14. QCAZR 11510: Manabí (Pacocha); 15. KU 142754-60: Tungurahua (Río Verde); 16. QCAZR 11061: Bolívar (Mulidiaguán, Río Verde); 17. AMNH 24201, 32779: Bolívar (Balzapamba); 18. TH: Guayas (Guayaquil); 19. TH: Chimborazo (Naranjapata); 20. TH: Cañar (La Troncal); 21. Yáñez-Muñoz et al. (2013): El Oro (Reserva Biológica Buenaventura). Unconfirmed records in Colombia: A) Ayala, 1986 (Cundinamarca), B) Castro and Ayala, unpublished (Meta). Museum codes: DHMECN (División de Herpetología, Museo Ecuatoriano de Ciencias Naturales), ICN (Instituto de Ciencias Naturales, Universidad Nacional de Colombia), MHUA (Museo de Herpetología, Universidad de Antioquia), MZUTI (Museo de Zoología, Universidad Tecnológica Indoamérica), QCAZ (Museo de Zoología de la Pontificia Universidad Católica del Ecuador), TH (Tropical Herping), UIS-R (Universidad Industrial de Santander-Reptiles).



Figure 2. *Anadia rhombifera* from Quindío department, Colombia. Frontal view (A) of specimen collected at the “Distrito de Conservación de Suelos Barbas-Bremen”, Filandia, Quindío (Photo: Diego A. Gómez-Hoyos). Lateral (B) and dorsal (C) views of specimen collected at the “Finca el Jardín”, Vereda San Rafael, Calarcá, Quindío (Herpetos-UQ 415; Photo: Jhonattan Vanegas-Guerrero).

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- Authors’ contribution statement:** Jhonattan Vanegas-Guerrero and Diego Gómez-Hoyos collected the data, Carlos Gómez-López, Carlos Londoño-Guarnizo, Jhonattan Vanegas-Guerrero and Diego Gómez-Hoyos wrote the text.
- Received:** October 2014
Accepted: November 2014
Editorial responsibility: Ross MacCulloch