

REFERENCES

- Andrade, G.V. & Cardoso, A.J. 1991. Descrição de larvas e biologia de quatro espécies de *Hyla* (Amphibia, Anura). *Revista Brasileira de Biologia*, 51(2): 391–402.
- Araujo-Vieira, K., Lourenço, A.C.C., Lacerda, J.V.A., Lyra, M.L., Blotto, B.L., Ron, S.R. *et al.* 2023. Treefrog diversity in the Neotropics: Phylogenetic relationships of *Scinaxini* (Anura: Hylidae: Hylinae). *South American Journal of Herpetology*, 27: 1–143.
- Cardoso, A.J., Andrade, G.V. & Haddad, C.F.B. 1989. Distribuição espacial em comunidades de anfíbios (Anura) no sudeste do Brasil. *Revista Brasileira de Biologia*, 49: 241–249.
- Conte, C.E., Araujo-Vieira, K.L., Crivellari, B. & Berneck, B. von M. 2016. A new species of *Scinax* Wagler (Anura: Hylidae) from Paraná, southern Brazil. *Zootaxa*, 4193: 245–265.
- Duellman, W.E. & Wiens, J.J. 1992. The status of the hylid frog genus *Olophryne* and the recognition of *Scinax* Wagler, 1830. *Occasional Papers of the Museum of Natural History, University of Kansas*, 151: 1–23.
- Lutz, B. 1951. Nota prévia sobre alguns anfíbios anuros do Alto Itatiaia. *O Hospital. Rio de Janeiro*, 39: 705–707.
- Lutz, B. 1968. New Brazilian forms of *Hyla*. *Pearce-Sellards Series, Texas Memorial Museum*, 10: 3–18.
- Lutz, B. 1973. *Brazilian Species of Hyla*. Austin: University of Texas Press. Texas. USA.
- Ferrante, L., Monteiro-Leonel, A.C., Gaiga, R., Kaefer, I.L. & Fearnside, P.M. 2019. Local extinction of *Scinax caldarium*, a treefrog in Brazil's Atlantic Forest. *Herpetological Journal*, 29: 295–298.
- Magrini, L. & Giaretta, A.A. 2010. Calls of two Brazilian species of *Scinax* of the *S. ruber* clade (Anura: Hylidae). *Herpetology Notes*, 3: 121–126.
- Pederassi, J., Lima, M.S.C.S., Pineschi, R.B. & Caramaschi, U. 2022. *Bioacústica dos anfíbios anuros da Serra da Mantiqueira, Bocaina de Minas, MG*. Ponta Grossa: Atena Editora. Paraná. Brasil.
- Pugliese, A., Pombal-Jr., J.P. & Sazima, I. 2004. A new species of *Scinax* (Anura: Hylidae) from rocky montane fields of the Serra do Cipó, southeastern Brazil. *Zootaxa*, 688: 1–5.

First record of *Algyroides nigropunctatus* (Duméril & Bibron, 1839) from Crete

Ferran de la Cruz^{1,2,3}, Anna Kawamoto⁴, Guillem Pérez i de Lanuza⁴ & Enrique Font⁴

¹ CIBIO Research Centre in Biodiversity and Genetic Resources, InBIO Associate Laboratory. Campus de Vairão. Universidade do Porto. Calle Padre Armando Quintas, 7. 4485-661 Vairao. Portugal. C.e.: delacruz.ferran@gmail.com

² Departamento de Biologia. Faculdade de Ciências. Universidade do Porto. Rua Campo Alegre, s/n. 4169-007 Porto. Portugal.

³ BIOPOLIS Program in Genomics, Biodiversity and Land Planning, CIBIO. Campus de Vairão. Universidade do Porto. Calle Padre Armando Quintas, 7. 4485-661 Vairao. Portugal.

⁴ Ethology Lab. Cavanilles Institute of Biodiversity and Evolutionary Biology. University of Valencia. Apdo. 22085. 46071 Valencia. Spain.

Fecha de aceptación: 15 de junio de 2024.

Key words: *Algyroides*, Crete, distribution, Greece, lizard.

RESUMEN: se describe el hallazgo de varios individuos de *Algyroides nigropunctatus* en La Canea (oeste de la isla de Creta). A pesar de que esta especie ha sido descrita como alóctona anteriormente en otros enclaves, este es el primer registro fuera de Europa continental, muy alejado de su rango de distribución natural.

The Dalmatian *Algyroides* (*Algyroides nigropunctatus* [Duméril & Bibron, 1839]), commonly known as the blue-throated keeled lizard, is a small diurnal lizard adapted to shaded and humid habitats, a crucial ecological trait responsible for its natural distribution across the Balkans (Bischoff, 1981; Carneiro *et al.*, 2017; Speybroeck *et al.*, 2016). It is the most widely distribu-

ted species of the genus, occurring along the east Adriatic coast from northeast Italy to southern Greece, including many islands of the Adriatic and Ionian Seas (Sillero *et al.*, 2014; Speybroeck *et al.*, 2016). In the last years, new local records of this species have increased its natural distribution range (Bringsøe, 1995; Ajtic *et al.*, 2005; Andriopoulos & Pafilis, 2016). In con-

Photo Ferran de la Cruz



Figure 1: Adult male of *Algyroides nigropunctatus* found in the Kiprou Defensive Wall of Chania.

Figura 1: Macho adulto de *Algyroides nigropunctatus* encontrado en la Muralla Defensiva de La Canea.

tinental Greece, *A. nigropunctatus* is restricted to the western region of the country, from the border with Albania to the Gulf of Corinth, east of the Pindos mountains, which are responsible for the humid climate of western Greece (Kotini-Zabaka, 1983; Speybroeck *et al.*, 2016). Its insular distribution in Greece includes most of the Ionian Islands and the Diapontia Islets (Chondropoulos, 1986; Speybroeck *et al.*, 2016).

On June 9th 2023, while carrying out fieldwork in Crete, we found four individuals of *Algyroides nigropunctatus* near the harbour of the Old City of Chania (35°31'02,8"N / 24°01'26,8"E; Figure 1). In the absence of genetic evidence, the blue throat and orange belly suggests its adscription to the nominal subspecies *A. n. nigropunctatus* (Badiane *et al.*, 2018; Strachinis *et al.*, 2021). Over the course of just a few minutes we spotted two adults and two juveniles basking in the Kiprou Defensive Wall near the Theatre Parking, which is surrounded by a vegetation patch of ca. 1,15 ha. We could not spend time searching for animals in the wall or exploring the vegetated area behind, but given the ease with which we found them, we suspect lizards may be abundant at this location.

Algyroides nigropunctatus as an introduced species has also been reported in south-eastern Italy and in the city of Athens (Carlino & Pauwells, 2016; Deimezis-Tsikoutas *et al.*, 2020). However, this is the first record of this species outside continental Europe, quite far from its natural distribution range. We hypothesize that its introduction, given its proximity to the harbour of Chania, may have resulted from sea transport. Maybe the historical relationship with venetians, who developed the fortification of the city, could also explain the presence of the species. Further prospecting is needed to assess the viability of this population and its distribution across the island, as well as a molecular analysis to determine its origin.

ACKNOWLEDGMENTS: Field work in the course of which *A. nigropunctatus* were sighted was supported in part by grants from the Spanish Ministerio de Ciencia e Innovación (PID2019-104721GB-I00) and the Generalitat Valenciana (AICO/2021/113) to EF and GP. FC was supported by the Fundação para a Ciência e Tecnologia (FCT) through a PhD contract with reference 2022.14105.BD and AK by a Contrato Predoctoral de Formación de Personal Investigador (FPI) with the reference PRE2020-095104.

REFERENCES

- Andriopoulos, P. & Pafilis, P. 2016. First record of *Algyroides nigropunctatus* (Duméril & Bibron, 1839), east of the Pindos mountain chain, Greece. *Herpetozoa*, 29(1-2): 83–84.
- Ajtić, R., Tomović, L., Aleksić, I. & Crnobrnja-Isailović, J. 2005. New records of Dalmatian *Algyroides* (*Algyroides nigropunctatus*, Duméril & Bibron, 1839) (Lacertidae) in Montenegro with comment on its conservation status. *Acta zoologica bulgarica*, 57(3): 385–390.
- Badiane, A., Carazo, P. & Font, E. 2018. Colouration in male blue-throated keeled lizards (*Algyroides nigropunctatus*): Evidence for ultraviolet reflectance of throat and lateral patches. *Herpetological Journal*, 28: 39–42.
- Bischoff, W. 1981. *Algyroides nigropunctatus* (Duméril et Bibron, 1839) – Prachtkieidechse. 418–429. In: W. Böhme (ed.), *Handbuch der Reptilien und Amphibien Europas. Band 1. Echsen*. AULA-Verla. Wiebelsheim. Germany.
- Bringsøe, H. 1995. Neuer Nachweis der Prachtkieidechse *Algyroides nigropunctatus* (Duméril & Bibron, 1839) für Zentral-Griechenland. *Sauria*, 17(3): 35–38.
- Carlino, P. & Pauwells, O.S. 2016. Taxonomic identity of an extralimital population of *Algyroides* lizards (Squamata: Lacertidae) from Apulia region in Southern Italy. *Bulletin of Chicago Herpetological Society*, 51(9): 149–151.
- Carneiro, D., García-Muñoz, E., Žagar, A., Pafilis, P. & Carretero, M.A. 2017. Is ecophysiology congruent with the present-day relictual distribution of a lizard group? Evidence from preferred temperatures and water loss rates. *Herpetological Journal*, 27(1): 47–56.
- Chondropoulos, B.P. 1986. A checklist of Greek reptiles. I. The lizards. *Amphibia-Reptilia*, 7: 217–235.
- Deimezis-Tsikoutas, A., Kapsalas, G., Antonopoulos, A., Strachinis, I. & Pafilis, P. 2020. *Algyroides nigropunctatus* (Squamata: Lacertidae) in the city of Athens: An unexpected finding. *Russian Journal of Herpetology*, 27(3): 172–174.
- Kotini-Zabaka, S. 1983. *Contribution to the study of the climate of Greece*. PhD Thesis. Aristotle University of Thessaloniki. Thessaloniki. Greece.
- Sillero, N., Campos, J., Bonardi, A., Corti, C., Creemers, R., Crochet, P.A. et al. 2014. Updated distribution and biogeography of amphibians and reptiles of Europe. *Amphibia-reptilia*, 35(1): 1–31.
- Speybroeck, J., Beukema, W., Bok, B. & Van Der Voort, J. 2016. *Field guide to the amphibians and reptiles of Britain and Europe*. Bloomsbury publishing. London. UK.
- Strachinis, I., Poulakakis, N., Karaïskou, N., Patronidis, P., Patramanis, I., Poursanidis, D. et al. 2020. Phylogeography and systematics of *Algyroides* (Sauria: Lacertidae) of the Balkan Peninsula. *Zoologica Scripta*, 50(3): 282–299.

Advertisement call, general distribution, and range extension of *Leptodactylus notoaktites* (Anura, Leptodactylidae) to the State of Rio de Janeiro, Brazil

Jonas Pederassi^{1,2,*}, Ulisses Caramaschi², Joara de Sousa Andrade³,
Renato B. Pineschi¹ & Mauro S.C.S. Lima³

¹ Ong Bioma. Rua Queluz, 125. São Cristóvão. 27264-820 Volta Redonda. RJ. Brasil. *C.e.: jonaspederasi@yahoo.com.br

² Universidade Federal do Rio de Janeiro. Museu Nacional. Departamento de Vertebrados. Quinta da Boa Vista, São Cristóvão. 20940-040 Rio de Janeiro. RJ. Brasil.

³ Universidade Federal do Piauí. Campus Amílcar Ferreira Sobral. BR 340, Km 3,5. Meladão. 64800-000 Floriano. PI. Brasil.

Fecha de aceptación: 18 de diciembre de 2024.

Key words: APA Fluvial de Porto Real, atlantic forest remnant, conservation status, geographical distribution

RESUMEN: *Leptodactylus notoaktites* es una rana de tamaño moderado perteneciente al grupo *L. fuscus*. La especie se encuentra en el sureste y sur de Brasil y solo se conocía en los estados de São Paulo, Paraná y Santa Catarina. En este artículo, presentamos la distribución general actualizada y la primera aparición geográfica de la especie en un ambiente puntual y amenazado en el estado de Río de Janeiro. Se describe la llamada de anuncio de la especie.

Leptodactylus notoaktites Heyer, 1978 (Anura, Leptodactylidae) was known to occur, until now, only in the states of São Paulo, Paraná,

and Santa Catarina (Figueiredo et al., 2018); its type locality is in the Municipality of Iporanga, State of São Paulo, Brazil (Heyer, 1978, Frost,