

is little genetic differentiation within *R. perezii* across the Iberian Peninsula.

To conclude, our results support the views of ARANO et al. (1998) and PLÖTNER (1998) in separating *R. perezii* from *R. saharica*. Within *R. saharica* there are two distinct clades as suggested by ARANO et al. (1998), but the geographic limit of the two taxa is not the Moulouya river as they predicted. Our results give no indication that *R. saharica* is a species complex within Morocco.

**ACKNOWLEDGEMENTS:** This project was supported by grants from Fundação para a Ciência e Tecnologia POCTI/41912/BSE/2001 and SFRH/BPD/5702/2001 (to DJH). Thanks to C. PINHO and D. BARBOSA (CIBIO/UP - Centro de Investigação em Biodiversidade e Recursos Genéticos / Universidade do Porto) for participation during fieldwork in North Africa, and to C. SOARES and F. SEQUEIRA (CIBIO/UP) for the samples from Vilar Pouca de Aguiar.

**REFERENCES:** ÁLVAREZ, Y. & MATEO, J. A. & ANDREU, A. C. & DÍAZ-PANIAGUA, C. & DIEZ, A. & BAUTISTA, J. M. (2000): Mitochondrial DNA haplotyping of *Testudo graeca* on both continental sides of the Straits of Gibraltar.- *J. Heredity*, Oxford; 91: 39-41. ARANO, B. & LLORENTE, G. A. & MONTORI, A. & BUCKLEY, D. & HERRERO, P. (1998): Diversification in north-west African water frogs: molecular and morphological evidence.- *Herpetol. J.*, London; 8: 57-64. BENHACHEM, L. M. (1988): Taxinomie et caractérisation de deux espèces d'amphibiens anoures: *Rana ridibunda* PALLAS, 1771 et *Bufo viridis* LAURENTI, 1768, au Maroc. Doctoral Thesis, Faculty of Sciences, Rabat; 220 pp. BONS, J. & GENIEZ, P. (1996): Amphibiens et reptiles du Maroc (Sahara Occidental compris). Atlas biogéographique. Barcelona (Asociación Herpetológica Española), 320 pp. BUCKLEY, D. & ARANO, B. & HERRERO, P. & LLORENTE, G. (1996): Population structure of Moroccan water frogs: genetic cohesion despite a fragmented distribution.- *J. Zool. Syst. Evol. Res.*, Berlin; 34: 173-179. BUSACK, S. D. (1986): Biogeographic analysis of the herpetofauna separated by the formation of the Strait of Gibraltar.- *National Geographic Research J.*, Washington; 2: 17-36. FELSENSTEIN, J. (1985): Confidence limits on phylogenies: an approach using the bootstrap.- *Evolution*, Lawrence; 39: 783-791. GÜNTHER, R. (1991): Europäische Wasserfrösche (Anura, Ranidae) und biologisches Artenkonzept.- *Mitt. Zool. Mus.*, Berlin; 67: 39-53. HARRIS, D. J. (2001): Re-evaluation of 16S ribosomal RNA variation in *Bufo* (Anura: Amphibia).- *Molec. Phylogen. Evol.*, Chicago; 19: 326-329. HARRIS, D. J. & CARRANZA, S. & ARNOLD, E. N. & PINHO, C. & FERRAND, N. (2002): Complex biogeographic distribution of genetic variation within *Podarcis* Wall lizards across the Strait of Gibraltar.- *J. Biogeogr.* Oxford; 29(9): 1257-1262. HARRIS, D. J. & ZNARI, M. & MACE, J.-C. & CARRETERO, M. A. (in press): Genetic variation in *Testudo graeca* from Morocco estimated using 12S rRNA DNA sequencing.- *Rev. Española Herpetol.*, Barcelona; 17. KOCHER, T. D. & THOMAS, W. K. & MEYER, A. & EDWARDS, S. V. & PÄÄBO, S. & VILLABLANCA, F. X. & WILSON, A.

C. (1989): Dynamics of mitochondrial evolution in animals: Amplification and sequencing with conserved primers.- *Proc. Natn. Acad. Sci. USA*, Washington; 86: 6196-6200. MARMAYOU, J. & DUBOIS, A. & ÖHLER, A. & PASQUET, E. & TILLIER, A. (2000): Phylogenetic relationships in the Ranidae. Independent origin of direct development in the genera *Philautus* and *Taylorana*.- *C. R. Acad. Sci.*, Paris; (ser. III, Sci. Vie) 323 (3), 287-297. PLÖTNER, J. (1998): Genetic diversity in mitochondrial 12S rRNA of western Palearctic water frogs (Anura, Ranidae) and implications for their systematics.- *J. Zool. Syst. Evol. Res.*, Berlin; 36: 191-201. PLÖTNER, J. & OHST, O. & BÖHME, W. & SCHREIBER, R. (2001): Divergence in mitochondrial DNA of Near Eastern water frogs with special reference to the systematic status of Cypriote and Anatolian populations (Anura, Ranidae). *Amphibia-Reptilia*, Leiden; 22: 97-412. STEINWARZ, D. & SCHNEIDER, H. (1991): Distribution and bioacoustics of *R. perezii* SEOANE, 1885 (Amphibia: Anura: Ranidae) in Tunisia.- *Bonner Zool. Beitr.*, Bonn; 42: 283-297. SWOFFORD, D. L. (2003): PAUP\*: Phylogenetic Analysis Using Parsimony (and other methods) 4.0.b10. Sinauer Associates, Sunderland, Massachusetts, USA.

**KEY WORDS:** Amphibia: Anura: Ranidae: *Rana saharica*, *Rana perezii*, systematics, distribution, Morocco, North Africa, Iberian Peninsula

**SUBMITTED:** March 18, 2003

**AUTHORS:** D. James HARRIS, Vasco BATISTA, Miguel A. CARRETERO, Centro de Investigação em Biodiversidade e Recursos Genéticos (CIBIO/UP), ICETA, Campus Agrario de Vairão, 4485-661 Vila do Conde, Portugal. <james@mail.icav.up.pt >

## New records and natural history notes for *Pristidactylus nigroiugulus* CEI, SCOLARO & VIDELA, 2001 from Río Negro and Chubut provinces, Argentina

Lizards of the genus *Pristidactylus* are endemic to Argentina and Chile with ten species now recognized (CEI et al. 2001). Several of these species are poorly known, rare, and possibly endangered. Two such species, *P. casuhatiensis* (GALLARDO, 1968) and *P. volcanensis* LAMBOROT & DÍAZ, 1987, are restricted to small geographic areas of Argentina and Chile respectively, while others, such as *P. fasciatus* (D'ORBIGNY & BIBRON, 1837) and *P. torquatus* (PHILIPPI, 1861) have a large geographic range (LAMBOROT & DÍAZ 1987; CEI 1986, 1993; AVILA et al. 2000). In recent years, geographically significant records were made for several species of *Pristidactylus* (AVILA 1994; ETHERIDGE & ESPINOZA 1997; CRUZ et al., 1999; AVILA et al. 2001) showing that the

range of the species is still poorly known, in part due to secretive behavior, cryptic coloration, and low population density.

*Pristidactylus nigroiugulus* CEI, SCOLARO & VIDELA, 2001 was recently described from several localities of the north-eastern and central Chubut province (CEI et al. 2001, see fig. 1). Fieldwork in north and central Patagonia during the summers of 2000 and 2003 resulted in new geographic records for *P. nigroiugulus* showing that this species has a more extensive geographic range along the volcanic landscapes of northern Patagonia.

All lizards were collected by hand, euthanased with a pericardial injection of Sodium Thiopental (Abbot®), fixed with formalin 20% and later transferred to 70% ethanol. Latitude, longitude, and elevation were determined with a Garmin™ Global Position Device. All specimens are deposited in the authors' private collection (LJAMM, CRILAR<sup>1</sup>-CONICET<sup>2</sup>, La Rioja, Argentina), but will be later deposited in the public collection of Fundacion MIGUEL LILLO (Tucuman, Argentina). In this note, we present these new localities with information about habitat and accompanying herpetofauna. Rio Negro localities (sites 7 and 8) are the first citation of *P. nigroiugulus* for this province, extending the known limits of distribution to the south-western corner of this province. New localities in Chubut (sites 1 to 6) represent an extension of 100 km W from the type locality and 150 km N from previous known localities of central Chubut.

All new collection sites are depicted in figure 1, where we show the known geographic distribution of the *Pristidactylus* species in Argentina.

Sites 1 and 2: Chubut province: Telsen department: 1) Ruta Provincial 4, 2 km E Gan Gan (42° 31' 44,3" S, 68° 01' 06,6" W, 922 m). 2 February 2003. L. AVILA, K. DITTMAR, M. MORANDO, C. PEREZ: LJAMM 5508 (female). 2) Ruta Provincial 4, 0.8 km E Gan Gan (42° 31' 37,1" S, 68° 06' 19,6" W, 901 m). 2 February 2003. L. AVILA, K. DITTMAR, M. MORANDO, C. PEREZ: LJAMM 5669 (male).

In both localities collection sites were rocky escarpments of basaltic outcrops with vegetation typical of the shrubby-grass steppe of Patagonian Steppe formation, with dominant plants of different species of *Adesmia*, *Berberis*, *Schinus*, *Ephedra*, *Chiquiraga*, *Mulinum*, *Stipa*, *Poa*, and *Bromus*. Other lizards observed in the area were *Liolaemus bibronii* (BELL, 1843), *L. fitzingeri* (DUMÉRIL & BIBRON, 1837), *L. petrophilus* DONOSO-BARROS & CEI, 1971, *L. rothi* KOSLOWSKY, 1898, *Diplolaemus darwini* BELL, 1843, *Homonota darwini* BOULENGER, 1885, and *Phymaturus patagonicus* KOSLOWSKY, 1898.

Sites 3, 4, 5, and 6: Chubut province: Telsen department: 3) Ruta Provincial 4, 85 km W Telsen (42° 28' 05,6" S, 67° 51' 11,9" W, 1051 m). 2 February 2003. L. AVILA, K. DITTMAR, M. MORANDO, C. PEREZ: LJAMM 5603-4 (males), 5605 (female). 4) Ruta Provincial 4, 70.7 km W Telsen (42° 22' 55,3" S, 67° 42' 44,8" W, 1016 m). 2 February 2003. L. AVILA, K. DITTMAR, M. MORANDO, C. PEREZ: LJAMM 5638 (male), 5639 (female). 5) Ruta Provincial 4, 65.5 km W Telsen (42° 22' 03,8" S, 67° 39' 22" W, 966 m). 2 February 2003. L. AVILA, K. DITTMAR, M. MORANDO, C. PEREZ: LJAMM 5666 (female). 6) Ruta Provincial 4, 60.4 km W Telsen (42° 22' 35,4" S, 67° 35' 42,9" W, 941 m). 2 February 2003. L. AVILA, K. DITTMAR, M. MORANDO, C. PEREZ: LJAMM 5505 (male).

Collecting sites were along the edges of a consolidated road. Lizards used the bulldozed rocks along the sides as basking areas. Generally, the landscape was a plain with small-undulated hills, with some areas being covered with basaltic small stones and rocky outcrops. Vegetation of the area was typical of the shrubby-grass or sub-shrubby steppe of the Patagonian Steppe with plants of the genera *Grindellia*, *Nassauvia*, *Nardophyllum*, *Senecio*, *Mulinum*, *Stipa*, and *Bromus* as dominant. Some parts of this area are severely damaged from sheep overgrazing. Several species of lizards were found in sympatry, *Liolaemus bibronii*, *L. fitzingeri*, *L. cf. melanops* BURMEISTER, 1888, *L. petrophilus*, *L. rothi*, *Homonota darwini*, and *Phymaturus patagonicus*.

<sup>1</sup> - Centro Regional de Investigaciones Científicas y Transferencia Tecnológica

<sup>2</sup> - Consejo Nacional de Investigaciones Científicas y Técnicas

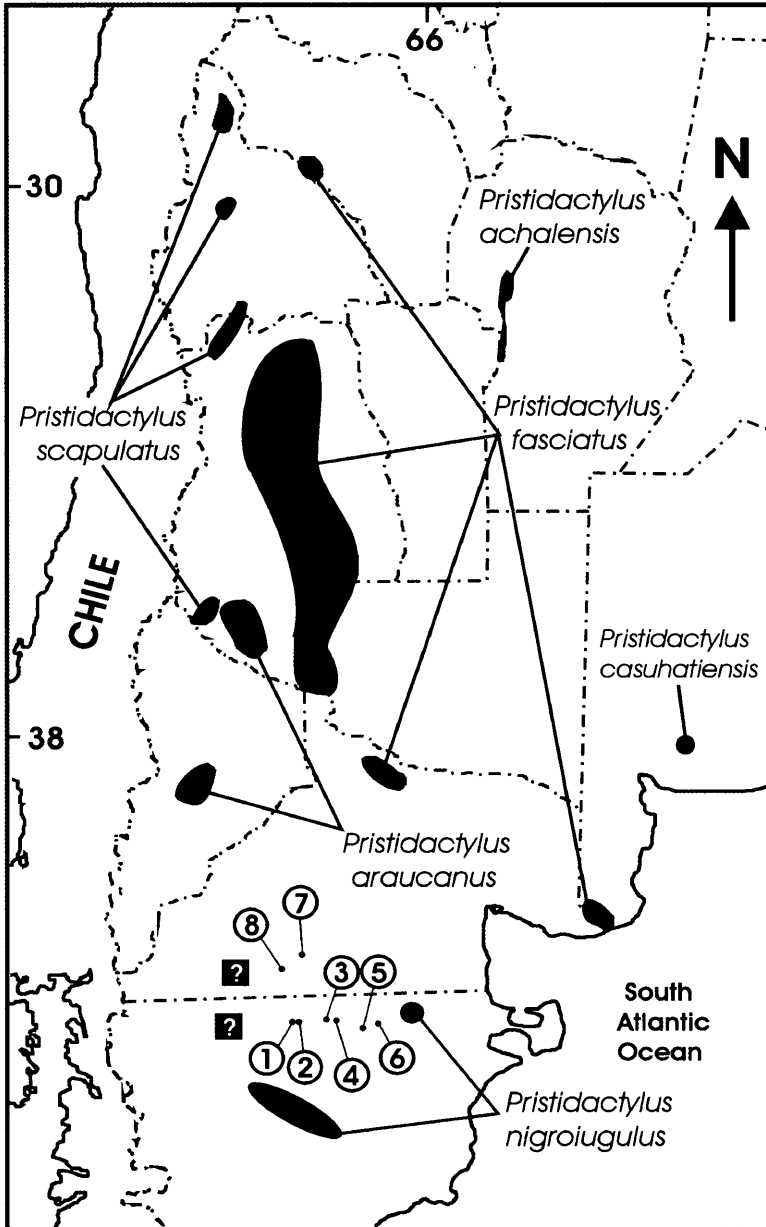


Fig. 1: Geographic distribution of *Pristidactylus* in Argentina (according to AVILA 1994; AVILA et al. 2000; CEI et al. 2001). The numbered localities correspond to new records of *Pristidactylus nigroiugulus* CEI, SCOLARO & VIDELA, 2001 in the Provinces of Chubut (1-6) and Rio Negro (7 - 8) as mentioned in the text.

Black squares with question marks point to two locations cited by CRUZ et al. (1999) as record localities of *P. scapulatus* (BURMEISTER, 1861). However, their position suggests that they could represent new localities for *P. nigroiugulus*.

Sites 7 and 8: Rio Negro province: 25 de Mayo department: 7) Ruta Provincial 5, 40 km SE Maquinchao (41° 30' 07.2" S, 68° 33' 26.3" W, 887 m). 28 November 2000. L. J. AVILA, C. H. F. PEREZ. LJAMM 3089 (female). 8) Ruta Nacional 23, 14 km W Aguada de Guerra (41° 00' 37.2" S, 68° 30' 23.0" W, 866 m). 28 November 2000. L. J. AVILA, C. H. F. PEREZ. LJAMM 3090 (female).

All Rio Negro province specimens are females and although identification is difficult we assign these individuals to *P. nigroiugulus* according to the description of CEI et al. (2001). In site 7, we found the lizard below a small rock in a place characterized by rocky basaltic outcrops with vegetation characteristic of the shrubby-grass steppe of the Patagonian Steppe formation with *Mulinum*, *Stipia*, *Senecio*, and *Adesmia* as dominant plants. Other lizard species observed in sympatry were *Liolaemus bibronii*, *L. cf. boulengeri* KOSLOWSKY, 1898, *L. cf. melanops*, *L. kriegi* MÜLLER & HELLMICH, 1939, *L. petrophilus*, *Homonota darwinii*, *Diplolaemus darwinii*, *Phymaturus patagonicus*, and *Leiosaurus belli* DUMÉRIL & BIBRON, 1837. In site 8, landscape was a plain with consolidated soil, with a plant and lizard community similar to site 7; the lizard was collected in late afternoon basking on a shrub branch. Citations of CRUZ et al. (1999) of *Pristidactylus scapulatus* (BURMEISTER, 1861) for 77 km NW Sierra Colorado (2 km S La Esperanza) on the roadside of Provincial Road 68, Department 25 de Mayo, as well as the individual mentioned for Chubut province, probably will have to be assigned to *P. nigroiugulus*, however, we did not yet revise these individuals.

REFERENCES: AVILA, L. J. (1994): Geographic Distribution: *Pristidactylus achalensis*.- Herpetol. Rev., Hays; 25: 165-166. AVILA, L. J., & MONTERO, R. & MORANDO, M. (2000): Evaluación del estado de conservación de la fauna de lagartijas y anfisbénidos de la República Argentina; 108 pp. In: LAVILLA, E. O. & RICHARD, E. & SCROCCHI, G. J. (Eds.): Categorización de anfibios y reptiles de Argentina. Tucuman (Asoc. Herpetol. Argentina). AVILA, L. J. & MORANDO, M. & PEREZ, D. R. (2001): New records and natural history notes for lizards and snakes from Patagonia, Argentina.- Herpetol. Rev., Hays; 32: 64-65. CEI, J. M. (1986): Reptiles del centro, centro-oeste y sur de la Argentina. Herpetofauna de las zonas áridas y semiáridas.- Mus. Reg. Sci. Nat., Torino; Monografie IV, 527 pp. CEI, J. M. (1993). Reptiles del noroeste, nordeste y este de la Argentina. Herpetofauna de las selvas subtropicales, Puna y Pampas.- Mus. Reg. Sci. Nat.,

Torino; Monografie XI., 929 pp. CEI, J. M. & SCOLARO, J. A. & VIDELA, F. (2001): The present status of Argentinean polychrotid species of the genus *Pristidactylus* and description of its southernmost taxon as a new species.- J. Herpetol., Athens; 35: 597-605. CRUZ, F. B., & SCHULTE II, J. A. & BELLAGAMBA, P. (1999): New distributional records and natural history notes for reptiles from southern Argentina.- Herpetol. Rev., Hays; 30: 182-183. ETHERIDGE, R. & ESPINOZA, R. E. (1997): New records and natural history notes for lizards from north-western Argentina.- Herpetol. Rev., Hays; 28: 160-161. LAMBOROT, M. & DIAZ, N. F. (1987): A new species of *Pristidactylus* (Sauria: Iguanidae) from central Chile and comments on the speciation in the genus.- J. Herpetol., Athens; 21:29-37.

KEY WORDS: Reptilia: Squamata: Sauria: Iguanidae: *Pristidactylus nigroiugulus*, chorology, distribution, Río Negro and Chubut provinces, Argentina

SUBMITTED: April 15, 2003

AUTHORS: Luciano Javier AVILA, Mariana MORANDO, CONICET-CRILAR, Mendoza and Entre Rios s/n, 5301, Anillaco (La Rioja), Argentina. (Present address: Department of Integrative Biology, Brigham Young University, 401 WIDB, Provo, Utah, USA) < luciano.javier@hotmail.com >; Cristian Hernan Fulvio PEREZ, Agustín Alvarez 1182 "A", 8000. Bahía Blanca (Buenos Aires), Argentina. < liolaemu@criba.edu.ar >

### Ectoparasite of lizards and possible vector: the mammal hard tick *Haemaphysalis concinna* KOCH, 1844

During a herpetological excursion to the Croatian island of Krk in the middle of May 2002, ten tick-infested lizards [*Algyroides nigropunctatus* (DUMÉRIL & BIBRON, 1839), *Podarcis melisellensis* (BRAUN, 1877), *P. muralis* (LAURENTI, 1768), *Lacerta bilineata* DAUDIN, 1802], and a tick-infested snake [*Elaphe longissima* (LAURENTI, 1768)] were detected. The reptilian hosts originating from two localities (44°58,943 N / 14°27,79 E; 47 m a.s.l.; 45°06,088 N / 14°20,99 E; 120 m a.s.l.; description of the flora and herpetofauna see SEHNAL 1999 and RATHBAUER 2002) were freed from their pests on site. The ticks were killed and fixed in 70% ethanol. Blood drops emerging on this occasion were smeared on glass slides and air dried for later staining according to Giemsa.

Altogether 46 ticks were collected (table 1), 35 could be determined to species level and, according to the key of BABOS (1964), turned out to be unfed nymphs of *Haemaphysalis concinna* KOCH, 1844 (Ixodidae, Acari) as is undoubtedly demon-

# ZOBODAT - [www.zobodat.at](http://www.zobodat.at)

Zoologisch-Botanische Datenbank/Zoological-Botanical Database

Digitale Literatur/Digital Literature

Zeitschrift/Journal: [Herpetozoa](#)

Jahr/Year: 2003

Band/Volume: [16\\_1\\_2](#)

Autor(en)/Author(s): Avila Luciano Javier, Morando Mariana, Perez Christian Hernan Fulvio

Artikel/Article: [New records and natural history notes for \*Pristidactylus nigroiugulus\* CEI, SCOLARO & VIDELA, 2001 from Rio Negro and Chubut provinces, Argentina 83-86](#)