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Peltophryne peltocephala (Anura: Bufonidae) and *Tropidophis melanurus* (Squamata: Tropidophiidae), new hosts of *Amblyomma rotundatum* (Acari: Ixodidae) in Cuba

Luis F. de Armas[1] & Carlos Hernández-Peraza[2]

[1] P.O. Box 4327, San Antonio de los Baños, Artemisa Province, 38100, Cuba luisdearmas1945@gmail.com
[2] Instituto de Ecologia y Sistematica, CITMA, La Habana 11900, Cuba. carloshernande3@gmail.com

Abstract: The parthenogenetic tick *Amblyomma rotundatum* Koch, 1844 (Ixodidae) is recorded for the first time from Isla de la Juventud, Cuba. Also, this is the second record of this species for Cuba, whereas the giant frog *Peltophryne peltocephala* Tschudi, 1838 (Bufonidae) and the Giant Trope, *Tropidophis melanurus* (Schlegel, 1837) represent new hosts for it in this West Indian country.
Key words: Acari, Ixodidae, parthenogenetic tick, ectoparasite, frog, West Indies.

***Peltophryne peltocephala* (Anura: Bufonidae) y *Tropidophis melanurus* (Squamata: Tropidophiidae), nuevos hospederos de *Amblyomma rotundatum* (Acari: Ixodidae) en Cuba**
Resumen: Se registra por primera vez para la Isla de la Juventud, Cuba, a la garrapata partenogenética *Amblyomma rotundatum* Koch, 1844 (Ixodidae). Este es, además, el segundo registro de esta especie para Cuba, en tanto *Peltophryne peltocephala* Tschudi, 1838 (Bufonidae) y *Tropidophis melanurus* (Schlegel, 1837) representan en este país antillano su segundo y tercer hospederos, respectivamente.
Palabras clave: Acari, Ixodidae, garrapata partenogenética, ectoparásito, sapo, Antillas.

The parthenogenetic tick *Amblyomma rotundatum* Koch, 1844, recently recorded from Cuba (Armas, 2022), is widely distributed on the American continent, being a frequent ectoparasite of tetrapods, mainly frogs and lizards (Guglielmone & Nava, 2010; Guglielmone *et al*., 2021).

The giant frog *Peltophryne peltocephala* Tschudi, 1838 is the most widespread large toad in Cuba (Rivalta González *et al*., 2014), although its presence in the western region of this country is restricted to Isla de la Juventud (formerly Isla de Pinos). The only ticks mentioned as ectoparasites of this species are *Amblyomma dissimile* Koch, 1844, *A. quadricavum* (Schulze, 1941), and *Dermacentor nitens* Neumann, 1897 (Cerny, 1969; Barros-Battesi *et al*., 2009; Guglielmone *et al*., 2021).

The Giant Trop, *Tropidophis melanurus* (Schlegel, 1837) is a common Cuban snake distributed on the main island and some neighboring keys and Isla de la Juventud (Rodríguez Schettino *et al*., 2013). The only recorded ticks as its ectoparasites are *Ornithodoros* sp. (Reyes Hernández, 2018) and *Amblyomma* sp. (Armas, 2022).

On the first days of June 2022, during a herpetological exploration on the northeastern area of Isla de la Juventud, the coauthor (C.H.-P.) collected five adult females and nine nymphs of *A. rotundatum* (Figs. 1-2) on three adult males of *P. peltocephalus*. The single examined frog from near Nueva Gerona city had an engorged female tick, located on the right hind leg (Fig. 1 A); of the two males from Las Casas River, one had an engorged adult female tick on a hind leg, whereas the other had three adult female ticks and nine nymphs, mainly on the back and legs.

Compared with the adult female of *A. rotundatum* recorded by Armas (2022), the adult specimens from the north of Isla de la Juventud showed no significant differences. Consequently, this represents the second record for Cuba of this parthenogenetic tick, but also its first record from Isla de la Juventud (Fig. 3), being *P. peltocephala* its second known host in Cuba (this tick was previously found as ectoparasite of the dwarf boa *Tropidophis spiritus* Hedges & Garrido, 1999).

Reyes Hernández (2000: 35) recorded *A. dissimile* on *P. peltocephala* from two localities on Isla de la Juventud: Sierra de Casas and Guayacanal. We examined the single available specimen from Sierra de Casas (those from Guayacanal are no longer in the acarological collection of the Institute of Ecology and Systematics) and concluded that it does not belong to *A. dissimile* but to *A. rotundatum*. As stated by Kohls (1969), Lampo *et al*. (1997) and Cruz (2000), both species have largely confused by several authors.

With the present contribution, the list of ticks that in Cuba parasite *P. peltocephala* is raised to four: *Dermacentor nitens*, *Amblyomma dissimile, A. quadricavum* and *A. rotundatum*.

During the above mentioned field work on the northeastern of Isla de la Juventud, was also examined a Giant Trope, *T. melanurus*, from near Las Casas River, which had attached a nymph of *A. rotundatum*. This nymph is similar to those collected on *P. peltocephala*, having coxae II and III with a tiny internal spur, a character that is absent in the nymphs of *A. dissimile* (Keirans & Durden, 1998; Goddard *et al*., 2015).

Now, the list of known host of *A. rotundatum* in Cuba contains a frog (*P. peltocephala*) and two snakes: *Tropidophis spiritus* and *T. melanurus*. The distribution of this tick in this country comprises Isla de la Juventud and Sancti Spíritus Province (Fig. 3).

All the examined ticks are deposited in the acarological collection of the Institute of Ecology and Systematics (IES), La Habana. The frogs and the snake collected on June 2022 were released immediately after the parasitological examination.

EXAMINED MATERIAL. CUBA: MUNICIPIO ESPECIAL ISLA DE LA JUVENTUD: near Nueva Gerona city (21.884477, -82.791457), 01 June, 2022, C. Hernández-Peraza: 1♀ on a male *P. peltocephala*. Near Las Casas River (21.894854 N, -82.800437 W), 03 June, 2022, C. Hernández-Peraza: (1) on two males *P. peltocephala*: (a) 1♀, (b) 3♀♀, 9 nymphs; (2) on *Tropidophis melanurus*: 1 nymph. Sierra de Casas (aprox. 21.866361 N, -82.80000 W, 28 m a.s.l.): 1♀ engorged on *P. peltocephala*, June 1968, [J. de la] Cruz, identified as *Amblyomma* sp. by [J. de la] Cruz (original number 3568); it was recorded as *A. dissimile* by Reyes Hernández (2000).

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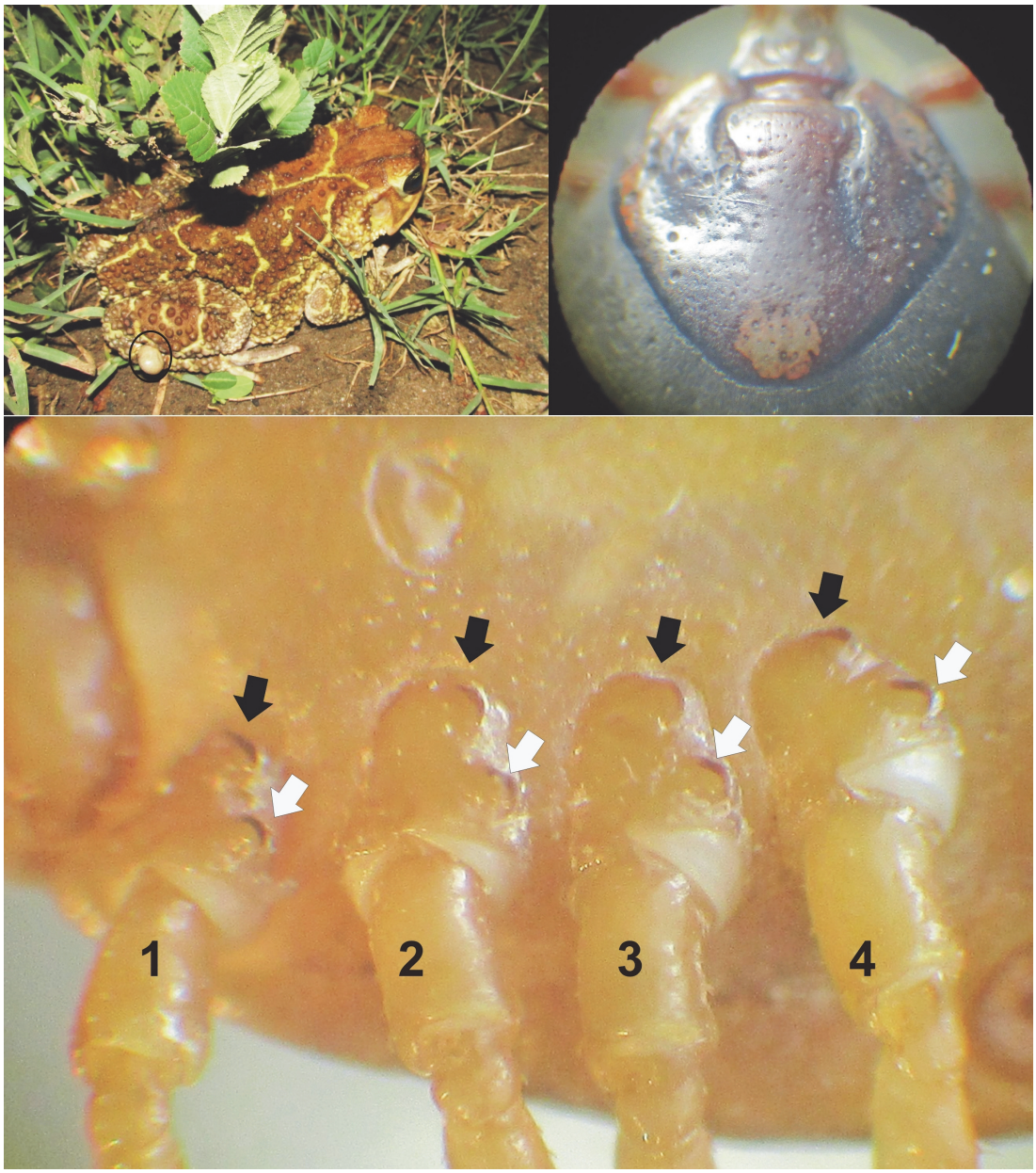


Fig. 1. *Amblyomma rotundatum*, females. **A**, engorged specimen (encircled) on the hind leg of an adult male of *Peltophryne peltocephala* from near Nueva Gerona, Isla de la Juventud, Cuba (photograph by **C**. Hernández-Peraza). **B-D**, unfed specimen from near Las Casas River: **B**, scutum; **C**, ventral view showing leg coxae: black arrow = internal spur; white arrow = external spur.



Fig. 2. *Amblyomma rotundatum*, female from near Las Casas River, Isla de la Juventud. Spiracular plate.

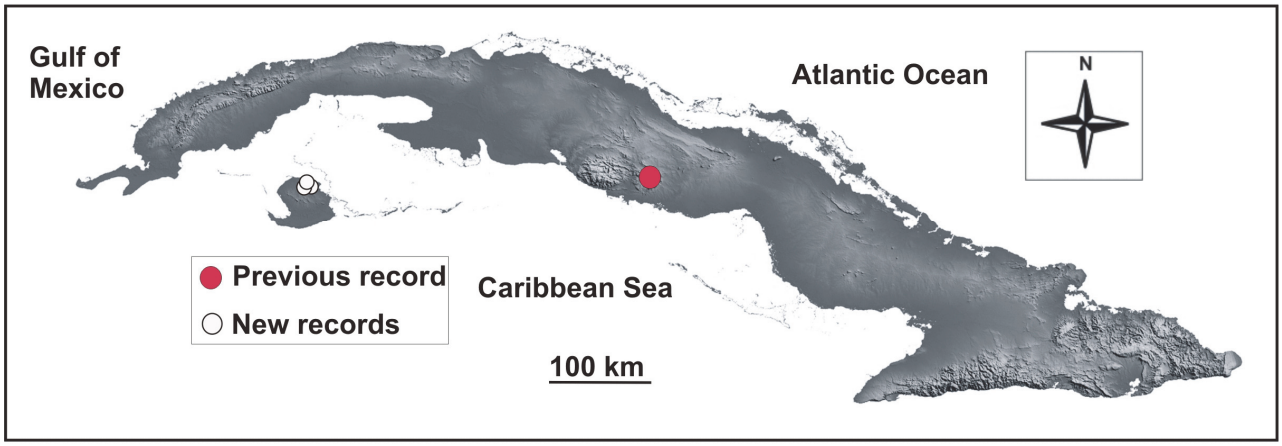


Fig. 3. Known distribution of *Amblyomma rotundatum* in Cuba.

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