

## Annotated Amphibian and Reptiles Check-List of Pacuare Nature Reserve, Costa Rica

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**Fecha de aceptación:** 26 de junio de 2008.

**Key words:** amphibians, reptiles, herpetofauna, Costa Rica.

**RESUMEN.** Se ha realizado la primera lista herpetológica de la Reserva Pacuare, situada en el caribe costarricense. El muestreo se llevó a cabo desde marzo a septiembre del año 2005. Para cada especie encontrada se detalla la frecuencia de aparición y su hábitat más común.

Pacuare Nature Reserve is a small private reserve in the Caribbean lowlands of Costa Rica, between Tortuguero National Park and the city of Puerto Limón (Figure 1a). It has almost 800 ha of secondary forest and swamp, surrounded by the canal system of Tortuguero and the sea (Figure 1b). Its limits are 10°13'50"N / 83°16'72"W to the north and

10°12'50"N / 83°13'22"W to the south. The maximum altitude is 1 m above sea level.

There are few herpetological inventories from the Costa Rican Caribbean Lowlands and thus from March to September 2005, we conducted a survey of the amphibians and reptiles found in Pacuare Nature Reserve. For this inventory no systematic survey methods were used. The inventory is based mainly on casual sightings. Some parts of the Pacuare Nature Reserve are unsurveyed for this inventory of amphibians and reptiles. The main study sites are mentioned in the checklist. The reserve houses two little research stations, one in the north and the other located at the southern end. There are also some ponds and small canals that were visited as part of the survey, including one pond at the southern station, and some canals and a small inner lagoon 1.5 km to the north at the Los Pumas path.

Most of the individuals were handled with extreme care, photographed and released as soon as they were identified. Pictures of diagnostic characters were taken especially when the field identification was difficult. There has been no recollection to keep animals in museums, and only those that were found dead were kept in alcohol and sent to the Costa Rican University



**Figure 1a.** Location of Pacuare Reserve in Costa Rica.  
**Figura 1a.** Situación de la Reserva Pacuare en Costa Rica.



**Figure 1b.** Study sites in Pacuare Reserve.  
**Figura 1b.** Área de estudio en la Reserva Pacuare.

Museum. For specific identification, we used field guides, handbooks and specific taxonomic bibliography (Villa, 1970; Corn, 1974; Savage, 2002; Abella-Gutiérrez & Conlon, 2004; Alejandro-Solórzano, 2004; Guyer & Donnelly, 2005).

## Amphibians

### Gymnophiona

#### Fam. Caeciliidae

*Gymnopsis multiplicata*, only seen twice, but due to their secretive and underground life they are probably more common than they appear.

## Anura

### Fam. Bufonidae

*Bufo caniferus*, very common in the leaf litter. Seen breeding in some temporary ponds.

*Bufo marinus*, very common everywhere. Breeds at the canals, lagoons, and temporary ponds.

*Bufo haematiticus*, rarely seen, in leaf litter.

### Fam. Leptodactylidae

*Leptodactylus pentadactylus*, commonly heard but less common seen.

*Eleuterodactylus diastema*, heard everywhere, everynight.

*E. bransfordii*, very common in the leaf litter.

*E. talamancae*, common, specially near big lagoons and other permanent water bodies.

*E. noblei*, *E. ridens*, *E. cerasinus* and *E. fitzingerii*, with only one sighting, all of them as leaf litter herpetofauna.

### Fam. Hylidae

*Agalychnis callidryas*. Very common everywhere, breeds in little ponds and inner canals and lagoons.

*Hyla phlebodes*, not very common, seen breeding in a pond near the Southern research station.

*Hyla rufitela* (Figure 2), not very common, seen breeding in small inner canals.

*Scinax boulengeri*, common in the inner lagoon and small canals.

*Scinax elaeochroa*, very common everywhere. Breeds everywhere.

*Smilisca baudini*, very common in explosive breeding in small ponds.

*Smilisca phaeota*, rarely seen in breeding ponds.

### Fam. Dendrobatidae

*Dendrobates pumilio*, very common in the leaf litter.

*Phyllobates lugubris*, only one sighting in the leaf litter.

### Fam. Ranidae

*Rana vaillanti*, common in small canals and permanent ponds

## Reptiles

### Crocodylia

#### Fam. Alligatoridae

*Cayman crocodylus*, very common in canals, lagoons, even in the inner lagoon.

The herpetofauna of Pacuare Nature Reserve comprises 74 species, 22 amphibians and 52 reptiles. Although salamanders have been seen at Tortuguero National Park and La Selva, none were found at Pacuare Nature Reserve.

### Fam. Crocodylidae

*Crocodylus acutus*, not very common, mainly seen in the canal system of Tortuguero and Matina and Pacuare river mouths.

## Testudines

### Fam. Cheloniidae

*Chelonia mydas*, 75-100 females nest in the beach, between June until September.

*Eretmochelys imbricata*, 4-8 females nest in the beach, mainly in August.

### Fam. Dermochelyidae

*Dermochelys coriacea* (Figure 3). The beach adjacent to Pacuare Nature Reserve is the beach with the highest nest density of leatherbacks in the Caribbean of Costa Rica, with more than 600 nests in less than 6 km.

### Fam. Chelydridae

*Chelydra serpentina*, probably more common than they appear.

### Fam. Emydidae

*Chrysemys ornata*, very common in every mass of water.

*Rhinoclemmys funerea*, very common in canals and lagoons.

*Rhinoclemmys annulata*, common in canals, lagoons



Figure 2. *Hyla rufitela*.

and permanent ponds.

**Fam. Kinosternidae**

*Kinosternum leucostomum*, very common in small ponds and canals.

**Squamata**

**Sauria**

**Fam. Gekonidae**

*Hemidactylus frenatus*, introduced, very common in houses.  
*Hemidactylus garnotii*, very common in and near buildings.  
*Thecadactylus rapicaudata*, not very common, hard to see.  
*Sphaerodactylus homolepis*, common around buildings.  
*Lepidoblepharis xanthostigma*, only seen twice.  
*Gonatodes albogularis*, rare, hard to see.

**Fam. Corytophanidae**

*Basiliscus plumifrons*, very common in canals and lagoons.  
*Basiliscus vittatus*, very common everywhere but canals and lagoons.  
*Corytophanes cristatus*, not very common, in the deepest of the forest.

**Fam. Iguanidae**

*Iguana iguana*, common.

**Fam. Polychrotidae**

*Norops biporcatus*, not very common but frequently seen.  
*Norops limifrons*, very common in secondary growth (humid sites).  
*Norops humilis*, found everywhere in big numbers.  
*Norops pentaprion*, rarely seen.

**Fam. Scincidae**

*Mabuya unimarginata*, common but hard to see.  
*Sphenomorphus cherriei*, very common, although hard to see.

**Fam. Gymnophthalmidae**

*Gymnophthalmus speciosus*, probably more common than they appear.

**Fam. Teiidae**

*Ameiva festiva*, very common, specially in the forest (basking along the edge of clearings or in sunny spots within the forest).

*Ameiva quadrilineata*, very common, specially around the houses, places without shadow and at the beach.

**Serpentes**

**Fam. Boidae**

*Boa constrictor*, rarely seen around buildings.

**Fam. Ungaliophiidae**

*Ungaliophis panamensis*, one individual found dead, sent it to the University Museum and catalogued with number: 17584 UCR

**Fam. Colubridae**

*Drymobius margaritiferus*, common, specially on forest edges and in clearings, riparian sites and secondary growth.

*Leptophis depressirostris*, *L. nebulosus* and *L. abbaetulla*, very common.

*Oxybelis fulgidus*, one of the mostly seen snakes.

*Oxybelis aeneus*, common, seen frequently along forest margins, where there are low shrubs, tall grass, or trees that can be climbed.

*Pseustes poecilonotus*, common, although hard to see. Sometimes it is seen moving rapidly across open areas on the ground or in low trees or bushes.

*Drymobius melanotropis*, rarely seen.

*Leptodeira septentrionalis*, common to see hunting frogs or eggs in temporary and permanent ponds.

*Sibon annulatus*, not very common in relatively undisturbed sites (normally in secondary growth or bushes).

*Clelia clelia*, rare, only seen a few times.

*Urotheca guentheri*, one sighting.

*Rhadinia decorata*, rare.

*Imantodes inornatus*, seen eating frog eggs around ponds.

*Imantodes cenchoa*, not very common.

*Tetranorhinus nigroluteus*, extremely rare, during day it remains submerged or hides among aquatic vegetation, is essentially nocturnal, one specimen found dead in a small canal, sent it to the University Museum and catalogued with number: 17586 UCR.  
*Xenodon rabdocephalus*, usually identified as fer-de-lance, so its presence may be underestimated.

*Mastigodryas melanolomus*, adult basking in the forest track.

**Fam. Elapidae**

*Micrurus nigrocinctus*, a dead juvenile in the beach and a live adult under leaf litter.

**Fam. Viperidae**

*Bothriechis schlegelii*, common (all three forms: yellow, green and grey).

*Bothrops asper*, common, but probably overestimated confused with the false fer-de-lance.



Figure 3. Hatching of *Dermochelys coriacea*.

Figura 3. Recién nacidos de *Dermochelys coriacea*.

**ACKNOWLEDGMENTS:** We thank G. Chaves from the University of Costa Rica and A. Solórzano who helped us in the specific identification.

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## Ampliación del conocimiento distributivo de la herpetofauna en el territorio histórico de Álava y Condado de Treviño (Burgos)

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**Fecha de aceptación:** 2 de julio de 2008.

**Key words:** Herpetofauna, distribution, Álava, Burgos.

El carácter dinámico y en constante proceso de actualización con el que fue elaborada la publicación de referencia obligada sobre la distribución de la herpetofauna española, “Atlas y Libro Rojo de los Anfibios y Reptiles de España”, nos impulsó a revisar la información ofrecida para la provincia de Álava y a crear un listado de índole corológico complementario. La información que aquí aportamos amplía notablemente el conocimiento real de la distribución de los anfibios y reptiles en el Territorio Histórico de Álava, y entrará a formar parte de la base de datos que con más de 200.000 registros cuenta en el momento actual la herpetofauna española (Pleguezuelos *et al.*, 2004).

Se ofrece un total de 122 registros que equivalen a otras tantas observaciones específicas realizadas en cuadrículas y días diferentes, al margen del número de ejemplares observados. En el caso de repeticiones de especies por cuadrícula, únicamente se presenta la cita más reciente. En todas ellas, agrupadas por especies, se reseña UTM 10 x 10 km. – en función de la metodología adoptada para la confección de atlas (Martínez-Rica, 1989) –, localidad, provincia, fecha más reciente, altitud y observadores.

Tras cotejar la información bibliográfica existente (Bea *et al.*, 1985; Domingo, 1995; Gosá & Bergerandi, 1994; Pérez de Ana, 1994, 2002; Tejado, 1999; Potes & Tejado, 2000; Valdeón, 2003-2004; Tejado & Potes, 2005), se ha optado por incluir un reducido número de citas que, habiendo aparecido en notas breves de Corología publicadas con anterioridad a la primera edición del Atlas y Libro Rojo de los Anfibios y Reptiles de España (Pleguezuelos *et al.*, 2002), no han sido incluidas en éste (Gosá, 1995; Tejado, 1995-96).

El conjunto de datos que se recogen corresponden a una selección del notable volumen de información corológica obtenida en muestreos y seguimiento de herpetos, llevados a cabo por miembros del Departamento de Zoología de Vertebrados del Instituto Alavés de la Naturaleza desde hace más de una década. Se incluyen observaciones cotejadas procedentes de otros investigadores e incluidas en informes de inventarios faunísticos inéditos (Onrubia *et al.*, 2003). Así como una selección de citas del registro de llegada de ejemplares del Centro de Recuperación de Fauna de Martioda (Álava).