

## Catalogue of American Amphibians and Reptiles.

DIXON, JAMES R. 1969. *Phyllodactylus xanti*.*Phyllodactylus xanti* Cope  
Leaf-toed gecko

*Phyllodactylus xanti* Cope, 1863:102. Type locality, "Cape St. Lucas, Lower California" Mexico. Holotype lost. Neotype, California Acad. Sci. 91427, from 2.4 mi N Cabo San Lucas, Baja California, Mexico, collected by A. E. Leviton, 16 January 1959 (Dixon, 1964:50).

*Phyllodactylus tuberculosus*: O'Shaughnessy, 1875:262. Considered *P. xanti* a synonym of *P. tuberculosus* Wiegmann.

• CONTENT. Eight subspecies are recognized: *xanti*, *nocticolus*, *angulus*, *estebanensis*, *circus*, *coronatus*, *acorius* and *zweifeli*.

• DEFINITION. A small gecko, average snout-vent length 45 mm, with more scales between the eyes than across the snout at the level of the third labials; distal half of tail without enlarged tubercles; enlarged dorsal tubercles in 12-16 rows; tubercles present or absent on thigh and tibia.

• DESCRIPTIONS. Van Denburgh (1922) gave a detailed description of *P. tuberculosus* (= *xanti*) from Baja California Sur. Dixon (1960) redescribed *P. xanti* in detail and separated it from *P. tuberculosus*. Dixon (1964) selected a neotype for *P. xanti* and described population variation within the species. Dixon (1966) discussed speciation and variation of island populations in the Gulf of California.

• ILLUSTRATIONS. Shaw (1950), Smith (1946) and Stebbins (1954) illustrated the subspecies *nocticolus*. A color plate of *nocticolus* appears in Stebbins (1966). Dixon (1964) presented drawings of the dorsal pattern of two subspecies (*xanti* and *nocticolus*).

• DISTRIBUTION. *Phyllodactylus xanti* ranges from the southern tip of Baja California, Mexico, northward to Riverside County, California. The species occurs on most of the islands in the Gulf of California and on the Pacific offshore islands near the southwestern tip of Baja California.

The species is found most often in cracks of granite boulders or beneath exfoliating slabs of granite. Occasionally, individuals are found beneath the bark of palo verde, prickly pear, cardon and mesquite. All localities reported in the literature or represented by museum specimens were reviewed by Dixon (1964, 1966), and range maps were provided by Stebbins (1954, 1966) and Smith (1946).

• FOSSIL RECORD. None.

• PERTINENT LITERATURE. Dixon (1960, 1964, 1966) discussed systematics and speciation, with notes on natural history. Zweifel (1958), Leviton and Banta (1964) and Stephens (1921) gave accounts of the habitat. Between 1875 and 1960 twenty-seven references to *xanti* (summarized by Dixon, 1960) appeared under the name *Phyllodactylus tuberculosus*.

• ETYMOLOGY. The specific name *xanti* honors John Xantus, who collected the type-specimen. The subspecific names are derived as follows: *nocticolus*, from the Latin *nocturnus*, of the night, and the New Latin *-colus*, meaning dwelling in; *angulus*, from the Latin *angulus*, meaning Gulf; *circus*, from the Latin *circa*, meaning near by; *coronatus*, from the Latin *corona*, meaning crown; *acorius*, from the Latin *acorius*, meaning mountain top; *estebanensis*, named for the island from which the type series were taken; *zweifeli*, honors Richard G. Zweifel who collected the type-specimen.

1. *Phyllodactylus xanti xanti* Cope

*Phyllodactylus xanti* Cope, 1863:102. See species account.

*Phyllodactylus xanti xanti*: Dixon, 1964:49. First use of trinomial.

• DIAGNOSIS. Adults differ from the northern mainland race by being smaller in snout-vent length (44.1 mm) and having thigh tubercles, and from all insular races in the following combination of characters: lowest number of paravertebral tubercles between axilla and groin (18.7) and from rear of head to base of tail (35.3); highest number of lamellae be-

neath fourth toe (13.7) and number of longitudinal ventral scales (33.6); thigh tubercles present.

• REMARKS. Leviton and Banta (1964) presented a photograph of the probable type-locality of this subspecies, and Linsdale (1932), Murray (1955), and Van Denburgh and Slevin (1921) gave habitat data.

2. *Phyllodactylus xanti nocticolus* Dixon

*Phyllodactylus tuberculosus tuberculosus*: Shaw, 1950:27.

*Phyllodactylus xanti*: Dixon, 1960:6.

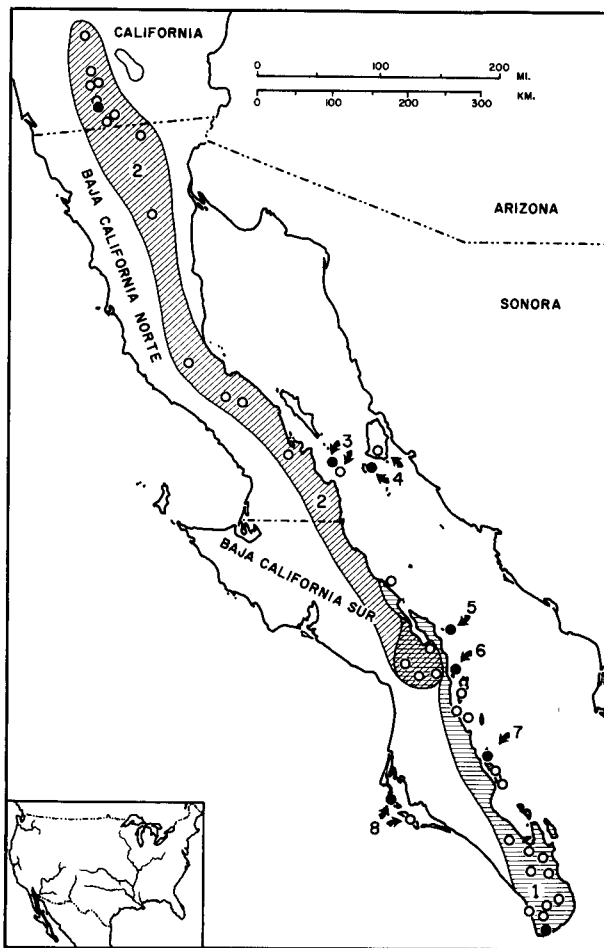
*Phyllodactylus xanti nocticolus* Dixon, 1964:55. Type-locality, "Agua Caliente Hot Springs, San Diego Co., California," Holotype, San Diego Soc. Nat. Hist. (formerly L. M. Klauber) 34824, collected by Laurence M. Klauber, date unknown.

• DIAGNOSIS. This, the largest subspecies, averages 52.4 mm in snout-vent length. It differs from all other races except *angulus* by the absence of thigh tubercles; from *angulus* in larger average snout-vent length and less numerous paravertebral tubercles from axilla to groin (23.0) and from rear of head to base of tail (36.7).

• REMARKS. Stephens (1921) captured the first specimen from the United States, but Boulenger (1885) listed five specimens from "California" taken by Belcher and Fabert. I examined these five specimens and believe they were collected on islands in the Gulf of California.

3. *Phyllodactylus xanti angulus* Dixon

*Phyllodactylus xanti*: Dixon, 1964:48. First designation of a name for the island population.



MAP. Solid symbols mark type-localities; circles indicate other localities; shading estimates total range.

*Phyllodactylus xanti angulus* Dixon, 1966:433. Type-locality, "Islas Salsipuedes, Baja California, Mexico." Holotype, California Acad. Sci. 98477, collected August 19, 1964, by James R. Dixon and Stanley W. Taft.

• **DIAGNOSIS.** The average snout-vent length is 43.8 mm. This race differs from all others except *nocticolus* in the absence of thigh tubercles; from *nocticolus* in having fewer transverse ventral scales (60.4) and more paravertebral tubercles from the rear of the head to the base of the tail (39.3).

#### 4. *Phyllodactylus xanti estebanensis* Dixon

*Phyllodactylus tuberculosus homolepidurus*: Lowe and Norris, 1955:89. First record of a *Phyllodactylus* from Isla San Esteban.

*Phyllodactylus xanti*: Dixon, 1964:48. Correct species allocation of the Isla San Esteban population.

*Phyllodactylus xanti estebanensis* Dixon, 1966:417. Type-locality, "Isla San Esteban, Baja California, Mexico." Holotype, Calif. Acad. Sci. 98481, collected August 14, 1964, by James R. Dixon and Donald W. Tinkle.

• **DIAGNOSIS.** The average snout-vent length is 43.5 mm. This race differs from mainland races in having darker color pattern and fewer transverse rows of ventral scales (59.1); fewer paravertebral tubercles from axilla to groin (20.3); and it differs from races of adjacent islands in having fewer tubercles in a paravertebral row from axilla to groin and fewer scales across the venter (30.6).

#### 5. *Phyllodactylus xanti circus* Dixon

*Phyllodactylus xanti*: Dixon, 1964:48. First allocation of a name to this island population.

*Phyllodactylus xanti circus* Dixon, 1966:439. Type-locality, "Isla Idefonso, Baja California, Mexico." Holotype, San Diego Soc. Nat. Hist. 50814, collected 2 April 1942, by Charles E. Shaw.

• **DIAGNOSIS.** The average snout-vent length is 46.4 mm. This race differs from mainland races in having fewer rows of enlarged dorsal tubercles (12.6), and fewer interorbital scales (18.2); from adjacent insular races in having fewer tubercles in a paravertebral row from axilla to groin (17.6) and from the rear of the head to the base of the tail (33.5).

#### 6. *Phyllodactylus xanti coronatus* Dixon

*Phyllodactylus xanti*: Dixon, 1964:48. First allocation of a name to this island population.

*Phyllodactylus xanti coronatus* Dixon, 1966:441. Type-locality, "Isla Coronados, Baja California, Mexico." Holotype, California Acad. Sci. 51803, collected 18 May 1921, by Joseph R. Slevin.

• **DIAGNOSIS.** The average snout-vent length is 47.4 mm. This race differs from mainland races in having more interorbital scales (22.0) and more scales between eye and nostril (11.8); and from adjacent insular races in having more interorbital scales, longitudinal ventral scales (34.0), and paravertebral tubercles from axilla to groin (21.5), and fewer scales across the snout at the level of the third labial (17.5).

#### 7. *Phyllodactylus xanti acorius* Dixon

*Phyllodactylus xanti*: Dixon, 1964:48. First allocation of a name to this island population.

*Phyllodactylus xanti acorius* Dixon, 1966:442. Type-locality, "Isla San Diego, Baja California, Mexico." Holotype, California Acad. Sci. 98451, collected 9 August 1964, by James R. Dixon.

• **DIAGNOSIS.** The average snout-vent length is 41.2 mm. This race differs from mainland races in having more interorbital scales (20.7), more enlarged tubercular rows on the dorsum (14.9) and fewer transverse ventral scales (54.6); and from adjacent insular races in having more scales between the orbits (20.7) and more numerous paravertebral tubercles from head to tail (37.3), and from axilla to groin (19.8).

#### 8. *Phyllodactylus xanti zweifeli* Dixon

*Phyllodactylus* sp.: Taylor, 1942:93. First record of the genus from the Pacific offshore islands.

*Phyllodactylus tuberculosus*: Zweifel, 1958:4. First use of a specific name for the Pacific islands populations.

*Phyllodactylus xanti zweifeli* Dixon, 1964:59. Type-locality, "Puerto Magdalena, Isla Magdalena, Baja California, Mexico." Holotype, Amer. Mus. Nat. Hist. 77398, collected 17 March 1957, by Richard G. Zweifel.

• **DIAGNOSIS.** The average snout-vent length is 42.4 mm. This race differs from all other races in having the fewest scales between the nostril and eye (9.9), the most longitudinal ventral scales (36.7) and the most scales across the snout at level of third labial (20.8).

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