

# B R E V I O R A

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### A NEW ANOLE (SAURIA, IGUANIDAE) FROM PUERTO RICO

BY ERNEST E. WILLIAMS,  
JUAN A. RIVERO and RICHARD THOMAS

#### PART I. DESCRIPTION

BY ERNEST E. WILLIAMS  
Museum of Comparative Zoology

and JUAN A. RIVERO  
University of Puerto Rico, Mayaguez

On June 16, 1963, Juan Rivero was collecting at Cerro La Punta at an approximate elevation of 1200 meters when his wife and son, who had separated from the rest of the party, shouted that they had what appeared to be a new species of lizard. The animal was first seen in the axilla of one of the outer leaves of the bromeliad *Vriesia* (*Thecodactylum*) *sintensisii*, which although usually epiphytic, was growing abundantly, together with *Guzmania berteroniana*, on the forest floor alongside the road. Although the cloud forest is fairly heavy in this area, trees and tree ferns had been cut for about 10 or 15 meters along the margin of the road, leaving an open although somewhat shaded strip on each side. It was in the marginal area between the forest and the cleared area that the new anole was collected.

When capture of the specimen was attempted, it jumped out of the bromeliad and climbed a small bush nearby. The movement was described as slow, but the observers are not certain if it walked, jumped or crawled. Search for other specimens in and out of bromeliads was fruitless.



On July 9, Mr. Francis Rolle collected a second specimen at the Maricao Reserve Forest. The animal was at the entrance of a hole on a partially rotten buttress of a tree at about 1.8 meters from the ground, and 600 to 750 mm from a bromeliad. Mr. Rolle used a fly swatter to stun the animal (which later died enroute) and its behavior could not be observed. Except for its lighter color, this specimen does not differ materially from the type.

The first specimen was kept in the laboratory for several days, but although it was eating well (*Drosophila*) and appeared to be in good condition it was eventually preserved in view of the danger that it might die and decay over a week end when it was not under observation. The animal expanded the dewlap on one occasion, and when given the opportunity to move on the floor, it always did so by jumping, or, if forced to move about until tired, by moving the hind limbs simultaneously, as if it were swimming. A 16 mm black and white film forms part of the type material filed at Museum of Comparative Zoology.

During its first few days in captivity, the new anole slept by lying flat on one of the side panels of the aquarium which served to hold it. All four legs were on the glass, but the tail, on the floor of the aquarium, apparently served to prop the animal upwards. Later, it slept on a twig, in typical *Anolis* fashion. It was never seen to enter a small bromeliad that was provided inside the small tank, but its tail sometimes encircled twigs or small branches with its tip, although the animal was never seen to hang from its tail.

No further specimens were obtained until early 1965 when Richard Thomas and later he and Albert Schwartz collected the new species in numbers at four localities in the mountains of southern Puerto Rico. Thanks to this material more is known both of the habitat and distribution of the new species.

The material of the new species has been divided among a number of institutions: the Museum of Comparative Zoology (MCZ), the American Museum of Natural History (AMNH), the Carnegie Museum (CM), the Museum of Zoology University of Michigan (UMMZ), and the United States National Museum (USNM). A number of the Thomas specimens have been retained in the Albert Schwartz collection (ASFS) or the Richard Thomas collection (RT).

In allusion to its long concealment from scientific record we call the new species by the Latin adjective which means "hidden":



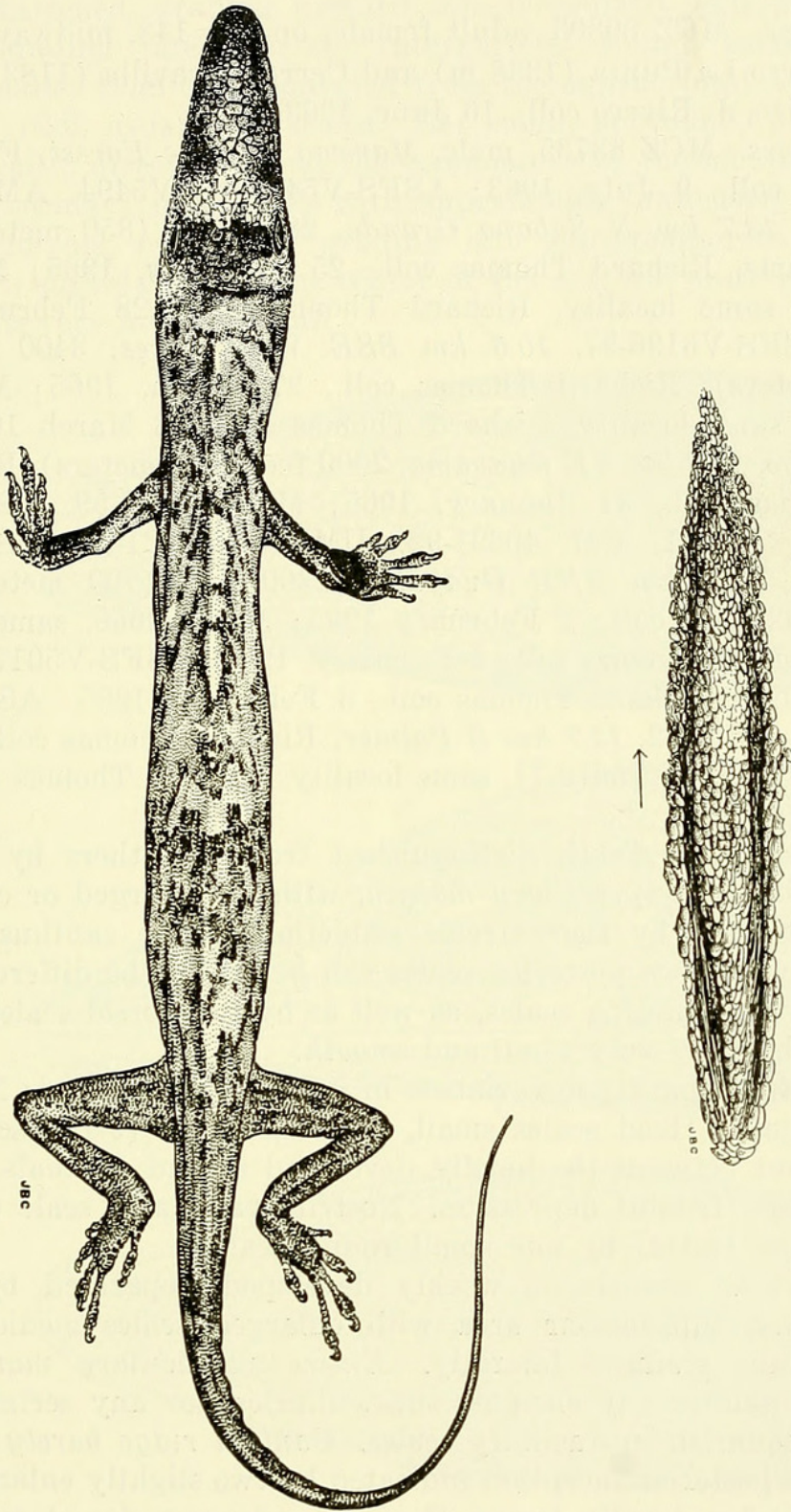


FIG. 1. *Anolis occultus* new species. Top: Dorsal view of type, MCZ 80303. Bottom: Dewlap of MCZ 83666 (♀) showing inset ("slotted") margin.



## ANOLIS OCCULTUS new species

*Holotype*. MCZ 80303, adult female, on Rd. 143, midway between Cerro La Punta (1338 m) and Cerro Maravilla (1183 m), Puerto Rico, J. Rivero coll., 16 June, 1963.

*Paratypes*. MCZ 83735, male, *Maricao Reserve Forest*, Francis Rolle coll., 9 July, 1963; ASFS-V5489-91, V5494, AMNH 94560-61, 13.7 km N *Sabana Grande*, 2800 feet (850 meters), A. Schwartz, Richard Thomas coll., 25 February, 1965; MCZ 83661-63, same locality, Richard Thomas coll., 28 February, 1965; ASFS-V6196-97, 10.6 km SSE *Villa Pérez*, 3400 feet (1040 meters), Richard Thomas coll., 27 March, 1965; MCZ 83664-67, same locality, Richard Thomas coll., 28 March 1965; MCZ 83656, 18.6 km NE *Guayama*, 2000 feet (610 meters), Richard Thomas coll., 31 January, 1965; MCZ 83657-59, ASFS-V4891-92, V4901, CM 40691-92, UMMZ 126021-22, USNM 157107-08, 20.9 km NNE *Guayama*, 2300 feet (700 meters), Richard Thomas coll., 2 February 1965; MCZ 83660, same locality, Richard Thomas coll., 5 February, 1965; ASFS-V5017-19, same locality, Richard Thomas coll., 3 February, 1965. ASFS-V6662-65, RT 1332, 13.7 km S *Palmer*, Richard Thomas coll. 29 July 1965; ASFS-V6670-71, same locality, Richard Thomas coll. 30 July 1965.

*Diagnosis*. An *Anolis* distinguished from all others by the wholly granular supraciliary margin, with no enlarged or elongate scales, and by the extreme reduction of the canthus, of which only the two posterior scales can be said to be differentiated from surrounding scales, as well as by the dorsal scales of the tail which are very small and smooth.

*Description* (paratype variation in parentheses). Head: Narrow, elongate. Head scales small, smooth, ca. 13 (9-13) scales across snout between the hardly developed second canthals. A very shallow frontal depression. Nostril oval, nasal scale separated from rostral by one small round scale.

Supraorbital semicircles weakly developed, separated by 2 (2-4) scales, supraocular area with enlarged scales medially, grading into granules laterally. Entire supraciliary margin granular: neither any elongate supraciliaries nor any series of enlarged squarish supraciliary scales. Canthal ridge barely apparent, its posterior inception indicated by two slightly enlarged squarish scales, hardly larger than the adjacent dorsal snout scales. First two canthals continued by slightly differentiated rectangular scales to a point below the naris. Loreal rows 4 (2-6,



usually 4), all scales subequal. Supratemporal scales subgranular, flattened, grading upward into irregularly enlarged scales surrounding interparietal. Interparietal round, small, larger or smaller than ear, separated from the supraorbital semicircles by 3 (2-6, usually 4) scales. Ear small, subround, placed far ventrally, directly behind the commissure of the mouth.

Suboculars in contact with supralabials, anteriorly grading into loreals, posteriorly grading into supratemporals. Ten to eleven supralabials to the center of the eye, the posterior supralabials very low and small.

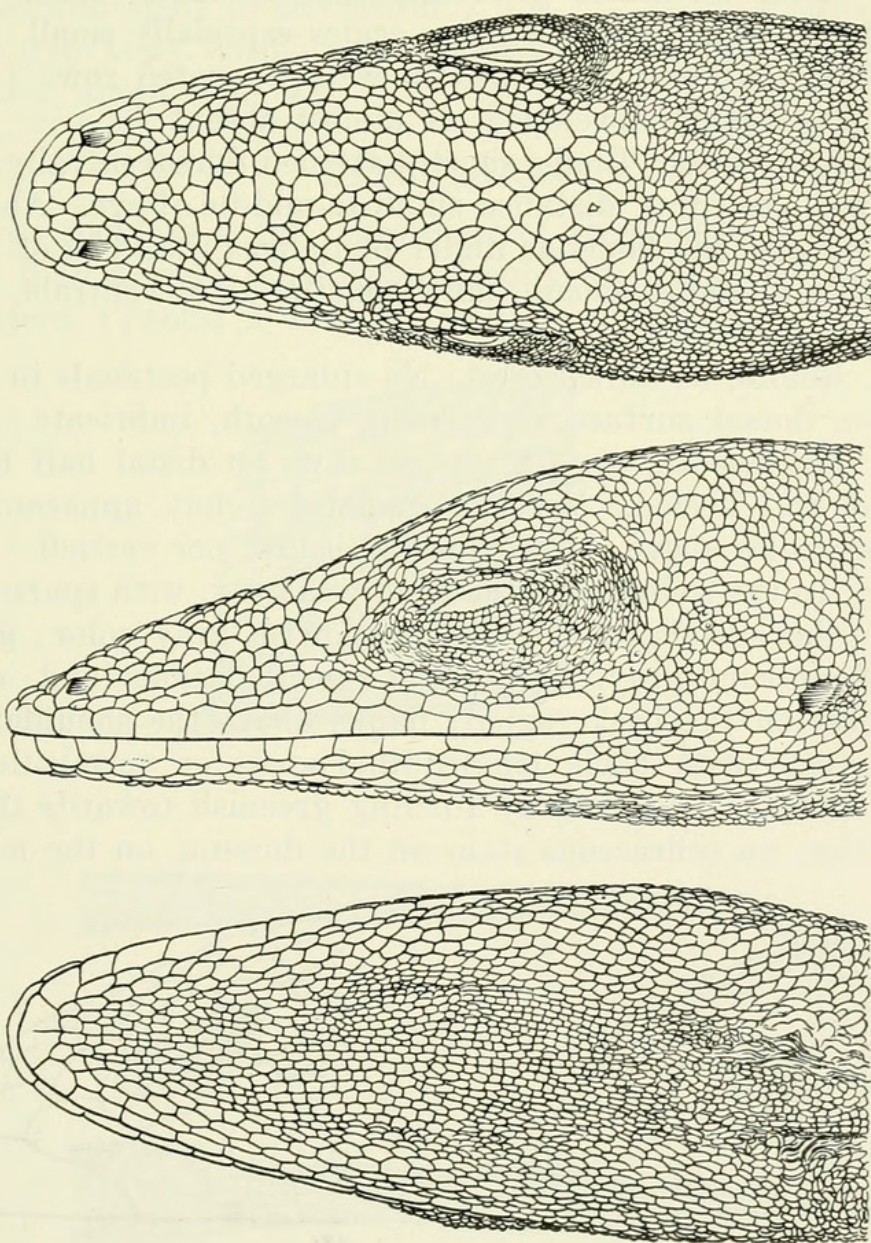


FIG. 2. *Anolis occultus* new species. Dorsal, lateral and ventral views of head of type, MCZ 80303.



Mentals small, about as deep as wide, in contact with 4 (4-6, usually 4) scales between the infralabials. Several rows of throat scales medial to infralabials and posterior to mental somewhat enlarged, grading into granular scales on center of throat; all throat scales smooth.

Trunk: Middorsal scales smooth, flat, not larger than flank scales. Ventrals larger than dorsals, smooth, round, juxtaposed, in transverse rows.

Gular fan: Large, present in both sexes and well developed even in juveniles, lateral margins inset ("slotted") in general skin of neck, all scales granular, smaller than throat scales, much smaller than ventrals, edge scales especially small, lateral scales small but well developed in well separated rows (♀) or these scales weakly developed, or almost absent (♂).

Limbs and digits: Limbs short, flattened dorsoventrally, tibial length not exceeding distance snout-to-middle-of-eye. About 16 (14-20, usually 16) lamellae under phalanges ii and iii of fourth toe. Scales of limbs smooth, much smaller than ventrals, supra-digital scales smooth.

Tail: Round, no dorsal crest. No enlarged postanals in males. Scales on dorsal surface very small, smooth, imbricate. Scales behind vent smooth, *ca.* 4-6 ventral rows on distal half of tail, enlarged and keeled. Verticils indistinct, but apparently 11 dorsal granules above, 5 keeled scales below, per verticil.

*Color.* In the living type the head was gray, with sparse, dark mottles; the eyelids of a lighter, yellowish gray color; general color of dorsum gray, with dark vermiculations and a light bluish cast on the neck region; flanks above the shoulders yellowish green, with black longitudinal spots or vermiculations; rest of flanks yellowish gray turning greenish towards the two extremities; an ochraceous stain on the dorsum, on the midline,

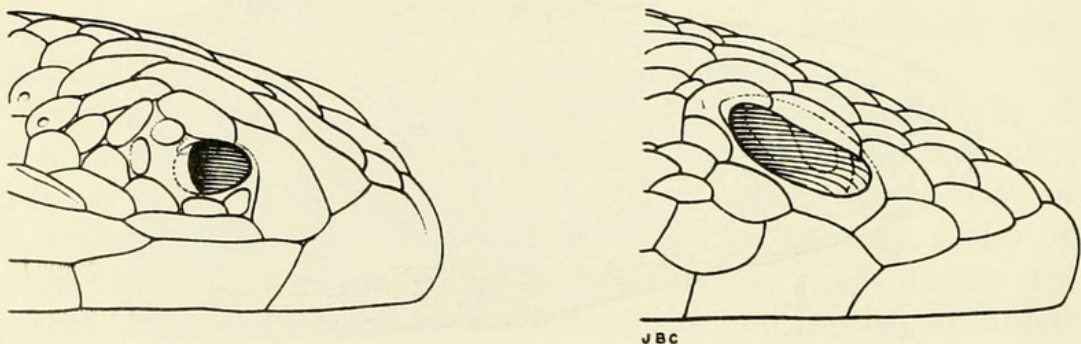


FIG. 3. Scales around nostril compared in *Anolis occultus* (right) MCZ 83661 and *Anolis evermanni* (left) MCZ 61223.



between the anterior limbs; two small, round and well defined yellow spots on each side of the tail base, just below the sacral bones. Below, white, except for some speckling on the throat and tail. The animal could change colors easily, becoming darker or lighter with ease.

The preserved type is of a darker gray color, with lighter reticulation and spotting; there is a light colored frontal band in front of the eyes and a couple of light spots at the base of the tail. Venter and one-third of tail whitish with dark spots and specks, throat with dark areas along the margin of the lip and speckles and spots in the center.

*Size* (in mm). Holotype: snout-vent, 34; tail 36. Largest specimen: snout-vent, 42.

### DISCUSSION

*Anolis occultus* is far more distinct from other Puerto Rican anoles than a mere tabulation of conventional scale counts and characters (Tables 1 and 2) would indicate. It is a rather

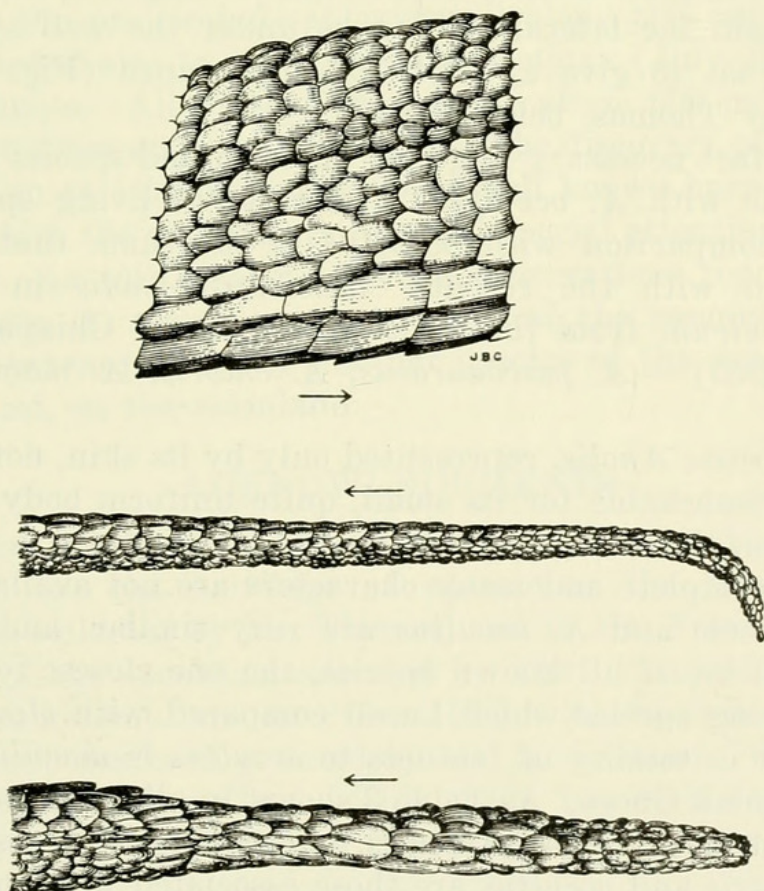


FIG. 4. Tail of *A. occultus*. Top: MCZ 83666, a verticil showing typical squamation. Middle: ASFS-V 5490, unregenerated tail tip. Bottom: ASFS-V 5489, regenerated tail tip.



variable species and therefore approaches or overlaps other species in varying ways (e.g. *gundlachi* in certain characters, *evermanni* in others). It may be helpful to indicate the many ways in which it differs from *all* other Puerto Rican species: It is smaller in maximum size and has a longer head with usually smaller head scales. The nasal scale has not fused with the pre-nasal scale (Fig. 3). The absence of a differentiated supraocular disk and of elongate supraciliaries and differentiated post-supraciliary rows is very striking (Fig. 2). The mentals are remarkably narrow (as if in *occultus* the apparent first infralabials had segmented off from formerly wider mentals). There are no differentiated sublabials; these are present and large in all other Puerto Rican species. Enlarged postanal scales are absent in males. The tail is weakly if at all compressed and without trace or hint of any dorsal crest (Fig. 4); the dorsal caudal scales are not keeled or enlarged but finely granular and smooth. The dorsal limb scales are granular and smooth, not keeled, and the supradigital scales are also smooth. The fingers, including the distal phalanx, are notably short. The dewlap is sparsely scaled laterally and the lateral skin tucks under the well scaled skin of the throat to give a "slotted" appearance (Fig. 1). (See remarks by Thomas, below.)

It is in fact necessary to go far afield to find species genuinely comparable with *A. occultus*. The suite of living species that requires comparison with *occultus* is the same that required comparison with the recently described *Anolis* in amber — *Anolis electrum* from the Miocene ambers of Chiapas, Mexico (Lazell, 1965) — *A. fuscoauratus*, *A. chloris*, *A. maculiventris*, etc.

The Miocene *Anolis*, represented only by its skin, not its skeleton, was remarkable for its small, quite uniform body and limb squamation. In this respect at least — *A. electrum* is unfortunately not complete and many characters are not available — the Miocene anole and *A. occultus* are very similar, and *electrum* might well be, of all known species, the one closest to *occultus*. Of the living species which Lazell compared with *electrum*, the one closest in totality of features to *occultus* is *maculiventris* of the Colombian Choco. As Table 3 shows, in all scale counts there is at least overlap of extremes. Certain differences between *maculiventris* and *occultus* are those associated with the shorter, less tapered head and smaller absolute and relative scale size in *maculiventris*. Thus, in the latter feature, in a larger animal (snout-vent length 42 mm), the body scales are smaller, scales around interparietal smaller, gulars smaller and ventrals much



smaller. Other differences are the presence of a small supra-ciliary, the wide mental, the unicarinate dorsal limb scales, the multicarinate supradigital scales, the narrower and slenderer digits and the larger caudal scales. The prenasal scale is frequently but not invariably fused with the nasal. The dewlap is not "slotted."

It is not at all probable that *occultus* is close to *maculiventris*, but the necessity of comparison with a mainland species geographically so distant emphasizes the very isolated position of *occultus* in the West Indies. Resemblance to *maculiventris* and to *electrum* may indicate preservation in *occultus* to a greater or lesser degree of a primitive anoline squamation pattern. This, however, is a point which will receive attention in a separate paper in which these and the osteological characters of this strange new Puerto Rican anole will be analyzed at length and their implications assessed.

No detailed discussion of the distribution of *occultus* in Puerto Rico is possible. It has been collected at the two extremes of the Cordillera Central and with all probability will be found wherever the proper habitat exists all along this range. It has been recorded also by very recent collections (July 29-30, 1965) on El Yunque. All present records are above 600 meters.

One comment more must be made. The discovery of so distinct a species in an island thought to be well known herpetologically and in which the anoles have received special attention must give us pause. As will appear from the observations reported below by Thomas, *A. occultus* is a creature of the canopy. We may well be ignorant of many another species of the canopy on the islands and on the mainland.

#### ACKNOWLEDGMENTS

We are indebted to Mr. Richard Thomas and Dr. Albert Schwartz for the privilege of examining the more than 30 specimens collected by Mr. Thomas, and to Mr. Francis Rolle for the gift of the specimen collected by him. Permission to quote certain numerical data on Puerto Rican *Anolis* from an unpublished thesis has been granted by Dr. A. S. Rand. The illustrations are by Joshua Clark. This study has been supported by National Science Foundation Grant GB-2444.

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PART II. FIELD OBSERVATIONS ON  
*ANOLIS OCCULTUS* WILLIAMS AND RIVERO

BY RICHARD THOMAS

10,000 SW 84th Street  
Miami, Florida 33143

Having been fortunate enough to collect the first substantial series of the newly described *Anolis occultus*, I take the opportunity to present those observations on habits, habitat and color repertory which were made incidentally to collecting the specimens. I am indebted to Dr. Albert Schwartz, without whose support the collections would not have been made, and Dr. Ernest E. Williams whose advice was to be alert for a strange and new little anole in the forests of Puerto Rico.

All but two specimens of *occultus* collected by me were taken at night while they slept. They invariably slept on dead or leafless vines and twigs. Although the sleeping sites were usually associated with a viny or bushy tangle, frequently individuals slept on single branches which projected beyond the main mass, or on pendant pieces of vine. While sleeping (Fig. 5) the head

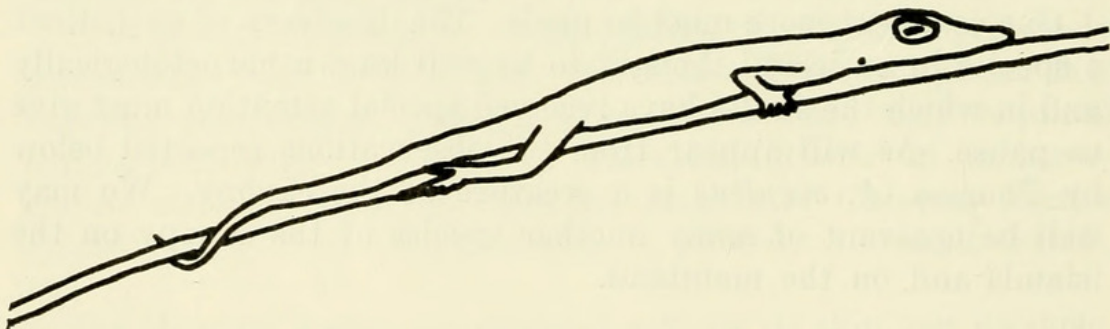


FIG. 5. Typical sleeping posture of *Anolis occultus*.

was almost always towards the distal part of a twig or vine (where this could be determined). The forelimbs were flexed and the hindlimbs extended along the sleeping surface only slightly flexed. At times the fifth toe was positioned against the tail on either side, as if to hold it in place (a posture seen in some "grass anoles"). The tail was curled loosely about the vine or twig to a varying extent, sometimes completely encircling it. This characteristic prehensility of the tail enabled specimens of *occultus* to be identified at a glance even at a distance that would



not ordinarily allow positive identification of so small a lizard. No specimens were ever observed sleeping on leafy portions of plants, whether green or dried, despite the abundance of ferns and grasses, and shrubs, at all the localities.

When grasped, these lizards characteristically held tightly to the sleeping surface, and it was frequently simpler to break off the vine or twig on either end of the specimen than to risk injuring it by pulling it off. Typically, they showed great tolerance to shaking and disturbance of their sleeping sites. When dislodged with a stick they might fall a short distance but adroitly catch themselves on the next object in their path, simultaneously assuming the sleeping posture. On two occasions specimens were disturbed sufficiently (by approach of the collector with flashlight, not by being shaken) that they suddenly released their hold and dropped. One was recovered when it was found resting immobile in a tangle of vegetation on the ground.

Williams and Rivero have commented on the slow movement reported by the collectors of the first specimen of this species. It is my observation that movement was "not slow but had a desultory aspect, not a hasty scampering characteristic of so many anoles" (field notes on specimen collected during day). The relatively short limbs of this species probably account for this apparent lack of haste or a leaping mode of progression. I have seen specimens of this lizard confined in a plastic bag make short hopping movements, but in the field evasion took place as a fast walk from stem to stem. When progressing over a uniform surface (along a smooth stick, for instance), an almost salamander-like crawl is employed.

When caught or handled, *A. occultus* may emit a rather persistent squeaking during its struggles to escape. On two occasions captive specimens were observed displaying the dewlap. In the admittedly artificial environment of a plastic bag filled with a coil of dead vines, the specimens displayed from a horizontal position with little flexure of the head and neck.

The dewlap of this species, when retracted, appears to fit into a longitudinal slot in the throat and anterior chest. This is a characteristic of living specimens and is not an artifact of hardening in preservative. This "slot" (which is not evident when the dewlap is extended) is in the form of a distinct invagination of skin on either side of the retracted dewlap; the folds on each side meet posteriorly and the entire structure is



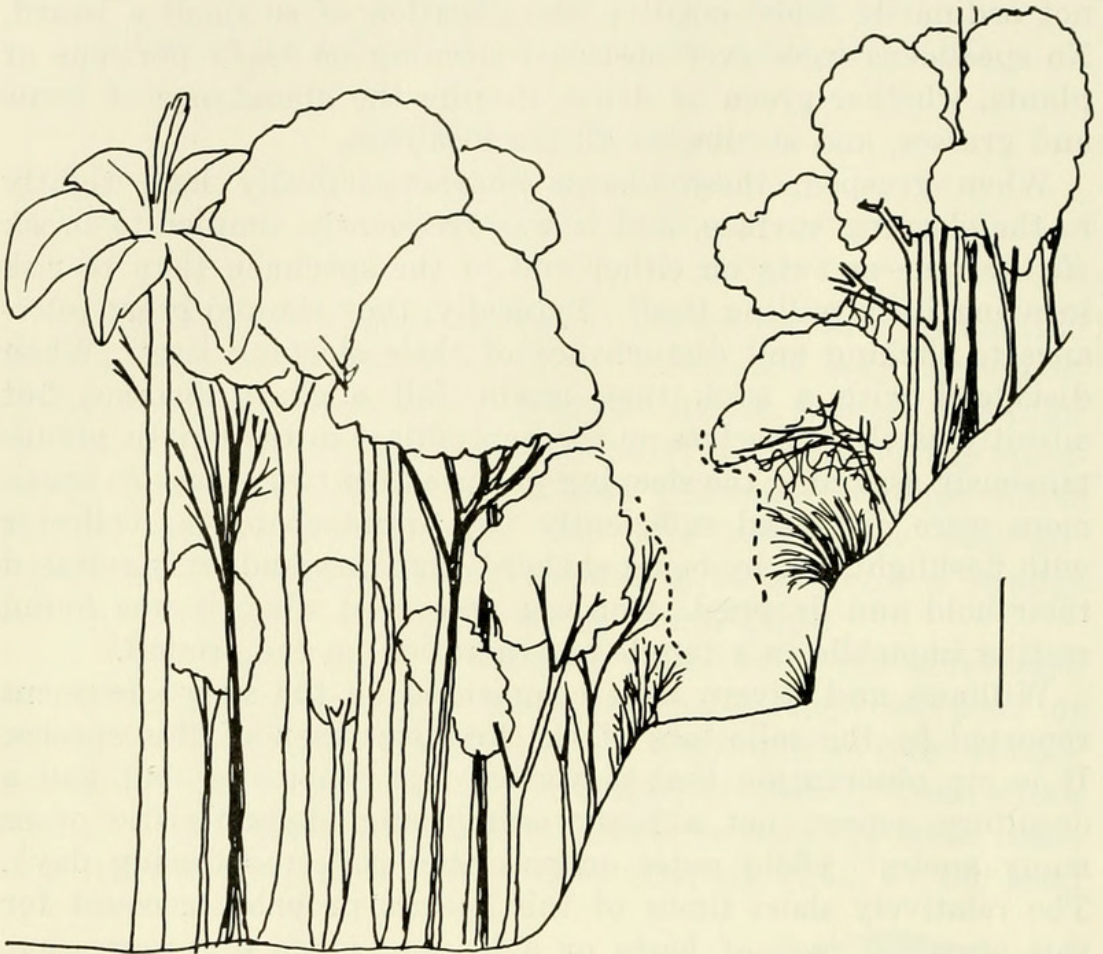


FIG. 6. Diagrammatic cross-section of a situation similar to those encountered at localities 2 and 4. The dotted lines indicate the approximate zones where *occultus* was seen; the vertical line equals an approximate height of six feet.

elongate and U-shaped. The posterior part of the dewlap inserts beneath the "U" portion of the fold. The feature is present in even the smallest specimens.

In life the eyes are chameleon-like: "very protuberant and capable of considerable movement in all directions; some degree of independent movement was evident" (field notes).

Locality 1: 18.6 km NNE Guayama, Puerto Rico, 2000 feet (610 meters), 1 specimen. The first specimen of *Anolis occultus* collected by me was found on a broad-leaved green plant growing in an open, sunny spot along the side of a path through montane rain forest. The specimen was on the upper surface of a leaf and moved to the under surface of an adjacent leaf when approached. Subsequent search at this locality both day and night yielded no other specimens.



Locality 2: 20.9 km NNE Guayama, 2300 feet (700 meters), 16 specimens. At this locality there was a path cut into a forested hillside (Fig. 2). The forest grew close to the sides of the path and in places overhung it. Downhill from the path grew what may be called the forest proper, which in places leveled off after a short drop. Above the path grew a dense second growth of generally smaller trees, ferns and viny tangles. *A. occultus* was found sleeping at night in tangles of dead (or leafless) vines and twigs along both sides of the path, four to ten feet above the ground (i.e. above the path on the uphill side, which includes the height of the cut-bank, or above the slope directly below the specimen on the downhill side).

All but one specimen taken at this locality were collected at night while they slept. Specimens invariably slept on dead or leafless vines and twigs.

An attempt to collect *occultus* in the forest below the path failed. The apparently preferred sleeping places were abundant enough, but all these were well below the canopy of the forest and not exposed by breaks in the forest.

A brief stop was made at this locality during the daytime. One specimen was seen resting on the underside of the tip of a dead fern leaf, where it had possibly retreated at my approach.

Locality 3: 13.7 km N Sabana Grande, 2800 feet (850 meters), 9 specimens. This locality was a region of montane rain forest of the same general composition as the first two localities but with a lower canopy. Specimens of *occultus* were found along paths through the forest but not of the 'cut bank' sort reported for the second locality. Specimens were definitely associated with an opening in the canopy. Where the forest canopy completely closed over the paths, *occultus* was not to be found, despite the apparent abundance of the required viny tangles. The forest in this area was relatively low, so that there was not so large a space between the canopy and the ground. Specimens were found sleeping in similar situations to those of the second locality at heights above the ground of approximately four to ten feet. Three specimens were seen which were not collected due to the height at which they were sleeping (about 15 feet). One of these remained in place until the dead vine on which it rested was broken by being rather violently shaken.

Locality 4: 10.6 km SSE Villa Pérez, 3400 feet (1040 meters), 8 specimens. Here specimens were collected in a situation very similar to the second locality. A path cut into a hillside wound



through about two kilometers of montane forest. Specimens were collected at night as they slept. All were taken in an area where the downhill woods were high enough to partially or, in spots, completely enclose the path. Even under intensive search, specimens were not found in areas where the forest had been cleared below the path or the vegetation was low and sparse, even though the vegetation above the cut bank was of the proper type and density. The lizards slept at heights of about five to twelve feet above the ground.

A visit was made to the Dona Juana Insular Forest, where no specimens of *occultus* were seen. The forest at this locality was very high and the canopy consequently out of easy access or sight. Likewise, the Toro Negro Insular Forest yielded no specimens, no doubt because of the lack of enough accessible situations in which the species is most easily collected.<sup>1</sup>

From the foregoing observations it is seen that *A. occultus* prefers as its sleeping site (and this should be a fairly good indication of its general habitat preference, though slightly more restricted) dead or bare twigs and vines in areas of close forest in the proximity of small breaks in the canopy. Normally, of course, the canopy is not accessible to the collector. It appears to be only in certain situations (breaks in the forest which allow, in effect, a descent of the canopy to a low level) that these lizards are accessible. It seems not improbable that *occultus* is normally a lizard of the canopy, demanding a thicket of bare vines and twigs among the foliage with readily available exposure to the sky. The possibility that it might be simply a clearing-edge anole is not indicated by my collecting experience. Specimens were not found along the edges of forest adjacent to large clearings or wide roads.

At the first locality two other species of anoles were collected, *A. gundlachi* and *A. evermanni*. Both of these lizards are essentially "tree anoles" of forested regions; the former is primarily a species of deep shade, the latter is often found on herbaceous plants such as *Heliconia* and *Musa*, but it is by no means restricted to such situations. At the second locality specimens of

<sup>1</sup>Since this manuscript went to press, another visit was made to Puerto Rico where seven more specimens of *A. occultus* were collected in the El Yunque region. All were taken at night along a path on a forested hillside, a situation very similar to that described for localities 2 and 4. One specimen was found sleeping on the edge of a vertically oriented green leaf.



*A. cristatellus* and *A. krugi* were collected; *gundlachi* and *evermanni* were also seen there. *A. krugi* is an anole of bushes and grass and is sometimes almost terrestrial in habits. Its sleeping site preferences are less restricted than those of *occultus*. It may sleep on green or dead plants, leaves or stems, and is much less particular about how it positions itself. At locality 3 only *A. gundlachi* was collected in addition to *occultus*. At locality 4, *cristatellus* and *krugi* were taken; *gundlachi* was seen. *Krugi* was very common there and during the day was often seen running through the grass along the more open parts of the path. In addition, a juvenile specimen of an as yet undetermined species of large anole was collected at this locality.

### COLOR REPERTORY

*Anolis occultus* possesses a well developed and complex disruptive pattern which is variously manifested in different color stages. In its complete development, the pattern consists of the following elements: a dark cephalic figure or interocular triangle, which may be solid or hollow; a pattern of dark radiating eye lines; four zones of transverse banding on the body (scapular, dorsal, lumbar, and sacral) which may be manifested as either very hazy, indistinct dark bands or as bands with a sharply defined, sinuous, dark anterior edge and a posteriorly fading zone of dark pigment; a lumbar spot (occasionally paired), which is present in the lumbar band but is frequently evident when the band is not and is perhaps the most constant pattern element; a fine reticulum of dark lines, which frequently appears as faint small ocelli. The venter is light, frequently with some stippling and a distinct but irregular zone of juncture with the dorsal coloration. The transverse body banding continues onto the tail as small dark chevrons.

The colorations displayed by this lizard may be characterized as follows:

*Unicolor*: Varies from gray through olive-brown, olive, yellow-green to a dirty orange color. Pattern elements are minimal in this range of phases but parts of the major elements may be present; the lumbar spot is usually present. Axillary and inguinal areas may be a dull or bright yellow; a yellow edge to the lumbar spot may be present. This phase is the predominant one seen in specimens in the wild, which are usually green in the daytime and gray or brown at night.



*Lichenate*: The pattern is boldly developed and black or dark gray; the ground color is off-white or very light gray. This presents a very complex, striking and disruptive pattern; it is perhaps a "fright" pattern as it is often seen in freshly collected or killed specimens.

*Intermediate*: This category covers a wide range of effects intermediate in various combinations between the other two. The pattern may be well developed and the ground color various shades as seen in the unicolor phase; the pattern may be fragmented, moderately or poorly developed with various shades of ground color, commonly brown, yellow-brown or gray. A frequent variant is almost uniformly reticulate above with especially prominent dark diagonal lines in the neck and scapular region.

*Dewlap color*: The dewlaps were frequently noted as being pinkish gray. An individual whose dewlap was color-noted (ASFS V4890) with the Maerz and Paul Dictionary of Color (1950) was keyed to Plate 7E7. The posterior edge of the dewlap was rusty. This coloration was typical of the other specimens.

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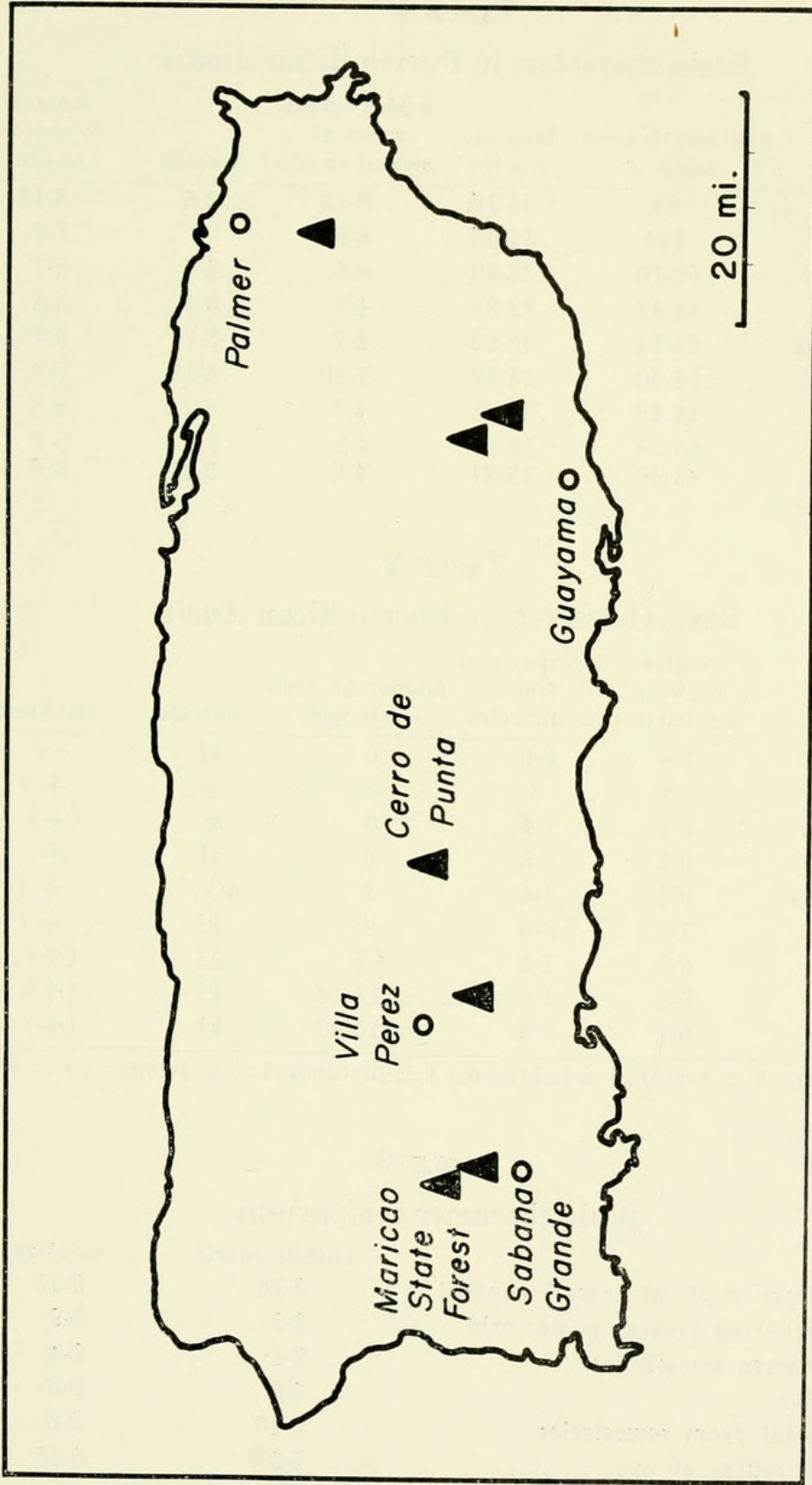


Fig. 7. Distribution of *Anolis occultus* new species in Puerto Rico. Black triangles indicate the known localities. Open circles indicate towns.



TABLE 1  
Scale characters in Puerto Rican *Anolis*

<i>Anolis</i>	S-V length (mm) adult ♂	lamellae 4th toe	scales across snout at		labials to center of eye
			second	loreal	
<i>occultus</i>	34	14-18	9-13	2-6	8-13
<i>cuvieri</i>	126	31-33	8-9	6	7-8
<i>evermanni</i>	60-70	25-30	4-6	4-6	5-7
<i>stratulus</i>	44-48	22-24	4-7	3-6	5-8
<i>cratatellus</i>	65-74	22-25	4-7	5-7	5-7
<i>gundlachi</i>	58-69	18-22	7-10	6-10	5-8
<i>krugi</i>	45-55	21-23	4-7	6-7	6-8
<i>pulchellus</i>	45-50	19-21	4-5	3-5	5-7
<i>poncensis</i>	43-46	18-21	4-6	3-5	5-6

TABLE 2  
Scale characters in Puerto Rican *Anolis*

<i>Anolis</i>	scales between	interparietal from	middorsal rows		tail crest
	semicircles	semicircles	enlarged	ventrals	
<i>occultus</i>	2-4	2-6	0	sj	—
<i>cuvieri</i>	3	3	1	si	+ !
<i>evermanni</i>	0-1	1-4	0	si	(+)
<i>stratulus</i>	0-1	0-3	0	si	+
<i>cratatellus</i>	0-1	1-4	2	s/k, i	+ !
<i>gundlachi</i>	1-3	3-8	2	ki	+ !
<i>krugi</i>	0-2	1-5	4-6	ki	(+)
<i>pulchellus</i>	0-2	1-5	ca. 12-18	ki	(+)
<i>poncensis</i>	0-1	1-2	ca. 16-20	ki	(+)

s = smooth ; k = keeled ; i = imbricate ; j = juxtaposed ; ! = strong ; ( ) = weak.

TABLE 3  
Scale character comparison

	<i>maculiventris</i>	<i>occultus</i>
scales across snout at second canthal	9-16	9-13
scales bordering rostral posteriorly	6-9	5-9
scales between semicircles	2-4	2-4
loreal rows	6-9	2-6
interparietal from semicircles	5-10	2-6
labials to center of eye	6-9	8-13
scales bordering mental between infralabials	5-8	4-6
fourth toe lamellae	15-18	14-18





Williams, Ernest E., Rivero, Juan A., and Thomas, Richard. 1965. "A new anole (Sauria, Iguanidae) from Puerto Rico." *Breviora* 231, 1–18.

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