

THE LARGE AMEIVAS OF THE PUERTO RICO REGION WITH ONE NEW SPECIES

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The *Ameivas* of Puerto Rico and the adjacent islands and keys have a general superficial resemblance. The fact that most species are hatched with definite markings which change greatly with growth, going through several phases or combinations of colors and markings, makes it necessary to have fairly large series to determine specific values. Evidently earlier writers have not had sufficient series or the following interesting facts would have come to their attention.

Beginning on Mona, there is a gray species, *A. alboguttata*, which retains its small dorsal dots through life and has a low number of femoral pores and indistinct or no dorsolateral lines, which if present begin at the neck. Next east lies Puerto Rico, with a brown species, *A. exsul*, which loses its dorsal dots with age, has a higher number of femoral pores and distinct dorsolateral white lines beginning at the eye. This line fades or disappears with age. On Diablo Island, or key, further to the east, there is a black species with bright blue ventral coloration and side marking, *A. birdorum*, which retains its large dorsal dots through life and has a low number of femoral pores like the form on Mona. Its dorsolateral white lines fade or disappear early in life. There are other constant and minor differences which the following tables help to bring out:

Number of pores	Number of femoral pores expressed in per cent								
	11	12	13	14	15	16	17	18	
<i>A. alboguttata</i>	1	10	37	38	14	0	0	0	%
<i>A. birdorum</i>	0	18	21	31	27	1	0	0	%
<i>A. exsul</i>	0	1	5	17	29	28	12	5	%

The above table separates the Mona and Diablo forms into one group of low pore counts, contrasted with the Puerto Rico form, with a high pore count. The same table expressed in numbers of femora bearing a specified number of pores brings out the same fact.

Number of pores	Number of legs having 11 to 19 pores								
	11	12	13	14	15	16	17	18	19
<i>A. alboguttata</i> —legs 117.....	2	12	44	45	14	0	0	0	0
<i>A. birdorum</i> —legs 80.....	0	15	17	25	22	1	0	0	0
<i>A. exsul</i> —legs 310.....	0	3	15	46	88	86	49	21	4

The following table brings out specific color and pattern differences and serves better than a key.

<i>Ameiva</i>	<i>A. alboguttata</i>	<i>A. birdorum</i>	<i>A. exsul</i>
Dorsolateral lines begin at.....	Shoulder.....	Ear.....	eye
Dorsolateral lines sometimes absent in young.....	Yes.....	No.....	No
Dorsolateral lines clearcut in young.....	No.....	Yes.....	Yes
General color of back.....	Gray.....	Black.....	Brown
Dorsal dots persist through life.....	Yes.....	Yes.....	No
Dorsal dots begin at.....	Neck.....	Shoulder.....	Shoulder
Size of dorsal dots.....	Small.....	Large.....	Very small
Median light band present.....	Seldom.....	No.....	Yes
Median light band if present commences at.....	Shoulder.....	No.....	Head
Black bands central to dorsolateral lines present at least in young	No.....	Entire back black	Yes
Black bands lateral to dorsolateral lines usually continuous to middle age.....	Yes.....	Yes.....	No
Black bands lateral to dorsolateral lines break in to widely separated rhombs in adults.....	No.....	No.....	Yes
Lateral dots tend to form vertical stripes.....	No.....	Yes.....	Yes
White line axilla to groin occasional.....	Yes.....	No.....	Yes
Color of underside.....	White or light blue	Dark blue...	White or light blue
Color of chin of large specimens.....	Red.....	Purple.....	Lavendar
Usual number of anal plates.....	5.....	3.....	3
Average number of femoral pores.....	13.2.....	13.8.....	15.3

Stejneger (1904) gives an excellent description of *A. exsul* and *A. alboguttata*. His pore counts tabulated are as follows, according to percentages:

Pores	12	13	14	15	16	17	18
<i>A. alboguttata</i> , 16 sp.....	81			19	0	0	0
<i>A. exsul</i> , 67 sp.....	5	1	12	37	27	12	6

This is interesting as it gives practically an identical distribution found in my larger series. He states, "The main differences (between *A. exsul* and *A. alboguttata*) seems to be one of coloration". He gives a minute color description but his series from Mona was not sufficient for him to detect specific differences in markings. He points out that *A. alboguttata* has five anal plates but his material was not sufficient for him to speak with finality.

Schmidt (1928) states: "*A. alboguttata* is extremely close to *A. exsul*, but may be distinguished by the more spotted dorsum. The femoral pores in 40 specimens average 13.2, in 40 *A. exsul*, the average is 15.3. . . ."

His figure, "35 *A. alboguttata* A.M.N.H. 14003", is misleading. In fact, it could be identified as a specimen of *A. exsul*. In my 60 specimens of *A. alboguttata*, not one has the dorsolateral line beginning on the superciliary ridge or has these lines clear-cut. Not one has a median light stripe showing on the neck, and extremely few have any indication of a light stripe, even on the back. Not one has the same color below as above the dorsolateral line. All have black below it. These features in his illustration are all specifically absent in *A. alboguttata* and specifically present in other species, except the absence of the black line below the dorsolateral white line, which is present in all of my total series of 341 specimens of this group of the genus taken from some of the Virgin Islands and keys as well as the Puerto Rico region.

Consolidating the averages of the pore counts, we have:

	<i>A. alboguttata</i>		<i>A. exsul</i>		<i>A. birdorum</i>	
Stejneger.....	16 sp.	13.3	67 sp.	15.4
Schmidt.....	40 sp.	13.2	40 sp.	15.3
Grant.....	60 sp.	13.3	157 sp.	15.3	43 sp.	13.8
Total.....	116 sp.	13.2	264 sp.	15.3	43 sp.	13.8

Barbour, in *Zoologica*, 1930, Vol. XI No. 4, p. 102, gives the distribution of *A. exsul* as follows: "St. Thomas, Water Island, St. John, Vieques, Anguilla, St. Croix, and Puerto Rico. Now exterminated on St. Thomas. I have always doubted the St. Croix record." To this list may be added: all islets around Puerto Rico and Culebra. It is very scarce on Vieques. In the Virgin Islands: Numerous on St. Thomas; strangely not seen on Buck Island of St. Thomas, or on St. Croix or Buck Island of St. Croix; on St. John taken only at Crum Bay; taken on St. James and Little St. James, but not seen on Dog Island, or Congo Key. Taken on Lovango key. West records it on St. Croix in 1793.

Ameiva birdorum, sp. nov.

Type:—From Diablo key off Fajardo, Puerto Rico, collected by Chapman Grant, January 21, 1932. Chapman Grant collection, No. 4073, adult.

Range:—Known only from type locality. Diablo key is only about ten acres in extent.

Diagnosis:—Distinguished from other *Ameivas* of the Puerto Rico region by its black back, blue undersides and low femoral pore count, averaging 13.8.

Description of Type:—Squamation similar to *A. alboguttata*, almost black above, save neck and shoulders, which are deep olive brown; spotted coarsely from behind shoulders nearly to end of tail with yellowish spots covering about 20 granules. Forelegs black, hind legs black, spotted with yellow and blue. No trace of dorsolateral lines. Sides jet black sparsely spotted with coarse blue dots, spaced in vertical rows as continuation of about every third row of abdominal scales. Underside: Chin purple, creases of neck flesh color; chest and 4 central rows of abdominal scales clear blue, thence laterally alternating black and blue. Vent and stripe on ventral side of fore and hind legs flesh color. Tail like belly but deep blue. Soles of feet dark.

Variations:—A recently regenerated tail is striped longitudinally. The young bear the dorsolateral white lines, which disappear early. A specimen of 60 mm. snout to vent has a remnant of stripes from vicinity of ears to sacrum. At 80 mm. the stripe is practically invisible. The coloration and markings are very constant as in *A. alboguttata*.

Measurement of type in mm.

Total length	305
Snout to vent	90
Snout to center of ear	24
Width of head at ears	12
Fore leg from axilla	34
Hind leg from groin	65
Tail	215

Remarks: The species is numerous. No specimens larger than the type were seen.

Specimens taken: 43.

Named in honor of the family of Bird of Fajardo. Their courtesy and hospitality have done much toward developing the scientific knowledge of northeastern Puerto Rico and the Cordillera keys.