86

STUDIES ON THE FAUNA OF CURAÇAO AND OTHER CARIBBEAN ISLANDS: No. 189

THE HERPETOGEOGRAPHY OF HISPANIOLA, WEST INDIES

by

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ABSTRACT

The modern West Indian island of Hispaniola is in actuality a fusion of two formerly separate islands, each of which presumably supported a distinctive herpetofauna. With the union of these two paleoislands, there has been extensive to small interchange of these faunas; the purpose of the present paper is to analyze the degrees of similarity and difference between the two primal herpetofaunas. A brief sketch of the geography of Hispaniola is given. This is in turn followed by discussions of the 179 native species of amphibians and reptiles of Hispaniola, cataloguing them into six categories: 1) islandwide species; 2) north island species; 3) south island species; 4) north island species that have invaded the south island; 5) south island species that have invaded the north island; 6) species whose original distributions are uncertain. Comparisons are made, as far as success is concerned, between the invaders of the two islands, as well as between the basic faunas of these islands. The south island has by far the greater number of species (116) than the north island (85), despite the fact that the south island comprises about one-eight of the total area of Hispaniola. The herpetofauna of the major Hispaniolan satellitle island, Ile de la Gonâve, is also analyzed. Its herpetofauna is shown to have had a double origin (from both north and south islands), but the total number of species derived from these two independent sources is less than the number of Gonâve species that are islandwide on the Hispaniolan main island.

INTRODUCTION

The west Indian island of Hispaniola, alone among its other Greater Antillean relatives, has had a peculiar history. The present configuration of Hispaniola is derived from a fusion of two palaeoislands along a former marine strait that is now the Cul de Sac – Valle de Neiba plain; the former portion of this plain lies in Haiti and the latter in the República Dominicana. Although relatively little is known about the detailed geology of Hispaniola, no other island than Hispaniola presents such a unique setting of two large independent islands, separated by a strait, that, with falling Pleistocene sea levels, have become one. There is no implication in the foregoing statement that there was but a single act of fusion between the two former islands; rather, it seems very likely that at various times, correlated with rising and falling sea levels, the two islands were partially to completely joined and sundered several times during the Pleistocene (and perhaps as early as the Eocene; KHUDOLEY & MEYERHOFF, 1971: 139–140). These two paleoislands have come to be called, in the herpetological literature, the north (north of the Cul de Sac – Valle de Neiba plain) and south (south of that plain) islands. That the Cul de Sac – Valle de Neiba plain was indeed a relatively narrow (*ca.* 25 km) strait is easily seen today by the fact that, especially in its central portions (in the vicinity of Duvergé and Jimaní in the República Dominicana) roadcuts pass through as much as 2.5 m of semifossilized broken corals, more or less loosely compacted into a "stratum." At least two of the four lakes that still remain in that plain are highly saline (Etang Saumâtre in Haiti; Lago Enriquillo in the República Dominicana). The salinity of Lago Enriquillo fluctuates between 48% and 90% ppm with the amount of local rainfall which in turn effects the volume of the lake. Likewise, its depth below sea level varies; in 1950 it was 44 m below sea level, and in 1972 it was 41.9 m (BONNELLY DE CALVENTI, 1978).

The Cul de Sac – Valle de Neiba plain is bordered on the north and south by high mountains and thus lies in their rainshadows. On the north are the Montagnes du Trou-d'Eau in Haiti and the Sierra de Neiba in the República Dominicana; in the south are the Haitian Massif de la Selle and its northern front ranges (Morne l'Hôpital, Montange Noire, Morne des Enfants Perdus) and the Dominican Sierra de Baoruco. To the north, the

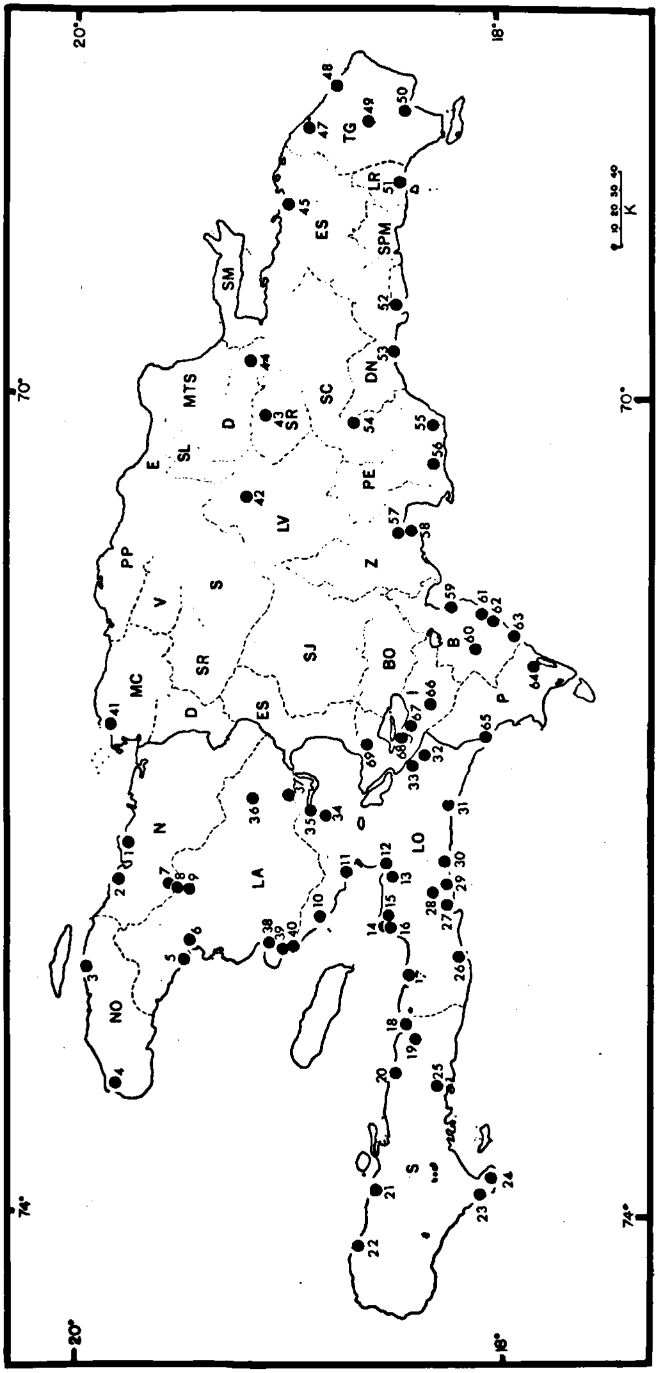
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FIG. 30 Map of HISPANIOLA showing *départements* in Haiti, provinces in the República Dominicana, and population centers referred to in text, as follows.

Haitian départements: NO = Nord Ouest; N = Nord; LA = l'Artibonite; LO = l'Ouest; S = Sud.

Dominican provinces: MC = Monte Cristi; V = Valverde; PP = Puerto Plata; E = Espaillat; SL = Salcedo ; D = Duarte; MTS = María Trinidad Sánchez; SM = Samaná; ES = El Seibo; TG = La Altagracia; LR = La Romana; SPM = San Pedro de Macorís; DN = Distrito Nacional; SC = San Cristóbal; SR = Sánchez Ramírez; LV = La Vega; PE = Peravia; Z = Azua; SJ = San Juan; D = Dajabón; ES = La Estrelleta; SR = Santiago Rodríguez; S = Santiago; BO = Baoruco; I = Independencia; B = Barahona; P = Pedernales.

Cities in Haiti: 1 = Cap-Haïtien, 2 = Anse à Margot; 3 = Port-de-Paix; 4 = Môle St. Nicholas; 5 = Lapierre; 6 = Gonaïves; 7 = Plaisance; 8 = Carrefour Marmelade: 9 = Ennery; 10 = Trou Forban; 11 = Source Matelas; 12 = Port-au-Prince; 13 = Diquini; 14 = Ça Ira; 15 = Momance; 16 = Léogâne; 17 = Petit-Goâve; 18 = Miragoâne; 19 = Paillant; 20 = Anse à Veau; 21 = Corail; 22 = Jérémie; 23 = Port Salut; 24 = St. Jean du Sud; 25 = Aquin; 26 = Bainet; 27 = Jacmel; 28 = Marbial; 29 = Cayes Jacmel; 30 = Marigot; 31 = Belle Anse; 32 = Savane Zombi; 33 = Soliette; 34 = Mirebalais; 35 = Barrage de Peligre; 36 = Hinche; 37 = Thomonde; 38 = St. Marc; 39 = Pierre Payen; 40 = Montrouis.

Cities in the República Dominicana: 41 = Monte Cristi; 42 = La Vega; 43 = Cotuí; 44 = Villa Riva; 45 = Miches; 47 = La Vacama; 48 = El Macao; 49 = Higüey; 50 = Boca de Yuma; 51 = La Romana; 52 = Boca Chica; 53 = Santo Domingo; 54 = Villa Altagracia; 55 = Nizao; 56 = Baní; 57 = Azua; 58 = Monte Río; 59 = Barahona; 60 = Polo; 61 = La Ciénaga; 62 = Paraíso: 63 = Enriquillo; 64 = Oviedo; 65 = Pedernales; 66 = Puerto Escondido; 67 = La Florida; 68 = Baños la Surza; 69 = Los Pinos.

highest peak in these mountains is Monte Neiba with an elevation of 2260 m, and in the south lies Pic la Selle with an elevation of 2574 m, one of the highest mountains in the entire Antilles. Although the uplands of all mountains associated with the low-lying intervening plain are clad in deciduous or pine forest (or at least were, prior to some extensive deforestation, especially in Haiti), the southern slopes of the northern ranges and the northern slopes of the southern ranges are xeric. This is most especially true of the Haitian front ranges but is equally true in the better forested northern slopes of the Sierra de Baoruco.

MERTENS (1939: 11–13) first suggested that the history of Hispaniola was reflected in species-pairs of reptiles (he cited no amphibian examples), one on the north island, and the other on the south. COCHRAN (1941) did not mention this concept, but she is not to be faulted for the omission; aside from the closeness of the dates of MERTENS's and her works, relatively little was known in the 1940's to make such comparisons more than casually, as MERTENS had done. Specimens of many taxa were simply too few and locality records too scattered to make generalizations.

The concept of north and south island herpetofaunas was brought to the fore by WILLIAMS (1961) in his discussion of members of the *Anolis semilineatus* group. From that time onward, many authors have referred to this primal divison of the Hispaniolan herpetofauna, usually with great success. Obviously, a time has come when MERTENS's original concepts can be expanded and expatiated upon more thoroughly. It is the purpose of the present paper to comment in detail on this division. That it exists is unquestioned, but to what degree?

GEOGRAPHY

Before proceeding, a thumbnail sketch of the north and south islands is mandatory; the reader is referred to maps of Hispaniola for details, since I do not intend herein to comment in great detail on the geography of Hispaniola. Some pertinent detailed comments are to be found in SCHWARTZ (1973).

The south island is both the smaller (areal extent about 9550 km^2) and the less complex of the two paleoislands. Basically, it is a west-to-east series of three major mountain ranges: the Massif de la Hotte, the Massif de la Selle, and the Sierra de Baoruco (see SCHWARTZ & THOMAS, 1975: 209, and Fig. 31 herein for major topographic features). The first is entirely in Haiti and extends as far east as about a line between Petit-Goâve and Bainet; the major peak in this range is Pic Macaya with an elevation of 2347 m and lies near the western extreme of

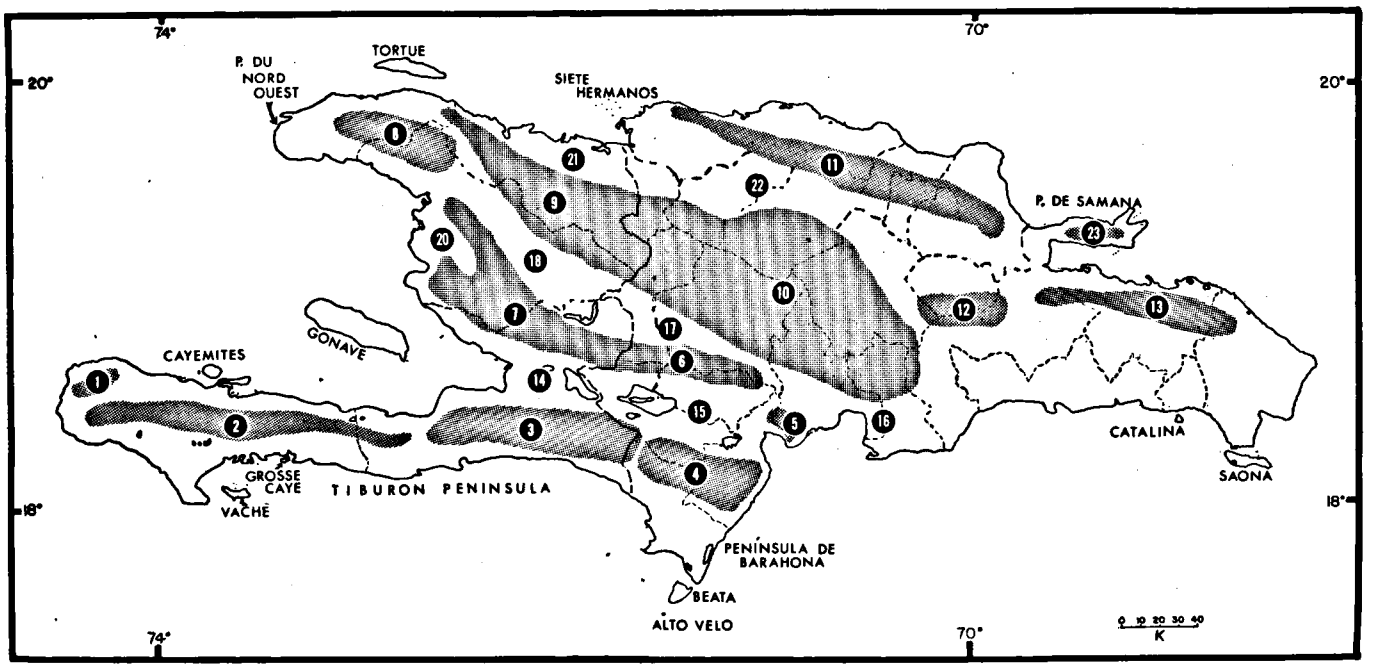

FIG. 31. Geographic and physiographic features of HISPANIOLA. Shaded areas indicate mountain ranges.

1 = Monts Cartaches; 2 = Massif de la Hotte; 3 = Massif de la Selle; 4 = Sierra de Baoruco; 5 = Sierra Martín García; 6 = Sierra de Neiba; 7 = Montagnes du Trou-d'Eau and Montagnes Noires; 8 = Montagnes du Nord Ouest; 9 = Massif du Nord; 10 = Cordillera Central; 11 = Cordillera Septentrional; 12 = Sierra de Yamasá; 13 = Cordillera Oriental; 14 = Cul de Sac Plain; 15 = Valle de Neiba; 16 = Llanos de Azua; 17 = Valle de San Juan; 18 = Plateau Central; 20 = Vallée de l'Artibonite; 21 = Plaine du Nord; 22 = Valle de Cibao; 23 = Sierra de Samaná. Satellite islands and major peninsulas, mentioned in text, are also shown.

the range. The Sierra de Baoruco lies entirely in the República Dominicana; its highest peak has an elevation of 1601 m. Between these ranges is the predominantly Haitian Massif de la Selle (with its high peak, Pic la Selle, in Haiti); but this range crosses the Dominico-Haitian border between Pedernales in the south and La Florida in the north. In this Dominican portion of the La Selle lies the Loma El Aguacate with an elevation of 2100 m. From the longitude of Port-au-Prince westward, the Massif de la Hotte and the Massif de la Selle form an attenuate peninsula (the Tiburon Peninsula) for a distance of some 300 km and a width varying from 30 km (between Anse-à-Veau and Aquin) to 68 km (between Corail and St. Jean du Sud). At the northwestern tip of the Tiburon Peninsula is a small and independent range, the Monts Cartaches. South of the Sierra de Baoruco in the República Dominicana lies the Península de Barahona, extending some 85 km to the south. This peninsula is xeric and has a more or less north-south oriented limestone ridge with a maximum elevation of 1082 m at Loma Gran Sabana. This range is forested with xeric woods, and effectively divides the Península into a western very xeric portion and an eastern somewhat less xeric region.

Finally, there are a number of islands associated with the south island. Off the Tiburon Peninsula lies Ile-à-Vache to the south, and Ile Grande Cayemite and Ile Petite Cayemite to the north. There are other smaller islets (such as Grosse Caye south of Aquin) whose faunas are little known. Off the southern tip of the Península de Barahona lies Isla Beata and to its south is Isla Alto Velo.

The north island (areal extent about 67700 km^2) comprises much more (about seven-eights) of Hispaniola than the south island; it is also more complex structurally. Lying near its geographic center is the high Cordillera Central in the República Dominicana; its culminating peak is Pico Duarte with an elevation of 3087 m, the highest mountain in the West Indies. The range extends into northern Haiti as the Massif du Nord and its affiliates as far as Port-de-Paix on the northern Haitian coast. South of the Cordillera Central in Haiti lies the Plateau Central, and this plateau continues into the República Dominicana as the Valle de San Juan. On the south it is bordered in Haiti by the Montagnes Noires (highest peak, Morne-au-Diable, 1550 m) and the northern range of the Sierra de Neiba in the República Dominicana. An isolated range, the Montagnes du Nord Ouest, occurs on the northwestern Presqu'île du Nord Ouest; its highest peak is Pic Goreille with an elevation of 1030 m.

The region between the Montagnes Noires-Sierra de Neiba in the north and the Montagnes du Trou-d'Eau in the south gradually narrows as it approaches and crosses the Dominico-Haitian border, to form the Dominican Sierra de Neiba. The Haitian section of this range is a jumble of ridges and valleys, within which the city of Mirebalais with its valley is prominent. Two important flatland areas are pertinent: north of the Massif du Nord lies the Plaine du Nord (of which Haiti's second largest city, Cap-Haïtien, is the population center) and to the south of the Massif du Nord and north of the Montagnes Noires lies the broad (about 30 km) Vallée de l'Artibonite. The Plaine du Nord is more or less mesic in the west but becomes increasingly xeric as it reaches the Dominico-Haitian border, and it continues in the República Dominicana as the xeric eastern portion of the Valle de Cibao. The Vallée de l'Artibonite is the valley of the Rivière de l'Artibonite; near the coast it is now irrigated and used for the growing of rice, whereas inland it becomes xeric. The Rivière de l'Artibonite has its headwaters on Pico Duarte in the Cordillera Central, and in fact its deeply entrenched valley determines a portion of the boundary between the two countries.

The Domini can portion of the north island is less complex than the Haitian. In addition to the Cordillera Central, there are less extensive ranges. The Cordillera Septentrional extends from west (near Monte Cristi) to east (near Villa Riva and Arenoso); its highest peak is Pico Diego de Ocampo with an elevation of 1250 m. The Cordillera Oriente is a montane isolate

that lies to the south of the Bahía de Samaná; its western portion blends into the karst *haitises* region (at times considered separately as the Sierra de El Seibo) and its major elevation is Loma de Naviza with an elevation of 681 m, near Cotuí. On the northeastern Península de Samaná, the Sierra de Samaná forms a central spine with a maximum elevation of 606 m at Monte Mesa. The Sierra de Yamasá is an eastward extension of the Cordillera Central which blends with the Cordillera Oriental; the highest peak is Picos Siete Cabezas with an elevation of 853 m. A southern spur of the Cordillera Central extends to the southern coast between Azua and Baní; this is the Sierra de Ocoa and its culminating peak is Loma de los Pinos at 1738 m. Perhaps the most intriguing (and inaccessible) of the Dominican ranges is the Sierra Martín García, in actuality a mesic isolate of the Sierra de Neiba on the north shore of the Bahía de Neiba; this range is in effect a mesic island in a sea of desert. Its highest peak is Monte Busú with an elevation of 1266 m.

Between these ranges are valleys (such as the Valle de San Juan), or there are plains or coastal areas around their peripheries. A gradually broadening coastal plain extends along the north coast, north of the Cordillera Septentrional, from Monte Cristi to Nagua. The Valle de Cibao lies between the Cordillera Septentrional and the Cordillera Central and the Sierra de Yamasá and the western portion of the Cordillera Oriental. The Valle de Cibao is extremely arid in the west (where it is a continuation of the Haitian Plaine du Nord), but becomes gradually more mesic to the east so that its easternmost area is the most mesic area of the República Dominicana. In the south, the Llanos de Azua extend from the Valle de Neiba east as far as the vicinity of Baní; these plains are arid. Most of the extreme eastern República Dominicana (from a line drawn between the head of the Bahía de Samaná in the north to Santo Domingo in the south) is relatively flat to hilly with the exception of the modestly high Cordillera Oriental. This eastern region is the Llano Oriental.

The north island has its share of satellite islands. Off the northern Haitian coast lies Ile de la Tortue. A group of small islets off the Dominico-Haitian border are the Cayos Siete Hermanos. The southwestern tip of Hispaniola has Isla Saona, and much smaller Isla Catalinita, whereas Isla Catalina lies off La Romana. There are many other small islets and cays.

I have not mentioned the major Hispaniolan satellite island, which lies in the Golfe de la Gonâve in Haiti. This is Ile de la Gonâve, with an areal extent of 658 km^2 and a maximum elevation of 778 m at its southeastern portion. Although Gonâve lies slightly closer (23 km) to the north island than to the south (28 km), its ancient physical connections were via a now submerged bank to the southeast. This bank extends to the Hispaniolan mainland as far as Léogâne on the south island and Pointe Paturon between Arcahaie and Montrouis on the north island; its maximum depth is now 50 fathoms, within the Baie de Port-au-Prince. Its herpetofauna deserves special discussion, since it has received immigrants from both the north and south islands.

THE HERPETOFAUNA

The Hispaniolan herpetofauna is composed of 179 known native species, of which 54 are amphibians (all frogs) and 125 are reptiles. For the sake of discussion, these are divided into five sections:
1) those species that are "islandwide" in distribution (= occur widely on both the north and south islands). It should not be necessary to mention that such "islandwide" species do not occur *everywhere;* they may be absent from xeric regions (if they are mesophiles) or may be absent from high elevations (if they are lowland forms), etc. In addition, there are at times relatively large hiatuses in their distributions; whether these are real or artifacts of collecting is presently often unknown;
2) those species that are limited to the north island only;
3) those species that are limited to the south island only;
4) those species that are predominantly north island but have invaded the south island more to less extensively;
5) those species that are predominantly south island but have invaded the north island more to less extensively;
6) those species whose north or south island affinites are unknown.

The lists are alphebetical within classes (Amphibia, Reptilia) without regard for familial relationships. Brief notes are made concerning distributions and degree of invasions. For many details of distribution, the reader is referred to SCHWARTZ & THOMAS (1975) and for an overall picture of Antillean herpetogeography, see SCHWARTZ (1978).

I. ISLANDWIDE SPECIES

1) *Eleutherodactylus abbotti* Cochran. Abundant throughout both islands to maximum elevations of 1830 m in the Cordillera Central; apparently absent in certain xeric areas (Península de Barahona) or even some mesic regions (Llano Oriental).

2) *Eleutherodactylus inoptatus* Barbour. Widespread primarily in forested areas to a maximum elevation of 1708 m (Massif de la Selle front ranges); also on Ile de la Tortue.

3) *Eleutherodactylus ruthae* Noble. Widespread on both islands but

with broad hiatuses between populations. Since these frogs call from underground chambers and require friable and loose soils in mesic situations (see SCHWARTZ, 1965), it is likely that they are truly absent from many areas; maximum elevation 885 m (Massif de la Selle northern front ranges).

4) *Hyla heilprini* Noble. A mountain-brook frog, calling from specialized situations (large rocks and boulders over which rapidly flowing water sheets); maximum elevation 1708 m (Massif de la Selle northern front ranges) but usually encountered between 610 m and 1068 m; not known from the Sierra de Baoruco.

5) *Hyla pulchrilineata* Cope. Primarily a lowland frog (maximum elevation to 640 m) calling from standing water (rice fields, roadside ditches, small temporary ponds, flooded margins of rivers).

6) *Hyla vasta* Cope. A creek- to stream-associated frog. Although widespread, there are large hiatuses whence the species is apparently absent; maximum elevation 1708 m (Massif de la Selle northern front ranges) but more commonly encountered between 305 m and 1068 m.

7) *Osteopilus dominicensis* Tschudi. Widespread and abundant, occurring even in xeric areas and to an elevation of 1525 m (Massif de la Selle northern front ranges); on Gonâve, Tortue, Saona, Ile-à-Vache, Grande Cayemite; breeding sites are rain-associated (pools, ditches, flooded fields, flooded rivers).

8) *Crysemys decussata* Cope. Widespread in lowland rivers, ponds, and lakes.

9) *Ameiva taeniura* Cope. A generally mesophilic lizard, preferring shaded situations; maximum elevation 1708 m (Massif de la Selle northern front ranges) but generally much more common in the lowlands; also Petite and Grande Cayemite, Grosse Caye, Ile-à-Vache, Gonâve, Saona, and Catalina. This is the dominant and virtually omnipresent south island *Ameiva*; its north island range, although extensive, is fragmented. It is also very possible that there are two species involved (one orange-throated, the other black-throated), but these two styles of throat color will not absolutely segregate north and south island species since the orange-throated lizards occur on the entire south island and east along the southern coast of the north island as far as Boca Chica. Black-throated lizards are exclusively north island.

10) *Anolis cybotes* Cope. A common, widespread, and rather ecologi-

cally tolerant species, although more mesophilic than xerophilic. Depending upon what taxa one includes as subspecies of *A. cybotes*, the maximum elevation is about 1525 m in the Massif de la Selle and to about the same elevation in the Cordillera Central; also Gonâve, Ile-à-Vache, Tortue, Catalina, Saona, Grande Cayemite, and the Siete Hermanos.

11) *Anolis distichus* Cope. A common, widespread, mesophilic lizard-of forested regions. Abundant in both lowland and highland areas, reaching a maximum elevation of about 1830 m (southeast of Constanza in the Cordillera Central).

12) *Anolis ricordi* Duméril & Bibron. One of three species of giant anoles; a forest- (or at least tree-) dwelling species. Virtually limited to Haiti but extending into the República Dominicana in the Sierra de Neiba and along the southern slopes of the Cordillera Central; maximum elevation 1220 m (Massif de la Selle; Sierra de Neiba).

13) *Anolis semilineatus* Cope. An elongate "grass anole" that is widespread in grassy or shrubby areas, and often encountered in the shaded understory of deciduous or pine forest; maximum elevation 1525 m (Cordillera Central).

14) *Aristelliger cochranae* Grant. A xerophilic gecko, limited to lowland arid regions. Associated with trees with loose bark or human debris on the ground. The distribution appears to be discontinuous, but the species is widespread; also on Gonâve, Tortue, Grande Cayemite, Alto Velo.

15) *Aristelliger lar* Cope. A very large gecko, primarily of the lowlands where it is associated with cliffs, rocky jumbles, and similar creviced situations, such as *Ficus* trees. The distribution appears to be very discontinuous and the populations isolated from each other.

16) *Cyclura cornuta* Bonnaterre. A xerophilic iguana, common in the Cul de Sac–Valle de Neiba plain, on the Península de Barahona, and on many off-shore islands (Beata, Petite Gonâve, Tortue, Grande Cayemite, Saona); there is one record from Mirebalais in more mesic surroundings.

17) *Celestus costatus* Cope. Widespread and common but shunning xeric regions; this species comes very close to being truly islandwide in distribution and occurs on some of the satellite islands as well (Tortue, Ile-à-Vache, Saona); maximum elevation 2320 m (Dominican portion of Massif de la Selle).

18) *Celestus stenurus* Cope. Widespread and common, but more

tolerant of xeric situations than *C. costatus*. *C. stenurus* is larger than *C. costatus*, and the two species are broadly sympatric and often syntopic; maximum elevation 1160 m (Massif de la Hotte), and occurring to almost equivalent elevations in the Sierra de Neiba and the Cordillera Central.

19) *Gonatodes albogularis* Duméril & Bibron. Widespread on the south island and occurring in the Cul de Sac Plain and along the northern shore of the Golfe de la Gonâve as far north as Gonaïves on the north island: also Ile de la Gonâve; distribution primarily coastal and habitat edificarian; there are no records for the República Dominicana nor for the eastern half of Haiti.

20) *Hemidactylus brooki* Gray. Widespread in both Haiti and the República Dominicana; usually an edificarian lizard.

21) *Leiocephalus vinculum* Cochran. Local on the Plateau Central and the mountains to the south on the north island, and on Isla Alto Velo off the south island, as well as Ile de la Gonâve; primarily a lizard of the xeric to semixeric lowlands, generally more a shade-dweller than other species of *Leiocephalus*.

22) *Sauresia sepsoides* Gray. Locally abundant in mesic shaded forests but often absent from what appears to be suitable habitat and occurring at times in relatively arid situations; on Gonâve and Grande Cayemite; maximum elevation 793 m in the Cordillera Septentrional.

23) *Sphaerodactylus elegans* MacLeay. Widespread in both north and south Haiti, often edificarian; Gonâve and Grande Cayemite; absent from most of the República Dominicana with the exception of the village of Los Pinos in the Sierra de Neiba near the Dominico-Haitian border.

24) *Alsophis anomalus* Peters. Rare, but occurring on Ile de la Tortue and Isla Beata.

25) *Alsophis melanichnus* Cope. Rare; known from Jérémie on the south island and La Vega on the north island.

26) *Antillophis parvifrons* Cope. Widespread and common, reaching a maximum elevation of at least 1708 m (Massif de la Selle northern front ranges) and occurring on many satellite islands (Tortue, Saona, Gonâve, Ile-à-Vache, Grande Cayemite, Grosse Caye).

27) *Epicrates gracilis* Fischer. Widespread on both islands but not common; a snake of mesic forests, both lowland and upland; there are many hiatuses in the distribution which may be either real or sample artifacts.

28) *Epicrates striatus* Fischer. Widespread and common, especially in mesic forests, although also present in xeric "woods" (Valle de Neiba); maximum elevation about 458 m (Massif de la Selle northern front ranges) and occurring on several satellite islands (Tortue, Saona, Gonâve).

29) *Hypsirhynchus ferox* Günther. Widespread and primarily a snake of xeric situations although on the Tiburon Peninsula found in mesic areas; basically a lowland snake; occurs on Gonâve and Saona.

30) *Ialtris agyrtes* Schwartz & Rossman. Known only from the southern front ranges of the Sierra de Baoruco on the Península de Barahona and the base of the Sierra Martín García on the north island; apparently a rare (cryptic or fossorial?) inhabitant of xeric regions.

31) *Ialtris dorsalis* Günther. Relatively rare and local but widespread in mesic lowland forests; also Ile-à-Vache, Gonâve, Tortue.

32) *Ialtris parishi* Cochran. Known only from the type-locality on the south island Tiburon Peninsula and from Ile de la Tortue off the northern coast of the north island, where it is not uncommon. Unknown from most of Haiti and all of the República Dominicana.

33) *Leptotyphlops pyrites* Thomas. A xeric area fossorial and cryptic snake, known only from the Península de Barahona and Sierra Martín García.

34) *Tropidophis haetianus* Cope. Widespread in both mesic (preferably) and xeric situations throughout the island; wooded situations preferred but not essential; occurs on Tortue and Gonâve; primarily a snake of low to moderate elevations.

35) *Uromacer catesbyi* Schlegel. Widespread and common, preferring wooded situations; in deserts, apparently confined to oases of other densely shaded enclaves and not commonly encountered in *Acacia* or cactus forests; occurs on several satellite islands (Ile-à-Vache, Grande and Petite Cayemite, Gonâve, Tortue, Saona, Catalina).

36) *Crocodylus acutus* Cuvier. Widespread in large rivers (Río Yaque del Norte, Río Yaque del Sur, Rivière de l'Artibonite), lakes in the Cul de Sac–Valle de Neiba plain, and in marine coastal areas.

II. North Island Species

1) *Bufo fluviaticus* Schwartz. Apparently restricted to river valleys on the south side of the Valle de Cibao in northern República Dominicana; calling sites are running shallow water over rocky riffles.

2) *Eleutherodactylus auriculatoides* Noble. Known only from the Dominican Cordillera Central between elevations of 793 m and 1891 m; calling sites usually in forest canopy or at least from above ground surface.

3) *Eleutherodactylus flavescens* Noble. Eastern República Dominicana, where common in lowland mesic forests; maximum elevation 915 m (eastern slopes of Cordillera Central); calling sites arboreal or at least above the ground surface.

4) *Eleutherodactylus grahami* Schwartz. Known only from the xeric region at the southeastern base of the Presqu'île du Nord Ouest, near Gonaïves; a lowland xeric area frog.

5) *Eleutherodactylus haitianus* Barbour. The uplands of the Cordillera Central, between 1556 and 2470 m, in both pines and deciduous forest; a ground dwelling species, calling from low herbs.

6) *Eleutherodactylus minutus* Noble. Moderate elevations in the Cordillera Central between 580 m and 1860 m; inhabitant of deciduous forest, calling from herbs and shrubs.

7) *Eleutherodactylus montanus* Schmidt. The uplands of the Cordillera Central between elevations of 1373 m and 2440 m; inhabits deciduous forest and lower scrubby growth at higher elevations

8) *Eleutherodactylus parabates* Schwartz. High elevations (1464 m to 1815 m) in the Sierra de Neiba; unknown from but expected in the forested Montagnes du Trou-d'Eau in adjacent Haiti; a terrestrial frog of mesic deciduous forest.

9) *Eleutherodactylus patriciae* Schwartz. High elevations (2135 m to 2500 m) in the Cordillera Central; inhabits pine forest and scrubby growth, calling from the latter; diurnal retreats under ground cover and debris.

10) *Eleutherodactylus pituinus* Schwartz. Moderate elevations (1220 m to 1647 m) in pine forest in the Cordillera Central.

11) *Eleutherodactylus poolei* Cochran. Known only from one locality in the Haitian Massif du Nord.

12) *Eleutherodactylus probolaeus* Schwartz. Extreme eastern Hispaniola in semixeric forest on limestone base in the vicinity of Boca de Yuma; calling sites on shrubs and dead shubbery above the ground.

13) *Eleutherodactylus schmidti* Noble. In the Cordillera Central and the Massif du Nord, as well as the Cordillera Septentrional; an aquatic frog, associated with running water (creeks to rivers), calling from the muddy banks of such streams; maximum elevation 1769 m in the Cordillera Central, but not uncommon on the northern face and associated hills of the Massif du Nord.

14) *Eleutherodactylus warreni* Schwartz. Known only from Ile de la Tortue.

15) *Eleutherodactylus weinlandi* Barbour. Widespread in both lowlands and highlands in the República Dominicana, and extending into Haiti in the Montagnes du Trou-d'Eau and along the northern Haitian coast as far as Anse à Margot; elevation maximum 793 m (Cordillera Septentrional); a terrestrial frog of usually mesic wooded situations.

16) *Leptodactylus dominicensis* Cochran. Known only from a limited area on the southern shore of the Bahía de Samaná in northeastern República Dominicana; inhabits wet and muddy areas and calls from the bases of grassy tussocks.

17) *Anolis baleatus* Cope. A giant anole inhabiting deciduous forest canopy; distribution wholly within the República Dominicana; maximum elevation 1159 m; also on Isla Saona.

18) *Anolis christophei* Williams. In the Cordillera Central and the Cordillera Septentrional in the República Dominicana, and the Massif du Nord in Haiti; an inhabitant of mesic deciduous forest or their remnants; elevational range from 366 m to 1296 m.

19) *Anolis etheridgei* Williams. Forested upland of the Cordillera Central, from 549 m to 1860 m, descending to the lower elevation in gallery forest on the periphery of the range.

20) *Anolis eugenegrahami* Schwartz. An aquatic species known only from the region near Plaisance in the Massif du Nord; common in and about boulder-strewn streams.

21) *Anolis fowleri* Schwartz. High elevations in the Cordillera Central between 1595 m and 1769 m; a dense deciduous forest canopy lizard.

22) *Anolis insolitus* Williams & Rand. Deciduous forests of the Cordillera Central, between elevations of 1068 m and 1769 m; relatively common.

23) *Anolis marcanoi* Williams. The southern slopes of the Cordillera Central, and, more especially, the Sierra de Ocoa, in rather xeric forests; locally abundant and sympatric with the closely related *A. cybotes*.

24) *Anolis rimarum* Thomas & Schwartz. Known only from boulder jumbles in the Massif du Nord, where common; a lizard of a very specialized habitat.

25) *Anolis shrevei* Cochran. The *A. cybotes* cognate in the high pine-clad portions of the Cordillera Central, where abundant; most often encountered during the day beneath ground litter and rarely seen exposed; elevation from 1556 m to 2500 m.

26) *Anolis* sp. A xeric area lizard of the northwestern Haitian Presqu'île du Nord Ouest and associated deserts south to Montrouis along the Golfe de la Gonâve; occurring inland in the xeric western portion of the valley between Gonaïves and Ennery (Marché aux Poteaux) and into the Vallée de l'Artibonite.

27) *Anolis whitemani* Williams. An *A. cybotes* relative whose distribution centers in the xeric Cul de Sac–Valle de Neiba plain, extending east into the Llanos de Azua, and occurring also in the vicinity of Gonaïves and Môle St. Nicholas in northwestern Haiti, and near Monte Cristi in northwestern República Dominicana.

28) *Celestus darlingtoni* Cochran. The uplands of the Cordillera Central between 1600 m and 2500 m; an inhabitant of pinewoods.

29) *Celestus marcanoi* Schwartz & Incháustegui. Another species from the uplands of the Cordillera Central, but from deciduous forest; elevations from 1500 m to 1800 m.

30) *Diploglossus anelpistus* Schwartz, Graham & Duval. Known only from the type-locality near Villa Altagracia, República Dominicana; an inhabitant of mesic forest.

31) *Diploglossus warreni* Schwartz. Northern Haiti, as far inland as Gonaïves; primarily a denizen of very mesic deciduous forest where abundant; also on Ile de la Tortue.

32) *Leiocephalus lunatus* Cochran. Southern coastal República Dominicana, from the Río Haina to Boca de Yuma; also on Isla Catalina and Isla Saona.

33) *Leiocephalus pratensis* Cochran. A xeric area lizard, occurring on the Haitian Plateau Central and between Ennery and Gonaïves, as well as on Ile à Cabrit in the Golfe de la Gonâve near Duvalierville.

34) *Leiocephalus rhutidira* Schwartz. Related to *L. vinculum;* known only from the southeastern base of the Haitian Presqu'île du Nord Ouest near Gonaïves.

35) *Mabuya lineolata* Noble & Hassler. Xeric northern Haiti (Lapierre) and the República Dominicana (Monte Cristi), but occurring inland as far as Ennery in mesic forest; also at San Cristóbal in the South.

36) *Mabuya mabouya* Lacépède. Known only from Santo Domingo.

37) *Phyllodactylus wirshingi* Kerster & Smith. Not uncommon in the vicinity of Monte Río on the southern Dominican coast, and in the vicinity of Lapierre in northwestern Haiti; associated with creviced limestone.

38) *Sphaerodactylus asterulus* Schwartz & Graham. Extremely common in xeric regions at the southeastern base of the Presqu'île du Nord Ouest.

39) *Sphaerodactylus callocricus* Schwartz. Central and northeastern República Dominicana, including the Península de Samaná; inhabits limestone areas.

40) *Sphaerodactylus clenchi* Shreve. Common in its limited distribution on the Península de Samaná and south of the Bahía de Samaná east to La Vacama.

41) *Sphaerodactylus cochranae* Ruibal. Known only from very limited material from south of the Bahía de Samaná; apparently an inhabitant of limestone areas, including caves.

42) *Sphaerodactylus darlingtoni* Shreve. Northern República Dominicana, in the Cordillera Septentrional, east to the Península de Samaná, south into the Sierra de Yamasá; also in the Sierra Martín García and the Sierra de Neiba; occurs in both lowlands and uplands, but more pronouncedly an upland lizard.

43) *Sphaerodactylus lazelli* Shreve. Known only from one specimen from Cap-Haïtien on the Plaine du Nord.

44) *Sphaerodactylus leucaster* Schwartz. The xeric Llanos de Azua east of the Río Yaque del Sur; relatively uncommon.

45) *Sphaerodactylus ocoae* Schwartz & Thomas. Known only from a very limited area in the southern portion of the Sierra de Ocoa; altitudinal distribution between 153 m and 214 m; habitat relatively mesic in an otherwise xeric region.

46) *Sphaerodactylus samanensis* Cochran. Restricted to a few localities south of the Bahía de Samaná in northeastern República Dominicana.

47) *Sphaerodactylus savagei* Shreve. Eastern República Dominicana, from El Macao to La Romana; primarily coastal; also on Isla Saona and Isla Catalinita, and to the west on the coast in San Cristóbal Province.

48) *Sphaerodactylus shrevei* Lazell. Known only from Môle St. Nicholas on the Presqu'île du Nord Ouest; apparently a xeric area lizard.

49) *Sphaerodactylus* sp. Known only from a limited area at the southeastern base of the Presqu'île du Nord Ouest near Lapierre, where not common.

III. South Island Species

1) *Eleutherodactylus alcoae* Schwartz. Restricted to the xeric and semixeric regions of the Península de Barahona and the southern front ranges of the Massif de la Selle and Sierra de Baoruco, and along the eastern coast of this peninsula; maximum elevation 610 m. (For a comprehensive discussion of south island *Eleutherodactylus*, see Schwartz, 1973)

2) *Eleutherodactylus armstrongi* Noble & Hassler. The Massif de la Selle and Sierra de Baoruco and their affiliates; elevation from 153 m to 1708 m; a mesic deciduous and pine forest frog, but peculiarly absent from seemingly appropriate habitat in many areas of the above stated distribution.

4) *Eleutherodactylus bakeri* Cochran. The Massif de la Hotte, between elevations of 214 m and 2345 m.

5) *Eleutherodactylus brevirostris* Shreve. The Massif de la Hotte, between elevations of 580 m and 2345 m.

6) *Eleutherodactylus chlorophenax* Schwartz. Known only from a single specimen from the Massif de la Hotte at 1163 m.

7) *Eleutherodactylus counouspeus* Schwartz. The Tiburon Peninsula, at moderate elevations in the Massif de la Hotte and the Monts Cartaches; associated with caves or limestone jumbles; elevation from about 305 m to 763 m.

8) *Eleutherodactylus darlingtoni* Cochran. The higher portions of the eastern section of the Massif de la Selle in Haiti; elevations between 1525 m and about 2135 m.

9) *Eleutherodactylus eunaster* Schwartz. The Massif de la Hotte between elevations of 580 m and 1160 m.

10) *Eleutherodactylus fowleri* Schwartz. The Massif de la Selle in both Haiti and the República Dominicana; elevations between 1052 m and 1312 m; a canopy frog that calls from and lays its eggs in bromeliads.

11) *Eleutherodactylus furcyensis* Shreve & Williams. The Massif de la Selle and its northern front ranges in Haiti, and in the same range apparently only on the southern slopes in the República Dominicana; elevation from 808 m to 1769 m; a terrestrial frog of both deciduous and pine forest.

12) *Eleutherodactylus glandulifer* Cochran. The Massif de la Hotte between elevations of 305 m and 1464 m.

13) *Eleutherodactylus glanduliferoides* Shreve. The Massif de la Selle between 1525 m and 2135 m.

14) *Eleutherodactylus glaphycompus* Schwartz. The Massif de la Hotte between elevations of 763 m and 1190 m.

15) *Eleutherodactylus heminota* Shreve & Williams. The Tiburon Peninsula, in both lowlands and mountains, but uncommon at low elevations and rare in the Sierra de Baoruco; maximum elevation 1708 m.

16) *Eleutherodactylus hypostenor* Schwartz. The Tiburon Peninsula in the Massif de la Hotte, the Dominican portion of the Massif de la Selle, and the Sierra de Baoruco; elevations from 671 m to 1068 m; like *E. ruthae, E. hypostenor* vocalizes from underground chambers in mesic forested situations.

17) *Eleutherodactylus jugans* Cochran. The Massif de la Selle in both Haiti and the República Dominicana; elevations 1250 m to 2135 m; terrestrial frog of very mesic forested situations.

18) *Eleutherodactylus lamprotes* Schwartz. The Massif de la Hotte between elevations of 824 m and 1464 m.

19) *Eleutherodactylus leoncei* Shreve & Williams. The Massif de la Selle in Haiti and the República Dominicana where common, but rare in the Sierra de Baoruco; elevations between 1190 m and 2318 m; a terrestrial mesic forest frog.

20) *Eleutherodactylus neodreptus* Schwartz. The Sierra de Baoruco at 1129 m; one specimen known.

21) *Eleutherodactylus nortoni* Schwartz. Known from all south island ranges but apparently most common on the southern slopes of the Massif de la Selle in Haiti; elevations from 673 m to 1163 m; a frog of dense viny tangles associated with mesic forest.

22) *Eleutherodactylus oxyrhynchus* Duméril & Bibron. The Massif de la Hotte and Massif de la Selle, the latter record far removed from those in the former range; elevations from 763 m to 1164 m.

23) *Eleutherodactylus paulsoni* Schwartz. The Tiburon Peninsula,

both in the lowlands and uplands, in the Massif de la Hotte and the northern front ranges of the Massif de la Selle; maximum elevation 755 m.

24) *Eleutherodactylus rufifemoralis* Noble & Hassler. The Sierra de Baoruco between elevations of 732 m and 1379 m.

25) *Eleutherodactylus sciagraphus* Schwarz. The Massif de la Hotte at elevations between 1068 m and 1190 m.

26) *Eleutherodactylus semipalmatus* Shreve. The Massif de la Hotte and the northern front ranges of the Massif de la Selle; elevations between 305 m and 1708 m.

27) *Eleutherodactylus ventrilineatus* Shreve. The Massif de la Hotte at elevations above 1525 m.

28) *Ameiva leberi* Schwartz & Klinikowski. The Península de Barahona, extending into southern Haiti to the west, and as far east as Oviedo.

29) *Anolis alumina* Hertz. The Península de Barahona and the southern slopes of the Sierra de Baoruco, extending as far as Belle Anse in southeastern Haiti and around the eastern edge of the Sierra de Baoruco into the uplands of that range at Polo; primarily an anole of xeric situations.

30) *Anolis altavelensis* Noble & Hassler. A member of the *A. distichus* – *A. brevirostris* complex, restricted to Isla Alto Velo.

31) *Anolis bahorucoensis* Noble & Hassler. The Sierra de Baoruco, extending into Haiti onto the southern slopes of the Massif de la Selle; elevations between 46 m and 1403 m; a lizard of mesic forest understory.

32) *Anolis barahonae* Williams. The third of the Hispaniolan giant anoles, restricted to the uplands and southern slopes of the Sierra de Baoruco and also occurring along the east coast and in the southern lowlands of the Península de Barahona; maximum elevation 976 m.

33) *Anolis coelestinus* Cope. Throughout the south island, in both the mountains and lowlands; maximum elevation 1708 m; a lizard of forested or at least wooded situations; occurs on Ile-à-Vache and Ile Grande Cayemite.

34) *Anolis darlingtoni* Cochran. The Massif de la Hotte at about 1525 m; known only from one specimen.

35) *Anolis dolichocephalus* Williams. The distal portion of the Tiburon Peninsula, in both lowlands and uplands; maximum elevation 839 m; a lizard of mesic forest understory but tolerant of changes in environment.

36) *Anolis hendersoni* Cochran. The eastern Massif de la Hotte and the

Massif de la Selle and its front ranges; maximum elevation 1708 m; a lizard of mesic forest understory but surviving in more open areas.

37) *Anolis koopmani* Rand. The Massif de la Hotte between elevations of 244 m and 755 m; a mesic forest understory lizard.

38) *Anolis longitibialis* Noble. Isla Beata and the Península de Barahona; inhabits xeric areas with creviced limestone cliffs.

39) *Anolis* sp. Restricted to a coastal strip in southeastern Haiti near Jacmel; a member of the *A. distichus – A. brevirostris* complex.

40) *Anolis monticola* Shreve. The Massif de la Hotte between 397 m and 854 m; a lizard of mesic deciduous forest understory.

41) *Anolis rupinae* Williams & Webster. The Massif de la Hotte; a lizard of mesic and shaded ravines, apparently very local.

42) *Anolis strahmi* Schwartz. The northern slopes of the Sierra de Baoruco, and the Península de Barahona and the southern lower slopes of the Sierra de Baoruco; maximum elevation about 900 m; a lizard of exposed rocky creviced cliffs.

43) *Leiocephalus barahonensis* Schmidt. The Península de Barahona, extending to the west into southeastern Haiti, and around the Sierra de Baoruco onto the northern slopes of that range; maximum elevation 580 m; Isla Beata.

44) *Leiocephalus melanochlorus* Cope. The Tiburon Peninsula, as far east as the uplands of the Massif de la Selle; elevations from sea level to 1708 m; Ile-à-Vache.

45) *Sphaerodactylus armstrongi* Noble & Hassler. The Massif de la Selle and its associated northern front ranges, the Sierra de Baoruco to the eastern coast of the Península de Barahona; maximum elevation 1769 m; primarily an upland species but occurring at lower elevations in mesic forested areas.

46) *Sphaerodactylus cryphius* Thomas & Schwartz. The lower northern xeric slopes of the Sierra de Baoruco and the adjacent portion of the Valle de Neiba; maximum elevation 153 m.

47) *Sphaerodactylus elasmorhynchus* Thomas. The Massif de la Hotte; known from one specimen.

48) *Sphaerodactylus nycteropus* Thomas & Schwartz. The southern xeric coast of the Tiburon Peninsula southeast of Aquin.

49) *Sphaerodactylus randi* Shreve. The Península de Barahona, from the Dominico-Haitian border to the east coast near Enriquillo; Cayo Pisaje; a xeric area lizard.

50) *Sphaerodactylus streptophorus* Thomas & Schwartz. South of the Massif de la Selle and the Sierra de Baoruco, at low to intermediate elevations, from southeastern Haiti (near Jacmel; Vallée de Trouin) and into the uplands of the Massif de la Selle (Savane Mouton), thence across the Península de Barahona.

51) *Sphaerodactylus thompsoni* Schwartz & Franz. The Peninsula de Barahona and the southern slopes of the Sierra de Baoruco; a xeric area gecko.

52) *Sphaerodactylus zygaena* Schwartz & Thomas. Lowlands of the tip of the Tiburon Peninsula.

53) *Wetmorena haetiana* Cochran. The uplands of the Massif de la Selle and the Sierra de Baoruco in mesic forest; elevation from 793 m to 2690 m.

54) *Amphisbaena caudalis* Cochran. The northern coastal area of the Tiburon Peninsula on the Presqu'île de Baradères; Ile Grande Cayemite.

55) *Amphisbaena gonavensis* Gans & Alexander. The Península de Barahona; Ile de la Gonâve.

56) *Darlingtonia haetiana* Cochran. A snake of the upland mesic forests of all three south island ranges; elevations from 305 m to 1708 m, much more abundant at higher elevations.

57) *Typhlops capitulata* Richmond. The Tiburon Peninsula east of Paillant, and west to the Presqu'île de Port Salut, the front ranges of the Massif de la Selle, and into the Cul de Sac plain; Ile de la Gonâve.

58) *Typhlops syntherus* Thomas. The Península de Barahona.

59) *Uromacer frenatus* Günther. The Tiburon Peninsula, east to Jacmel in the south, and to Puerto Escondido on the northern slopes of the Sierra de Baoruco in the north; also in the Valle de Neiba; Ile de la Gonâve, Ile-à-Vache, Iles Petite and Grande Cayemite, Grosse Caye.

60) *Uromacer wetmorei* Cochran. The Península de Barahona, around the eastern edge of the Sierra de Baoruco, as far west on this northern slope as Soliette in the Massif de la Selle in Haiti; maximum elevation 671 m; Isla Beata.

IV. North Island Invaders of the South Island

1) *Bufo guntheri* Cochran. Widespread in xeric areas on the north island, with an isolated population in extreme eastern República Domini-

cana (Higüey); crosses the Cul de Sac plain in Haiti and extends as far west along the northern shore of the Tiburon Peninsula as Momance and Diquini; has been unable to circumvent the Sierra de Baoruco to reach the ecologically suitable xeric Península de Barahona.

2) *Ameiva chrysolaema* Cope. The widespread north island *Ameiva*, favoring xeric regions but also encountered regularly in somewhat more mesic situations. In Haiti, *A. chrysolaema* has crossed the Cul de Sac plain and extends as far west on the north shore of the Tiburon Peninsula as far as Ça Ira and Léogâne; also an isolated population on Grosse Caye (and on the adjacent mainland?) off the *southern* coast of the Tiburon Peninsula near Aquin; in the República Dominicana *A. chrysolaema* has circumvented the eastern extreme of the Sierra de Baoruco to reach the Península de Barahona, where it is broadly distributed, and to Isla Beata; also on Gonâve, Tortue, Siete Hermanos, Catalina, and Saona.

3) *Ameiva lineolata* Duméril & Bibron. Widespread and abundant in xeric areas on the north island and in the Cul de Sac-Valle de Neiba plain. Like *A. chrysolaema, A. lineolata* has circumvented the eastern end of the Sierra de Baoruco and occurs throughout much of the Península de Barahona and into southeastern Haiti as far as Belle Anse, and onto Isla Beata. The two southern populations differ in head pattern from their more northern relatives and might better be considered a separate species.

4) *Anolis aliniger* Mertens. A montane lizard of north island deciduous forests, occurring there in the Cordillera Central, Sierra de Ocoa, Sierra de Neiba, Cordillera Septentrional. Also occurs on the Montagne Noire and the Massif de la Selle in Haiti, at high elevations (906 m to 1289 m).

5) *Anolis brevirostris* Bocourt. Widespread in xeric areas (Cul de Sac-Valle de Neiba, Llanos de Azua, Valle de San Juan) on the north island, and following the east coast of the Península de Barahona onto the Península, thence west as far along the southern Haitian coast as Marigot; and isolated population at Léogâne on the south island; also on Isla Beata.

6) *Anolis caudalis* Cochran. Common on Ile de la Gonâve and has thence invaded the north island mainland along the coast from Trou Forban to Source Matelas; isolated south island populations near Jérémie near the tip of the Tiburon Peninsula and on the Presqu'île de Baradères near Grand Boucan; Ile à Cabrit in the Golfe de la Gonâve off the north island.

7) *Anolis chlorocyanus* Duméril & Bibron. The north island cognate of *A. coelestinus*; widespread on the north island and occurring in the Valle de Neiba (Baños de Surza) with *A. coelestinus,* and ascending the northern slopes of the Sierra de Baoruco as far as Puerto Escondido; an isolated (introduced?) population near Savane Zombi in the Massif de la Selle; also Gonâve, Tortue, Saona.

8) *Anolis olssoni* Schmidt. Widespread in north island xeric areas, as well as in the Cul de Sac–Valle de Neiba plain and Ile de la Gonâve; circumvents the eastern edge of the Sierra de Baoruco and occurs on the Península de Barahona as far west as Pedernales on the Dominico-Haitian border.

9) *Celestus curtissi* Grant. Widespread in xeric to semixeric areas on the north island, but populations somewhat scattered; occurs in the Cul de Sac plain and on Gonâve, Tortue, and Catalina, but barely reaches the Valle de Neiba; also occurs south of the Sierra de Baoruco on the Península de Barahona including the southern slopes of the Sierra de Baoruco, extending as far west as the Dominico-Haitian border.

10) *Leiocephalus personatus* Cope. The most widespread of the north island *Leiocephalus,* usually in relatively mesic situations; on the south island, has extended along the northern littoral of the Tiburon Peninsula as far west as Jérémie, with an apparently isolated population south of the Massif de la Hotte in the vicinity of Aquin.

11) *Leiocephalus schreibersi* Gravenhorst. A large xerophilic north island lizard, occurring in the Cul de Sac–Valle de Neiba plain and into the western Llanos de Azua; has barely penetrated the south island along the eastern margin of the Península de Barahona as far as La Ciénaga, and along the northern coast of the Tiburon Peninsula as far as Ça Ira in Haiti.

12) *Leiocephalus semilineatus* Dunn. A north island small *Leiocephalus* whose distribution includes the Valle de San Juan as well as the Cul de Sac–Valle de Neiba plain and the Llanos de Azua; occurs on the south island on the northern slopes of the Massif de la Selle front ranges at Soliette (610 m).

13) *Sphaerodactylus altavelensis* Noble & Hassler. A small desert-dwelling gecko that occurs from extreme northwestern Haiti south to the Cul de Sac–Valle de Neiba plain; in Haiti, occurs along the north coast of the Tiburon Peninsula as far as Petit-Goâve, into the uplands of the northern front ranges of the Massif de la Selle (Pétionville); also on the

south side of the Tiburon Peninsula near Cayes Jacmel and near the tip of the peninsula at Jérémie; also Isla Alto Velo.

14) *Sphaerodactylus cinereus* Wagler. A primarily edificarian lizard of xeric north island areas in Haiti, including the Cul de Sac plain (unknown from the República Dominicana); ascends the northern front range of the Massif de la Selle at Plaine Thoman (549 m).

15) *Sphaerodactylus difficilis* Barbour. The most widespread of the north island *Sphaerodactylus* in the República Dominicana, but occurring only in some areas in northwestern Haiti to the Dominican border and island to Ennery and at Hinche on the Plateau Central; has invaded the south island along the eastern margin of the Sierra de Baoruco, occurring in mesic forested situations as far south as Enriquillo but is replaced on the Península de Barahona by *S. randi.*

16) Sphaerodactylus rhabdotus Schwartz. Occurring in the Valle de Neiba west of the Río Yaque del Sur on the north island, but crossing onto the south island into the foothills of the Sierra de Baoruco south of La Florida.

17) *Amphisbaena manni* Barbour. The widespread north island amphisbaenid but also occurring in the Sierra de Baoruco and at Port-au-Prince in Haiti.

18) *Epicrates fordi* Günther. Widespread in xeric areas in Haiti, less so in the República Dominicana but occurring in the Cul de Sac–Valle de Neiba plain and on Gonâve and Catalina; ascends the northern slopes of the Sierra de Baoruco and the Massif de la Selle front ranges.

19) *Typhlops pusilla* Barbour. The widespread north island *Typhlops,* and on Gonâve, Tortue, Catalina, and Saona; occurs as well on the south island at several localities: the region about Aquin, Ile Grande Cayemite and adjacent Presqu'île de Baradères, the vicinity of Jacmel, and the northern Massif de la Selle front ranges, as well as in the Sierra de Baoruco, and along its eastern edge as far south as Paraíso.

20) *Uromacer oxyrhynchus* Duméril & Bibron. Widespread on the north island and its satellites, and extending onto the south island as far south as Oviedo on the Península de Barahona, as far west as Miragoâne on the Tiburon Peninsula, with an isolated population near Jacmel on the southern Tiburon coast.

V. South Island Invaders of the North Island

1) *Eleutherodactylus audanti* Cochran. A high upland frog of the south island massifs, common in the Massif de la Hotte and the Massif de la Selle, but rare in the Sierra de Baoruco; elevation on the south island between 1159 m and 2196 m; has reached the Sierra de Neiba (elevation about 1525 m) and the Cordillera Central (between 1342 m and 1851 m) on the north island; common in the former range, apparently less so in the latter.

2) *Eleutherodactylus pictissimus* Cochran. Widespread on the south island from the extreme western tip of the Tiburon Peninsula to the east coast of the Península de Barahona, from sea level to 1769 m; also in the Valle de Neiba and extending thence on the north island east as far as Nizao, San Cristóbal Province; on the north island rather restricted to xeric or semixeric regions. There are also specimens from northern República Dominicana (Santiago Rodríguez Province) and central and northern Haiti (Thomonde and near Port-de-Paix) which are close to *E. pictissimus* (all are juveniles). If these northern specimens are indeed this species, *E. pictissimus* must be very widespread on the north island.

3) *Eleutherodactylus wetmorei* Cochran. A frog of moderate elevations (40 m to 1272 m) of the Massif de la Hotte and Massif de la Selle and their associated foothills, front ranges, and lowlands; unknown from the Sierra de Baoruco although in the Dominican portion of the Massif de la Selle; abundant locally near Marmelade in the Massif du Nord in northern Haiti.

4) *Anolis sheplani* Schwartz. A small arboreal anole of the Sierra de Baoruco upland deciduous forest; known also from the Sierra de Neiba.

5) *Anolis singularis* Williams. A high mountain upland forest anole in all three south island ranges and on Ile de la Gonâve; elevations between 442 m and 1769 m; has invaded the north island in the Sierra Martín García.

6) *Chamaelinorops barbouri* Schmidt. An upland deciduous mesic forest anoline lizard on all south island ranges, where generally uncommon; elevations between 244 m and 1342 m; on the north island in the Sierra de Neiba between 1540 m and 1720 m and in the Cordillera Central; apparently rare in its north island range.

7) *Sauresia agasepsoides* Thomas. The Península de Barahona on the

south island in xeric lowlands; on the north island, occurring around the base of the Sierra Martín Garcí; maximum elevation 192 m.

8) *Sphaerodactylus copei* Steindachner. The lowlands and intermediate slopes of the Tiburon Peninsula as far east as the Dominico-Haitian border on the extreme lower northern slopes of the Massif de la Selle front ranges and to Marbial and Cap-Rouge on the southern slopes of these same mountains; also Ile de la Gonâve; one record from the north island at Pierre Payen (south of St. Marc) in Haiti.

9) *Amphisbaena innocens* Weinland. The south island amphisbaenid, including Ile Grande Cayemite; also in the Cul de Sac plain and on the north island on the southern slopes of the Montagnes du Trou-d'Eau.

10) *Typhlops hectus* Thomas. The Tiburon Peninsula, east to Paillant; on the north island *T. hectus* (or a closely related and as yet unnamed species) occurs south of the Barrage de Peligre in Haiti, and in the República Dominicana in La Estrelleta, La Vega, and Independencia provinces, as well as northern Barahona Province, and thence re-invades the south island on the eastern coast of the Península de Barahona.

11) *Typhlops sulcata* Cope. Generally, the south island from Grande Cayemite in the north of the Tiburon Peninsula and Aquin in the south, east on the Tiburon Peninsula, to include the Cul de Sac – Valle de Neiba plain; occurring on the north island at Montrouis on the Golfe de la Gonâve and along the southern base of the Sierra Martín García; also on Isla Alto Velo, Ile de la Gonâve, and Navassa Island.

VI. Species of Unknown Relationships

1) *Cyclura ricordi* Duméril & Bibron. This iguana is virtually limited to the Valle de Neiba (there are no Haitian Cul de Sac records although it is confidently expected there), and from one specimen from the Península de Barahona. The latter suggests that *C. ricordi* is basically a south island lizard that has invaded the interisland strait area after its closure. On the other hand, it may have originally been a lizard of the xeric shore of the north island that has invaded the south island. Too little is known of its total distribution to be certain of its affinities.

2) *Chrysemys decorata* Barbour & Carr. The remarks concerning *C. ricordi* are almost equally applicable here, except that this turtle is known only from the Cul de Sac – Valle de Neiba plain. Probably it was originally

a stream turtle on either the north shore of the south island or the south shore of the north island, and, with closure of the strait, has abandoned its original habitat to occupy the lakes in the plain. A possibility is that *Ch. decussata* (which is now islandwide) was the basic north island fresh water turtle, and *Ch. decorata* that of the south island, and that, with the junction of the two paleoislands, the former has expanded its range across the plain onto the south island and the latter has moved into the lakes in the plain. These two movements together would tend to obscure the affiunities of both turtles.

3) *Hemidactylus mabouia* Moreau de Jonnès. This basically edificarian lizard is widespread in Africa and South America, as well as in the Antilles. Hispaniolan records include only Port-au-Prince in Haiti and Miches in the República Dominicana. The former locality is easily explained as the result of commerce, whereas the latter is less so. It may be inappropriate to consider *H. mabouia* "native" to Hispaniola, since its origins are elsewhere; the two stations whence it is known are on the south and north islands, respectively.

The foregoing brief summaries indicate that, without question, MERTENS's original suggestion of two distinct faunas is amply confirmed. Of the 179 known native Hispaniolan species of amphibians and reptiles, only 36 (7 amphibians, 29 reptiles) are not readily catalogued as being north or south island in affinities; these 36 species are islandwide in distribution. To them might appropriately be added the three species of whose affinities I am uncertain; thus, a total of 39 of 179 species has affinities that are uncertain or speculative. Of the remaining species, 69 (17 amphibians, 52 reptiles) are on or from the north island, and 71 species (30 amphibians, 41 reptiles) are on or from the south island. What is intriguing about these totals is the distinctly larger number of species whose affinities are south island than those of north island origin, despite the much larger size of the north island and its basically more complex geography.

Let us examine the five categories previously discussed in detail, on the basis of the classification (families and genera) involved. There are only seven species of amphibians (frogs) that are islandwide in distribution. These include three leptodactylids (*Eleutherodactylus*) and all the Hispaniolan members of the tree frogs (Hylidae). Of the reptiles, islandwide

forms include: one turtle; five gekkonids, six iguanids, one teid, and three anguids among the lizards; one leptyphlopid, three boids, and nine colubrids among the snakes; and one crocodylian. Reptile genera that are islandwide include: *Aristelliger, Gonatodes, Leptotyphlops, Tropidophis, Alsophis, Antillophis, Hypsirhynchus,* and *Ialtris.* It is pertinent that no typhlopid nor amphisbaenid is regarded as islandwide, whereas two of the endemic Hispaniolan snake genera (*Hypsirhynchus* with one species, *Ialtris* with three) are islandwide.

Of the north island species, 16 frogs (one bufonid, 15 leptodactylids) and 33 reptiles (13 gekkonids, 14 iguanids, four anguids, two scincids, and no snakes) are restricted to the north island. These include all *Phyllodactylus* (one species), all *Diploglossus* (two species), and all scincids (two species). In addition to these north island residents, one bufonid, four gekkonids, eight iguanids, two teids, one anguid, one typhlopid, one boid, one colubrid, and one amphisbaenid have to some extent (see details beyond) invaded the south island.

The resident south island species include 27 frogs (all leptodactylid frogs of the genus *Eleutherodactylus*), eight gekkonids (all genus *Sphaerodactylus*), 16 iguanids (14 *Anolis* and two *Leiocephalus*), one teid, one endemic genus of anguid (*Wetmorena*), two typhlopids, three colubrids (two species of the endemic genus *Uromacer,* the single species of the endemic genus *Darlingtonia*), and two amphisbaenids. Note the absence of endemic south island bufonids and boids. Invaders of the north island from the south island are indeed few and include: three leptodactylids, one gekkonid, three iguanids, one anguid, two typhlopids, and one amphisbaenid. Comparing north-to-south-island invaders (20) with south-to-north-island invaders (11), one is struck by the disproportionate numbers, most expecially when one considers the already resident south island fauna (60 species) and the smaller size of the land mass, with the resident north island fauna (49 species) and the much greater land mass. (In the above discussion and that following, it should be pointed out that my treatment of the genus *Typhlops,* the only typhlopid on Hispaniola, has dealt only with named forms; for treatment of new but unnamed species as well as puzzling problems within the genus, the reader is referred to THOMAS, 1976; the picture given here is much simpler than reality.)

It is difficult to account for the discrepancy in numbers of species on the north and south islands. The north island, with its larger area, and much

more complex structure and higher mountains, stands in contrast to the relatively simpler structure (three sequential montane massifs and an associated xeric peninsula), smaller area, and less high mountains. One possibility is that there are still a relatively large number of species yet to be discovered on the north island; indeed, there are large areas, especially in the Haitian section of the north island, that remain relatively uncollected or at least very poorly known. Such a large number of south island species is restricted to montane masses (this is most especially true of the frogs) that it is tempting to suggest that the montaine habitat and high elevations have played a decisive role in the diversity of the south island herpetofauna; yet, the north island has more extensive and even higher mountains, without the same effect. Although a brief scanning of the annotated list of north island fauna shows that the Cordillera Central, the highest and most extensive of the north island massifs, does indeed have a large (six amphibians, five reptiles) number of north island endemic species, still one might reasonably expect that other lesser north island ranges (many of which reach considerable heights and are to a large extent isolated), might have evolved endemic species, and thus enriched the north island fauna. Such has generally not been the case. This stands in direct contrast to the south island situation, where the three ranges have species limited to individual ranges or combinations thereof (29 amphibians, 10 reptiles).

How successful have the invaders in both directions been? I use as the criterion of success "How far any species has invaded the other land mass" (= how much geographic area is covered by the range of the invader today).

Of the 20 north island species that have invaded the south island, eight show similar patterns. Basically, this group is composed of xeric area species that occur in the Cul de Sac – Valle de Neiba plain and extends either to the west on the north shore of the Tiburon Peninsula only to the vicinity of Momance, Ça Ira, or Léogâne, or reach Barahona in the east and extend slightly farther south along the coast (but do not reach the Península de Barahona), or ascend the xeric northern slopes of the south island mountains. I regard these species as having had poor success. They are: *Bufo guntheri, Sphaerodactylus cinereus, Sphaerodactylus rhabdotus, Anolis chlorocyanus, Leiocephalus semilineatus, Leiocephalus schreibersi,* and *Epicrates fordi. Anolis caudalis* is the eight species in this category, and its distribution (with Ile de la Gonâve as the center) is somewhat different

from the above species in that there are apparent isolates of this species at Jérémie and Grand Boucan; this distribution suggests very recent invasion of the south island. The only exception to the above statement that all northern invaders in this category are xerophiles is *A. chlorocyanus*, which is a mesophile. Since this lizard requires shaded and wooded areas, it has presumably crossed the arid plain via oases or at the eastern more mesic area of the Valle de Neiba.

Six species are moderately successful invaders of the south island from the north. Two of these have reached the Massif de la Selle or the Sierra de Baoruco uplands (*Anolis aliniger, Amphisbaena manni*), whereas four have reached to the Península de Barahona (*Sphaerodactylus difficilis, Anolis olssoni, Celestus curtissi, Uromacer oxyrhynchus*). The last species has also reached as far west on the north shore of the Tiburon Peninsula as far as Miragoâne and has further crossed the mountains to reach the Jacmel area. Only two (*A. olssoni* and *C. curissi*) of these species are xerophiles; the remainder are mesophiles.

Six species are very successful invaders. These reach not only to the Península de Barahona but also Isla Beata off its southern tip, or they have distributions that encompass the Tiburon Peninsula at least in part and often extensively. The species in the first group are *Ameiva chrysolaema, Ameiva lineolata,* and *Anolis brevirostris,* and in the second *Sphaerodactylus altavelensis, Leiocephalus personatus,* and *Typhlops pusilla.* Of these, *A. chrystolaema* has a south island range that combines the stated ranges of both groups. Two species (*L. personatus, T. pusilla*) are mesophiles, the remainder are xerophiles.

In summary, the north island invaders include eight with poor success, six with moderate success, and six with great success. 13 are xerophiles and seven are mesophiles.

Of the 11 south island invaders to the north island, six are relatively unsuccessful. Two (*Anolis singularis, Sauresia agasepsoides*) have reached only the extreme eastern Sierra Martín García. Two (*Anolis sheplani, Amphisbaena innocens*) have reached the southern north shore mountains only (Montagnes du Trou-d'Eau, Sierra de Neiba), and two have isolated northern stations without known intervening populations (*Sphaerodactylus copei* at Pierre Payen on the Golfe de la Gonâve; *Eleutherodactylus wetmorei* in the Massif du Nord near Marmelade). All are mesophiles except *S. agasepsoides.*

Only one species (*Typhlops sulcata*) is a moderately successful north island invader; it has not only reached the Sierra Martín García but has also extended its range along the Golfe de la Gonâve as far as Montrouis.

Of the four successful invaders, two (*Eleutherodactylus audanti, Chamaelinorops barbouri*) have reached not only the Sierra de Neiba but have gone further north into the Cordillera Central. The third species (*Eleutherodactylus pictissimus*) has reached northern Haiti and the República Dominicana, and also extends as far as San Cristóbal Province on the southern north island coast. The fourth species, *Typhlops hectus*, has reached central Haiti and the República Dominicana, and has thence reinvaded the south island to the Península de Barahona. All species are mesophiles.

In summary, the south island invaders include six with poor success, one with moderate success, and four that are very successful. Two species are xerophiles, whereas nine are mesophiles.

Comparing these data with each other, one is impressed with several facts. The larger number (20) of species from north to south contrasts strongly with the smaller number (11) from south to north. The relatively "crowded" south island, with 96 species (36 islandwide, 60 south island only) has sent relatively few species (11) *to* the north island, but on the other hand has received 20 species *from* the north island, to give it a grand total of 116 species. Although many south island invaders have had limited success there, at least six species are very successful. The preponderance of xerophiles in contrast to mesophiles in these invaders is due to two basic factors; 1) some xerophiles reach only the northern slopes of the south island front ranges, and 2) the presence of the Península de Barahona. In this latter case, those reptiles that were able to circumvent the mesic eastern shore of the Península de Barahona (where the Sierra de Baoruco reaches the ocean and is mesic well forested) found a xeric haven on the Península in what has come to be called the Barahona Entrapment (= Península de Barahona south of the mountains).

The north island fauna is composed of 85 species (36 islandwide, 49 north island only) and thus is relatively "uncrowded" in regard to its much greater areal extent. The north island ecological diversity is as great as, if not greater than, that of the south island. Yet only 11 south island species have invaded the north island (to bring its total herpetofauna to 96). These south island invaders have been generally unsuccessful (seven species) and

only four south island species have broad or extensive distributions on the north island. Note also that there is a proponderance of mesophiles (nine) in contrast to xerophiles (two) among the invaders. Of the 11 species involved, five are predominantly or exclusively upland species as well.

Ile de la Gonâve

As I have previously mentioned, Hispaniola is blessed with a large number of satellite islands of varying sizes and separated from the main island by channels of varying widths (see SCHWARTZ, 1970, for geographic details). In general, satellite islands have faunas that are fractions of those of the adjacent mainland (although Isla Catalina is a notable exception). But Ile de la Gonâve presents a special picture in that it is large, lies almost equidistantly from both north and south islands in the Golfe de la Gonâve, is ecologically diverse with an interior range of hills or mountains reaching an elevation of 778 m, and was formerly attached to both north and south islands by a broad connection that is now a submarine bank. Its herpetofauna merits special discussion.

Twenty-eight species (one amphibian, 27 reptiles) are known from Gonâve; I might also add that doubtless other new island records will be forthcoming when Gonâve is better known. Of these, 15 are species that are widespread on the main island. Interestingly, there are no exclusively north island species on Gonâve, but there are seven north-to-south-island invaders. Thus, the northern component of the fauna is limited to those more vagile species from the north island. There are three south island species plus three south-to-north-island invaders, so that the south island component is six species.

The presence of such a large number of islandwide species is not surprising; these are obviously species with great ecological (and often elevational) tolerance and great vagility. Their presence on Gonâve is to some extent expected. Of the seven north island invaders (*A. chlorocyanus, A. olssoni, A. chrysolaema, C. curtissi, T. pussilla, E. fordi, + A. caudalis* whose base is Gonâve) only two (*A. chlorocyanus, T. pusilla*) are mesophiles.

The three south island species are *A. gonavensis, T. capitulata,* and *U. frenatus.* Of these, *A. gonavensis* may well have evolved on Gonâve and moved thence onto the south island (Península de Barahona only). The

south-to-north-island invaders are *S. copei, A. singularis,* and *T. sulcata.* The first two species are mesophiles, the last a xerophile.

In summary, Ile de la Gonâve has received about equal numbers of species from the north and south islands, but these in sum (13) are less than the number of islandwide species (15) present there.

Of equal interest and importance are those species or groups *not* on Ile de la Gonâve. There are no members of the frog genus *Euleutherodactylus,*despite the fact that there are, on the adjacent mainland, species that are xeric-adapted and should survive on Gonâve if they had reached there. *Eleutherodactylus* are present on some (Ile-à-Vache, Tortue) but not all of the Hispaniolan satellites, and in the Antilles are often present on islands whose areal extents are much less than that of Gonâve, and that are separated from the nearest large land mass by channels broader than that separating Gonâve from Hispaniola; *Eleutherodactylus,* then, are good travelers, and their absence from Gonâve is peculiar indeed. No freshwater turtles (*Chrysemys*) are present, although there are some streams that should be able to support them. There are no giant anoles, despite the presence of forested uplands and lowlands. The xeric *Anolis semilineatus* is absent. Neither of the two widespread and common and ecologically fairly tolerant anguid lizards (*C. costatus, C. stenurus*) occur. Two species of *Leiocephalus* (*semilineatus, schreibersi*), abundant on the xeric mainland along the coast, are absent. Most puzzling is the absence of any xeric-adapted *Sphaerodactylus*; several species occur in the Cul de Sac and along one or both coasts of the Golfe de la Gonâve but are unknown from Ile de la Gonâve. Although many of these "absences" are doubtless artifacts of collecting, still there seem to be some real and peculiar deletions of the main island fauna from Ile de la Gonâve.

THE AMPHIBIANS AND REPTILES OF HISPANIOLA, showing their geographic distributions.

Taxa are arranged in the same sequence as in the text.

Species	Islandwide	North Island	South Island	North Island to South Island	South Island to North Island	Relationships unknown	Gonâve
AMPHIBIA							
Eleutherodactylus abbotti	×	–	–	–	–	–	–
Eleutherodactylus inoptatus	×	–	–	–	–	–	–
Eleutherodactylus ruthae	×	–	–	–	–	–	–
Hyla heilprini	×	–	–	–	–	–	–
Hyla pulchrilineata	×	–	–	–	–	–	–
Hyla vasta	×	–	–	–	–	–	–
Osteopilus dominicensis	×	–	–	–	–	–	×
Bufo fluviaticus	–	×	–	–	–	–	–
Eleutherodactylus auriculatoides	–	×	–	–	–	–	–
Eleutherodactylus flavescens	–	×	–	–	–	–	–
Eleutherodactylus grahami	–	×	–	–	–	–	–
Eleutherodactylus haitianus	–	×	–	–	–	–	–
Eleutherodactylus minutus	–	×	–	–	–	–	–
Eleutherodactylus montanus	–	×	–	–	–	–	–
Eleutherodactylus parabates	–	×	–	–	–	–	–
Eleutherodactylus patriciae	–	×	–	–	–	–	–
Eleutherodactylus pituinus	–	×	–	–	–	–	–
Eleutherodactylus poolei	–	×	–	–	–	–	–
Eleutherodactylus probolaeus	–	×	–	–	–	–	–
Eleutherodactylus schmidti	–	×	–	–	–	–	–
Eleutherodactylus warreni	–	×	–	–	–	–	–

Species	Islandwide	North Island	South Island	North Island to South Island	South Island to North Island	Relation-ships unknown	Gonâve
Eleutherodactylus weinlandi	–	×	–	–	–	–	–
Leptodactylus dominicensis	–	×	–	–	–	–	–
Eleutherodactylus alcoae	–	–	×	–	–	–	–
Eleutherodactylus apostates	–	–	×	–	–	–	–
Eleutherodactylus armstrongi	–	–	×	–	–	–	–
Eleutherodactylus bakeri	–	–	×	–	–	–	–
Eleutherodactylus brevirostris	–	–	×	–	–	–	–
Eleutherodactylus chlorophenax	–	–	×	–	–	–	–
Eleutherodactylus counouspeus	–	–	×	–	–	–	–
Eleutherodactylus darlingtoni	–	–	×	–	–	–	–
Eleutherodactylus eunaster	–	–	×	–	–	–	–
Eleutherodactylus fowleri	–	–	×	–	–	–	–
Eleutherodactylus furcyensis	–	–	×	–	–	–	–
Eleutherodactylus glandulifer	–	–	×	–	–	–	–
Eleutherodactylus glandulifer	–	–	×	–	–	–	–
Eleutherodactylus glanduliferoides	–	–	×	–	–	–	–
Eleutherodactylus glaphycompus	–	–	×	–	–	–	–
Eleutherodactylus heminota	–	–	×	–	–	–	–
Eleutherodactylus hypostenor	–	–	×	–	–	–	–
Eleutherodactylus jugans	–	–	×	–	–	–	–
Eleutherodactylus lamprotes	–	–	×	–	–	–	–
Eleutherodactylus leoncei	–	–	×	–	–	–	–
Eleutherodactylus neodreptus	–	–	×	–	–	–	–
Eleutherodactylus nortoni	–	–	×	–	–	–	–
Eleutherodactylus oxyrhynchus	–	–	×	–	–	–	–
Eleutherodactylus paulsoni	–	–	×	–	–	–	–
Eleutherodactylus rufifemoralis	–	–	×	–	–	–	–

Species	Islandwide	North Island	South Island	North Island to South Island	South Island to North Island	Relation-ships unknown	Gonâve
Eleutherodactylus sciagraphus	–	–	×	–	–	–	–
Eleutherodactylus semipalmatus	–	–	×	–	–	–	–
Eleutherodactylus ventrilineatus	–	–	×	–	–	–	–
Bufo guntheri	–	–	–	×	–	–	–
Eleutherodactylus audanti	–	–	–	–	×	–	–
Eleutherodactylus pictissimus	–	–	–	–	×	–	–
Eleutherodactylus wetmorei	–	–	–	–	×	–	–
REPTILIA							
Ameiva taeniura	×	–	–	–	–	–	×
Anolis cybotes	×	–	–	–	–	–	×
Anolis distichus	×	–	–	–	–	–	–
Anolis ricordi	×	–	–	–	–	–	–
Anolis semilineatus	×	–	–	–	–	–	–
Aristelliger cochranae	×	–	–	–	–	–	×
Aristelliger lar	×	–	–	–	–	–	–
Cyclura cornuta	×	–	–	–	–	–	×
Celestus costatus	×	–	–	–	–	–	–
Celestus stenurus	×	–	–	–	–	–	–
Gonatodes albogularis	×	–	–	–	–	–	×
Hemidactylus brooki	×	–	–	–	–	–	–
Leiocephalus vinculum	×	–	–	–	–	–	×
Sauresia sepsoides	×	–	–	–	–	–	×
Sphaerodactylus elegans	×	–	–	–	–	–	×
Alsophis anomalus	×	–	–	–	–	–	–
Alsophis melanichnus	×	–	–	–	–	–	–

Species	Islandwide	North Island	South Island	North Island to South Island	South Island to North Island	Relation-ships unknown	Gonâve
Antillophis parvifrons	×	–	–	–	–	–	×
Epicrates gracilis	×	–	–	–	–	–	–
Epicrates striatus	×	–	–	–	–	–	×
Hypsirhynchus ferox	×	–	–	–	–	–	×
Ialtris agyrtes	×	–	–	–	–	–	–
Ialtris dorsalis	×	–	–	–	–	–	×
Ialtris parishi	×	–	–	–	–	–	–
Leptotyphlops pyrites	×	–	–	–	–	–	–
Tropidophis haetianus	×	–	–	–	–	–	×
Uromacer catesbyi	×	–	–	–	–	–	×
Crocodylus acutus	×	–	–	–	–	–	–
Anolis baleatus	–	×	–	–	–	–	–
Anolis christophei	–	×	–	–	–	–	–
Anolis etheridgei	–	×	–	–	–	–	–
Anolis eugenegrahami	–	×	–	–	–	–	–
Anolis fowleri	–	×	–	–	–	–	–
Anolis insolitus	–	×	–	–	–	–	–
Anolis marcanoi	–	×	–	–	–	–	–
Anolis rimarum	–	×	–	–	–	–	–
Anolis shrevei	–	×	–	–	–	–	–
Anolis sp.	–	×	–	–	–	–	–
Anolis whitemani	–	×	–	–	–	–	–
Celestus darlingtoni	–	×	–	–	–	–	–
Celestus marcanoi	–	×	–	–	–	–	–
Diploglossus anelpistus	–	×	–	–	–	–	–
Diploglossus warreni	–	×	–	–	–	–	–
Leiocephalus lunatus	–	×	–	–	–	–	–

Species	Islandwide	North Island	South Island	North Island to South Island	South Island to North Island	Relation-ships unknown	Gonâve
Leiocephalus pratensis	–	×	–	–	–	–	–
Leiocephalus rhutidira	–	×	–	–	–	–	–
Mabuya lineolata	–	×	–	–	–	–	–
Mabuya mabouya	–	×	–	–	–	–	–
Phyllodactylus wirshingi	–	×	–	–	–	–	–
Sphaerodactylus asterulus	–	×	–	–	–	–	–
Sphaerodactylus callocricus	–	×	–	–	–	–	–
Sphaerodactylus clenchi	–	×	–	–	–	–	–
Sphaerodactylus cochranae	–	×	–	–	–	–	–
Sphaerodactylus darlingtoni	–	×	–	–	–	–	–
Sphaerodactylus lazelli	–	×	–	–	–	–	–
Sphaerodactylus leucaster	–	×	–	–	–	–	–
Sphaerodactylus ocoae	–	×	–	–	–	–	–
Sphaerodactylus samanensis	–	×	–	–	–	–	–
Sphaerodactylus savagei	–	×	–	–	–	–	–
Sphaerodactylus shrevei	–	×	–	–	–	–	–
Sphaerodactylus sp.	–	×	–	–	–	–	–
Anolis altavelensis	–	–	×	–	–	–	–
Anolis alumina	–	–	×	–	–	–	–
Anolis bahorucoensis	–	–	×	–	–	–	–
Anolis barahonae	–	–	×	–	–	–	–
Anolis coelestinus	–	–	×	–	–	–	–
Anolis darlingtoni	–	–	×	–	–	–	–
Anolis dolichocephalus	–	–	×	–	–	–	–
Anolis hendersoni	–	–	×	–	–	–	–
Anolis koopmani	–	–	×	–	–	–	–
Anolis longitibialis	–	–	×	–	–	–	–

Species	Islandwide	North Island	South Island	North Island to South Island	South Island to North Island	Relation-ships unknown	Gonâve
Anolis sp.	–	–	×	–	–	–	–
Anolis rupinae	–	–	×	–	–	–	–
Anolis monticola	–	–	×	–	–	–	–
Anolis strahmi	–	–	×	–	–	–	–
Ameiva leberi	–	–	×	–	–	–	–
Leiocephalus barahonensis	–	–	×	–	–	–	–
Leiocephalus melanochlorus	–	–	×	–	–	–	–
Sphaerodactylus armstrongi	–	–	×	–	–	–	–
Sphaerodactylus cryphius	–	–	×	–	–	–	–
Sphaerodactylus elasmorhynchus	–	–	×	–	–	–	–
Sphaerodactylus nycteropus	–	–	×	–	–	–	–
Sphaerodactylus randi	–	–	×	–	–	–	–
Sphaerodactylus streptophorus	–	–	×	–	–	–	–
Sphaerodactylus thompsoni	–	–	×	–	–	–	–
Sphaerodactylus zygaena	–	–	×	–	–	–	–
Wetmorena haetiana	–	–	×	–	–	–	–
Amphisbaena caudalis	–	–	×	–	–	–	–
Amphisbaena gonavensis	–	–	×	–	–	–	×
Darlingtonia haetiana	–	–	×	–	–	–	×
Typhlops capitulata	–	–	×	–	–	–	×
Typhlops syntherus	–	–	×	–	–	–	–
Uromacer frenatus	–	–	×	–	–	–	×
Uromacer wetmorei	–	–	×	–	–	–	–
Anolis aliniger	–	–	–	×	–	–	–
Anolis brevirostris	–	–	–	×	–	–	–
Anolis caudalis	–	–	–	×	–	–	×
Anolis chlorocyanus	–	–	–	×	–	–	×

Species	Islandwide	North Island	South Island	North Island to South Island	South Island to North Island	Relation-ships unknown	Gonâve
Anolis ollsoni	–	–	–	×	–	–	×
Ameiva chrysolaema	–	–	–	×	–	–	×
Ameiva lineolata	–	–	–	×	–	–	–
Celestus curtissi	–	–	–	×	–	–	×
Leiocephalus personatus	–	–	–	×	–	–	–
Leiocephalus schreibersi	–	–	–	×	–	–	–
Leiocephalus semilineatus	–	–	–	×	–	–	–
Sphaerodactylus altavelensis	–	–	–	×	–	–	–
Sphaerodactylus cinereus	–	–	–	×	–	–	–
Sphaerodactylus difficilis	–	–	–	×	–	–	–
Sphaerodactylus rhabdotus	–	–	–	×	–	–	–
Amphisbaena manni	–	–	–	×	–	–	–
Epicrates fordi	–	–	–	×	–	–	×
Typhlops pusilla	–	–	–	×	–	–	×
Uromacer oxyrhynchus	–	–	–	×	–	–	–
Chamaelinorops barbouri	–	–	–	–	×	–	–
Anolis sheplani	–	–	–	–	×	–	–
Anolis singularis	–	–	–	–	×	–	×
Sauresia agasepsoides	–	–	–	–	×	–	–
Sphaerodactylus copei	–	–	–	–	×	–	×
Amphisbaena innocens	–	–	–	–	×	–	–
Typhlops hectus	–	–	–	–	×	–	–
Typhlops sulcata	–	–	–	–	×	–	×
Cyclura ricordi	–	–	–	–	–	×	–
Chrysemys decorata	–	–	–	–	–	×	–
Hemidactylus mabouia	–	–	–	–	–	×	–

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