

A Photographic Field Guide to the Reptiles and
Amphibians of Dominica, West Indies

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Dominica Study Abroad 2007
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Abstract:

A photographic reference is provided to the 21 reptiles and 4 amphibians reported from the island of Dominica. Descriptions and distribution data are provided for each species observed during this study. For those species that were not captured, a brief description compiled from various sources is included.

Introduction:

The island of Dominica is located in the Lesser Antilles and is one of the largest Eastern Caribbean islands at 45 km long and 16 km at its widest point (Malhotra and Thorpe, 1999). It is very mountainous which results in extremely varied distribution of habitats on the island ranging from elfin forest in the highest elevations, to rainforest in the mountains, to dry forest near the coast. The greatest density of reptiles is known to occur in these dry coastal areas (Evans and James, 1997).

Dominica is home to 4 amphibian species and 21 (previously 20) reptile species. Five of these are endemic to the Lesser Antilles and 4 are endemic to the island of Dominica itself (Evans and James, 1997). The addition of *Anolis cristatellus* to species lists of Dominica has made many guides and species lists outdated. Evans and James (1997) provides a brief description of many of the species and their habitats, but this booklet is inadequate for easy, accurate identification. Previous student projects have documented the reptiles and amphibians of Dominica (Quick, 2001), but there is no good source for students to refer to for identification of these species. The present guide seeks to address this problem by including descriptions and color photographs of the Dominican reptiles and amphibians. The species that were not collected in this study are included as well, with brief descriptions compiled from various sources.

Materials and Methods:

The materials used to create this guide were a Canon EOS Rebel Xt camera, a key to West Indian Reptiles and Amphibians, and various guidebooks to Dominica. The pictures were taken by myself with the Canon EOS Rebel Xt camera, unless otherwise noted. Those pictures taken by Dr. Woolley were taken with a Nikon DIX camera.

Most of my research was done at the Archbold Tropical Research and Education Center (ATREC), where I resided while in Dominica. Other locations where specimens were found were Batalie Beach, Cabrits National Park, the Botanic Gardens in Roseau, the drop-off point for the marine group at Rodney's Rock, the trail to Middleham Falls and the trail near Titou Gorge. At each location visited, reptiles and amphibians were sought after and captured. Many of the larger specimens were photographed in the field, but some smaller specimens such as the tiny *Sphaerodactylus* geckos were brought back to ATREC to photograph in greater detail.

Results:

Fourteen of the 25 species known to occur on Dominica were located, captured and photographed. Dates of discovery and locality information are included in Table 1.

Table 1: Data Collection

Species	Date(s) found	Location(s) found
<i>Boa constrictor nebulosus</i>	7.vi.2007	Carib Territory
<i>Alsophis antillensis</i>	29.v.2007	Cabrits National Park
<i>Liophis juliae</i>	30.v.2007	ATREC
<i>Sphaerodactylus fantasticus</i>	29.v.2007, 4.vi.2007	Batalie Beach
<i>Sphaerodactylus vincenti</i>	5.vi.2007	Trail to Boiling Lake near Titou Gorge
<i>Hemidactylus mabouia</i>	31.v.2007, 1.vi.2007	ATREC
<i>Thecadactylus rapicauda</i>	30.v.2007, 1.vi.2007	ATREC
<i>Iguana delicatissima</i>	29.v.2007	Batalie Beach
<i>Anolis oculatus</i>	every day	ATREC, Cabrits National Park, Drop-off point for Rodney's Rock, trail to Middleham falls
<i>Anolis cristatellus</i>	24.v.2007, 4.vi.2007, 6.vi.2007	Botanic Gardens in Roseau
<i>Ameiva fuscata</i>	29.v.2007, 4.vi.2007	Batalie Beach
<i>Gymnophthalmus pleei</i>	29.v.2007	Cabrits National Park
<i>Eleutherodactylus martinicensis</i>	23.v.2007, 1.vi.2007, 8.vi.2007	ATREC
<i>Dermochelys coriacea</i>	31.v.2007	Rosalie Beach, East Coast Beach

Discussion:

Many of the 11 species that were not captured are very rare or very secretive. *Typhlops dominicana* is rarely seen due to its burrowing, secretive habits. The status of *Clelia clelia* is not well-documented and the species may not even be on the island (Evans and James, 1997). The presence of *Sphaerodactylus microlepis* is also in question because the record for Dominica is dependant on a single specimen with no exact locality (Malhotra and Thorpe, 1999). *Mabuya mabouya* is widespread but uncommon on the island and was unfortunately not captured. There is an invasive population of *Geochelone carbonaria* kept in captivity at Canefield and a feral population near Woodford Hill (Evans and James, 1997), but neither of these locations were visited. *Chelonia mydas*, *Eretmochelys imbricate* and *Caretta caretta* are all sea turtle species, and were not observed. The first two nest only on beaches in the north which were not visited and *C. caretta* has not been recorded nesting on Dominica (Evans and James, 1997). *Leptodactylus fallax* or the

“mountain chicken” used to be widespread from low to middle elevations on Dominica, but the population has been recently decimated by a Chytrid fungus. The government estimates that between 2002 and 2004, the population was reduced up to 70 % (Green-Reid, 2006). *Eleutherodactylus amplinympha* can only be found in montane thicket which was not visited during this trip.

I found that the areas with the most diversity of species were Cabrits National Park and Batalie Beach, which are both dry forest vegetation.

Future projects could be done on the *Sphaerodactylus* geckos on Dominica. While completing this guide, I found that there was very little information on the distribution and distinguishing characteristics of the three *Sphaerodactylus* species present here. Another project could address the considerable difficulty in distinguishing the three *Eleutherodactylus* frog species from one another.

Acknowledgements:

I would like to thank Dr. Wharton and Dr. Woolley for their help in catching, identifying and photographing the specimens for this study and for answering my numerous questions. I would also like to thank Angie Peredo, Morgan Kohut and Jessica Moore for their help with my project and listening to me gripe about geckos and frogs late, late into the night. I would like to thank the rest of my classmates for their help in finding, catching and photographing all of the creatures for this project and for making this trip an absolutely amazing and fun experience. Finally, I would like to thank everyone at ATREC for feeding and housing 15 college students for 3 weeks! It couldn't have been easy!

Reptiles and Amphibians of Dominica

Class Reptilia

Class Reptilia includes turtles, lizards, snakes, crocodilians and birds (Myers, 2001). All reptiles are amniotes, meaning their eggs have an extra protective membrane that amphibian eggs lack. All reptiles also have (or did have in their history) scales, paired limbs with 5 toes, lungs, a 3 or 4 chambered heart and internal fertilization (Myers, 2001). Their scaly skin inhibits loss of water and their shelled eggs allow them to live in drier habitats than amphibians. This guide will not address birds, as there are far too many to include or crocodilians, as they are only rarely seen as vagrants from South America. Fourteen families of turtles, lizards and snakes are present in the Caribbean (Malhotra and Thorpe, 1999).

Order Squamata

Squamata is the largest order of reptiles with over 6,000 species and includes all scaled reptiles. It is broken up into 2 suborders: Serpentes and Sauria. Members of this order can be omnivorous or carnivorous, aquatic, terrestrial or arboreal and can lay eggs or bear live young (Georgia, 1999).

Suborder Serpentes

Suborder serpentes includes all snakes. Snakes are different from lizards in that they lack eyelids, external ears and limbs. All snakes are carnivorous predators and feed on large prey, which they can swallow whole by dislocating their jawbones. The Lesser Antilles has a very limited snake fauna with only 21 species represented (Malhotra and Thorpe, 1999). The island of Dominica has 4 species represented, one of which is endemic to Dominica and two that are endemic to the Lesser Antilles (Evans and James, 1997).

Family Typhlopidae

Family Typhlopidae is made up of blind, burrowing snakes. They are primitive snakes with small heads and reduced eyes. Typhlopidae have teeth only in the upper jaw and resemble earthworms more than they do snakes (Malhotra and Thorpe, 1999). Only one species is present on the island of Dominica.

Typhlops dominicana – Worm Snake; Thread Snake; Koulèv; Kouwès dé-tèt

Description: Dark brown or grey burrowing snake that resembles a worm. Can have a lighter ventral surface, especially towards the posterior and anterior portions of the body. It can reach 385 millimeters in total length (Malhotra and Thorpe, 1999). See page 21 of Evans and James (1997) for photograph.

Location: It is widespread throughout Dominica but is rarely seen because of its burrowing lifestyle. Mainly found in coastal dry forest and scrub (Evans and James, 1997).

Family Boidae

Boas are non-venomous constricting snakes that are considered to be relatively primitive. Males have spurs or claws which are actually vestiges of hindlimbs. They bear live young and are often feared and killed due to their large size. There are two subspecies that are endemic to the Caribbean, one of which is found in Dominica (Malhotra and Thorpe, 1999).

Boa constrictor nebulosus - Cloud-faced Boa; Tèt-chien

Description: The boa is the largest snake found on Dominica, with adults reaching up to 3 meters long (Figure 1). Boas are dark brown to grey-brown with 23-35 irregular dark brown or black splotches or markings on the dorsum. Dominican boas lack a red tail, which distinguishes them from other boas (Malhotra and Thorpe, 1999).

Location: The only specimen observed in this study was found dead on a road in the Carib Territory (Figure 1). Boas are widespread across the island and are found in most habitats, including dry coastal forest, rain forest, and montane forest (Malhotra and Thorpe, 1999). They are nocturnal and are often found dead on roads in the morning (Evans and James, 1997).



Figure 1: *Boa constrictor nebulosus*

Family Colubridae

Colubridae contains over 70 percent of all snake species and has a virtually worldwide distribution. Most snakes in this family have a slim body that tapers towards the end with distinct scutes covering the head. Most colubrids also have glands behind each eye and rear fangs. Colubrids vary greatly in size, but those in the Caribbean are mostly medium size, as well as terrestrial and at least partially diurnal. There are 13 species in the Lesser Antilles, 3 of which are found in Dominica. Two of these are endemic to the Lesser Antilles (Malhotra and Thorpe, 1999).

Alsophis antillensis - Racer; Grove Snake; Kouvès nwè

Description: A black or brown snake with whitish or yellowish colored bands or blotches across the back (Figure 2a). It is most easily identified by the zigzag pattern of the white on the base color which turns into a darker more uniform color towards the posterior. The ventral surface is white and may have small black blotches along the sides and middle. It has two apical pits on each scale (Figure 2b) (Schwartz and Henderson, 1985). It can reach a length of up to three feet or one meter long. Females are usually lighter in color than males. As a defense mechanism, it will release an unpleasant-smelling cloacal secretion, but the species is otherwise harmless (Malhotra and Thorpe, 1999).

Location: The specimen was observed on the ground at Cabrits National Park, but the species can also be found in scrub and littoral woodland and the rainforest. It is endemic to the Lesser Antilles (Evans and James, 1997).



Figure 2a: *Alsophis antillensis*

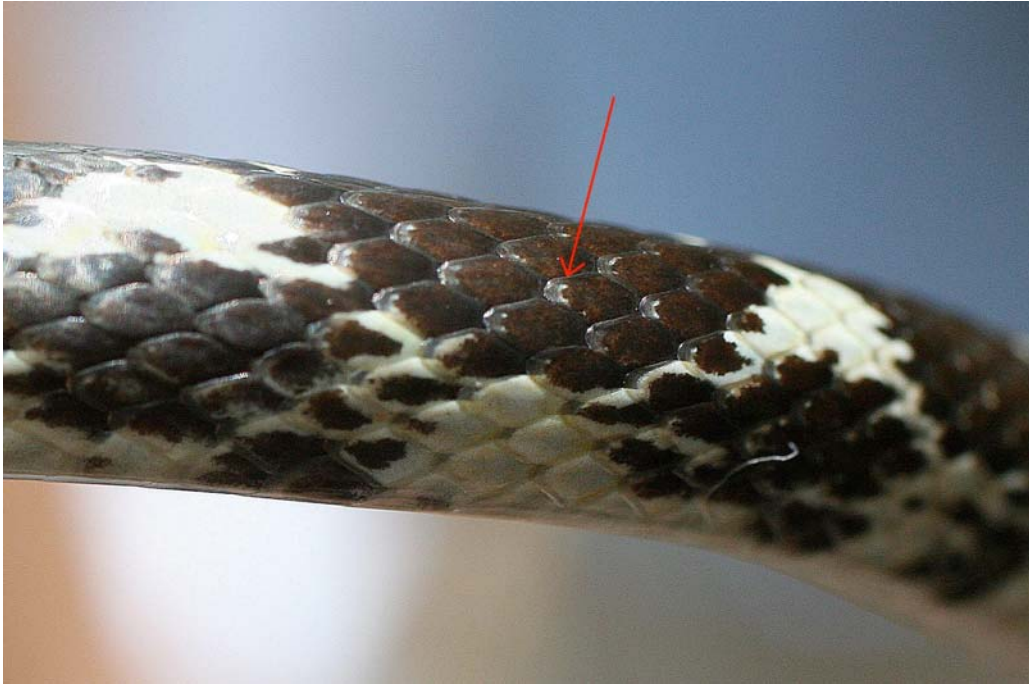


Figure 2b: *Alsophis antillensis* scales; arrow points to 2 apical pits on a scale

Clelia clelia – False Boa; Tèt-chien nwè

Description: An all black snake that is occasionally reported. The presence of this snake is disputed because it could be a melanic form of *Boa constrictor nebulosus*. Can reach up to 2.5 meters long (Evans and James, 1997). See page 107 of Malhotra and Thorpe (1999) for photograph.

Location: Most sightings are in the rain forest (Evans and James, 1997)

Liophis juliae - Kouwès jenga

Description: A black and white checkered or “salt and pepper” snake (Figure 3a). It is most easily identified by the checkered pattern on its scales. Each scale has a white spot which gives the snake its checkered appearance. Unlike *A. antillensis*, the scales of *L. juliae* have only one or no apical pits (Figure 3b) (Schwartz and Henderson, 1985). It can reach lengths of up to half a meter and can release a cloacal secretion similar to *A. antillensis* (Malhotra and Thorpe, 1999). *L. juliae* also has a more uniform ventral surface than *A. antillensis*. Alternating broken black and white transverse bands are present across the central ventral surface turning to plain white towards the anterior and posterior.

Location: The specimen was observed on the grounds of ATREC, near the cocoa tree on the trail to the Check Hall River. It is a Lesser Antillean endemic that can be found in and near rainforest and sometimes in secondary vegetation (Evans and James 1997).



Figure 3a: *Liophis juliae*



Figure 3b: *Liophis juliae* scales; note lack of apical pits on each scale

Suborder Sauria

Suborder Sauria includes all lizards. In the Lesser Antilles, lizards are some of the most common reptiles, being both abundant and active during the day. Lizards have several interesting social behaviors such as body inflation, push ups and color changes. There are several families present in the Caribbean, 4 of which are present on Dominica (Malhotra and Thorpe, 1999).

Family Gekkonidae

Geckos are nocturnal and hunt mainly at night, so they have very large eyes. Geckos also lack eyelids, which differentiates them from lizards. They have toe pads and claws which aid in climbing smooth surfaces. Geckos can vary significantly in size, from the *Sphaerodactylus* adults reaching 40 millimeters snout-vent length (SVL) to the *Thecadactylus* adults reaching 120 millimeters SVL. There are several species found in the Caribbean and 5 on the island of Dominica (Malhotra and Thorpe, 1999).

Hemidactylus mabouia – House Gecko; Mabouya-kay

Description: A lightly colored and not very noticeable gecko (Figure 4a). Has the ability to change color, but basic ground color is off-white to light brown. It can have light to dark brown bands pointing towards the tail. Juveniles hatch at 21 millimeters SVL and can grow to 68 millimeters SVL (Malhotra and Thorpe, 1999). Claws extend much beyond the dilated portion of the toes (Figure 4b) (Schwartz and Henderson, 1985).

Location: Specimen was found on a staircase at ATREC. Species is widespread across the island but uncommon. They are usually found near houses or other human habitation, but can also be found under bark and in rock piles (Malhotra and Thorpe, 1999).



Figure 4a: *Hemidactylus mabouia*; Photograph by Dr. James Woolley



Figure 4b: Extended claws; Photograph by Dr. James Woolley

Sphaerodactylus fantasticus – Fantastic Gecko

Description: Males have deep blue heads with light blue or white spots. Females are more dull, sometimes have two stripes making an upside-down V behind the head and continuing as stripes down the back (Figure 5a) (Malhotra and Thorpe, 1999). Can reach up to 28 millimeters SVL. Has 23-41 dorsal scales from the axilla (point at which forelimbs meet torso) to the groin. Head can also be stippled or marbled (Schwartz and Henderson, 1985). Figure 5b shows the ventral surface of *S. fantasticus*

Location: Two specimens were captured at Batalie Beach. Common in dry forest on the west coast (Evans and James, 1997).



Figure 5a: Dorsal view of *S. fantasticus*; Photograph by Dr. James Woolley



Figure 5b: Ventral surface of *S. fantasticus*; Photograph by Dr. James Woolley

Sphaerodactylus vincenti

Description: Males have a bordered eyespot on each shoulder (Figure 6a) (Malhotra and Thorpe, 1999). Underside of the tail can be orange (Figure 6b). Reaches up to 40 millimeters SVL (Evans and James, 1997) Has 29-63 dorsal scales from the axilla to the groin. Pattern is extremely variable. Can have dorsum with large rosettes (Schwartz and Henderson).

Location: Two specimens were captured in Morne Trois Pitons National Park, on the trail to Boiling Lake near Titou Gorge. It can be found in rain forest leaf litter, in high bromeliads and under rocks (Evans and James, 1997).



Figure 6a: *Sphaerodactylus vincenti*; Photograph by Dr. James Woolley



Figure 6b: Underside of *S. vincenti*; note lack of keeled gular scales; Photograph by Dr. James Woolley

Sphaerodactylus microlepis

Description: Color pattern is variable. Has light grey or brown background with 6 or 7 crossbands between the limbs. Tail is bright coral to pale orange. Underside is white to yellow and chin has dark stripes extending to chest or throat. Can reach up to 34 millimeters SVL (Malhotra and Thorpe, 1999). Has 33 – 53 dorsal scales from axilla to groin. Keeled ventral and gular (throat) scales (Schwartz and Henderson, 1985). See page 94 of Malhotra and Thorpe (1999) for photograph.

Location: Presence on Dominica in question (Malhotra and Thorpe, 1999). If present, can be found in dry forest on the west coast (Evans and James, 1997).

Thecadactylus rapicauda – Turnip-tailed Gecko; Tree Gecko; Mabouya-hazyé

Description: A large gecko, reaching up to 121 millimeters SVL and 100 millimeter tail length (Figure 7a). It is variable in color and is most easily distinguished by a swollen tail base, which is used to store fat (Malhotra and Thorpe, 1999). It can be differentiated from *H. mabouya* by looking at the toes: the claws in *T. rapicauda* can barely be seen beyond the dilated portion of the toes (Figure 7b), as opposed to *H. mabouia* which has long, visible claws.

Location: Specimen was observed and captured on a wall at ATREC. This species is widespread, but is most common in lowland and coastal vegetation. It is also sometimes associated with human habitation. It is a nocturnal animal so is most often found at night (Evans and James, 1997).



Figure 7a: *Thecadactylus rapicauda*; Photograph by Dr. James Woolley



Figure 7b: *T. rapicauda*; arrow points to claw barely extending beyond dilated portion of toe; Photograph by Dr. James Woolley

Family Iguanidae

Family Iguanidae includes the giant iguanas, as well as the smaller, though more common anoles. The *Iguana* genus includes the common or green iguana, as well as the Lesser Antillean Iguana, which is endemic to the Lesser Antilles and is found on Dominica. The second genus, *Anolis*, has the second largest number of species in any vertebrate genus. There are over 150 species in the Caribbean. In the Lesser Antilles, there are two groups of anoles: those that invaded the islands from South America and those that invaded from the Greater Antilles (Malhotra and Thorpe, 1999). Two species are present on the island of Dominica: the naturally present *Anolis oculatus* and the invasive *Anolis cristatellus*.

Iguana delicatissima – Lesser Antillean Iguana; Léza

Description: The iguana is Dominica's largest lizard, reaching lengths of up to 400 millimeters SVL, with the tail at least as long (Evans and James, 1997). Juveniles and females are bright green in color (Figure 8a), while adult males are darker green, grey or brown (Figure 8b). The face is normally more lightly colored than the rest of the body. Iguanas also have a crest of scales from the neck to the end of tail.

Location: Two specimens were observed in trees at Batalie Beach. Iguanas are arboreal, so can mostly be observed on tree branches in dry forest, scrub, littoral woodland and cultivated areas. Can occasionally be found near the edge of the rain forest and in swamp forest (Evans and James, 1997). Endemic to the Lesser Antillean (Malhotra and Thorpe, 1999)



Figure 8a: *Iguana delicatissima* adult female in tree



Figure 8b: *I. delicatissima* adult male in tree

Anolis oculatus – Tree Lizard; Zandoli

Description: *A. oculatus* is extremely variant in coloration (Figure 9a). It can range from dark brown or green to pale grey. Has a white spot in the top of the middle of the head and a longer distance from the eye to the snout than *Anolis cristatellus* (Figure 9b) (Eales, 2007). Adult males have a very deep, bright orange or yellow dewlap (Figure 9c). The eye of *A. oculatus* has blue around they circumference. It is a medium sized lizard, with SVL reaching 98 millimeters with the tail at least as long (Evans and James, 1997).

Location: Specimens were observed almost everywhere on the island. Very widespread and abundant, especially in dry forest, scrub and littoral woodland. Can be seen throughout the day, although greatest activity occurs at dawn and dusk when it is coolest. Species is endemic to Dominica (Evans and James, 1997).



Figure 9a: Lightly colored *Anolis oculatus*



Figure 9b: Head of *A. oculatus* with white spot and long snout to eye distance



Figure 9c: Bright dewlap of *A. oculatus* male; also note vibrant coloration and pattern

Anolis cristatellus

Description: Invasive *Anolis* species (Figure 10a). Similar in size to *A. oculatus*. Dewlap color in adult males is green in the middle fading to orange or yellow around the edges (Figure 10b). Dewlap color is variable and not as bright as in *A. oculatus*. Has a black eye, as opposed to black with blue around the edges in *A. oculatus*. Lacks the white spot behind the eyes that is present on *A. oculatus*. Also has crest from head to tail, but it should not be used as a defining feature. Distance from eyes to the tip of the snout is shorter than *A. oculatus* (Figure 10c) (Eales, 2007).

Location: Specimens were captured and photographed at the Botanic Gardens in Roseau. Invasion of this species from Puerto Rico was discovered by Anita Malhotra between the late 1990's and early 2000's originating at the Canefield port. Currently the species has spread to just north of Champagne in the south and around Rodney's Rock in the north. The species is very confined to the coast and dry scrub vegetation. However, it can be found further inland in exceptionally disturbed areas, such as Roseau (Eales, 2007).



Figure 10a: *A. cristatellus*



Figure 10b: Dewlap of *A. cristatellus* male; Note green color in the middle fading to yellow-orange on edges; Photograph by Dr. James Woolley



Figure 10c: *A. cristatellus*; note shorter snout to eye distance than *A. oculatus*

Family Teiidae

Family Teiidae can be divided into the macroteiids, which reach large sizes, and the microteiids, which are much smaller. Three genera of macroteiids can be found in the Lesser Antilles, including *Ameiva* on the island of Dominica. Many species have well developed limbs and large scales on the head. There are two genera of microteiids. These are usually small animals with reduced limbs. Additionally, microteiid males are smaller than females (Malhotra and Thorpe, 1999)

Ameiva fuscata – Dominican Ground Lizard; Abòlò

Description: A large, colorful lizard. The juveniles are easily distinguished from adults. Juveniles are coppery-brown, with a darker brown lateral stripe down each side, with yellow lines on each side of the brown stripe (Figures 11a and 11b). Juveniles also have yellow lateral spots on the stripes and a pinkish ventral surface. As juveniles mature, the yellow spots turn blue, along with the rest of the body. The ventral surface turns from pale pink to pale blue, with dark blue or grey on the chest and throat. The dorsal surface has an overall grayish blue color (Figure 11c) (Malhotra and Thorpe, 1999). SVL can reach up to 200 millimeters in males and 154 millimeters in females, with tails about the same length (Evans and James, 1997).

Location: Many specimens were observed at Batalie Beach and one possibly sick individual was captured, observed and photographed at close range. Species is limited to littoral woodland and dry forest and scrub below about 300 meters in elevation, but is very abundant in these areas. Species is endemic to Dominica (Evans and James, 1997).



Figure 11a: *A. fuscata* juvenile from the side



Figure 11b: Juvenile *A. fuscata* viewed from the top



Figure 11c: Adult *A. fuscata*; note difference in coloration from juveniles

Gymnophthalmus pleei – Pigmy Skink

Description: Small, elongated lizard with metallic brown dorsum and a gold stripe from the snout fading after the forelimbs (Figure 12a). Sides are dark grey-brown or reddish-brown (Figure 12b). Ventral surface is variable from dark to pale with dark markings. Has very short limbs and only four toes on the front limbs (Malhotra and Thorpe, 1999). Appearance is very similar to *M. mabouya*. SVL can reach around 48 millimeters, with a similar tail length (Evans and James, 1997).

Location: Specimens were collected at ATREC and at Cabrits National Park. Common but restricted to open, sunlit areas, mainly on the coast (Malhotra and Thorpe, 1999).



Figure 12a: *G. pleei* viewed from the top; Photograph by Dr. James Woolley



Figure 12b: *G. pleei* viewed from the side; Photograph by Dr. James Woolley

Family Scincidae

Skinks are shiny, cylindrical lizards that can be terrestrial, arboreal or burrowing. Most have reduced limbs, although some have lost them completely. Only the genus *Mabuya* is present in the Caribbean and only one species is present in the Lesser Antilles (Malhotra and Thorpe, 1999).

Mabuya bistratia (formerly *M. mabouya*) – Shiny Back; Golden Skink; Zannoli kléwant; Soud

Description: Small bronze or copper-colored lizard with a dark brown lateral stripe and very reduced limbs. Dark stripe may be bordered by beige lines. Can be distinguished from *G. pleei* by the presence of overlapping head scales (Malhotra and Thorpe, 1999). SVL can reach up to 93 millimeters in females and 87 millimeters in males, with similar tail length in each (Evans and James, 1997). See page 35 of Malhotra and Thorpe (1999) for photograph.

Location: Widespread but uncommon in most areas. It is most abundant in dry forest, scrub and littoral woodland (Evans and James, 1997).

Order Testudines

This order contains turtles, terrapins and tortoises. They can be marine, semi-aquatic or terrestrial and all have a bony shell covered in bony plates or hard skin. There are four species of marine turtles, one terrestrial tortoise and three semi-aquatic terrapins in the Lesser Antilles. Many of these species are endangered (Malhotra and Thorpe, 1999).

Family Testudinae

Family Testudinae is composed of terrestrial tortoises ranging in size. The only species found in the Lesser Antilles is *Geochelone carbonaria*. It is widespread throughout tropical South America and several other West Indian islands (Malhotra and Thorpe, 1999).

Geochelone carbonaria – Tortoise

Description: Large tortoise with a flat, oval carapace up to a half-meter long. It has a black carapace with yellow markings on each scute. The head may have yellow postorbital lines and sections of the tail and feet are red, orange or yellow (Malhotra and Thorpe, 1999). See page 19 of Evans and James (1997) for photograph.

Location: A population is kept in captivity at Canefield and a feral population exists near Woodford Hill (Evans and James 1997).

Family Dermochelyidae

The family Dermochelyidae contains only one species: *Dermochelys coriacea*. It is able to visit colder water temperatures than many sea turtles, because of its large size. It is mainly a deep sea animal, but females come ashore to nest (Malhotra and Thorpe, 1999).

Dermochelys coriacea – Leatherback Turtle; Kawayn

Description: The largest living sea turtle, reaching up to 2.5 meters in length and up to 500 kilograms in weight (males). Carapace is flexible with 5 distinct ridges and no scutes. It has a strongly tapered, leathery carapace that is dark grey or black with lightly colored spots (Figure 13). Also has a deeply notched jaw (WIDECAST).

Location: Specimens were observed from a distance at Rosalie beach and up close at another East Coast beach. Nesting has been recorded at Bout Sable, Lambawan, Stowe, Hampstead Beach and Rosalie Beach, from April to June (Evans and James, 1997).



Figure 13: Female *D. coriacea* nesting on an East coast beach

Family Cheloniidae

Family Cheloniidae includes three sea turtle species that can be found in the Caribbean. These turtles can all be seen in the Lesser Antilles, although the Hawksbill turtles are most common. All of these species can be seen in the waters surrounding Dominica, although *Caretta caretta* has not been recorded nesting on Dominica (Malhotra and Thorpe, 1999).

Eretmochelys imbricate – Hawksbill Turtle; Do-kawèt, Kawèt

Description: Has a bony carapace with 4 pairs lateral scutes. Shell scutes overlap and shell can be orange, brown or yellow. Face is pointed with an obvious overbite. Has 2 pairs of prefrontal scales (located slightly in front of and between the eyes). Juvenile coloration and pattern is variable. Adults can reach up to 1 meter in length and 85 kilograms (WIDECASST). See page 11 of Malhotra and Thorpe (1999) for photograph.

Location: Occasionally found in coastal waters. Nests mostly on beaches in the north, such as Castle Bruce, from Point Ronde to Toucari, Hampstead Beach and Bout Sable from May to October (Evans and James, 1997).

Chelonia mydas – Green Turtle; Tòti

Description: Has a bony carapace with 4 pairs of lateral scutes. Shell scutes do not overlap and it has 1 pair of prefrontal scales. It has a round face and notched jaw. Juvenile coloration and pattern can vary. Adult color is dark grey-green. Adults can reach 1.25 meters in length and 230 kilograms (WIDECASST). See page 19 of Evans and James (1997) for photograph.

Location: Rarely seen in coastal waters. Nests mostly on beaches in the north, such as Castle Bruce, Pointe Ronde to Toucari, Bout Sable and Hampstead Beach from June to October (Evans and James, 1997).

Caretta caretta – Loggerhead or Channel Turtle

Description: Has a bony carapace with 5 or 6 pairs of lateral scutes. Carapace is longer than it is wide and the head is broad (up to 25 centimeters). Coloration is red-brown to red. Can reach up to 1.2 meters and up to 200 kilograms (WIDECASST). See WIDECASST publication for photograph.

Location: Rarely seen in coastal waters, mostly around Soufriere Bay and Martinique and Guadeloupe Channels. This species has not been recorded nesting on Dominica (Evans and James, 1997).

Class Amphibia

There are three orders of amphibians: Apoda, Urodela and Anura. Only Anura occurs on the island of Dominica and in the Caribbean as a whole. All amphibians have very moist skin and produce shell-less eggs. They are therefore incredibly dependant on water for reproduction and life in general. Amphibians are good indicators of environmental quality because of their moist skin (Malhotra and Thorpe, 1999).

Order Anura

Anurans are the most diverse and widespread of the three extant amphibian orders. Anurans, or frogs and toads, are characterized by their lack of a tail, urostyle, fused radius and ulna and tibia and fibula, lack of skull bones in many species, a large tongue and vocal sacs in many males. Many of these characteristics are believed to be morphological adaptations for jumping. The tadpole stage of many frogs is also unique to Anura (Heying, 2003). Four families of Anurans can be found in the Caribbean.

Family Leptodactylidae

Leptodactylidae is the only family of Anurans present on Dominica. This family can only be found in South and Central America and has two genera in the Caribbean: *Leptodactylus* and *Eleutherodactylus*, both of which can be found on Dominica. *Leptodactylus* are large wide-mouthed frogs that include the edible crapaud or “mountain chicken” which is present in small numbers now on Dominica. *Eleutherodactylus* is made up of a large number of species and are small frogs that resemble tree frogs (Malhotra and Thorpe, 1999).

Leptodactylus fallax – Mountain Chicken; Crapaud; Kwapo

Description: Large frog with marked dorsolateral creases from the eye to the groin. Background color is reddish orange. Females can reach up to 170 millimeters SVL and males can reach 121 millimeters SVL (Malhotra and Thorpe, 1999). See page 17 of Evans and James (1997) for photograph.

Location: Very rare in Dominica now due to decimation of population by Chytrid fungus. If still present on the island, would be at low to middle elevations on the leeward side of the island, in valleys of coastal scrub or dry forest (Evans and James, 1997)

Eleutherodactylus amplinympha – Dominican Whistling Frog;
Dominican Gounouj

Description: Extremely variable color pattern. Inner two toes on front limbs are same size, as opposed to *E. martinicensis* and *E. johnstonei* in which they are different in size. SVL can reach up to 45 millimeters (Evans and James, 1997). See page 44 of Malhotra and Thorpe for photograph.

Location: Species only found in montane forest on Morne Micotrin, Morne Trois Pitons, Morne Diablotin and other high elevation areas (Evans and James, 1997).

Eleutherodactylus johnstonei – Johnstone’s Whistling Frog;
Gounouj

Description: Extremely variable color pattern. Dorsal color is grey-brown to brown and ventral surface is pale with a speckled throat. Can have 1 or 2 scapular chevrons and obvious dorsolateral stripes. There is no red on the groin or hindlimbs. SVL can reach up to 35 millimeters (Malhotra and Thorpe, 1999). See page 51 of Malhotra and Thorpe (1999) for photograph.

Location: In disturbed places around Roseau originally. Now also in area from Fond Colet to Mahaut and along Imperial Road, reaching as far as ATREC (Malhotra and Thorpe, 1999).

Eleutherodactylus martinicensis – Whistling Frog; Tink Frog;
Gounouj

Description: Extreme variability in coloration pattern (Figures 14a, 14b and 14c). Dorsal background ranges from yellow brown, reddish brown, dark brown, and grey. Has red on groin and hindlimbs (Figure 14d). Often has a dark interocular bar and 1 or 2 dorsal chevrons. Can have light dorsolateral stripes, wide vertebral stripe and a wide crural crossbar. Has a pale ventral surface with a speckled throat. SVL can be up to 47 millimeters (Malhotra and Thorpe, 1999).

Location: Several specimens found on ATREC. Common in rain forest and nearby cultivation. Uncommon in scrub, littoral woodland and coastal dry forest (Evans and James, 1997).



Figure 14a: *E. martinicensis*



Figures 14b and 14c: Variations of color and pattern of *E. martinicensis*; Photographs by Dr. James Woolley



Figure 14d: Ventral surface of *E. martinicensis*; note red color in groin area; photograph by Dr. James Woolley

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