

The Terrestrial Reptiles of Monos Island

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PHYSICAL FEATURES

MONOS Island is the first island to the west of the north-western peninsula of Trinidad, W.I. It is separated from Trinidad by a trench 22 fathoms (40 metres) deep (Underwood, 1962) called the First Boca, Boca de Monos, or the Apes Mouth, which is approximately 800 metres wide at its narrowest point, between the area of Blanchette Point on the east of Monos Island, and Anse Paoua on the West of Scotland Bay on Trinidad.

On the west, Monos Island is separated from the next island, Huevos, by the Second Boca, Boca de Huevos, or Egg's Mouth by a trench 40 fathoms (74 metres) deep (Underwood, 1962) which is approximately 1300 metres wide at its narrowest point between Point Braba on the East of Huevos Island and Point Courant (Cape Cola) on the west of Monos Island.

Very strong currents called 'remous' (Vincent, 1910) sweep through these narrow passages every day with the rise and fall of the tides.

Monos Island is rugged and mountainous with deeply indented bays on the south and east and with steep cliffs on the west and north. It measures 2.4 x 4.0 kilometres (1.5 x 2.5 miles) (Underwood, 1962) and the highest point is 268.8 metres (942ft) (Latham, 1927). (See Map. Figure 1).

HISTORY AND DEVELOPMENT

The island has been inhabited for almost two centuries. It was decided by the Spanish Governor of Trinidad, Joseph Maria Chacon, in 1791 that the islands of Patos, Huevos and Monos be granted to the illustrious Cabildo to be leased out, the revenues created thereby to be used to increase the town (Port of Spain) funds (HSP 534).

The leases granted for Monos Island must have been for agriculture and fishing from the island. Some whaling in the Gulf of Paria was done from the point still known today as Copperhole Bay.

Today, very little of the original vegetation remains as a result of years of slash and burn agriculture which to a small extent is still practised on the island. Dense bush and vegetation remains only in the deep ravines between grass-covered ridges. The only valley that supports running water, and which at one time was extensively cultivated is the one which runs inland from Grand Fond Bay.

Here, there are remnants of an old cocoa and coconut plantation. There are also the odd avocado, mango, and other fruit trees. Tenacious, decorative hibiscus and other shrubs still exist.

In nearly every suitable site along the south and east coast, there are holiday homes and a few permanent residences.

GRAND FOND BAY

In Grand Fond Bay there is a small brick and wood struc-

ture that is called the Villafana house which stands on flat, low-lying land behind a stone break-water. This land is traversed by the only flowing water of a semi-permanent nature on the island.

The stream which runs down between the mountain ridges that enclose Grand Fond Bay has cut a well-defined channel in the valley in which there are many small pools that collect water in the wet season (June to December) and which retain some moisture even in the dry season (January to May), being refilled by occasional unseasonal showers.

Efforts to channel this run-off water had been made in the past as the remains of concrete culverts are still to be found up in the bush behind the Villafana House. This attempt at drainage, and the building of the stone break-water were probably an attempt to reclaim the foreshore area where the stream had broken up into many small distributaries and seepages, creating a swampy mangrove-like environment.

Today this area supports thriving colonies of fiddler crabs (*Uca sp.*) and "Blue" crabs (*Cardisoma guanhumi*) and is affected by the tides, becoming flooded to some extent at high tide.

During the Second World War (1939 - 1945) a road was cut into the valley and up to the highest point on the island to a gun emplacement. The remains of a landing area and pier can still be seen, but the road between the pier and the gun emplacement has almost completely disappeared under the secondary scrub-growth and cactus.

CLIMATE

Monos is a dry island. The climate and vegetation of the Grand Fond Bay area were surveyed in 1964 (Chalmers, 1965) and it was on this same expedition that the first listing of Reptiles on Monos Island was made and published (Manuel, 1965).

REPTILES OF MONOS

The first reptile reported from Monos was by R.R. Mole (1926b) who related that he had been told that "Cribos" were known from the island. Mole's "Cribo" was what is now called the "Yellow-tailed Cribo," *Drymarchon corais corais*.

If this snake survives on Monos island it was not collected by Raymond Manuel when he visited the island with the Trinidad Field Naturalist's Club on the 16th - 18th May 1964, nor by Richard ffrench and G. La Forest on 1st - 3rd August of the same year (Manuel, 1965).

The following reptiles were recorded as a result of these two trips:

SNAKES

Boa constrictor
Drymobius boddaerti

Macajuel
Machette couesse

LIZARDS

Ameiva ameiva
Gonatodes vittatus
Iguana iguana
Mabuya mabouya aenea
Plica plica
Thecadactylus rapicaudus

Common Garden Lizard
Streak Lizard
Iguana
Skink
—
Woodslave

During another Trinidad Field Naturalist's Club week-end

field-trip/camp in the same area in 1966, one of the Club's members, John Correia, while on a hike to the top of the peak, collected a turtle. He unfortunately lost the specimen when he got lost trying to return to the camp site in the falling darkness. The identity of this turtle remains a mystery.

In 1974 I visited the Grand Fond Bay area, and I collected the small Mole's Gecko (*Sphaerodactylus molei*) from the spaces between the leaf-stems and trunks of the young coconut trees growing on the swampy land around the Villafana House.

In 1979 I was again collecting lizards in this area with Raymond Mendez of New York, when he saw and we collected a species of gecko that was unfamiliar to me. I have since sent another specimen of this lizard to the Museum of Comparative Zoology in Cambridge, Massachusetts for a positive identification. This gecko was quite similar to the common house dwelling gecko, *Hemidactylus mabouia*, but different enough for me to provisionally identify it as *H. palaichthus* (Boos, 1981). The M.C.Z. has given this specimen the number 159776 and confirmed my identification.

Up to this time no amphibians had ever been recorded from Monos Island. I did not recall ever seeing even one specimen of the hardy and common Marine Toad, *Bufo marinus*, on Monos Island during the years when, as a boy, I spent many holidays at several of the island houses on the South Coast.

THE 1979 FIELD NATURALISTS' TRIP

When the Trinidad & Tobago Field Naturalists' Club of decided to camp in Grand Fond Bay once again in 1979, it was agreed that the theme of activity for this field-trip was to be an investigation into the possible presence of amphibian life on the island. It was reasoned that, since the Grand Fond Bay area and the valley behind it were the wettest part of the otherwise dry and scrub-covered island, it was to be expected that we should find any amphibians here, if at all.

The long week-end chosen for the trip was at the height of the wet season, the 3 days and 2 night between August 31st and September, 2nd.

The river was flowing steadily, and there were many well established pools. The swampy delta area, near the sea, was extremely marshy and spongy. Seepages and irregular meanderings, of the river were common, and this made collecting or observations in this area unpleasant and difficult.

We had hoped too, to listen for the calls of frogs of the genus *Eleutherodactylus* as they were not dependant on flowing or standing water (in Bromeliads) for their metamorphosis. Their small froglets hatch directly from the spongy mass of jelly-like eggs which are deposited in any consistantly damp place (Cochran, 1961). Such locations were abundant in the valley, especially under and within the piles of semi-rotting coconut husks.

In similar situations on the island of St. Lucia, I had collected in such piles many *E. johnstonei*. We hoped to find similar populations of *E. urichi* in these coconut piles on Monos Island.

RESULTS

Though we made many forays into the bush, and up into the valley, both during the day and the night, though we listened diligently for any frogcalls especially the distinctive 'tink' of *E. urichi*, we neither saw, nor collected, nor heard anything that would indicate that there is an amphibian population in the Grand Fond Bay area on Monos Island.

However, an impressive collection of reptiles was made which includes several new records for Monos Island. This list follows with additional notes and includes previous records that have appeared in the literature. The scientific names have been updated.

Many of these new records are due to the sharp eyes and enthusiasm of the Club's members, especially John Seyjagat, and I am grateful to all of them for the help given in this survey.

THE REPTILE LIST FOR MONOS ISLAND:

Order: Squamata

Sub order: Lacertilia (Lizards)

Family: Iguanidae

1. *Iguana iguana iguana* (Linnaeus) *Iguana*

This lizard is well known from Monos Island, and though not seen on the 1979 trip, had been on previous visits. On fishing trips around the island Iguanas are a fairly common sight basking on rocks and cliffs and on trees overhanging the sea. There used to be a group of these lizards that became tame and were hand-fed for years in Guppy's Bay (Boos, 1977a). Recorded by Manuel (1965).

2. *Plica plica* (Linnaeus) *Plica*

This is a fairly common lizard in the Grand Fond Bay area on the tree trunks near the sea, as well as up in the dense jungle in the valley.

Family: Teiidae

3. *Ameiva ameiva atrigularis* Garman (Tuck & Hardy, 1973) *Zandolie*.

The 'zandolie' is fairly common around the Villafana House, and several were seen, though none was collected.

4. *Bachia heteropa* (Lichtenstein) *Burrowing Lizard*

Two small immature specimens of this strange lizard were collected and have been sent to Jerry D. Hardy Jr. in the United States of America to have their subspecific taxonomic status verified. At the time of their capture I did not have a copy of Dixon (1973) on the systematic review of the genus, but with it now at hand it will be interesting to collect adults of this lizard and have them positively identified. On the immature specimens collected it was difficult to see the scalation features on their heads whereby a correct identification can be made.

It is most likely however that these lizards will turn out to be the same as the mainland form — *B.h. trinitatis* (Barbour).

This is a new record for the Island.

5. *Gymnophthalmus underwoodi* Grant *Shiny Lizard*

I saw a lizard disappear into deep leaf-litter and it looked like *G. underwoodi*. I shall have to collect one to confirm this sighting. This will be a new record for the island if verified.

Family: Scincidae

6. *Mabuya mabouya mabouya* Lacepede *Bronze Skink*

This skink is fairly common in the Grand Fond Bay area and I have collected it on several occasions.

Family: Gekkonidae

7. *Gonatodes ceciliae* Donoso — Barros *Variegated Gecko*

Three males were collected on damp rock faces, which is typical *G. ceciliae* habitat, far up in the valley. This is a first record for the island.

8. *Gonatodes humeralis* (Guichenot) *Spot-nosed Gecko*

This gecko was collected both up in the valley and on the tree trunks in the swampy area. This is a first record for the island.

9. *Gonatodes vittatus vittatus* (Lichtenstein) *Streak Lizard*

The streak lizard is common around the Villafana house, and on the tree trunks up in the valley it has been collected also under piles of loose stones, and lumber and in leaf litter.

10. *Sphaerodactylus molei* Boettger *Mole's Gecko*

I have collected this lizard on several occasions in the spaces between the leaf bases and tree trunks of the young coconut palms near the Villafana house. This is a first record for the Island.

11. *Hemidactylus palaichthus* Kluge *Spiny Gecko*

This lizard was collected by Raymond Mendez and myself in early 1977, again in August/September 1979, and another specimen in 1980. They were caught both during the day and at night as they were hunting for insects attracted to the lights on the outside of the Villafana house. A specimen sent to the M.C.Z. has been identified as *Hemidactylus palaichthus*. Given Specimen No. 159776 it verifies a provisional diagnosis (Boos, 1981). It is similar in general shape and appearance to the well known and widely distributed *H. mabouia* from Trinidad and Chacachacare Island (Underwood, 1962). Besides this common species Underwood (1962) lists another species, *H. brooki*, from Trinidad and Chacachacare Island.

H. brooki has been re-assigned to the taxon *H. palaichthus* by Kluge (1969). It has also recently been recorded from Tobago as well (Tuck, 1972; Hardy, 1982).

To date I have collected only the common species *H. mabouia* on Trinidad and Chacachacare Island (Boos, 1983) but it will be interesting to survey Chacachacare Island more thoroughly, and at night, to try to collect both these related species which were found by Underwood (1962) on coconut palm-trees growing side by side in La Tinta Bay. These two trees no longer exist. Similar checks on the island houses on Monos Island, at night, for *H. mabouia* should also prove very interesting. This is a new record for the island.

12. *Thecadactylus rapicaudus* (Houttuyn) Turnip-tailed Gecko

This large gecko was common in the area and its rattling call could be heard when we were settling down to sleep at night at our camp site. R.R. Mole (1926a) mentions hearing Gecko calls on Monos through he does not identify which lizard gave them.

Sub Order: Serpentes (Snakes)

Family: Boidae

1. *Boa constrictor constrictor* (Linnaeus) Macajuel

Three specimens were collected in 1979. One was taken in the shallow water of one of the channels of the river in the swampy area, and a party, hiking up the valley, caught two more. All three were females, about 1 metre long, and there were numerous ticks embedded in scar tissue in the neck area of the snakes. This snake was reported by Manuel as well (1965).

Family: Colubridae

2. *Drymachon corais corais* (Boie) Yellow-tailed Cribo

This snake was reported by Mole (1926b) to be on Monos Island. He was told by the locals living there that it used to prey on young chickens. In recent years no reports of this distinctive snake have been received, nor has it been collected and may well be extinct there. Even on Trinidad it is uncommon (Boos, 1975)

3. *Mastigodryas boddaerti boddaerti* (Sentzen) Machete couesse

This snake, collected and recorded by Manuel (1965) has also been collected on nearby islands (Boos, 1967; 1983). It was formerly called *Drymobius b. boddaerti*.

Order: Crocodilia

Family: Crocodylidae

1. *Caiman crocodilus crocodilus* (Linnaeus) Alligator

Though this reptile has not been recently seen or collected on Monos Island, Medem (1970's?) records it from "Gran Fonde Bay, Monos Island" (sic) "up to about 20 years ago, but are now reportedly absent." Owing to the lack of adequate water on Monos Island, it is unlikely that there was ever a breeding colony there. They were more than likely strays from the swampy area of Tucker Valley, where there are still small numbers, or from the Caroni River and Swamp.

DISCUSSION

The reptile fauna, especially the lizards, of Monos Island is a rich one when compared with that of Trinidad and the other

nearby islands of Huevos (Boos, 1967, 1983) and Chacachacare (Boos, 1983). It suggests a more recent separation of the island from Trinidad than the 10,000 years usually suggested by other authors (Underwood 1962, Emsley, 1977). To date, two of the four Iguanids, six of the seven Gekkonids, three of the seven Teiids, and the one Scincid found on Trinidad have been recorded there.

It is surprising that the Iguanids, *Polychrus marmoratus*, and *Anolis chrysoleps planiceps* have not been collected there, for they have both been taken nearby on Chacachacare Island (Boos, 1983), the second on Huevos Island (Boos, 1967), the first on Gaspar Grande Island (Boos, 1983 and both on the mainland of Trinidad opposite (Boos, 1977a and b, Johnson, 1946) I believe it is only a matter of time before these two lizards are collected on Monos Island.

It would be no surprise to find that the Iguanid *Anolis aeneus*, introduced to Trinidad from Grenada (Gorman & Dessaur, 1965) has established itself here too, having been brought over to Monos Island on vegetation and houseplants over the years, for it is common on other off-shore islands such as Gaspar Grande and some of the Cotorras or Five Islands (Boos, 1983).

Though seriously dwindling on the mainland (Gorman & Boos 1972) perhaps isolated colonies of *Anolis trinitatis* may exist on Monos Island as it has been suggested (Donoso-Barros, 1968) that this species introduced to Trinidad from St. Vincent (Gorman & Dessaur, 1966) may be found on the Paria Peninsula of Venezuela to the west of Monos Island.

The gecko *Hemidactylus mabouia* will also probably be collected when a more thorough search is made at night in the many buildings of the houses on Monos Island.

The paucity of snakes, when compared to the rich list from Trinidad, is difficult to explain if we accept the concept, suggested above, of a more recent separation of Monos Island than the other islands to the west, Huevos and Chacachacare.

Unlike lizards, snakes are not generally gregarious. They are more widely territorial and the newly separated island would have had only the sparsely spread snakes that were occupying their respective territories at the time.

The macajuel, *Boa c. constrictor*, is a large, easily identified snake, and may have, in those more enlightened rural surroundings and times, been recognised for its rat-killing usefulness, and more often than not, left alone. Being a live-bearer with large litters of young, it has been able to hold its own against the pressures of increasing slaughter and habitat destruction.

Its natural food has been supplemented by the advent and spread of human habitation on Monos Island owing to the introduction of domestic fowls and the usual human habitation-following rats and dogs.

There is also the possibility of re-population of the island by rafting during the wet season on the floods down the Caroni and Cuesas Rivers, flowing out of the Caroni plain and Tucker Valley, before these areas were affected by modern human population.

The plight of the other less often collected or sighted snakes is indicated by Mole's report (1926) that the once abundant Cribo, *Drymanchon c. corais*, well known then on Monos Island, is no longer seen, and perhaps is no longer there.

The destruction of the natural vegetation on Monos Island is on a major scale owing to slash and burn roving agriculture over the centuries.

The subsequent yearly fires on the resulting grasslands that have covered a great portion of the hillsides, have also taken their toll. This destruction of habitat has undoubtedly been disastrous to the smaller species of snakes and their foods which may at one time have existed there in some natural abundance.

The remaining untouched and undestroyed habitats which may have protected the surviving species, were not safe either, for these were usually the sites chosen for clearing and the building of holiday homes. In these areas any snake encountered by the people working or building on the land would have invariably been killed owing to city-bred ignorance and fear.

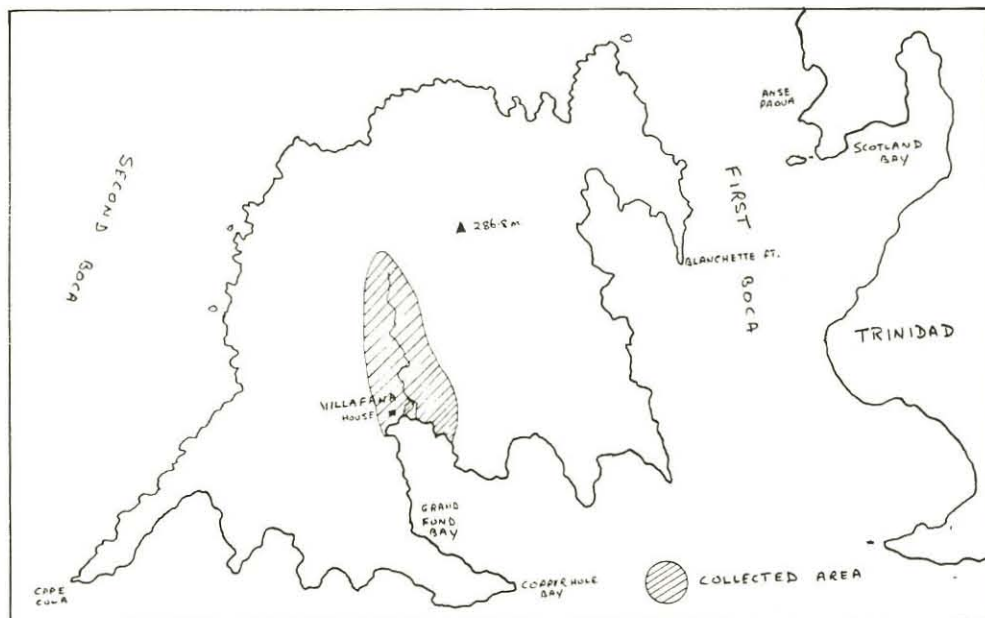


FIG. 1: Monos Island.

The Grand Fond Bay area has been a haven for some time since the turn of the century and since World War II, and all the collecting done so far, except for odd sightings, has been there, and up on the ridges overlooking the bay.

The machete coues, *Mastigodryas b. boddaerti* has only so far been collected there. It is a shy, swift, and basically highly adaptable survivor at home both in dry scrub-covered hillsides or in wet river valleys. It survives on nearly all the off-shore islands of the Bocas (Manuel, 1965; Boos 1967, 1983. Lancini 1963). On Monos Island it is not known how widespread it is, but it possibly does well wherever the original forest cover has survived, on the steep slopes and cliffs of the North and West coasts of the island and in any other areas that are unsuitable for agriculture or houses.

It is surprising that more of the secretive smaller species of snakes, common in Trinidad, that one would expect to collect in the one remaining suitable habitat (Grand Fond Bay area) have not been found. They may yet be in the future.

There are many mysteries yet to be unravelled on Monos Island. The identity of the turtle collected and lost in 1966 by John Correia remains unknown. There are also reports of turtles or "morocoys," a local name that has come to mean many species, being caught for eating by the weekend inhabitants of the Villafana house in Grand Fond Bay. What these testudines are or were, may never be verified as they may be extinct there now.

Of all the Boca Islands, Monos is unique. There is further evidence to support my contention that geologically speaking Monos Island was still a part of the Trinidadian mainland until fairly recently and which would account for the richness of its lizard fauna. This evidence is the presence of mammals. Its name, Monos, tells us that within human memory, monkeys were perhaps known from there. Columbus saw it in 1498 as he sailed out of the Dragon's Mouth — the collective name for all the Bocas.

Charles William Day (1852) suggested authoritatively that "Monos or Ape Isle, a large inhabited territory is named from the circumstances of its first inhabitants on its eastern side having heard the chattering of the monkeys in Scotland Bay on the main land of Trinidad."

Though Day may have been told this by the local inhabitants while he was spending his "Five Years Residence in the West Indies," he tended to believe whatever he was told, and reported these stories as fact. He reports as well that "the fact of the crapeau blinding animals, by ejecting a corrosive liquid is

thoroughly established throughout the country." Stories of this sort formed part of the folklore then as they often still do today.

Sir Claud Hollis (1941) further confuses matters in quoting Wise (1934) who suggested that Chacachacare Island was an onomatopoeic rendition of, once again, the "Chatter of the vivacious troops of monkeys that formerly lived there" (my emphasis). Not on Monos!

By no stretch of the imagination can the incredible morning chorus of the Red Howler (*Alouatta seniculus*), which can still be heard in the forests of the north western peninsular of Trinidad, be described as "chatter." That the monkeys may have been capuchins (*Cebus albifrons*), the second species found on Trinidad, is unlikely, as these monkeys are not as easily seen, nor are they likely to make enough noise to have been heard and noted from a distance to give an island a name.

There is another strange fragment of information which adds to the general confusion. Morrison (1955) says that Columbus on the night of August 12, 1498 having sailed east from his anchorage south of the Paria Peninsular of Venezuela, anchored in a harbour on Chacachacare Island which, Morrison says, Columbus called "Puerto de Gatos" and the translation is given as "Monkey Harbour". "Puertos de Gatos" means "Cat Harbour" — not "Monkey Harbour." If Cat Harbour is right — what cats on Chacachacare Island and why? If Morrison meant to write "Puerto de Monos" was the anchorage near Chacachacare Island, or Monos Island? The mind boggles.

No! Red Howlers are gregarious, noisy and easily seen and their presence on the island must have given Monos its name. Charles Kingsley (1871) says, "Monos as the old Spaniards named it, from Monkeys long since extinct." On the earliest maps the island is labelled Mono, (Columbine, 1803-16), Ape I (Thompson, 1816) and Isle de Monos (Mallet, 1802), and I can think of no greater evidence than that which I have presented here for the presence at one time of monkeys on Monos Island.

There, they were more than likely hunted for sport and for food. They are no longer there. They are all gone.

We found one more piece of evidence that supports my suggestion that Monos Island was the last island to be shaken off from Trinidad by the earth movements that have split and folded the mountains of the Northern Range. Walking with John Seyjagat through the dripping forest of Grand Fond Bay we came across the scattered quills of the South American Porcupine *Coendu prehensilis* on the jungle floor. Unlike the gregarious, loud Howler Monkeys, after which Monos Island was named, and whose morning and evening cries must have attracted

and aimed the hunters guns, the porcupine still plods its quiet, secret way, surviving on his island home. We saw squirrels up in the whispering bamboos as well. What other small mammals survive there?

The field is open. The years ahead will surely tell us much more about the reptilian fauna of Monos Island and many of the gaps will be filled, as new records are established and new species are collected.

BIBLIOGRAPHY

- BOOS, H. 1967. Reptiles on Huevos. The Trinidad Field Naturalists' Club Journal. 15 18.
- BOOS, H. 1975. The rediscovery of the Yellow-tailed Cribo *Drymarchon c. corais* in Trinidad. Journal of the Trinidad and Tobago Field Naturalists' Club. 84-85.
- BOOS, H.E.A. 1977a. Iguanas. Trinidad Naturalist. Vol. 1 No. 10. 32-35, 37.
- BOOS, H.E.A. 1977b. Iguana — Relic of the Dinosaur Age. Trinidad Naturalist Vol. 1 No. 11 24-28, 30.
- BOOS, H. 1981. Spiny Gecko. Trinidad Naturalist. Vol. 3 No. 7 48.
- BOOS, H.E.A. 1983. A consideration of the terrestrial Reptile Fauna on some offshore Islands north west of Trinidad. Living World. Journal of the Trinidad and Tobago Field Naturalists' Club. 19-26
- CHALMERS, W.S. 1965. The Vegetation of Grand Fond, Monos. Journal of the Trinidad Field Naturalists' Club. 10-15.
- COLUMBINE (CAPT. E.H., R.N.) 1803-16. A Survey of the island of Trinidad by Capt. E. Columbine, R.N., 1803. With additions from Capt. F. Mallet, J. Walker, Junr., sculpt. Published according to Act of Parliament by Capt. Hurd, R.H. Hydrographer to the Admiralty, 6th Nov., 1816. 16½ x 47 cms. Some early Printed Maps of Trinidad and Tobago. 1964. The Map Collectors' Circle. No. 10 Durrant House, Chiswell Street, London, EC 1. Pl. III. No. 11.
- COCHRAN, D.M. 1961. Living Amphibians of the world. Hamish Hamilton. London. 199 pp.
- DAY, C.W. 1852. Five years residence in the West Indies. Colburn and Co. Pub. London.
- DIXON, J.R. 1973. A systematic review of the lizard genus *Bachia* with remarks on *Heterodactylus* and *Anotosaura*. Misc. Publ. Univ. Kansas Mus. Nat. Hist. 57: 47 pp.
- EMSLEY, M. 1977. Snakes, and Trinidad and Tobago. Bull. Maryland Herpetological Soc. Vol 13. No. 4. 304 pp.
- GORMAN, G.C. & H.C. DESSAUER 1965. Haemoglobin and Transferrin Electrophoresis and Relationship of Island Populations of *Anolis* Lizards. Science. Vol. 150. No. 3072. 1454-1455.
- GORMAN, G.C. & H.C. DESSAUER 1966. The relationships of *Anolis* of the *Roquet* species group (Sauria-Iguanidae)-I. Electrophoretic Comparison of Blood Proteins. Comp. Biochem. Physiol., Vol. 19 845-853.
- GORMAN, G.C. & J. BOOS, 1972. Extinction of a local population of *Anolis* Lizards through competition with a congener. Systematic Zoology. Vol. 21. No. 4. 440-441.
- HARDY, J.D. Jr. 1982. Biogeography of Tobago, West Indies with special reference to Amphibians and Reptiles: A review. Bull. Maryland Herp. Soc. Vol. 18. No. 2 37-142.
- HPS 534. The Historical Society of Trinidad and Tobago. Pub. No. 534. Grant of Patos, Huevos and Monos to the Illustrious Cabildo. 17th September 1791.
- HOLLIS, SIR C. 1941. A Brief History of Trinidad under the Spanish Crown. A.L. Rhodes. Gov't Printer. Trinidad and Tobago.
- JOHNSON, M.L. 1946. Herpetological notes from Trinidad. Copeia 1946 (2): 108.
- KINGSLEY, C. 1871. At Last. A Christmas in the West Indies. London, McMillan & Co.
- KLUGE, A.G., 1969. The evolution and geographical origin of the New World *Hemidactylus mabouia brooki* complex (Gekkonidae-Sauria). Misc. Publ. Mus. Zool. Uni. Michigan. 138. 1-78.
- LANCINI, A.R. 1963. Herpetofauna de la Isla de Patos (Golfo de Paria, Venezuela). Bol. Soc. Venezol. Ci. Nat. 23: 247-254.
- LATHAM, CAPT. E.H. 1927. Map-Trinidad and Tobago, Port of Spain. Sheet A. 1:500,000. Surveyed in the field. 1920-25. Ordinance Survey. Southampton 1927.
- MALLET (F) 1802. A new map of the Island of Trinidad made by order of His Excellency Sir Ralph Abercromby K.B. Commander-in-Chief of the British Forces in the West Indies, by F. Mallet, Capt. of the Surveying Engineers, MDCCXCVII. W. Faden, London, 1st March 1802. 4 Sheets 70 x 61 cm. The B.M. Library Map 5C23E4 (11).
- MANUEL, R.L. 1965. Monos Island Studies. Journal of the Trinidad Field Naturalists' Club. 16-24.
- MEDEM, F. 1970s Typescript on Crocodilians on Trinidad. Personal Copy. p. 23-28.
- R.R.M. (MOLE) 1926a. Vingt-Quatre Heures. The Port of Spain Gazette Newspaper. 1st August 1926 Vol. XLIX. NO. 14172. p.6
- MOLE, R.R. 1926. The Snakes of Trinidad. The Port of Spain Gazette Newspaper. Jan 10, 1926 to July 25, 1926.
- MORISON, S.E. 1955. Christopher Columbus, Mariner, Mentor Books, New. Amer. Library N.Y. 160 pp.
- THOMPSON 1816. Trinidad, Tobago, Curacao and Grenada, in 4 compartments together on one sheet 59 x 49 cm. Drawn and engraved for Thompson's New General Atlas. Some Early Printed Maps of Trinidad and Tobago, 1964. The Map Collectors' Circle No. 10. Durrant House, Chiswell Street, London EC1. Pl. V., No. 14.
- TUCK, R.G. 1972. *Hemidactylus palaichthus*. Herpetological Map Trinidad (3): 82, 93.
- TUCK, R.G. JR., & J.D. HARDY JR. 1973. Status of the Ober Tobago Collection Smithsonian Institution and the proper allocation of *Ameiva surnamensis tobagana* Cope (Sauria: Teiidae) Proc. Biol. Soc. Washington. 86 (19): 231-242.
- UNDERWOOD, G. 1962. Reptiles of the Eastern Caribbean. Caribbean Affairs (New Series) No. 1. Dept. Extra-Mural Studies UWI. POS, Trinidad, 192 pp.
- VINCENT, H. 1910. The Sea Fish of Trinidad. POS. 1910. Press of J.J. Little and Ives Co. N.Y. 97 pp.