

**DIVERSITY, OBSERVATIONS, AND CONSERVATION OF
THE HERPETOFAUNA OF TURNEFFE, LIGHTHOUSE,
AND GLOVERS ATOLLS, BELIZE**

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INTRODUCTION

Inventories of species in particular regions are essential data sets for conservation and resource management (Oliver and Beattie, 1993), and the acquisition of baseline data on the distribution and status of even common species is important (Dodd and Franz, 1993). Furthermore, knowledge of local species diversity is fundamental to understanding community and ecosystem dynamics (McDiarmid, 1994). Comprehensive herpetofaunal inventories of the Belizean atolls have yet to be completed (Zisman, 1992), and natural history information on these populations is almost non-existent. We herein review existing biodiversity data, and present additional records and observations gathered during fieldwork in Belize from 1994 to 1997.

Visits were made to Turneffe Atoll in May, June and September 1994, June 1995, August and November 1996, and February, April, May, June and July 1997. Lighthouse Atoll was visited in October 1995, August 1996 and July 1997. Glovers Atoll was visited in September 1994. Voucher photographs of most species were deposited in the Campbell Museum, Clemson University, Clemson, South Carolina, U.S.A. Taxonomy follows Lee (1996). Place names in the text correspond to maps published by the Ordnance Survey, Southampton, England, and obtained from the Department of Lands and Survey, Belmopan, Belize.

STUDY AREA

Three atolls are found in Belize outside of the barrier reef: Turneffe, Lighthouse, and Glovers Atolls (Figure 1). There is only one other such atoll in the Western Hemisphere, Banco Chinchorro on the coast of Quintana Roo, Mexico (Stoddart, 1962). Turneffe Atoll (Figure 2) is located approximately 35 km east of Belize City and is 50 km long and 16 km wide with an estimated surface area of 533 km² (Perkins, 1983). This atoll

consists of a chain of islands partially enclosing three shallow lagoons: Southern, Central and Northern or Vincent's Lagoon. A near continuous beach ridge extends along the windward shore of the atoll, with a maximum elevation of about 1.5 m above sea level (Stoddart, 1962; Minty et al., 1995).

The vegetation of Turneffe Atoll has been described by Stoddart (1962, 1963), and Minty et al. (1995). Most of the atoll is dominated by Red (*Rhizophora mangle*) and Black Mangrove (*Avicennia germinans*) swamps, with a transition zone of Buttonwood (*Conocarpus erectus*) and White Mangrove (*Laguncularia racemosa*) bordering more elevated habitats. The elevated beach ridge along the eastern shore of the atoll is characterized by cay littoral forest composed of Black Poisonwood (*Metopium brownei*), Gumbo Limbo (*Bursera simarubra*), Wild Seagrape (*Copcoloba uvifera*) and Saltwater Palm (*Thrinax radiata*). Elsewhere in Belize much of this habitat has been cleared for human settlements or Coconut (*Cocos nucifera*) plantations, and consequently cay littoral forest is now considered the most endangered habitat in the coastal zone (McField et al., 1996). Extensive Turtlegrass (*Thalassia testudinum*) beds occur in shallow water surrounding the atoll.

Turneffe Atoll supported a large coconut industry prior to 1961 (Stoddart, 1962), and plantations were established on many cays along the eastern shore. There was a warehouse and collection centre on Calabash Cay. Most of this infrastructure was destroyed by Hurricane Hattie in October 1961 (Stoddart, 1963), and the industry never recovered. However, many of the trees remain and coconuts are still harvested and sold in Belize City. In some areas the accumulation of palm fronds beneath the trees is inhibiting the regeneration of native vegetation (Minty et al., 1995). A recent (1997) outbreak of lethal yellowing has decimated coconut stands in some parts of the atoll, and may enhance the recovery of native vegetation.

Today Turneffe Atoll is largely undeveloped. Resorts are located on Cay Bokel, and the northern and southern ends of Blackbird Cay. Coral Cay Conservation/University College of Belize has established a Marine Research Center (MRC) on Calabash Cay. There are also many small fishing camps of varying degrees of permanence scattered throughout the atoll, and most are constructed on beach ridges. The atoll is under increasing pressure for development and the construction of several additional tourist facilities has been proposed (Platt and Thorbjarnarson, 1996).

Lighthouse Atoll (Figure 3) is located approximately 75 km east of Belize City and has an estimated surface area of 126 km² (Hartshorn et al., 1984). Much of this is underwater, and terrestrial habitat is restricted to Northern, Sandbore, Long, and Half-Moon Cays. The latter is encompassed within the Half-Moon Cay National Monument (Zisman, 1996), while the remainder is privately owned. A resort with an airstrip is located on Northern Cay, while Sandbore and Long Cay remain undeveloped.

The vegetation of Lighthouse Atoll has been described by Stoddart (1962), Fosberg et al. (1982), and Meerman (1996). Mangrove swamps dominate much of Northern, Long, and Sandbore Cays, although some littoral forest is present on the former two cays. The eastern portion of Half-Moon Cay was cleared in the 1920's and a coconut plantation established which remains in existence. The western half of the cay is characterized by Ziricote (*Cordia sebestena*) forest, where a Red-footed Booby (*Sula sula*) nesting colony is found (Verner, 1959). An abundance of introduced *Rattus* sp. on Half-Moon Cay may prejudice the survival of native wildlife (Zisman, 1996).

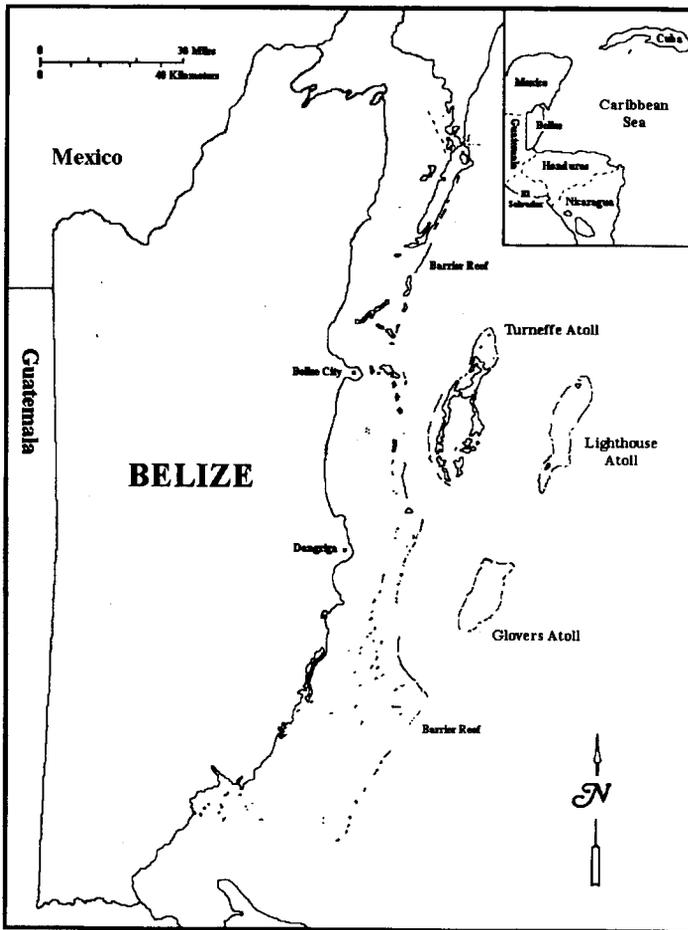


Figure 1

Map of Belize showing the location of Turneffe, Lighthouse and Glovers Atolls in relation to the mainland

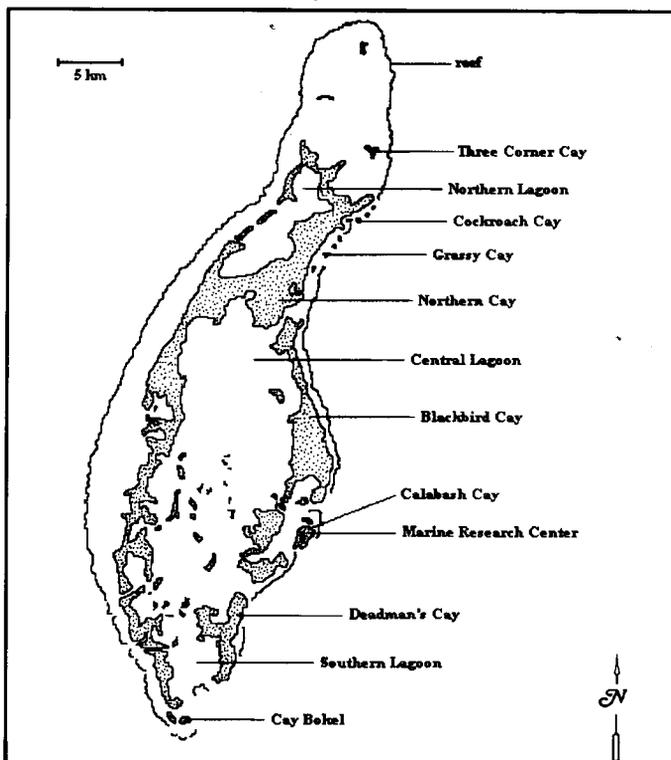


Figure 2

Map of Turneffe Atoll, showing localities mentioned in the text

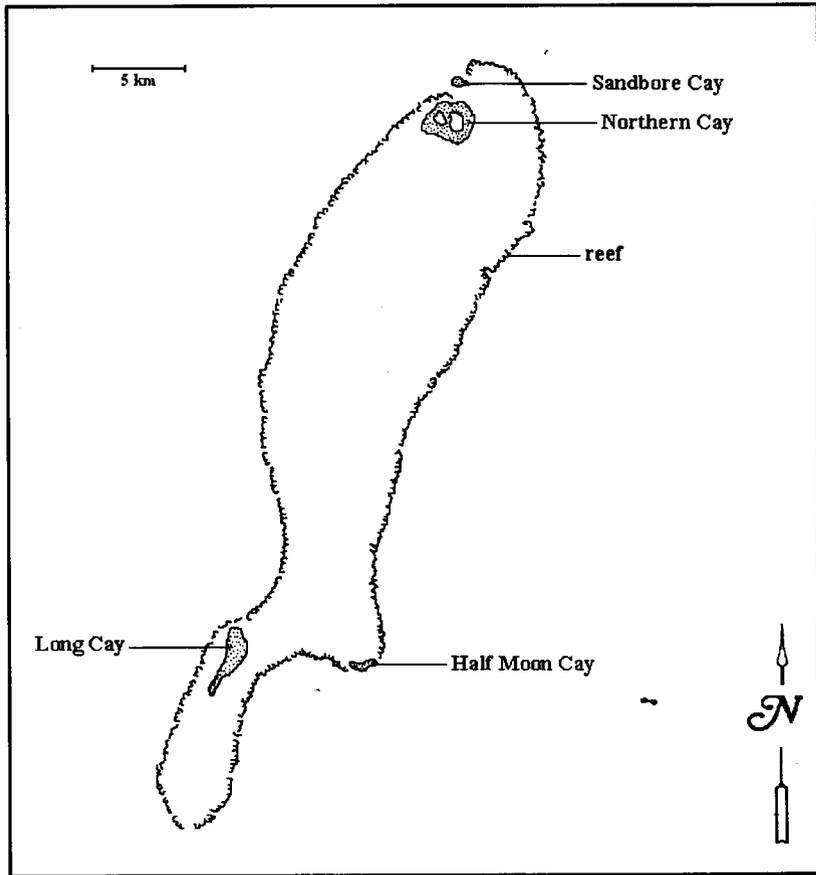


Figure 3

Map of Lighthouse Atoll, showing localities mentioned in the text

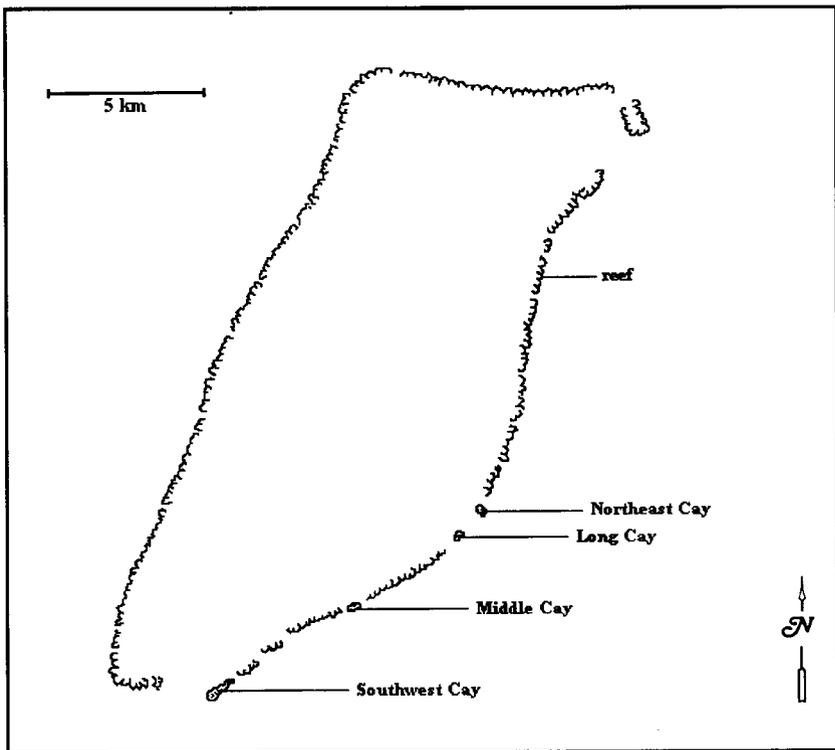


Figure 4

Map of Glovers Atoll, showing localities mentioned in the text

Glovers Atoll is located approximately 50 km southeast of Dangriga, and is 24 km long and about 10 km wide (Stoddart, 1962). Most of the atoll consists of submerged reef, and terrestrial habitat is limited to Northeast, Long, Middle Long, and Southwest Cays (Figure 4). The entire atoll is encompassed within the Glovers Reef Marine Reserve (Zisman, 1996). The vegetation of Long Cay was recently described by Meerman (1995) who found much of the cay had been converted to coconut plantations and the remaining native vegetation was extremely impoverished. Mangrove is virtually absent, although some Saltwater Palms and Zircote remain. Although a floristic survey of Northeast Cay was not conducted, some native vegetation remains, including Black Mangrove (Meerman, 1995). Human dwellings are present on Long, Middle Long, and Northeast Cays.

The climate of coastal Belize is considered tropical since the average temperature of every month is greater than 18°C. The warmest temperatures occur in April and May, with average daily maximums of 32.8 and 33.1°C respectively. The coastal zone is exposed to southwest trade winds averaging 10 to 13 knots, which moderate daily high temperatures. Mean annual rainfall in the atolls is 1347 mm/year, and this region is among the driest in Belize. There is a pronounced wet season from June through November, and negligible rainfall in April and May, but this may vary annually (Hartshorn et al., 1984). Fresh surface water is scarce to non-existent in the atolls during the dry season (S. Platt, pers. obs.).

SPECIES ACCOUNTS

AMPHIBIA

Bufo marinus: While abundant on the mainland, *B. marinus* appears to be a rare inhabitant of Turneffe Atoll. Two adults were found on Calabash Cay: one in a pile of debris in littoral forest adjacent to the MRC (16 June 1995), and another on the MRC grounds (25 February 1997). These constitute the first records of *B. marinus* on any offshore island in Belize (Lee, 1996), and are the only amphibian records from the atolls. No evidence of reproduction has been found, but ephemeral rain-filled pools available during the wet season may serve as breeding habitat. Elsewhere in Central America *B. marinus* exhibits a bimodal reproductive cycle with peaks in the dry and wet season (Lee, 1996). However, dry season reproduction is unlikely in the Turneffe Atoll owing to a paucity of fresh surface water.

REPTILIA

Crocodylidae

Crocodylus acutus: The American Crocodile is present in both Turneffe and Lighthouse Atolls (Platt and Thorbjarnarson, 1996, 1997). An earlier report (Stoddart, 1962) that Morelet's Crocodile (*C. moreletii*) occurred in Lighthouse Atoll is believed erroneous, and probably resulted from confusion with *C. acutus*, a mistake common even among professional herpetologists (Thorbjarnarson, 1989). Based on nest counts and demographic data obtained in spotlight surveys, an estimated 200 to 300 non-hatchling crocodiles are believed to inhabit Turneffe Atoll, the largest population in Belize (Platt and Thorbjarnarson, 1997). Population estimates are unavailable for Lighthouse Atoll. Nesting has been documented on Deadmans, Blackbird, and Northern Cays in Turneffe Atoll, and Northern Cay in Lighthouse Atoll (Platt and Thorbjarnarson, 1996, 1997). Fifteen nests were found in the Turneffe Atoll in 1997, the largest concentration of nesting activity in Belize. Crocodiles require a well-drained sandy substrate for successful nesting, and thus nesting is generally restricted to elevated beach ridges (Platt and Thorbjarnarson, 1997). Furthermore, shallow freshwater or brackish pools located adjacent to nesting beaches provide essential nursery habitat and are a vital source of

water for hatchlings and juveniles, the size classes most vulnerable to osmotic stress (Platt and Thorbjarnarson, 1997). The American Crocodile is considered threatened in Belize due to opportunistic killing, habitat loss, and past over-exploitation by commercial skin hunters (McField et al., 1996).

Testudines

Caretta caretta: Loggerhead Turtles are reported to nest from May to August on all islands in Lighthouse Atoll (Miller, 1984; Moll, 1985; Smith 1990; Smith et al., 1992).. According to Smith et al. (1992) the largest number of nests are deposited on Half-Moon Cay (4-12 nests/year), followed by Long Cay (7 nest/year), Sandbore Cay (ca. 6 nests/year), and Northern Cay (1 nest/year). On 11 July 1997 we found abundant evidence of nesting activity on Northern Cay, and a nest of emerging Loggerhead hatchlings. Loggerheads are also reported to nest on Northeast and Long Cays, Glovers Atoll (Smith et al., 1992; Meerman, 1995). Nesting has not been reported in Turneffe Atoll, but juvenile and adult turtles are occasionally encountered by divers.. The Loggerhead is listed as vulnerable in the IUCN red data book (Groombridge, 1982).

Chelonia mydas: The Green Sea Turtle once nested by the "hundreds" from June to August on Northern and Half-Moon Cays, Lighthouse Atoll and in Glovers Atoll, but these historical rookeries were decimated by over-harvesting, and consequently few nests are found today (Smith, 1990; Smith et al., 1992). Large numbers of adults migrate through Belizean coastal waters, arriving in November and departing in March (Smith et al., 1992). Green Turtles have been observed foraging in turtlegrass beds surrounding Turneffe Atoll, but nesting has not been reported. This species is listed as endangered in the IUCN red data book (Groombridge, 1982).

Eretmochelys imbricata: Hawksbill Turtles remain in Belizean coastal waters throughout the year. Females are solitary nesters, depositing clutches from May to October. Nesting has been reported from Long Cay, Lighthouse Atoll, and Calabash Cay, Turneffe Atoll (Smith et al., 1992). We observed shells of adults taken by fishermen near Calabash Cay, and divers occasionally report encounters with Hawksbill Turtles in this area. The past trade in tortoise-shell is believed to have resulted in serious declines among Belizean Hawksbill populations (Moll, 1985). The Hawksbill is listed as endangered in the IUCN red data book (Groombridge, 1982), and half of the known nesting populations in the Caribbean are suspected to be declining (Smith et al., 1992).

Dermochelys coriacea: The Leatherback is rarely encountered in Belize and nesting has not been reported (Smith et al., 1992; Lee, 1996) A dead adult was found washed ashore in Turneffe Atoll (Smith et al., 1992). Smith et al. (1992) suggested that because the pliable shell is easily abraded and injured, the fringing reefs encircling atolls and the barrier reef along the coastline may deter Leatherbacks from entering Belizean waters.

Marine Turtles (general): Smith et al. (1992) list a number of sites in Turneffe Atoll where evidence of sea turtle nesting was noted, but the species could not be determined. These include Three Corner, Grassy, and Cockroach Cays, and beaches around Cockroach Bogue. Additionally, an extensive nesting beach once occurred on Blackbird Cay (near the present site of Blackbird Resort), but has since been destroyed by development (Perkins, 1983). It is uncertain which species formerly nested at this site.' The beaches north of Blackboard Resort appear to offer excellent habitat, but we found no evidence of turtle nesting during searches in 1994, 1996 and 1997. We found an excavation (25 June 1997) on Northern Cay, Turneffe Atoll, but did not open the nest to determine the presence of eggs.

Rhinoclemmys areolaris: The occurrence of the Furrowed wood Turtle in the Turneffe Atoll has been discussed by Platt et al. (submitted). *R. areolata* was initially reported in the Turneffe Atoll by Zisman (1992), but no details concerning the collection or deposition of this specimen were provided. Other sight records were reported from Blackbird Cay by Belize Fisheries Department personnel, and in November 1996 we recovered the fresh remains of a Furrowed Wood Turtle while flushing the stomach (Taylor et al., 1978) of a subadult American Crocodile captured in Northern Lagoon (Platt and Thorbjarnarson, 1997). Based on these records we consider the Furrowed Wood Turtle a rare member of the atolls' fauna. While nothing is known concerning the ecology of this insular population, *R. areolaris* on the mainland feed extensively on various fruits (S. Platt, unpubl. data), and are probably dependent on littoral forest as a source of fruit for both food and water in Turneffe Atoll.

Serpentes

Boa constrictor: This snake is a common inhabitant of many Belizean Cays, including islands in Turneffe Atoll (Zisman, 1992). We frequently encountered *Boa constrictor* on Calabash Cay, Lee (1996) examined specimens from Cockroach Cay and Grand Point, and according to the staff at Blackbird Resort these snakes are common on Blackbird Cay. Likewise Schmidt (1941) reported *Boa constrictor* from Turneffe Atoll, but gave no specific locality. Boas probably occur in mangrove and littoral forest habitats throughout the atoll. On 17 June 1995 a *Boa constrictor* (total length ca. 1.2 m) was observed swallowing a *Ctenosaura similis* on Calabash Cay. These abundant lizards probably constitute a significant portion of the diet in Turneffe Atoll.

Leptophis mexicanus hoeversi: This subspecies, originally described by Henderson (1976) from specimens collected on Cay Bokel, is endemic to the Turneffe Atoll. We found these snakes on Deadmans, Blackbird, Calabash, and Northern Cays, where they are common in both littoral and mangrove forests. *L. mexicanus hoeversi* differs from mainland subspecies in having a uniform green dorsum with only a faint indication of a post ocular stripe (Henderson, 1976). We also encountered numerous blue morphs, which have not been previously reported. Although mistakenly identified as *Leptophis ahaetulla*, a photograph of blue and green *L. mexicanus hoeversi* morphs we collected on Calabash Cay appears in Garel and Matola (1996: page 78). *L. mexicanus* were frequently observed pursuing *Anolis sagrei* on Calabash Cay.

[*Ramphotyphlops braminus*]: In 1994 Coral Cay Conservation Volunteers found a Blind Snake under beach debris on Calabash Cay. The snake was photographed and released. Our subsequent attempts to locate a specimen for positive identification were unsuccessful. According to Lee (1996) this snake was most likely *R. braminus*, a parthenogenetic species which has become widely established through inadvertent human transport. This species has been provisionally included on the Turneffe Atoll checklist pending collection of a specimen for verification.

Sauria

Anolis allisoni: Allison's Anole was previously known in Belize only from Half-Moon Cay, Lighthouse Atoll (Schmidt, 1941; Vemer, 1959; Ruibal and Williams, 1961). Recently Meerman (1996) collected specimens on Long Cay, and Greg Smith (pers. comm.) reported observations from Northern and Sandbore Cays, Lighthouse Atoll. The nearest populations to Lighthouse Atoll are found in the Bay Islands of Honduras (Ruibal and Williams, 1961). Notable morphological differences occur between these populations, but Ruibal and Williams (1961) declined to accord them sub specific status. Allison's Anoles are common on Half-Moon Cay where the preferred habitat appears to be the crowns of coconut palms (Meerman, 1996).

[*Anolis carolinensis*]: The Carolina Anole is reported from Belize based on a single specimen collected on Half-Moon Cay in 1966 (Lee, 1996). Subsequent searches have failed to locate additional specimens (Lee, 1996), although Meeman (1996) observed several small adult anoles which appeared to be *A. carolinensis*. However, Lee (1996) stated "it is difficult to believe that two [*A. allisoni* and *A. carolinensis*] such closely related species could occur together. ..." and concluded that *A. carolinensis* is no longer present on Half-Moon Cay. We provisionally included the Carolina Anole on our checklist, but suggest further collecting is warranted to resolve this question.

Anolis sagrei: Brown Anoles were previously reported in Turneffe (Schmidt, 1941; Henderson, 1976; Lee, 1996), Lighthouse (Verner, 1959; Stoddart, 1962; Lee, 1996; Meerman, 1996), and Glovers (Schmidt, 1941; Stoddart, 1962; Meerman, 1995; Lee, 1996) Atolls. Our observations indicate they are extremely abundant in littoral forest, mangrove, and coconut plantations. In the latter, Brown Anoles were often the only lizards encountered. In addition to being taken by *Leptophis mexicanus* predation by Great-Tailed Grackles (*Quiscalus mexicanus*) was also observed.

Basiliscus vittatus: These lizards are common on Calabash and Blackbird Cays, Turneffe Atoll, where they appear confined to beach scrub and littoral forest. Basilisk Lizards probably occur in similar habitat on other cays in the atoll. These observations constitute the first record of Basilisk Lizards in Turneffe Atoll.

Ctenosaura similis: Spiny-tailed Iguanas are abundant in Turneffe, Lighthouse (Schmidt, 1941; Stoddart, 1962; Lee, 1996), and Glovers (Schmidt, 1941; Stoddart, 1962; Lee, 1996) Atolls. In Turneffe Atoll we found Spiny-tailed Iguanas on Deadmans, Calabash, Blackbird, and Northern Cays, and Cay Bokel. These lizards have not been previously reported from Turneffe Atoll (Lee, 1996), although what Bond (1954) described "as an iguana-like lizard...with black bands across the back..." was undoubtedly *C. similis*. Numerous old nests and eggshells were found along beach ridges on Blackbird Cay, and a nest containing 18 eggs was inadvertently unearthed during a search for crocodile nests on Northern Cay. Two eggs were opened and contained well-developed hatchlings beginning to absorb the remaining yolk. Many nests appeared to have been unearthed by Raccoons (*Procyon lotor*), which occur throughout the atoll and probably represent a major nest predator. In addition to predation by *Boa constrictor* (see above), the remains of a juvenile *C. similis* were flushed from the stomach of an American Crocodile (Platt and Thorbjarnarson, 1997).

On Half-Moon Cay, Lighthouse Atoll *C. similis* are restricted to remnants of native vegetation on the western half of the island (Meerman, 1996). Mostly adults, and few juveniles and subadults were observed. Meerman (1996) concluded this age distribution may be due to rat predation on the smaller size classes. In contrast, on nearby Long Cay where rats, although present, are less numerous, many subadults and juveniles were observed and the age distribution appeared normal (Meerman, 1996).

Iguana iguana: Green Iguanas have only been reported from Half-Moon Cay, Lighthouse Atoll and do not occur on any other offshore island in Belize (Schmidt, 1941; Verner, 1959; Lee, 1996). The origin of the Half-Moon Cay population is speculative. Arrival by natural means, such as swimming or rafting is possible, but given the absence of Green Iguanas on cays closer to the mainland, it is generally believed this population resulted from human introduction. The highly esteemed flesh is known locally as "bamboo chicken", and Green Iguanas may have been introduced as a food source, perhaps by British privateers in the 1800's, to be utilized by passing ships. Green Iguanas now occur only in Ziricote forest on the western half of the island, and are

absent from coconut plantations. Meerman (1996) found only large adults; juveniles and subadults were absent, possibly due to rat predation.

Mabuya unimarginata: Lee (1996) examined specimens of *M. unimarginata* from Cay Bokel. We encountered two skinks on Calabash Cay: the first under a pile of palm fronds (20 May 1994), and the second inside an arboreal termite nest (16 June 1995). Neither skink could be captured, but both appeared to be *M. unimarginata*.

Phyllodactylus insularis: This species was originally described by Dixon (1960) from specimens collected on Half-Moon Cay, Lighthouse Atoll. These geckos also occur on Long Cay, Lighthouse Atoll (Meerman, 1996), and Long Cay, Lighthouse Atoll (Meerman, 1996), and Long Cay, Glovers Atoll (Meerman, 1995). Island Leaf-toed Geckos are common on Lighthouse Atoll beneath rocks and woody debris, and in coconut palms (Lee, 1996; Meerman, 1996). *P. insularis* in Glovers Atoll were found inside of decaying and hollow coconut trees and beneath fallen palm fronds (Meerman, 1995). According to Lee (1996) subadults occur exclusively beneath surface objects, while adults are found only on palm trunks, suggesting ecological segregation by age or size class. Meerman (1996) observed predation by rats, which may constitute a significant source of mortality for Half-Moon Cay populations.

Phyllodactylus tuberculatus: Lee (1996) reported Leaf-toed Geckos from Cay Bokel, Turneffe Atoll, and we found them to be common in the MRC buildings on Calabash Cay in 1997. Additionally, Lee (1996) reported *P. tuberculatus* from Long Cay, Glovers Reef, although Meerman (1995) did not record this species.

In addition to four species of marine turtles found in Belizean coastal waters, Lee (1996) lists six species of reptile (1 crocodylian, 2 snakes, and 3 lizards) occurring in Turneffe Atoll, five species of lizards from Lighthouse Atoll, and three species of lizards from Glovers Atoll. No amphibians were reported from any atoll. Our efforts have added one amphibian, one terrestrial turtle, and two lizards to the species list for Turneffe Atoll, and a lizard to the known herpetofauna of Glovers Atoll (Table 1). Future efforts will likely yield additional species.

CONSERVATION

While Turneffe Atoll remains under increasing pressure for development, there has been considerable recent interest in designating parts of the atoll as a national park (Zisman, 1996). Destruction of terrestrial habitat is the greatest threat to the herpetofauna of Turneffe Atoll. Platt and Thorbjarnarson (1997) stressed the need to protect known crocodile nesting beaches and associated brackish and freshwater lagoons which provide nursery habitat for hatchlings. In the absence of habitat protection, development will deprive crocodiles of suitable nesting sites and recruitment may drastically decline and perhaps cease. Protection of crocodile nesting beaches will also ensure the future availability of nesting sites for marine turtles. Thus, every effort should be made to include known and potential nesting crocodile nesting sites within the boundaries of any proposed national park.

Moreover, efforts should also be made to extend protection to the littoral forest remaining in Turneffe Atoll. Because littoral forest is confined to beach ridges, which are often the only elevated sites in an area otherwise at or only slightly above sea level, this habitat has been extensively cleared for development and is now considered critically endangered (McField et al., 1996). However, significant tracts remain on Blackbird, Calabash, and Deadmans Cays. It is likely that most terrestrial species in the

atoll, including invertebrates, birds, and mammals, are dependent to some extent on littoral forest, and without protection a major loss of species can be expected to occur.

Half-Moon Cay is a National Monument managed by the Belize Audubon Society for the protection of the Red-footed Booby nesting colony and endemic lizards. Because introduced rats may constitute a threat to booby chicks and lizards, a campaign of rat eradication is urgently needed. Past attempts to reduce rather than eradicate rats have proven unsuccessful because of their high reproductive potential, and abundant food and water provided by coconuts. The number of rats present on this small island is phenomenal, and during short nocturnal walks literally hundreds were observed by headlight. To ensure success, however, any eradication program must have the goal of total elimination. If even a few rats remain on the island the population will certainly recover in several years.

The immediate removal of all Coconut Palms in the Ziricote forest, and a gradual elimination of Coconut Palms from the rest of the national monument is also recommended. While Coconut Palms do have some scenic value in the atoll, they are an exotic species common elsewhere, displace and prevent regeneration of native vegetation, and are responsible for the presence of excessive numbers of rats. Thus, Coconut Palm removal on Half- Moon Cay should be accorded high priority. Removal should be gradual, as an aggressive program could result in immediate famine among the rats, which may increase predation on birds and lizards. A program of sustained rat eradication coupled with Coconut Palm removal would be most likely to reduce risks to native wildlife. As Coconut Palms are removed, Saltwater Palms- should be re-established to provide replacement habitat for geckos and anoles.

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* Copies on file in Campbell Museum.

Table 1
Checklist and status of amphibian and reptile species found in the Turneffe,
Lighthouse, and Glovers Atolls, Belize.

Asterisk denotes locality records not previously reported

Species	Turneffe Atoll	Light- house Atoll	Glovers Atoll	Status/Comments
AMPHIBIA				
<i>Bufo marinus</i>	X			Rare
REPTILIA				
Crocodylia				
<i>Crocodylus acutus</i>	X	X*		Uncommon; nesting Turneffe and Lighthouse Atolls
Testudines				
<i>Caretta caretta</i>	X	X	X	Rare; nesting Lighthouse and Glovers Atolls
<i>Chelonia mydas</i>	X	X	X	Rare; nesting Lighthouse and Glovers Atolls
<i>Eretmochelys imbricata</i>	X	X		Declining; nesting Turneffe and Lighthouse Single record
<i>Rhinoclemmys areolata</i>	X*			Rare
Serpentes				
<i>Boa constrictor</i>	X			Common
<i>Leptophis mexicanus</i>	X			
[<i>Ramphotyphlops braminus</i>]	?			Unconfirmed
Sauria				
<i>Anolis allisoni</i>		X		Common
[<i>Anolis carolinensis</i>]		X		Extinct?; Single record
<i>Anolis sagrei</i>	X	X	X	Abundant
<i>Basiliscus vittatus</i>	X*			Common
<i>Ctenosaura similis</i>	X*	X	X	Common
<i>Iguana iguana</i>		X		Declining?; Half-Moon Cay only
<i>Mabuya unimarginata</i>	X			Rare
<i>Phyllodactylus insularis</i>		X	X*	Common
<i>Phyllodactylus tuberculatus</i>	X		X	Common