

Distributional Records of Amphibians and Reptiles from the Exuma Islands, Bahamas, Including the First Reports of a Freshwater Turtle and an Introduced Gecko

RICHARD FRANZ,¹ C. KENNETH DODD, JR.,² AND DONALD W. BUDEN³

¹Florida Museum of Natural History, University of Florida,
Gainesville, Florida 32611

²National Ecology Research Center, U.S. Fish and Wildlife Service,
412 N.E. 16th Avenue, Room 250, Gainesville, Florida 32601

³Department of Natural Sciences, Northern State University,
Aberdeen, South Dakota 57401

ABSTRACT. - We observed 18 taxa of amphibians and reptiles on three trips (1990-1992) to the Exuma Islands, Bahamas. Specimens were collected from 24 islands within the Exuma Cays Land and Sea Park and 14 islands outside the park. An introduced lizard (*Hemidactylus mabouia*) and a freshwater turtle (*Trachemys* sp. hybrid) are reported for the first time from the island chain. We compared morphological features of the Exuma turtles with other West Indian species and propose that they are a hybrid resulting from previous introductions.

INTRODUCTION

In 1990 the Bahamas National Trust solicited help from the Florida Museum of Natural History to assess damage to native vegetation caused by herbivorous Bahamian hutias (*Geocapromys ingrahami*) at Little Wax and Waderick Wells cays in the northern Exuma Islands, Bahamas. This rodent was widespread on the Great Bahama, Little Bahama, and Crooked-Acklins banks during the Pleistocene, but its range contracted during the Holocene, possibly due to human intervention (Morgan, 1989). Within modern times, the hutias became restricted to East Plana Cay in the eastern Bahamas. Fearing its extinction from disease or catastrophe, Garrett C. Clough transported rodents from East Plana Cay to the two release sites in the Exumas in 1973 and 1981, respectively (Clough, 1974, 1985; Jordan, 1989).

The initial expedition by the Florida Museum of Natural History was made to the Exuma Cays Land and Sea Park (ECLSP) in August 1990. One of us (RF) sampled amphibians and reptiles to compare the herpetofaunal composition of hutia-free islands with those on which hutias were introduced. Work in 1990 centered on Bush Hill, Halls Pond, Hawksbill, Little Wax,

O'Brien, and Waderick Wells cays. In 1991 and 1992, surveys were extended to include many more islands within the ECLSP and other islands in the Exuma chain.

The results of distributional surveys have not been published on the herpetofauna of the Exuma Archipelago. A few papers have included records and/or macro-level distributional maps from the Exumas based on museum specimens (MacLean et al., 1977; Schwartz and Henderson, 1988, 1991). However, past herpetofaunal collections generally were by-products of sporadic collecting or wide-ranging geographic expeditions rather than an island by island survey of herpetofaunal diversity.

The type localities of six Bahamian reptiles are located in the Exumas: Ship Channel Cay for *Ameiva auberi focalis* (McCoy, 1970), Bitter Guana Cay for *Ameiva auberi obsoleta* (McCoy, 1970) and *Cyclura cyclura figginsi* (Barbour, 1923), U-Cay (or SW Allen's Cay) in the Allen's Cay Group for *Cyclura cyclura inornata* (Barbour and Noble, 1916), White Cay for *Cyclura rileyi cristata* (Schmidt, 1920, 1936), and Stocking Island for *Sphaerodactylus nigropunctatus gibbus* (Barbour, 1921; Schwartz and Thomas, 1975). In this paper, we provide 117 new distributional records for amphibians and reptiles.

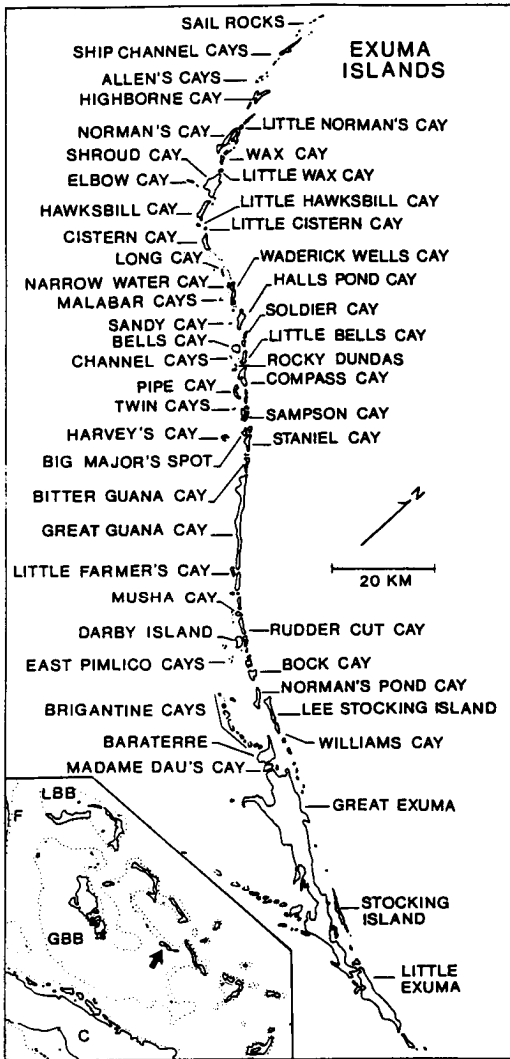


FIG. 1. Map of the Exuma Archipelago showing important islands.

METHODS

Specimens were collected by hand, by stunning them with rubber bands, and by noosing them. Collections were made diurnally under a variety of weather conditions. Ground litter, tree trunks and branches, buildings, and caves were searched thoroughly. On Waderick Wells Cay, we supplemented hand collecting by placing wire-mesh funnel traps against the beach berm or fallen palm logs which acted as drift fences. Preserved voucher specimens were deposited in the herpetological

collection at the Florida Museum of Natural History (UF). Protected taxa, i.e., *Cyclura*, *Epicrates*, and *Tropidophis*, were photographed and released.

Sampling intensity varied in proportion to island size. Large islands in the ECLSP, such as Waderick Wells and Halls Pond cays, were visited several times to ensure a comprehensive sample. Shorter collecting visits were made to smaller islands unless they had complex vegetative communities. Collections outside the park were made by DWB during his ornithological observations.

Most place names are from Bahama government maps (Lands and Surveys Department, 1968-1969), but for many small islands without official names, we adopted those in use by local residents and park wardens (Fig. 1). Geographical coordinates for islands sampled are found in Appendix I.

RESULTS

We collected 241 specimens, plus voucher photographs of amphibians and reptiles from 24 islands within the ECLSP and 14 islands outside of the park. We recorded specimens from 29 islands that had not been previously sampled (Appendix II). We also increased the known faunas of nine islands: Bell, Great Exuma, Great Guana Cay, Lee Stocking, Little Exuma, Pigeon Cay, Rocky Dundas, Stocking, and Waderick Wells Cay. Our collections or photographs include 16 (two frogs, 10 lizards and four snakes) of the 19 taxa previously reported from the Exumas. Two taxa (*Hemidactylus mabouia* and *Trachemys* sp.) are recorded for the first time. Undescribed taxa were not discovered, although specimens of *Ameiva auberi* from the ECLSP and from Staniel Cay showed distinctive tail color differences. Careful examination of live material from these sites is planned.

Hemidactylus mabouia

One male (60 mm snout-vent length [SVL]) was collected on the outside wall of a cafe/pizza shop in George Town, Great Exuma Island, about one hour after sunset on 13 July 1991. Several others were observed throughout July (1991). This spec-

imen represents the first record from the Bahama Islands. This species is native to Africa, Madagascar, and the islands of the Mozambique Channel (Schwartz and Thomas, 1975). It was previously reported in the Western Hemisphere from the Turks and Caicos Islands, Greater and Lesser Antilles, South America (Schwartz and Henderson, 1991), and Florida (Lawson et al., 1991). *Hemidactylus mabouia* may have been transported to Great Exuma Island from the Turks and Caicos or from one of the Greater Antilles, perhaps Jamaica.

Taxonomy of Exuma Turtles

Four *Trachemys* were taken from a small freshwater pond (6 × 10 m), 2 km NW of George Town, ca. 0.5 km inland from the former United States Navy Decca Station, Great Exuma Island, and approximately six others were seen there (Fig. 2). The pond had a dense growth of algae (*Chara* sp.), and much of its original area had been filled for planting bananas and other crops. Some 15 individuals including young and adults were observed in another small, shallow pond less than 0.5 km to the northwest, many of them feeding on fallen pond apple fruits (*Annona glabra*).

Local people reported freshwater turtles on Darby Island, Hog Cay, and Little Exuma. Nigel Minns, an elderly resident of George Town, Great Exuma, indicated that there were turtles on Hog Cay (south of Little Exuma) about 50 years ago. Mr. Tracy Styles, a 69 year old resident of Williams Town remembers turtles as always present on Little Exuma; and believes that they were probably introduced ca. 70–80 years ago by the landowner John V. Bowe. Mr. Ferguson, an octogenarian of Forbes Hill (Little Exuma) recalls seeing freshwater turtles in “cow wells” when he was a boy in the vicinity of McPhees, south of Forbes Hill. These reports suggest that freshwater turtles have had a long association with the southern Exumas, although they were probably introduced.

Much controversy has surrounded the taxonomy of Bahamian and Caribbean *Trachemys* (see Seidel, 1988). Up to six species and nine subspecies formerly placed in the genus *Pseudemys* have been recog-

nized (Barbour and Carr, 1940). As late as 1975, five species were thought to exist in the West Indian region (Schwartz and Thomas, 1975). In 1986, members of the Scripts Group in the genus *Pseudemys*, including the West Indian species, were transferred to the genus *Trachemys* (Seidel and Smith, 1986). After a review of over 500 turtles from the West Indies area, Seidel (1988) reorganized Bahamian and Caribbean *Trachemys* into the following taxa: *T. terrapen* (Lacepede) from Jamaica, and Cat and Eleuthera Islands in the Bahamas (monotypic); *T. decussata* (Gray) (*T. d. decussata* from eastern and central Cuba, *T. d. angusti* from western Cuba, Isla de la Juventud, and the Cayman Islands); *T. stejnegeri* (Schmidt) (*T. s. stejnegeri* from Puerto Rico, *T. s. malonei* from Great Inagua Island, *T. s. vicina* from Hispaniola); and *T. decorata* (Barbour and Carr) in southern Hispaniola (monotypic). Seidel also considered populations from northern Andros and New Providence islands in the Bahamas to represent *T. stejnegeri* × *terrapen* hybrids (Seidel, 1988; Schwartz and Henderson, 1991).

To evaluate the taxonomic identity of the Great Exuma turtles, we used the morphological and pigmentation characters employed by Seidel (1988). Shell measurements for the four Exuma turtles are found in Table 1. We did not incorporate skull features for the analysis because of the small sample size. Characteristics of these turtles included conspicuous stripes on head, neck, and limbs; supratemporal red marks in life; no notch on upper jaw; carapace coloration uniformly olive with no evidence of pattern; no melanistic individuals; carapace broad and flared; marginal scales flared; carapace outline more rounded rather than straight sided; arch or keel slightly developed in juveniles but absent in adults; a median notch at the posterior margin of the carapace; carapace deformities in two juveniles; inguinal scales form an angle; epiplastron rounded anteriorly, turned upwards and constricted at the gular-humeral seam; plastral surface flat to slightly concave; plastral markings present in juveniles (obscure in adult); plastral darkened anal and femoral scutes in one turtle; darkened plastral scute seams; front claws long

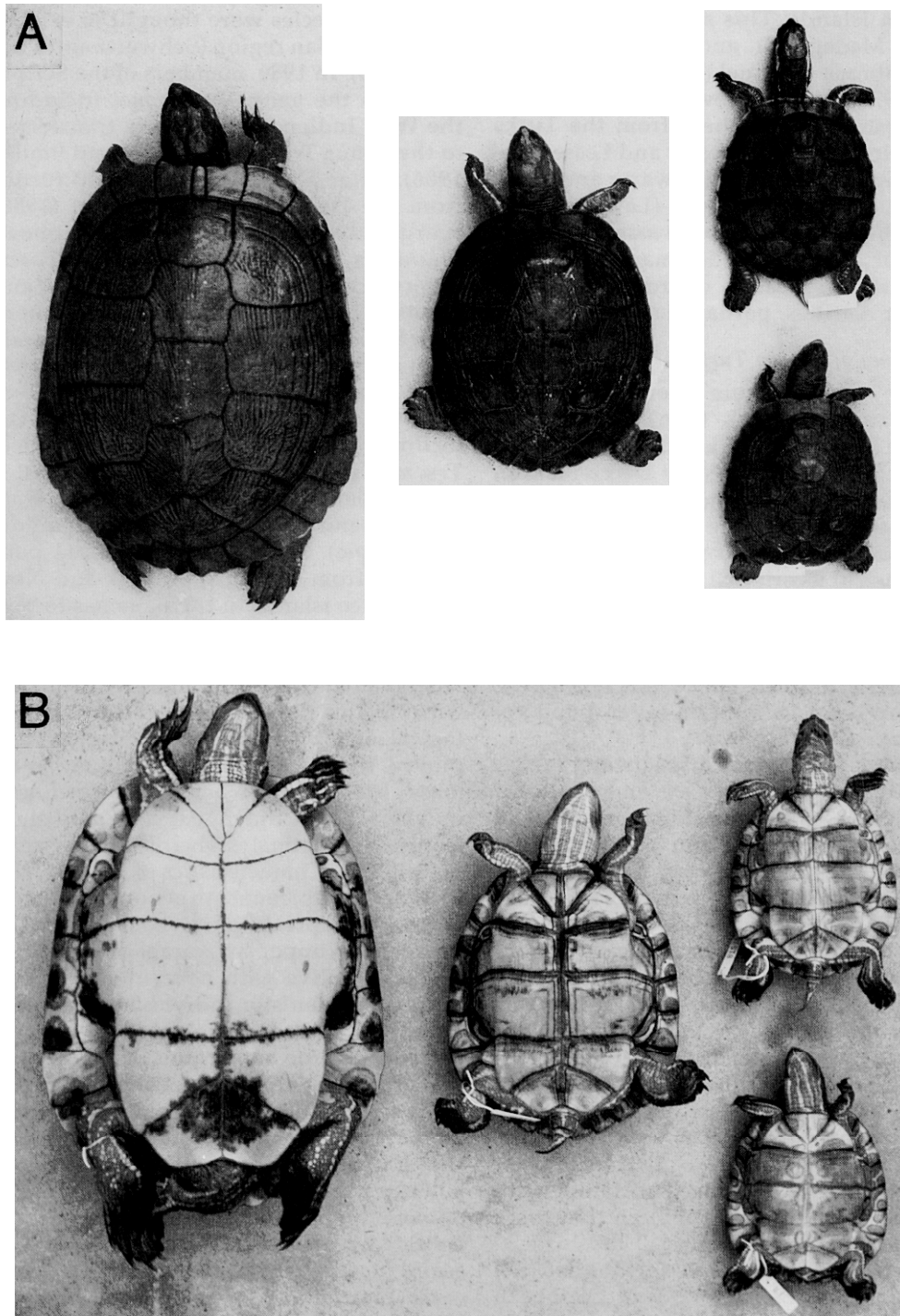


FIG. 2. Four specimens of *Trachemys* from Great Exuma Island. A. Dorsal view. B. Ventral view.

TABLE 1. Shell measurements for four *Trachemys* from Great Exuma Island, Bahamas.

Characters	Specimen 1	Specimen 2	Specimen 3	Specimen 4
Sex	Male			
Carapace length	200.0	130.3	90.6	87.6
Carapace width, HI-IV	134.1	86.5	57.2	59.1
Carapace width, VII-VIII	152.5	104.5	76.3	74.9
Plastron length	166.5	106.6	77.9	75.1
Shell height	74.4	54.4	35.3	35.1
Gular length	29.4	19.3	14.9	14.4
Gular width	43.2	31.2	21.6	21.8
Vertebral I length	33.1	19.7	16.9	15.9
Vertebral I width	32.6	27.9	15.8	17.9
Nuchal length	15.7	11.8	7.9	7.2
Nuchal width	9.0	5.7	3.7	4.3
Femoral length	17.6	10.6	7.6	8.3
Pectoral length	26.3	18.4	13.7	13.8
Seam VII-VIII	21.2	15.0	12.0	11.6
Intermarginal XII	16.3	8.4	8.9	7.8
Inguinal-marginal VI	11.3	8.3	NC	4.8
Inguinal-marginal VIII	12.0	9.6	5.6	3.2

in male; plastron width at gular-humeral seam/carapace length (0.235 ± 0.014); dorsal length of cervical scale/carapace length (0.084 ± 0.005); cervical scute width at posterior margin of ventral underlap/carapace length (0.045 ± 0.003); seam length for submarginal VII-VIII/carapace length (0.121 ± 0.013); gular scale length/carapace length (0.156 ± 0.009); femoral length/carapace length (0.086 ± 0.005); vertebral I length/carapace length (0.171 ± 0.016); pectoral length/carapace length (0.145 ± 0.011); width at marginal seam III-IV/carapace length (0.66 ± 0.02); and shell height at vertebral II-III/carapace length (0.395 ± 0.019).

The four *Trachemys* from Great Exuma show a blend of features that are shared by *Trachemys terrapen*, *T. stejnegeri*, and *T. decussata*. The supratemporal red mark on live specimens occurs in both *stejnegeri* and *decussata*, but not in *terrapen*. Most of the shell ratio information, however, conforms with *T. terrapen* rather than with the other two species. The specimens were sent to Michael Seidel for his opinion. Pertinent comments in his letter to us are as follows: "UF 81580 and 81 look fairly typical of *T. terrapen*, similar to those on Cat Island. UF 81579 and 82 resemble *terrapen* but have features of other *Trachemys* (*scrip-*

ta or *stejnegeri*?). UF 81580 looks like it might have been reared in captivity. All of the turtles in this population could easily be hybrids and may have originated from the Paradise Island (Nassau) population or multiple introductions from elsewhere." Until more specimens become available, it is probably best to consider the Great Exuma Island population as a hybrid swarm, similar to those reported for New Providence and Andros islands. Careful surveys should be encouraged in the lower Exumas to locate additional colonies and document the extent of the range of *Trachemys* in this island group.

DISCUSSION

Amphibian and reptile records are available for 63 islands (3.2 taxa per island) in the Exuma Archipelago, based on the literature and recent collections (Appendix II). Most of the Exuma herpetofauna appears widely distributed within the archipelago, although the number of species on a given island is influenced by island size, habitat complexity, and anthropogenic factors. Three taxa (*Anolis angusticeps oligaphis*, *Hemidactylus mabouia*, *Trachemys* sp. hybrid) appear confined to the southern part of the island chain. Two taxa (*Ameiva auberi focalis*, *Cyclura cyclura inornata*) are known only

TABLE 2. List of islands in the Exuma Archipelago and their amphibian and reptile faunas, based on data generated from this study, information supplied by J. B. Iverson (designated by *), and from published lists (MacLean et al., 1977; Schwartz and Henderson, 1988). Species abbreviations are defined in Appendix 2. Underlined abbreviations represent new island records. We included two White Bay cays under "Southern Exumas" because we cannot positively assert if they represent the same island or two separate islands.

Northern Exumas (Sail Rocks to Wax Cut)	Central Exumas (Conch Cut to Bock Cay)
Allan's Cay: <u>Asa*</u> , <u>Avu*</u> , <u>Ccy*</u> , <u>Lca*</u>	Big Farmer's Cay: <u>Sni</u>
Leaf Cay: <u>Asa</u> , <u>Ccy</u> , <u>Lca</u> , <u>Sni</u> (intergrades), <u>Tam</u>	Bitter Guana Cay: <u>Ccy</u> , <u>Aau</u> , <u>Asa</u>
Little Norman's Cay: <u>Sni</u> (intergrades)	Bock Cay: <u>Aau</u> , <u>Adi</u> , <u>Asa</u> , <u>Asm</u> , <u>Sni</u> , <u>Tam</u>
Norman Cay: <u>Adi</u>	Cave Cay: <u>Aau</u> , <u>Sni</u>
Ship Channel Cay: <u>Aau</u> , <u>Asm</u> , <u>Lca</u>	Compass Cay: <u>Epl</u> , <u>Aau</u> , <u>Asm</u> , <u>Lca</u> , <u>Sni</u> , <u>Sno</u> , <u>Est</u>
SW Allen's Cay (U-Cay): <u>Asa*</u> , <u>Ccy</u> , <u>Lca</u> , <u>Tam</u>	Darby Island: <u>Epl</u> , <u>Adi</u> , <u>Sni</u>
Wax Cay: <u>Asm</u>	Gaulin Cay: <u>Ccy</u> , <u>Aau</u>
Exuma Cays Land and Sea Park (Wax Cut to Conch Cut)	Great Guana Cay: <u>Epl</u> , <u>Ccy</u> , <u>Asm</u> , <u>Lca</u> , <u>Sni</u> , <u>Sno</u> , <u>Tam</u>
Alligator Cay: <u>Asa</u> , <u>Ccy</u> , <u>Lca</u> , <u>Sno</u>	Little Farmer's Cay: <u>Adi</u> , <u>Asa</u> , <u>Asm</u>
Bell Island: <u>Epl</u> , <u>Ose</u> , <u>Aau</u> , <u>Adi</u> , <u>Asa</u> , <u>Asm</u> , <u>Sno</u> , <u>Avu</u> , <u>Est</u>	Musha Cay: <u>Aau</u> , <u>Adi</u> , <u>Asa</u>
Bush Hill Cay: <u>Cri</u> , <u>Asa</u> , <u>Sno</u>	Pipe Cay: <u>Ose</u> , <u>Sno</u> , <u>Tca</u> , <u>Tlu</u>
Halls Pond Cay: <u>Adi</u> , <u>Asm</u> , <u>Asa</u> , <u>Sni</u> , <u>Sno</u> , <u>Tam</u>	Rudder Cut Cay: <u>Aau</u> , <u>Adi</u> , <u>Asa</u> , <u>Asm</u> , <u>Lca</u> , <u>Sni</u> , <u>Sno</u> , <u>Tam</u> , <u>Avu</u>
Hawksbill Cay: <u>Epl</u> , <u>Aau</u> , <u>Adi</u> , <u>Asa</u> , <u>Asm</u> , <u>Lca</u> , <u>Sno</u> , <u>Tam</u>	Sampson Cay: <u>Aau</u> , <u>Asm</u> , <u>Sni</u>
Hog Cay: <u>Aau</u> , <u>Asa</u> , <u>Lca</u> , <u>Sni</u>	Staniel Cay: <u>Epl</u> , <u>Aau</u> , <u>Adi</u> , <u>Asa</u> , <u>Asm</u> , <u>Sni</u> , <u>Sno</u> , <u>Tca</u> , <u>Tlu</u>
Little Bell Island: <u>Aau</u> , <u>Asa</u> , <u>Sni</u> , <u>Sno</u>	Thomas Cay: <u>Lca</u>
Long Rock: <u>Asa</u> , <u>Sno</u> , <u>Tam</u> , <u>Avu</u>	Southern Exumas
Malabar Cays: <u>Asa</u> , <u>Sni</u>	North Adderly Cay (off Lee Stocking Island): <u>Ccy</u>
Marion Cay: <u>Asa</u> , <u>Sni</u>	Barratterre: <u>Adi</u> , <u>Asa</u> , <u>Asm</u> , <u>Sno</u>
Narrow Water Cay: <u>Aau</u> , <u>Asa</u> , <u>Lca</u> , <u>Sni</u> , <u>Sno</u> , <u>Avu</u>	Elizabeth Island: <u>Aau</u> , <u>Lca</u>
Noddy Cay: <u>Asa</u>	Great Exuma Island: <u>Epl</u> , <u>Ose</u> , <u>Thy</u> , <u>Aau</u> , <u>Aan</u> , <u>Adi</u> , <u>Asa</u> , <u>Asm</u> , <u>Lca</u> , <u>Hma</u> , <u>Sni</u> , <u>Sno</u> , <u>Avu</u> , <u>Est</u> , <u>Tlu</u>
O'Briens Cay: <u>Lca</u>	Guana Cay (near Norman's Pond Cay): <u>Ccy</u>
Pasture Cay: <u>Asa</u> , <u>Sni</u>	Little Exuma Island: <u>Epl</u> , <u>Ose</u> , <u>Aau</u> , <u>Asm</u> , <u>Adi</u> , <u>Asa</u> , <u>Sni</u> , <u>Sno</u> , <u>Avu</u> , <u>Tca</u> , <u>Tlu</u>
Rader's Rock: <u>Asa</u>	Jewfish Cay: <u>Sni</u> , <u>Sno</u> , <u>Avu</u>
Richard's Rock: <u>Asa</u> , <u>Sni</u> , <u>Tam</u>	Lee Stocking Island: <u>Ose</u> , <u>Ccy</u> , <u>Aau</u> , <u>Adi</u> , <u>Asa</u> , <u>Asm</u> , <u>Tam</u> , <u>Est</u>
Rocky Dundas: <u>Asa</u> , <u>Sno</u> , <u>Avu</u>	Normans Pond Cay: <u>Asa</u> , <u>Asm</u>
Sandy Cay: <u>Asa</u> , <u>Sni</u>	Pigeon Cay: <u>Aau</u> , <u>Lca</u> , <u>Sni</u>
Shroud Cay: <u>Aau</u>	Prickly Pear Cay (9 mi NNW from Rolleville, possibly one of the islands off Norman's Pond Cay): <u>Ccy</u>
Soldier Cay: <u>Asa</u>	Stocking Island: <u>Asa</u> , <u>Asm</u> , <u>Sni</u>
Sooty Cay: <u>Asa</u>	White Cay: <u>Cri</u>
South Halls Pond Cay: <u>Asa</u>	White Bay Cay (?): <u>Ccy</u>
Waderick Wells Cay: <u>Epl</u> , <u>Ccy</u> , <u>Aau</u> , <u>Adi</u> , <u>Asa</u> , <u>Asm</u> , <u>Lca</u> , <u>Sni</u> , <u>Sno</u> , <u>Tam</u> , <u>Avu</u> , <u>Tsp</u>	White Bay Cay (off Norman's Pond Cay): <u>Sni</u>
White Bay Cay: <u>Lca</u>	Cays of Undetermined Locations
	Allen Cay: <u>Ccy</u> (<u>figginsi</u>)
	Ozie Cay (possibly Guana Cay): <u>Ccy</u>
	Triple Cay: <u>Lca</u>

from the Ship Channel Cays and from Allan's Cay, U Cay and Leaf Cay in the Allan's Cays group, respectively, at the extreme northern end (Schwartz and Henderson, 1991). These authors noted that *Cyclura cyclura figginsi* was restricted to the central and southern Exumas. The population of *Cyclura rileyi* at Bush Hill Cay in the northern part of ECLSP apparently is introduced (John Iverson, pers. comm.); otherwise, this species is only known in

the Exuma chain from White Cay, south of Great Exuma. The subspecific status of the Bush Hill population has not been established.

More surveys are planned on the island chain, particularly within the ECLSP, to further define the local distributions of amphibians and reptiles and to determine the impacts of introduced cats, dogs, rats, hutias, rock iguanas, and human populations on these fragile islands.

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APPENDIX I.

GAZETTEER OF PLACE NAMES FOR
NEW RECORDS

Latitude (N) and longitude (W) coordinates follow island names.

Alligator Cay 242335N, 763834W (ECLSP); Barratterre Cay (=Barataria) 234130N, 760300W; Bell Island 241819N, 763327W (ECLSP); Bock Cay (=Peace and Plenty Cay) 234832N, 761000W; Bush Hill Cay 243407N, 764727W (ECLSP); Great Exuma Island 233000N, 754600W; Great Guana Cay 240200N, 762200W; Halls Pond Cay 242115N, 763500W (ECLSP); Hawksbill Cay 242900N, 764600W (ECLSP); Hog Cay 242220N, 763639W (ECLSP); Lee Stocking Island 234600N, 760540W; Little Bell Island 241752N, 763205W (ECLSP); Little Exuma Island 232530N, 753540W; Long Rock Cay (=West Shroud) 242417N, 763938W (ECLSP); Malabar Cays 242205N,

763804W (ECLSP); Marion Cay 242221N, 763621W (ECLSP); Musha (=Moosha Cay) 235328N, 751542W; Narrow Water Cay 242335N, 763820W (ECLSP); Noddy Cay 242428N, 763850W (ECLSP); Norman's Cay 243700N, 764900W; Norman's Pond Cay 234630N, 760710W; O'Brien Cay 241913N, 763311 W (ECLSP); Pasture Cay 241904N, 763338W (ECLSP); Pigeon Cay 232829N, 753730W; Rader's Rock 242325N, 763800W (ECLSP); Richard's Rock 242352N, 763818W (ECLSP); Rocky Dundas Cay 241639N, 763230W (ECLSP); Rudder Cut Cay 235235N, 761428W; Sandy Cay 242023N, 763531W (ECLSP); Shroud Cay 243200N, 764700W (ECLSP); Soldier Cay 241956N, 763327W (ECLSP); Sooty Cay 242423N, 763832W (ECLSP); South Halls Pond Cay 241942N, 763403W (ECLSP); Stocking Island 233130N, 754530W; Thomas Cay 241405N, 762913W; Waderick Wells Cay (=Warderick Wells) 242300N, 763730W (ECLSP); Wax Cay 243500N, 764800W; White Bay Cay 242133N, 763616W (ECLSP).

APPENDIX II.

EXUMA ISLAND RECORDS FOR AMPHIBIANS AND REPTILES OBTAINED DURING RECENT FIELD WORK

Abbreviations used in Table 2 follow species name.

Frogs

Eleutherodactylus planirostris (Epl). Bell Island-ECLSP (UF 80739), Hawksbill Cay-ECLSP (UF 81546), Waderick Wells Cay-ECLSP (UF 78625).

Osteopilus septentrionalis (Ose). Bell Island-ECLSP (UF 80740), Lee Stocking Island (UF 81547), Little Exuma Island (UF 81548).

Turtles

Trachemys sp. hybrid (Thy). Great Exuma Island (UF 81579-82) (introduced).

Lizards

Ameiva auberi (Aau). Bell Island-ECLSP (UF 80700-2), Bock Cay (UF 81545), Hawksbill Cay-ECLSP (UF 78635, 78639, 81542), Hog Cay-ECLSP (UF 83901), Little Bell Island-ECLSP (UF 80705), Musha Cay (UF 81543), Narrow Water Cay-ECLSP (UF

83900), Rudder Cut Cay (UF 81544), Shroud Cay-ECLSP (UF 81541), Waderick Wells Cay-ECLSP (UF 78630, 80699, 80703-4, 80706, 80707, 83902-7).

Anolis angusticeps (Aan). No new records.

Anolis distichus (Adi). Barraterre (UF 81567), Bell Island-ECLSP (UF 81551), Bock Cay (UF 81556), Halls Pond Cay-ECLSP (UF 80737-8), Hawksbill Cay-ECLSP (UF 81550), Lee Stocking Island (UF 81555), Musha Cay (UF 81553), Norman Cay (UF 81552), Rudder Cut Cay (81554), Waderick Wells Cay-ECLSP (UF 83911).

Anolis sagrei (Asa). Alligator Cay-ECLSP (UF 83920-4), Barraterre (UF 81566), Bell Island-ECLSP (UF 80733-4), Bock Cay (UF 81564), Bush Hill Cay-ECLSP (UF 78637-8), Halls Pond Cay-ECLSP (UF 78628-9), Hawksbill Cay-ECLSP (UF 81558), Hog Cay-ECLSP (UF 83927), Lee Stocking Island (UF 81563), Little Bell Island-ECLSP (UF 80735), Long Rock Cay-ECLSP (UF 83933-4), Malabar Cays-ECLSP (UF 80730, 83925-6), Marion Cay (UF 81559, 83944-5), Musha Cay (UF 81560), Narrow Water Cay-ECLSP (UF 83912-4), Noddy Cay-ECLSP (UF 83941-2), Norman's Pond Cay (UF 81562), Pasture Cay-ECLSP (UF 83946-7), Rader's Rock-ECLSP (UF 83935-8), Richard's Rock-ECLSP (UF 83915-9), Rocky Dundas Cay-ECLSP (UF 83950-4), Rudder Cut Cay (UF 81561), Sandy Cay-ECLSP (UF 80731, 83928-32), Soldier Cay-ECLSP (UF 81557), Sooty Cay-ECLSP (UF 83939-40), South Halls Pond Cay-ECLSP (UF 83848-9), Stocking Island (UF 81565), Waderick Wells Cay-ECLSP (UF 78617-9, 83943).

Anolis smaragdinus (Asm). Barraterre (UF 81577), Bell Island-ECLSP (UF 81569, 80728-9), Bock Cay (UF 81575), Great Guana Cay (UF 81571), Halls Pond Cay-ECLSP (UF 80725-7), Hawksbill Cay-ECLSP (UF 81568), Lee Stocking Island (UF 81573), Little Exuma Island (UF 81578), Norman's Pond Cay (UF 81574), Rudder Cut Cay (UF 81572), Stocking Island (UF 81576), Waderick Wells Cay-ECLSP (UF 78620), Wax Cay (UF 81570).

Cyclura cychlura (Ccy). Alligator Cay-ECLSP (introduced) (photographs only), Waderick Wells Cay-ELSP (introduced) (photographs only). REMARKS: Eight lizards were brought to Alligator Cay from

Leaf Cay in 1988 and 1990; two lizards to Waderick Wells from Leaf Cay in 1990 (P. Hall, pers. comm.).

Cyclura rileyi (Cri). Bush Hill Cay-ECLSP (introduced) (photographs only).

Hemidactylus mabouia (Hma). Great Exuma Island (UF 81537) (introduced).

Leiocephalus carinatus (Lea). Alligator Cay-ECLSP (UF 80715-8), Hawksbill Cay-ECLSP (UF 78632-4), Hog Cay-ECLSP (UF 83893-6), Narrow Water Cay-ECLSP (UF 80712, 83897-8), O'Brien Cay-ECLSP (UF 78631), Rudder Cut Cay (UF 81532), Thomas Cay (UF 81531), Waderick Wells Cay-ECLSP (UF 78623, 78627, 80710-11, 83899), White Bay Cay-ECLSP (UF 80713).

Sphaerodactylus nigropunctatus (Sni). Bock Cay (UF 81536), Halls Pond Cay-ECLSP (UF 80752-80756), Hog Cay-ECLSP (UF 83976), Little Bell Island-ECLSP (UF 80757), Malabar Cays-ECLSP (UF 83972-5), Marion Cay-ECLSP (UF 83992-4), Narrow Water Cay-ECLSP (UF 83955-60), Pasture Cay-ECLSP (UF 84000), Pigeon Cay (UF uncat.), Richard's Rock-ECLSP (UF 80741, 83966-8), Rudder Cut Cay (UF 81535), Sandy Cay-ECLSP (UF 80742-52, 83977-87, 83990-91), and Waderick Wells Cay-ECLSP (UF 78621).

Sphaerodactylus notatus (Sno). Alligator Cay-ECLSP (UF 83969-70), Barratterre (UF 81534), Bell Island-ECLSP (UF 80762-3), Bush Hill Cay-ECLSP (UF 78640), Halls Pond Cay-ECLSP (UF 80759), Hawksbill Cay-ECLSP (UF 81533), Little Bell Island-ECLSP (UF 81526, 80758), Long Rock Cay-ECLSP (UF 83988-9), Narrow Water Cay-ECLSP (UF 80760, 83961-5, 83971), Rocky Dundas Cay-ECLSP (UF 84001-3), Rudder Cut Cay (UF 81549), Waderick Wells Cay-ECLSP (UF 78628, 80761, 80764).

Tarentola americana (Tam). Bock Cay (UF

81540), Halls Pond Cay-ECLSP (UF 80720-4), Lee Stocking Island (UF 81539), Long Rock Cay-ECLSP (UF uncat.), Richard's Rock-ECLSP (UF 83910), Rudder Cut Cay (UF 81538), Waderick Wells Cay-ECLSP (UF 78622, 83908-9 [UF 83908-9 skeletons only]).

Snakes

Alsophis vudii (Avu). Bell Island-ECLSP (UF 80719), Little Exuma Island (UF 81529), Long Rock Cay-ECLSP (UF 83892 [shed skin only]), Narrow Water Cay-ECLSP (UF 83889), Rudder Cut Cay (UF 81528), Waderick Wells Cay-ECLSP (UF 78624, 78636, 83891).

Epicrates striatus (Est). Bell Island-ECLSP (photograph only), Lee Stocking Island (photograph only). REMARKS: The Bell Island and Lee Stocking Island specimens were found on a trail at the edge of a buttonwood swamp, about half an hour after sunset and in an artificial well about three hours after sunset, respectively. The latter snake was observed while it ingested an adult *Osteopilus septentrionalis*.

Tropidophis canus (Tca). Hawksbill Cay-ECLSP (photograph). REMARKS: The specimen from Hawksbill Cay was found crawling on a rocky trail adjacent to a buttonwood swamp at 2300 h following afternoon heavy rains.

Typhlops sp. (Tsp). A blind snake was seen on Waderick Wells Cay-ECLSP when the park's Visitor Center was being constructed in 1990 (P. Hall, pers. comm.). Only *T. lumbricalis* (Tlu) has been recorded from the Exumas; however, a second species, *Typhlops biminensis*, also is known from the Great Bahama Bank.