

JOHN G. SHEDD AQUARIUM

# Iguana Research Expedition *Andros, Bahamas*



APRIL 6–15, 2007



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### I. BACKGROUND

The Andros Iguana belongs to the genus *Cyclura*, which are among the largest lizards found in the Western Hemisphere. Representatives of the genus are distributed on a number of islands and cays in the Caribbean including the Bahamas, Cayman Islands, Virgin Islands, and the Greater Antilles. These impressive, colorful reptiles are chiefly herbivorous and generally inhabit remote xeric limestone or sandy beach habitats. All members of the genus are, unfortunately, among the fastest disappearing lizard species on earth.

All *Cyclura* species are either endangered or threatened in the wild. The population declines are inevitably the direct or indirect result of humans. Threats facing the iguanas include habitat loss, hunting pressure (for food or sport), and feral animals such as dogs, cats, rats, pigs and mongooses. Feral cats prey on juvenile iguanas while dogs kill the adults. Pigs root up nests and eat the eggs and goats strip the landscape of the iguanas' natural food supply. The iguanas evolved without natural predators and have been unable to cope with these relatively new challenges to their survival.

Since 1994, the John G. Shedd Aquarium has been involved with conducting field surveys of endangered West Indian ground iguanas in the Exuma Island chain as well as the remote island of Andros, Bahamas. We conduct our work in collaboration with the Bahamas National Trust (BNT), the non-government organization mandated with the responsibility to manage all national parks in the Bahamas.

In 2007, our research excursion takes us back to the island of Andros. One hundred miles long and forty miles wide, Andros is one of the largest relatively unexplored tracts of land in the Western Hemisphere. Mostly flat, the 2,300 square mile island is riddled with blue holes and creeks and the interior showcases dense tropical forest, scrub flats, and mangroves. The east coast is paralleled by

the third largest barrier reef in the world. This reef limits suitable passages to the island, thus shielding most of the island from outsiders. Only one settlement is found on the eastern shore leaving the central and west side areas unexplored and primal.

Since 1999, Shedd Aquarium volunteers have been instrumental in our ability to collect crucial life history data pertaining to the endangered Andros Iguana (*Cyclura cyclura cyclura*). These data have been implemented in science-based conservation management plans for the iguana. However, more work is needed. Because these animals are long-lived (up to 80 years), we need to continually monitor populations to garner data such as population growth, dispersal, and survival. To accomplish these goals, we initiated a mark/recapture study in 1999. These recapture data are crucial yet logistically difficult to complete. The Shedd research excursions are the only feasible way that we are able to capture a significant number of iguanas in a short time period. The data we collect will be used to unravel the mystery of this lizard's life history. The results will eventually be disseminated to the scientific community and the Bahamian government to strengthen and improve existing management programs for the iguana.

### II. 2007 RESEARCH OBJECTIVES

The 2007 research expedition will focus on continuing our long-term mark/recapture study from two study locations on Andros. We will also be looking for any sign of early nesting and mating behavior of the iguanas. The iguanas nest in termite mounds, an extremely rare behavior and only found with the Andros species. We will cross mangrove creeks and venture inland to search for this elusive iguana. Once identified, we will attempt captures for measurements and other scientific data collection.



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### III. RESEARCH PARTICIPATION

Participants are a vital part of this research expedition and are included in nearly every aspect of data collection. Cooperation, patience, and fish landing nets are all required to capture iguanas. After capture, dimensional data such as weight and body and tail length will be taken. The iguanas will be probed to determine sex of the individual. The iguanas will be temporarily marked with white enamel paint for short-term identification and then returned to their original capture site for release. PIT and bead tags will be implanted for long-term monitoring. Iguana scat will also be collected for food preference data.

Individual discretion and interest of each participant will determine how involved he or she will become in the data collection process. We are, however, in need of motivated people who are not afraid of exciting challenges and adventure in an exotic work environment.

### IV. PARTICIPANTS

The most important people, of course, are our participants. Participants come from all age groups and backgrounds. Some returning participants already know a great deal about island ecosystems and for others, this is an inaugural experience. Some come alone, others with spouses or friends. All are looking for new challenges and share a sense of wonder and adventure. This is a trip for the person who enjoys the extraordinary and wants to make a difference in conserving biodiversity. The trip is for the person who is not afraid to get wet and dirty and work hard.

Days will be spent exploring the unknown interior in search of iguanas. We will attempt to identify areas of high iguana densities and harmlessly capture them for measurements and additional scientific data. After “beating the bush” we will relax aboard the Aquarium’s

research vessel, R/V Coral Reef II. We provide the expertise and equipment, and we insure you a wide variety of opportunities to investigate the islands we visit with all their distinctive natural history.

### V. ITINERARY

Although the expedition will be structured, activities are dependent on Mother Nature!

**Day 1–April 6:** We will meet you at the Miami airport and drive you to the Coral Reef II at the Merrill Stevens shipyard. All flights should arrive in Miami between 4 p.m. and 8 p.m. Once aboard, you can stow your gear and explore the boat. Interested participants will have the opportunity for a quick adventure into Miami to indulge in the nightlife. This will also be the time to purchase alcohol for persons interested. *There is an option for people to fly directly to South Andros, Bahamas. This option will require an overnight stay in Nassau and a 7:00 a.m. flight to Congo Town, South Andros on Sunday, April 8.*

**Day 2–April 7:** We shove off at 9:00 a.m. and make our way down the Miami River. As we pass under the drawbridges, we may catch glimpses of manatees as they lazily swim along the shore. This will be a full day of travel. Participants will get an official tour of the boat and have time to relax and enjoy the ocean views. There may be time for fishing as we cross the Gulf Stream on our way to Andros. After the crossing, we will clear Customs on the island of Bimini. If the tides are in our favor, we will visit the tiny island where Hemmingway spent a great deal of time. It is then a night of traveling on the boat as we continue to Andros. Since we will be traveling all night, participants may have the opportunity to take watch at the helm, checking radar and compass bearings for a two-hour shift.



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**Days 3, 4, 5–April 8 to 10:** We arrive at South Bight, Andros at 6:00 a.m. We will remain docked at the Lisbon Creek settlement, a small village on the south end of Mangrove Cay where you can meet local Bahamians. It's a wonderful opportunity to observe the "real" Bahamas and the people from one of the "family" islands. We will then pick up participants wishing to fly into South Andros. After breakfast, we will take dinghies through mangrove creeks to reach the interior of Andros. Once inland, you will be trained on the proper procedures for iguana capture, restraining, and measuring techniques. Some members will then split into teams of two or three to walk the island. The objective—skillfully capture as many iguanas as possible using nets and teamwork! Other members will assist in the collection of measurements, weights, and marking the animals. After a hard day of work, we can swim in the warm water, relax, and talk about the events of the day. We will also make time to visit a camp on the west side of Andros. Illegal poachers use the camp to hunt iguana and we will visit the camp to monitor use patterns.

**Day 6–April 11:** We leave the dock at the Lisbon Creek settlement and cruise down the South Bight of Andros. The South Bight is a shallow waterway that separates South Andros from Mangrove Cay. Along our way, we will stop and snorkel one of the blue holes that make Andros famous. We will also have the opportunity to learn about the unique geological processes that form blue holes and see amazing reef fish, stingrays, eagle rays, and the occasional shark. We will drop anchor far down the bight for the next four days to enjoy the calm waters and beautiful sunsets of the Bahamas. After lunch we will travel by small boat to Sandy Cay to search for iguanas. This cay is unique because it is one of the few locations on Andros where iguanas can be regularly seen. Of course, this doesn't make them easier to catch!

**Days 7 and 8–April 12 and 13:** The iguanas that inhabit Sandy Cay are part of a long-term mark and recapture program. We may be able to catch old friends that we've known for years! This will be a great opportunity to potentially find early nesting female iguanas protecting their eggs in termite mounds. A favorite diversion from the fieldwork is to travel to the pristine, untouched west side of Andros. We have never been to the west side without seeing sea turtles, "rolling" tarpon, sharks, or an array of wading birds. During one evening we may visit Tiamo Resorts, a unique ecolodge on South Andros Island, for dinner and to learn how the establishment is making a difference through sustainable tourism.

**Day 9–April 14:** After a short day in the field, we will pack up the boat and prepare to leave Andros. We will leave at 2:00 p.m. and again travel all night. There will be more opportunities for those who enjoyed taking turns at the helm. We will clear Customs again at Bimini and then continue to Miami. For those leaving from South Andros, we will drop you off at the Lisbon Creek dock on South Andros for an afternoon flight back to Nassau.

**Day 10–April 15:** We will arrive in Miami by 12:00 p.m. We will clear Customs and bid our farewells. All departure times should be after 3:00 p.m.



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### VI. TRAVEL ARRANGEMENTS

#### **A valid passport for international travel is required!**

We recommend that all participants have a current tetanus shot. All other concerns should be addressed with your physician at least one month prior to your travel date.

Before booking your flight to Miami, please make sure its departure & arrival times occur within the specified restrictions listed below. We will provide transportation to and from Miami International Airport. Participants arriving to South Andros are responsible for their own transportation to and from the Lisbon Creek dock on South Andros as well as any transportation costs in Nassau.

**All flights should arrive at Miami International Airport on April 6 between 4 pm–8 pm**

**All departures should leave Miami International Airport on April 15 after 3 pm**

Because many airfares are non-refundable, please check with us before finalizing your plans. We also strongly suggest travel insurance for your protection in case you are unable to join the trip for personal or medical reasons. Please contact us for tips on booking travel to South Andros.

### VII. ACCOMMODATIONS

Participants will live aboard the R/V Coral Reef II, a comfortable 80' long vessel owned by the Shedd Aquarium. The Coral Reef will be our main means of transportation between islands. However, small motor dinghies will enable us to investigate the more difficult to reach areas.

Except for limited storage space in your cabin, you can plan for this type of trip in the same manner you would for a more conventional vacation.

#### **Electricity**

Regular 110-volt electrical service is available at all times. You may bring a shaver, hair dryer, or other small appliances.

#### **Water**

The boat carries 2000 gallons of fresh water, and produces 200 additional gallons of water daily. Fresh water is available at all times.

#### **Motion**

The R/V Coral Reef II is a very stable boat and offers a comfortable ride while underway. (If you feel you may be prone to motion sickness, bring along your favorite remedy—just in case!). During meals and at night, we anchor in calm, protected waters for maximum comfort.

#### **Meals**

Meals are planned and prepared by our experienced chef. The boat is fully stocked in Miami and carries sufficient refrigerator and freezer space for several weeks' activities. Hot or cold breakfast is available from 7:00–7:30 a.m. A picnic lunch will be packed for days out in the field; otherwise a buffet lunch on board will be served. Appetizers are served in the late afternoon. Family-style dinners are served around 6:30 PM. Participants are responsible for their own alcoholic beverages, which can be purchased in Miami on the first night.

#### **Captains**

The R/V Coral Reef II carries two licensed captains, John Rothchild and Lou Roth. Each has participated in many voyages on the Coral Reef, including natural history trips, fish collecting trips, and research expeditions.



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### VIII. Physical Requirements

A physician's evaluation of your ability to participate in activities is required—please note that this is due no later than March 9, 2007. Although the trip is not extremely strenuous, it requires a high degree of physical fitness and agility. A good deal of walking, usually over rocky and difficult terrain, is involved. Also, "wet" landings can sometimes be difficult—there are no beaches, so participants must be able to climb in and out of boats and walk through water. Most of the activity is at your own pace though everyone will spend full days in the field starting early in the morning. Poisonwood is prevalent in the Bahamas; if you are hypersensitive to poison ivy, extra precautions are necessary. If you are concerned about your physical capabilities for this trip, please contact Michelle for further details and your personal physician for his/her opinion.

There will be time for swimming and snorkeling, but these are optional activities. If you are a beginning snorkeler, we will help you get comfortable with your gear and technique.

### IX. PACKING LIST

- Bring durable clothes and footwear that can get wet and salty!
- Lightweight long pants and long sleeved shirts must be worn while searching for iguanas to protect arms and legs from poisonwood, insects, scrapes, and scratches.
- Please remember that there is very limited cabin space—please pack lightly!
- **Don't forget your PASSPORT!**

### Required:

- Hiking boots or sneakers that can get wet
- Sandals that can get wet (Teva type sandals work well)
- Socks
- Light long pants (at least 2-3 pair)
- Light long sleeved shirts (at least 2-3)
- T-shirts
- Shorts
- Swimsuit
- Hat (wide-brimmed recommended)
- Light windbreaker type jacket
- Sweatshirt/sweatpants—the boat can be chilly in the evenings!
- Insect repellent
- Sun screen—suggest a 15 SPF or higher
- Beach towel (boat towels are for indoors only)
- Anti-motion sickness medication (such as Triptone or Bonine)
- Medicines/prescriptions
- Sunglasses—polarized are the best
- Personal hygiene items
- Waterproof wristwatch

### Optional:

- Small back pack (waterproof is best)
- Camera (ideally, one that can get wet)
- Film
- Binoculars
- Snorkeling gear (mask, fins, snorkel)
- Note: Towels, sheets, blankets and pillows are provided.

### VI. QUESTIONS?

Please contact Michelle Jost at [mjost@sheddaquarium.org](mailto:mjost@sheddaquarium.org) or 312-692-3191 with any questions.