

### WIISG Contact Information

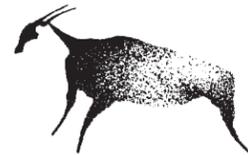
Jose Ottenwalder, Co-Chair  
UNDP-GEF Biodiversity Project,  
Dominican Republic  
Email: biodiversidad1@codetel.net.do

Richard Hudson, Deputy Chair  
Fort Worth Zoo  
Email: iguanhudso@aol.com

Allison Alberts, Co-Chair  
Zoological Society of San Diego  
Email: aalberts@sandiegozoo.org

Miguel Garcia, Deputy Chair  
Department of Natural and Environmental  
Resources, Puerto Rico  
Email: miguelag@umich.edu

<http://www.scz.org/iguana>

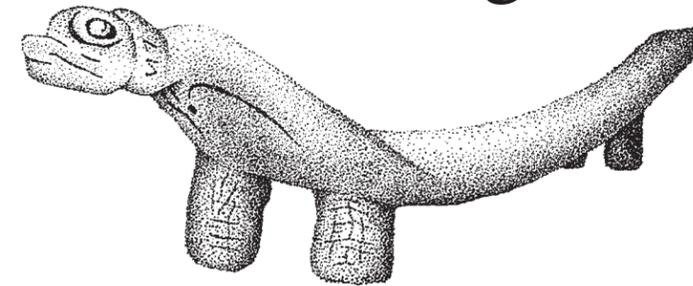


SPECIES SURVIVAL COMMISSION

Tandora Grant  
San Diego Zoo - CRES  
PO BOX 120551  
San Diego CA 92112

# Iguana Specialist Group

## Newsletter



IUCN - The World Conservation Union  
Species Survival Commission

Volume 4, Number 1, Spring 2001

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### News & Comments

#### West Indian Iguana Specialist Group Expands its Mandate

In 1999, several representatives from the WIISG attended the SSC herp review workshop "Strengthening IUCN's Contribution to the Conservation of Reptiles and Amphibians" in Washington, D.C. Our group's input was essential in debating and developing the recommendation that the WIISG expand its mandate to an Iguana Specialist Group in order to provide coverage for several key taxa currently outside the network. With the official endorsement of the SSC Executive Committee, our group now covers not only the iguanid genera found in the West Indies (*Cyclura* and *Iguana*), but also the other large, herbivorous iguanids, including the Fiji Island iguanas (*Brachylophus*), the spiny-tailed iguanas (*Ctenosaura*), the Galapagos marine (*Amblyrhynchus*) and land (*Conolophus*) iguanas, the desert iguanas (*Dipsosaurus*), and the chuckwallas (*Sauromalus*).

The major benefit to broadening our mandate is the increased coverage we will be providing for iguanid taxa in need of conservation attention. Significant interest in the expansion has already been generated among conservation biologists currently working with iguanas worldwide. Our priorities for the next triennium are to increase our membership to meet the challenge of this new mandate, to implement the critical conservation activities outlined in our recently published action plan, and to undertake the task of providing Red List assessments for the additional taxa under our mandate.

*Welcome new members:* John Binns (Cyclura.com), Gordon Burghardt (University of Tennessee), Elizabeth Erasito (National Trust for Fiji), Oscar Flores (Mexico National Autonomous University), Tandora Grant (Zoological Society of San Diego), Lee Grismer (La Sierra University), Peter Harlow (Taronga Zoo), Brad Hollingsworth (San Diego Natural History Museum), John Kinkaid (Zoological Society of San Diego), Gunther Koehler (Senckenberg Museum), Victor Reynoso (Mexico National Autonomous University), Jesus Rivas (National Geographic), Howard Snell (University of New Mexico and Charles Darwin Research Foundation), Richard Tracy (University of Nevada, Reno), and Martin Wilkelski (Princeton University).



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USA



**CRES**  
Center for Reproduction of Endangered Species

Editors:  
Allison Alberts  
Tandora Grant

**2001 Annual Meeting** ✨ This year's ISG Meeting will be held on Grand Cayman. We are currently considering a three-day period around the weekend of 10-11 November – after the peak hurricane season, but before the Thanksgiving holiday. A full day is planned for the ISG Meeting, with at least one additional day devoted to a conservation planning workshop for the critically endangered Grand Cayman iguana, *Cyclura nubila lewisi*. It is also likely that one or more field trips will be offered. More information will be forthcoming on the ISG listserv. Please contact ISG member Fred Burton with any questions: [fjburton@candw.ky](mailto:fjburton@candw.ky)



**Bahamas Report Available** ✨ In November, 2000, the Conservation Unit of the Bahamas Department of Agriculture requested the assistance of the Iguana Specialist Group, together with the Conservation Breeding Specialist Group (CBSG), in preparing an analysis and recommendations of the priority conservation needs of iguanas and seabirds in the Bahamas. A two-day workshop was held in conjunction with the annual meeting of the ISG at the Bahamian Field Station on San Salvador, The Bahamas. Five geographical sectors were identified (Andros, Abacos, Southern Bahamas, San Salvador, Exumas) and conservation recommendations were developed for each. The report is in the final stages of publication and will be available from the CBSG office: IUCN Conservation Breeding Specialist Group, 12101 Johnny Cake Ridge Road, Apple Valley, MN 55124 USA

Carey, E., Buckner, S.D., Alberts, A.C., Hudson, R.D., and Lee, D (editors). 2001. *Protected Areas Management Strategy for Bahamian Terrestrial Vertebrates: Iguanas and Seabirds*. IUCN/SSC Conservation Breeding Specialist Group, Apple Valley, MN.



**New ISG Website** ✨ New ISG member John Binns has graciously agreed to take on the task of developing a new website for the Iguana Specialist Group. As part of this effort, we are designing a new logo that can be used for marketing purposes. Until this process is complete, we will continue to use the current duho logo, which represents a ceremonial stool from the Bahamas on which Lucayan leaders or caicques would be seated when performing official functions. We are grateful to Karen Graham and associates at the Sedgwick County Zoo who have done such a tremendous job with the website to date.



**ISG Photo Archive** ✨ The ISG Photo Archive, funded by a grant from the Chicago Zoological Society and maintained by ISG member Tom Wiewandt, is a collection of our group's highest quality photographic images. The archive currently contains 32 images from 12 taxa, but we hope to significantly expand these numbers in the future. The images will eventually be showcased in an Iguana Gallery on the new ISG website. To date, images have been requested by the U.S. Fish and Wildlife Service, Agrupación Sierra Madre for a book they are putting together on Red-listed species, and Kirchoff/Wohlberg, a textbook packager that is producing a 6<sup>th</sup> grade reader on the Jamaican iguana for Scholastic Books, Inc. Funds raised through sale of rights to utilize images from the Photo Archive will be used to support conservation initiatives of the ISG.



The Grand Cayman iguana: illegal trade in the Caribbean threatens reptiles in particular. Photo: Crawford Allan / TRAFFIC International WWF UK.

the wild population. We hope to document this conclusively in 2001. This round of releases was a joint effort between the Fort Worth Zoo (Rick Hudson), the Hope Zoo (Orlando Robinson), and the University of the West Indies (Byron Wilson), with assistance from the International Iguana Society (Joe Wasilewski). A well-known wildlife photographer documented the release process for an upcoming film.

The 2001 nesting season will signify ten full years of active fieldwork in the Hellshire Hills. A veterinary team from the Fort Worth Zoo will be on hand to try to collect blood samples from female iguanas after they have nested. This should be possible based on the fact that field technician and University of West Indies student Delano Lewis captured and processed nine post-nesting females in June 2000. This will be the first serious attempt to obtain biological samples from the wild population, and will help to

establish normal values for free-ranging iguanas. To date, substantial physiologic data have been generated on the captive population at Hope Zoo as the result of the extensive pre-release health screening process. Values for the wild population will be useful for comparative purposes.

This is a very exciting time for the Jamaican iguana recovery project because the data being collected so strongly support the fact that headstarted iguanas can be successfully repatriated into the wild. Because efforts to release reptiles raised in captivity have generally been met with criticism for a variety of reasons, successful examples like the Jamaican iguana are important to document.

 Rick Hudson  
Fort Worth Zoo  
[Iguanahudso@aol.com](mailto:Iguanahudso@aol.com)

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### Recent Literature

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Alberts, A.C., ed., 2000. West Indian Iguanas: Status Survey and Conservation Action Plan. IUCN/SSC West Indian Iguana Specialist Group; IUCN - The World Conservation Union, Gland, Switzerland.

Banbury, B.L., Y.M. Ramos, R. Powell, and J.S. Parmerlee Jr. 2000. The *Cyclura* of Parque Nacional Isla Cabritos. *Journal of the International Iguana Society (Iguana Times)* 8(2):3-7.

Berovides, V. 2001. Usos potenciales de la iguana cubana (*Cyclura nubila nubila*). *Revista Biología* 15(1):3-8.

Glor, R.E., R. Powell, and J.S. Parmerlee, Jr. 2000. *Cyclura cornuta*. *Catalogue of American Amphibians and Reptiles* 709:1-6.

González, A., V. Berovides, and M.A. Castañeira. 2001. Aspectos de morfometría, abundancia, y alimentación de la iguana cubana (*Cyclura nubila nubila*) en el Archipiélago de los Canarreos, Cuba. *Revista Biología* 15(2):98-104.

Hartley, L.M., R.E. Glor, A.L. Sproston, R. Powell, and J.S. Parmerlee Jr. 2000. Germination rates of seeds consumed by two species of rock iguanas (*Cyclura* spp.) in the Dominican Republic. *Caribbean Journal of Science* 36(1-2):149-151.

Knapp, C.R. 1999. Population biology of a translocated iguana (*Cyclura*) in the Bahamas. M.Sc. Thesis, University of Florida, Gainesville, 99 pp.

Knapp, C.R. 2000. Home range and intraspecific interactions of a translocated iguana population (*Cyclura cyclura inornata* Barbour and Noble). *Caribbean J. Sci.* 36(3-4):250-257.

Malone, C.L., T. Wheeler, J.F. Taylor and S.K. Davis. 2000. Phylogeography of the Caribbean rock iguana (*Cyclura*): implications for conservation and insights on the biogeographic history of the West Indies. *Mol. Phylog. Evol.* 17(2):269-279.

Mitchell, N. 2000. Anegada Iguana (*Cyclura pinguis*). Pp 22-27. *In*: R.P. Reading and B. Miller (eds.), *Endangered Animals: A Reference Guide to Conflicting Issues*. Greenwood Press, Westport, CT.

Powell, R. 2000. *Cyclura onchiopsis*. *Catalogue of American Amphibians and Reptiles* 710:1-3.

Powell, R. 2000. Horned iguanas of the Caribbean. *Rept. Amphib. Hobbyist* 5(12):30-37.

Powell, R. and R.E. Glor. 2000. *Cyclura stejnegeri*. *Catalogue of American Amphibians and Reptiles* 711:1-4.



Veterinarians Tim Reichard and Roberto Maria (center) draw blood from a *Cyclura ricordi* as Angelica Espinal (left) and Direccion de Parques rangers (far right) look on. Head Keeper Miniere of ZooDom (right) holds the animal.

of subtropical dry forest in the Antilles, such as *Bursera*, *Consolea*, *Guaiacum*, and *Prosopis*. The island, site of a former cattle and goat ranch, is uninhabited, but has fairly regular visitation from rangers of the Dirección Nacional de Parques (analogous to the U.S. National Park Service) who provide guide service for ecotourists visiting the island.

We learned quickly that *C. ricordi* is far more wary than its sympatric cousin, *C. cornuta*. While most of the *cornuta* could be easily approached with a snare, nearly all of the *ricordi* immediately dove into their burrows or ran away after first sighting a human. With a lot of patience and the help of some Tomahawk live traps baited with bananas, we captured and bled a total of 15 *C. ricordi*. Nine wild *C. cornuta* were also processed. Each specimen was sexed, weighed, and measured and was given a generalized health examination. Cloacal swabs or fecal samples were taken for bacterial cultures and were sent to the Texas Veterinary Medical Diagnostic Laboratory to determine the species of bacteria inhabiting the lower GI tract. *Salmonella* sp. were serotyped by the National Veterinary Services Laboratory in Ames, Iowa.

 Peter Tolson  
Toledo Zoo  
ptolson@toledozoo.org

## Jamaican iguana (*Cyclura collei*)

With the coordination of Rick Hudson, Conservation Biologist with the Fort Worth Zoo, another successful release for the critically endangered Jamaican iguana, *Cyclura collei*, was recently conducted. On February 16 and 20, 2001, a total of 13 (6.7) young headstarted iguanas were released to the wild. Hatched in 1993 – 94 and raised at the Hope Zoo, these iguanas are the first to be released without radio-transmitters, bringing the number of iguanas released since 1996 to 39. Given the success of previous releases and the high survival rate, and due to the problems that have been experienced with external transmitter attachment, the decision was made to conduct a non-monitored release. This does not mean that attempts to monitor the success of the releases over time will not occur, but that the efforts will not be as intensive. These iguanas are all tagged with colored beads attached to the dorsal crest for visual identification in the field and with PIT tags for permanent ID once the iguanas are in hand. Prior to release, in November 2000, a team of veterinarians from the Fort Worth and Indianapolis Zoos conducted extensive pre-release health screen exams to insure that the iguanas were healthy and unlikely to introduce any disease into the wild population.

Thus far, most recapture data have been obtained incidentally; that is, iguanas are frequently found unharmed in mongoose traps, apparently seeking a free meal of red herring (a very pungent dried fish). Active efforts to trap iguanas using fruit for bait will begin soon, and will almost certainly increase the number of recaptures, not only for these new releases, but for iguanas released in previous years as well.

Several significant milestones were reached in 2000. First, a 1996 released female was found in a trap, representing a four-year survivor. In fact, 33% (6 out of 20) of iguanas that have been in living wild for a year or more have been recaptured in the core iguana area where mongoose trapping efforts are the most intense. Second, unprecedented sightings of 4 – 6 juvenile iguanas occurred in 2000, a strong indication of the positive effects of mongoose removal. Third, a female iguana released in 1998 returned to the lower nest site where she had been previously released and apparently laid eggs. This provides compelling evidence that headstarted iguanas are not only surviving in the Hellshire Hills, but appear to be integrating into

Legal News, February 9, 2001 ✨ The following press release comes from the TRAFFIC website: [www.traffic.org/news/cayman.html](http://www.traffic.org/news/cayman.html)

George Town, Cayman Islands. Three German nationals were charged this week with smuggling and attempting to smuggle over 1,250 live lizards, frogs, orchids and other plants and animals out of the British Overseas Territory of the Cayman Islands. The men were searched and detained as they were leaving the airport at George Town on January 30th, with the animals and plants being discovered in seven pieces of luggage. It is suspected that the animals were collected from the Cayman Islands as well as other countries in the Caribbean. Their arrest follows intensive investigations in recent weeks by the Cayman Islands Department of Environment and The National Trust for the Cayman Islands, with TRAFFIC providing investigators with background checks and information related to the case. TRAFFIC lauded the initiative and rapid action taken by the Cayman Islands authorities and National Trust in foiling this alleged smuggling ring.

“It can be very easy for smugglers to visit different parts of the Caribbean and remain undetected amongst the many millions of tourists visiting the region every year,” said TRAFFIC International Global Enforcement Coordinator Crawford Allan. “At the moment TRAFFIC is aware of a nasty rash of cases such as this, with collectors from Germany and the Czech Republic undertaking these sorts of activities in many countries. The close collaboration and concerted efforts between the agencies involved in this case is something we want to commend and recommend more widely”.

The islands of the Caribbean are home to a rich diversity of rare and endemic species of animals and plants. Illegal trade in the region threatens reptiles in particular, with some of the rarest species in the world at risk from specialist collectors who attempt to smuggle the animals out for the lucrative black market in exotic pets. The Grand Cayman Iguana and the Anegada Island Iguana, for example, are estimated to number fewer than 200 in the wild.

“Illegal trade of this nature can have a catastrophic impact on species which are not only rare but also may only be found on one island in the Caribbean and no where else on the planet,” Allan warned. “When this illegal trade is combined with the pressures of increasing tourism development on the islands,

many species can indeed be pushed to the brink of extinction.”

The Cayman Islands is one of many British Overseas Territories in the Caribbean. While the United Kingdom is a signatory to the Convention on the International Trade in Endangered Species (CITES), these Overseas Territories are not automatically included as CITES Parties under the UK’s ratification of the treaty. Individual Overseas Territories can sign up to the treaty through the UK but many are yet to sign up. In the Caribbean, the Cayman Islands, the British Virgin Islands and Montserrat have done so. Various steps have been taken to strengthen the commitment of these Overseas Territories to ensure the effective implementation of CITES, including a CITES training seminar that was conducted for management authorities in the region in 1998. A WWF UK study carried out by TRAFFIC that same year reviewed the trade in CITES-listed species in the UK Territories in the Caribbean and recommended various steps to ensure greater compliance with and implementation of CITES.

“Even with this important enforcement success, it is evident that the Overseas Territories need more assistance in implementing CITES and addressing significant wildlife trade problems,” Allan said. “We hope that this successful seizure illustrates just how effective partnerships between government agencies and conservation organizations can be, if they are made aware of the problems and are provided the training and resources to support their roles.” Allan believes that there is a need for a change of approach among enforcement agencies, as they are really only looking to intercept illegal imports for taxable duty or illicit goods such as drugs. “Rarely do they consider exports and inspections are unlikely. Where countries like the Cayman Islands have such unique and valuable wildlife they should put in place stricter measures to monitor exports and passengers leaving their islands,” he added.

The men charged this week had been under suspicion of being involved in smuggling activities for some time. It is thought that the alleged smugglers may have visited various parts of the Caribbean claiming to be researchers, scientists and wildlife photographers, obtaining collection permits and supporting documents for scientific purposes. One of the men charged this week had in his possession a forged export permit from the Cayman Islands Department of Agriculture, which he attempted to use when stopped.

“Many German reptile collectors are seemingly not aware of their devastating impact on natural ecosystems and behave like shoplifters in a wildlife supermarket,” said Roland Melisch, National Representative of TRAFFIC Europe-Germany. “This case shows that awareness among specialists and enthusiasts is apparently still too low. This is despite numerous awareness initiatives in the past which were directed to reptile collectors and breeding enthusiasts by both the German CITES authorities and the herpetologist association based in Germany.”

An executive summary of the report ‘Conched Out: a review of the trade in CITES-listed species in the UK Overseas Territories in the Caribbean’ is available on the website. For more information, please contact Maija Sirola at TRAFFIC International (Cambridge, UK) on tel. +44 1223 277427 / e-mail: maija.sirola@trafficking.org or Roland Melisch at TRAFFIC Europe-Germany, tel. ++49 (0)69 79144-180 / e-mail: Melisch@wwf.de



**Captive Lewisi Update** ✨ This spring, a genetically important mating was observed at the Gladys Porter Zoo in Brownsville, Texas. Godzilla, an elderly wild-caught *Cyclura nubila lewisi* was observed copulating with a female loaned from the National Zoo in 2000. Godzilla is a potential founder whose genes have not yet entered the captive population. The photo was provided by Colette Adams of Gladys Porter Zoo.

## Taxon Reports

### Andros iguana (*Cyclura cychlura cychlura*)

Two trips have been taken to Andros in 2001 to study population trends of the Andros iguana and to interview local people about their perceptions and attitudes concerning the animal. The excursions were part of an ongoing Shedd Aquarium program and my doctoral research dealing with the ecology and conservation of the iguana. The first trip was in conjunction with an International Iguana Society Conference and nine members assisted with iguana surveys and in-person interviews.

From 31 March to 6 April we stayed at the Forfar research and education center in Stafford Creek, North Andros. Days were spent traveling old logging roads and walking through locales where iguanas were observed in 1991. A total of 144 person-hours were devoted to iguana searching on North Andros. No iguanas were seen on North Andros, even in old proven localities. People testified to seeing iguanas and one person claimed they were still common. Hatchlings are infrequently observed by Forfar research station but soon disappear, presumably because of the abundance of cats and dogs in the area. People’s perceptions of commonly seeing an iguana seemingly appear to mean a sighting every few weeks or even years!

We visited the most famous iguana poacher on North Andros in Red Bays. We learned that people know they are breaking the law when hunting iguana but feel that God put the animals on the island for them to eat. These biblical implications also are evident in how they treat snake species. Snakes are evil and purposely killed because man did not have to work before the snake tempted Eve in the Garden of Eden. Although purposeful hunts specifically for iguanas may be waning, some children are raised to hunt hogs along the logging roads with their parents, who kill iguanas if sighted. Iguanas are usually hunted while men venture into the field to collect crabs, sponges, palm fronds, or wood for shipbuilding. Enforcing laws in these remote areas of Andros is next to impossible.

Feral animals appear to be a large problem on North Andros. Hogs and other mammal scat were common in the interior many kilometers from human

enclosure with a vertical tree limb providing access to the top. Only half of the lid was removed to allow access, thereby providing maximum seclusion and security to the female iguana. A slightly damp substrate of 50:50 soil and sand was heated by an external heat mat (Ultratherm) taped to the outside of the dust bin approximately one-third of the way up from the bottom. This provided a satisfactory thermal gradient throughout the nesting substrate. Inside this dustbin, the female iguana was sufficiently removed from the bustle of everyday life in an exhibit enclosure and the rigors of an ever attentive male iguana, to concentrate on the job at hand and nested without incident. Additionally we would like to believe that the general husbandry of our iguanas has played a significant role in their successful reproduction. The diet our iguanas receive consists largely of a huge variety of organically grown (on the Zoo’s own farm) leafy greens and a number of locally harvested browse items varying in its proportions of leaves and fruits on a seasonal basis. Fruits are increased during the winter months when browse is unavailable and almost entirely excluded during spring and early summer when the greatest variety of palatable browse can be collected. The ability to offer such a wide variety of foods allows us to keep the iguanas interested in their food and feeding heartily, but also offers a low fat, low protein, high fiber diet in a natural manner. We feed no artificial diet or pelleted foods, only whole natural foods on which they must actively forage. This feeding schedule, in tandem with the provision of relatively low ambient temperatures but multiple basking sites, encourages greater activity and in principle therefore, fitness.

The captive breeding program for *Iguana delicatissima* is in its infancy but this recent success indicates that they are not impossibly difficult, only implausibly difficult. Hopefully San Diego (CRES) and Memphis Zoos will soon hatch this species also and juvenile captive bred pairs will be available for the long awaited expansion of this new and important conservation breeding project.

 Richard Gibson  
Durrell Wildlife Conservation Trust, Jersey  
zooherps@durrell.org



Male *Cyclura ricordi* basking on display in the new Ricord’s iguana exhibit at the Parque Zoológico Nacional (ZooDom) in Santo Domingo, Dominican Republic.

### Ricord’s iguana (*Cyclura ricordi*) and Rhinoceros iguana (*Cyclura cornuta*)

The Parque Zoológico Nacional of the Dominican Republic (ZooDom), the Toledo Zoological Gardens (TZG), and the Indianapolis Zoo have combined forces in a conservation project designed to collect baseline values for basic blood chemistry, hematology, and vitamin D levels in wild populations of the Ricord’s iguana, *Cyclura ricordi*, and the Rhinoceros iguana, *Cyclura cornuta*. Personnel from all three institutions traveled to Parque Nacional Lago Enriquillo, near the Haitian border, from 29 July- 3 August and 14-20 November 2000 to collect blood samples from the wild populations on Isla Cabritos, the last major refuge of the rapidly declining Ricord’s iguana. A third trip is scheduled for August 2001. This research will complement a similar study conducted by Departamento de Recursos Naturales y Ambientales de Puerto Rico and TZG staff on Isla Mona, Puerto Rico, for the Mona Island iguana, *Cyclura cornuta stegnegeri*.

Surprisingly, *C. cornuta* is macrosympatric with *C. ricordi* in Parque Nacional Lago Enriquillo, which consists of the hypersaline Lago Enriquillo and the small 24 km<sup>2</sup> Isla Cabritos that sits in the center of the lake. The habitat consists of thorn scrub woodland dominated by several species of cacti and trees typical

settlements. I dissected one cat scat sample that was discovered 15 km from the nearest settlement and found vertebrae of *Tropidophus*. Dogs were common near settlements and are proven iguana killers - a dog from Forfar killed a juvenile iguana in 2000. Forest fires, usually human-induced, and land clearing for agriculture also appear to be on the increase.

We met with members of a grassroots conservation organization (Andros Conservation and Trust, ANCAT) and interviewed a local artist about future iguana education programs for the schools. Although iguanas may still be present on North Andros, their long-term survival appears bleak. Even the most famous iguana poacher goes to Middle and South Bight areas to hunt iguanas.

Out of desperation to see an iguana, we rented a boat and a guide from Behring Point who took us to a location in Middle Bight reportedly visited by poachers. We spent 27 person-hours searching for iguanas with five being seen; one of which was captured for marking, measurement and sample collection.

The Shedd Aquarium research expedition, assisted by public participants, took place from 5 to 14 May 2001. The goal of the trip was to continue searching for iguana populations in the Lisbon Creek area of Middle Andros (Mangrove Cay) and eventually head for the southern tip of Andros for additional searches. Weather hindered our ability to head south but we were able to locate three new localities for iguanas and had a number of recaptures from old locales. Fire had torched one location in the recent past and iguanas were not seen in the same numbers as last year. One iguana was captured with severe burn scars on its abdomen and all toes were burned away. Two three-week old kittens were found at the location indicating that adults cats are breeding in the area, which is located 17 km from the nearest settlement.

One prolific sight was found that harbored an abundance of juveniles. The sight is an isolated cay with mangrove flats and pine yards. Six juveniles were captured in an isolated patch of habitat approximately four hectares in size. Also, a termite nest was found with pine needles pushed against the side. Up until this point, we discovered numerous active termite nests where initial digging had begun. I excavated the nest on 12 May and discovered 15 eggs (60 to 70 g) located in a chamber in

the mound. The female (ca. 40 cm SVL) was still actively defending the nest but was extremely wary and eluded capture. A temperature data logger was placed inside and above the nest to record internal and ambient air temperature, respectively.

The same people that we spoke with in Red Bays the month before were seen in the field at a camp known for poaching activity. We spoke with two of the six total men who said they were collecting wood for a boat and that they were leaving as soon as possible. Undoubtedly, iguanas were taken if the opportunity presented itself.

The populations in the South Andros area appear more stable than the northern populations but only because of their isolation. Feral animals are obviously making their way across the larger islands and it appears the smaller cays are safe havens unless people exploit the animals for food. T-shirts have been printed depicting an image of the iguana with the words "Protect the Andros Iguana" and will be distributed to the people during education programs. Obviously, we are only at the initial stages of the study but will continue investigating population trends and initiating education programs for school children and adults.

 Chuck Knapp  
John G. Shedd Aquarium  
University of Florida  
cknapp@ufl.edu



*Male Cyclura cychlura cychlura. Photo by Chuck Knapp.*

## Lesser Antilles iguana (*Iguana delicatissima*)

### Dustbins, D3, diet, and determination: how to make baby delicatissima

On Friday, 10 November 2000, the first of eight *Iguana delicatissima* eggs pipped and hatched after an agonizingly long incubation period of 93 days (at 28-30°C). By the 96th day, all eight had hatched and the herpetology department staff found themselves “coming down” from the initial 100% hatch-rate elation and beginning to seriously worry about rearing them. The world’s first captive bred *I. delicatissima* hatched here in 1997 after a mere 73 days (29°C) incubation and proved to be a nightmare to feed. This animal hatched with a yolk sac, refused food for days, even weeks after hatching, and remained an uncompromisingly fussy feeder until about 18 months of age when it was introduced to a trio of juvenile *Basiliscus plumifrons* to provide some social enrichment. Fortunately the basilisks seemed to do the trick and this once fragile animal is now a fine figure of an iguana. We had long hypothesized that the lack of social cues for the solitary reared '97 juvenile was at least a part of the problem in its husbandry and now suspect that its shorter incubation period and yolk sac remains at hatching were responsible for its initial reluctance to feed. Happily, the eight new hatchlings proved our theories right and laid all our fears to rest. From day

one they have been housed communally in a heavily planted 1.5mL x 1.5mW x 0.5mH vivarium with two Wild Inside “Active UV Heat” basking lights and ZooMed “Reptisun 5.0” illumination. Ambient temperatures range from 23-29°C and basking sites reach greater than 35°C. The enclosure is sprayed down daily in the early morning to provide high humidity and drinking opportunities for these strictly arboreal lizards. Under these conditions all have fed ravenously since hatching and almost unselectively accept a wide variety of greens, papaya, mango, apple and pear in small quantities, and above all else, hibiscus flowers. Hatching between 17.6g and 18.9g in weight (80-83mm snout-vent), they have been growing up to 50% body weight increase per month and at 5 months of age weighed between 53g and 84g (114-130mm snout-vent). Because of the great disparity in their growth rates, their social relationships, activity, enclosure utilization, and behavior, are being studied. Each animal is identified with a colored plastic bead sewn to the crest at the nape of the neck with surgical thread.

Our success in hatching these animals we put down to three or more factors. Most important of these is the use of oral vitamin D3 supplementation throughout the year, with increased doses during the three months prior to the breeding season.

Woodstocks Nutritional Supplements “Oily D3” is presented on a choice food item to the female iguana at weekly intervals along with a pile of finely chopped cuttlefish bone with the following day’s feed.

We have yet to experience any detrimental side effects of this supplementation with any of the lizard or snake species in which we employ this technique. Secondly, providing a satisfactory laying site has proved problematic over previous years. Historically the female has dug extensive burrows and thoroughly investigated a variety of nesting boxes all to no avail, and has without fail, deposited her eggs randomly from the uppermost branches of her enclosure. The first successful hatch, the singleton in 1997, resulted from an egg which was fortunate enough to have been caught in mid-fall by a passing staff member. The 2000 clutch of eight was laid normally, and the nest site defended in subsequent days, in an upright dustbin (household refuse bin approx.1m tall and 0.5m in diameter) placed in the corner of the



*Iguana delicatissima* hatchling at Durrell Wildlife Conservation Trust, Jersey.