IGUANA NEWSBRIEFS

USFWS News Release

Thomas E. Scott, United States Attorney for the Southern District of Florida, Lois J. Schiffer, Assistant Attorney General for the Environment and Natural Resources Division of the U.S. Department of Justice, Jorge Picon, Resident Agent in Charge for the U.S. Fish & Wildlife Service in Miami and Frank Figueroa, Special Agent in Charge of the United States Customs Service in Miami, announced that Phillip David Langston, 47, of Naples, Florida pled guilty today to conspiring to violate U.S. and international wildlife protection laws and U.S. Customs laws. Langston entered his plea of guilty to the lead count of an indictment handed-up by a grand jury in Miami on December 21, 1999, charging him with trafficking during the period of November 1994 through July, 1995, in reptile species that originated in Haiti and the Peruvian Amazon and that are protected under an international treaty known as "CITES", the Convention on International Trade in Endangered Species of Fauna and Flora, which is implemented in the United States through the Endangered Species Act. Sentencing is scheduled for May 26 before United States District Court Judge Norman C. Roettger. The conspiracy charge, a felony, is punishable by up to 5 years in jail and up to a $250,000 fine.

In entering his plea of guilty, Langston admitted to conspiring to smuggle and selling a large variety of reptile species protected under CITES and/or foreign law in the Southern District of Florida, including caiman lizards, dwarf caimans, frog-headed turtles, galliwasps, giant tree frogs, Gibba turtles, green anacondas, Haitian boas, Haitian dwarf boas, Haitian vine boas, mata mata turtles, red-tailed boas, rhinoceros iguanas, twistneck turtles, white-lipped mud turtles and yellow-footed tortoises. Langston specifically acknowledged selling approximately 60 rhinoceros iguanas, native to Haiti (as well as the Dominican Republic), which is a species currently threatened with extinction, and listed on Appendix I of CITES, the highest level of protection available under the treaty. Many of the other species he trafficked in including the anacondas, boas, caiman lizards, dwarf caimans and yellow-footed tortoises are protected under Appendix II of CITES out of concern that unless trade in this species is strictly regulated they too could come under threat of extinction. The government and the defendant have agreed that the retail market value of the reptiles listed in the conspiracy charge was at least $120,000.

Langston further admitted to the Court that as part of his scheme to smuggle reptiles into the United States he established a "breeding farm" in Peru for the purpose of making it appear that wild-caught Amazon specimens, protected under U.S. law and Peruvian law, were instead captive-bred.

Under the terms of his plea, Langston, in addition to any imprisonment and fine imposed by the court, must surrender his U.S. Fish and Wildlife import-export license. Langston also surrendered to the U.S. Fish and Wildlife Service five Cuban rock iguanas, *Cyclura nubila nubila*, a CITES Appendix I species, which were transported in violation of the laws of Puerto Rico.

Mr. Scott commended the work of Special Agents Chip Bepler of the United States Fish and Wildlife Service and George White of the U.S. Customs Service for their work on the case.

The United States was represented in this matter by Thomas Watts-FitzGerald, Chief of the Environmental Crimes Section at the U.S. Attorney's Office and Peter J. Murtha, Senior Trial Attorney, United States Department of Justice, Wildlife & Marine Resources Section.

Peter Murtha, United States Attorney, U.S. Department of Justice, Southern District of Florida

Turks and Caicos Iguana

Cyclura carinata carinata

The big Ambergris Cay iguana relocation project being conducted by the department of the Environment and Coastal Resources, TCI, The Conservation Agency, and the Denver Zoo continues to progress well in its second year. The iguanas on Big Ambergris Cay are currently being displaced by an expansive development project there. The island is populated by an estimated 15,000 *Cyclura c. carinata*. The developer's planned build-out leaves only small areas of the cay undeveloped and it is his desire and that of the DECR that as many of the iguanas as possible be moved before they are killed.

Because the iguana is fecund, it was assumed that all islands currently supporting iguana populations would be at carrying capacity under the existing environmental conditions on each. Most islands without iguanas were either extremely small or supported populations of feral cats or grazing ungulates (goats, cattle, donkeys, etc.).

Long Cay, Caicos Bank, part of the Admiral Cockburn Nature Reserve, stood out as the best candidate for a relocation site. It is large (111 ha), and could support a large iguana population. The drawback was the population of feral cats, which had presumably extirpated an earlier population of *C. c. carinata*.

An extensive cat-poisoning program was undertaken in July 1999. In three days of surveys of the island in Nov. 1999, no evidence of cats was seen.

In mid-November 1999, the first iguanas, a test group of 25 was taken from Big Ambergris Cay to Long Cay. Survivorship of this small group, which included age classes susceptible to cat predation (75g), would provide a test for the presence/absence of cats. If this translocation was successful, future groups would be larger (200 individuals) and would consist primarily of larger animals (500-1200g).

Between November 1999 and January 2000, during our field sessions and weekly radiotracking, no cat tracks were seen on Long Cay and survivorship of radiotracked iguanas was 100%. On 23 January, however, tracks were found from a cat that had apparently been released on Long Cay by its owner from South Caicos. The cat was trapped and removed from Long Cay.

This event reinforced the

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necessity of increasingly involving the community of South Caicos and reaching everyone with the message that unwanted animals were not to be dropped off on uninhabited cays – particularly Long Cay. The education campaign includes signs on all Long Cay beaches, informational TV announcements and a school-based "meet-the-iguana" program operated by local naturalists.

During January and February 2000, radio collared iguanas in the test group of 25 animals were recaptured and radio collars were removed. All appeared healthy and each one had established one or more burrow sites.

208 iguanas were captured and moved from Big Ambergris to Long Cay during the January-February field session. An attempt was made to collect as many females as possible because the first group of 25 animals appeared to be male-biased (16:9). Animals with supposed female charcteristics (low crests, small femoral pores and no visible hemipenile bulge) were collected, but many of these proved to be female when probed.

In order to monitor the animals on Long Cay, relocated iguanas are permanently marked with passive integrated transponders. The sex of all iguanas is confirmed by probe, animals are weighed, snout to vent length is recorded, and distinguishing features (e.g., regenerated tails, pigmentation, dorsal spine anomalies) are noted. Ten individuals in each relocated group are fitted with radio collars and are monitored weekly until the next translocation.

As of February 2000, a population of 233 *Cyclura c. carinata* had been restored to Long Cay. The project will continue for the next 2-3 years with relocations scheduled every 2-3 months. The plan is to relocate 800-1,200 animals per year, 2,400-3,600 in total.

Numi Mitchell & Glenn Mitchell
The Conservation Agency

Michelle Fulford & Wesley Clerveaux
Department of Environment and Coastal Resources, TCI

Rick Haeffner
Denver Zoo

New Census of Allen's Cay Iguana

John Iverson and 11 Earlham College students recensused the Allen's Cay iguana populations during March 19-24, 2000 and captured 423 iguanas, 299 of which had been previously marked, some as much as 20 years earlier. It is clear that these lizards frequently live beyond 30 years in the field, but it may take another 20 years work to calculate longevity more precisely. This summer's (2001) field work will focus on the nesting biology of these animals.

John Iverson
Earlham College

Necker Island Update

In October 1995, four hatchling Anegada iguanas (2.2) were relocated from Guana Island to Necker Island, British Virgin Islands. The animals were cage-reared until October 1996, when one escaped and the other three were released. All four survived and established territories where they could be regularly found and observed. On May 1, 1999, the larger of the two females, the previous escapee, was caught and released, appearing heavily gravid. On October 1, 1999, a hatchling iguana was seen and young iguanas have been spotted frequently since that time. All four original founders, now adults, are also regularly seen.

James Lazell
The Conservation Agency

Lesser Antilles Iguanas

The *Iguana iguana* population of Fort-de-France lives in Fort Saint-Louis, a military and naval base. This is a non-native population released or escaped from a small zoo in the 1960's. A population estimate in April 1991 counted about 500 adults and subadults. By the summer of 1999, no more than 50-60 iguanas were found. The population decline seems due to several causes. Dogs have been seen eating adult iguanas and cats eating hatchlings. Several trees used for basking, hiding and feeding had been removed along with the rubbish pile where the iguanas were known to feed. Numerous construction projects were in progress and one of the most important nesting sites in a sunny and well-drained area was now covered with grass. Where previously this population had been expanding beyond this area, they now pose less of a threat through hybridization and competition with the indigenous *Iguana delicatissima* of Martinique.

The *Iguana delicatissima* population of Chancel is doing well. At the nesting sites, some clutches were excavated by other females and the eggs destroyed by crabs, birds, sheep, ants and exposure to the sun. One of the most important nesting sites is situated at the limit of a plateau and its slope were the females will dig only in the bare soil and not in the surrounding grassy area. During the next dry season (April 2001) researchers will attempt to increase the area by removing the grass, unearthing the biggest stones and replacing these with a mixture of sand, soil and small stones.

There is a small natural population of *Iguana delicatissima* in Guadeloupe but it is now in competition and in danger of hybridization with *Iguana iguana*.

On Les Iles de la Petite Terre, the *Iguana delicatissima* population is thriving at an estimated 10,000 adults but there is also evidence that the nesting sites are overdug by females resulting in significant egg loss.

Michel Breuil
Paris Museum of Natural History

Cyclura nubila nubila

Current conservation programs for several species of West Indian iguanas are directed toward removal of feral animals to allow locally depleted iguana populations to recover. However, no baseline data exist on expected rates of iguana recovery, or on the relationship between iguanas and their habitat in this process. Because iguanas are important seed dispersers for many native plants, restoration of natural ecosystems depends on establishment of a stable relationship between iguanas and the vegetation on which they feed.

In 1992, the San Diego Zoo's Ecology and Applied Conservation Division initiated a long-term field study of a population of Cuban iguanas inhabiting the U.S. Naval Base at Guantanamo Bay. For three years, baseline data was

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collected on population density, social behavior, reproductive hormone cycles, home range size, and daily and seasonal activity patterns. In early 1995, approximately 60,000 Cuban and Haitian refugees arrived unexpectedly at Guantanamo Bay. The dry tropical forest surrounding the study site was reduced to less than 5% of its former extent and only a single adult male was located in the area. A study has been undertaken with funding from the Zoological Society of San Diego's Conservation Fund to determine how rapidly and to what degree the iguana population has been able to achieve its former dimensions, and how the natural process of recolonization of the area by iguanas correlates with recovery of vegetation at the site.

By mid-1999, 15 male and nine female adult iguanas had recolonized the site. For both males and females, the relationship between body mass and body length has remained comparable to that of healthy wild iguanas, indicating that iguanas have been able to forage effectively at the site following the disturbance.

The total biomass of plants at the site has also been monitored and continues to increase although the rate of increase has slowed. A key question in the recovery process is the role that iguanas may play in the recovery of native vegetation. Studies on related species have shown that the time to germination is shorter in seeds that have passed through the digestive tract of iguanas. An experiment was conducted with iguana scat samples from the study site. Half of each scat sample was dissected and all the seeds removed, while the remaining half was left intact. While neither the time to germination nor the total number of seedlings germinating differed between groups, growth of seedlings produced from seeds left in iguana scat was significantly enhanced compared to seedlings originating from seeds dissected from iguana scat. Thus it appears that iguanas may benefit plant communities in several important ways, including facilitation of germination, provision of nutrients to developing seedlings, and dispersal of seeds into new microhabitats.

Allison Alberts
San Diego Zoo

IIS replaces Iguana Sign

Sittee River Village, Stann Creek District, Belize

On 13 December, 2000, I.I.S. Vice President Robert Ehrig installed a replacement sign on the main road in Sittee River Village.

Sittee River, one of the sites of the 1999 I.I.S. International Conference is a village stretching out for 3 miles along the beautiful Sittee River in southern Belize. It still has rather abundant iguana populations (as attendees of the 1999 I.I.S. Conference will remember). The sign was a replacement for one that was put up in the early 1990's by a local resident.

The original sign stated that there was to be no hunting of iguanas in the village. The sign had dissolved by the 1999 conference, but at the May 1999 I.I.S. Board of Directors meeting, the Board decided a replacement was in order.

The area behind where the new sign was installed is a large sandy, hilly area. It is the highest land around, in a large alluvial floodplane. Iguanas migrate from at least a mile or two around to dig nests in the month of March. The owner of the land likes watching the iguanas come in and nest every year and realizes that this spot is why Sittee River still has healthy populations of green iguanas while some villages do not. I.I.S. members should be proud that their society still supports grass roots conservation efforts. The new sign reads, "Please, No Hunting of Iguanas in Sittee River Village." The sign was donated by the International Iguana Society and Red Creek Biological Reserve.

Wanted

Iguana intern in the Florida Keys and possibly Central America. Young, dedicated person that would like to learn everything about iguanas and their habitat. Contact R. Ehrig, P.O. Box 430671, Big Pine Key, FL 33043. Send resume or CV and information about yourself, and what you would like to be a part of.