

A Nature Sanctuary on Utila

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Introduction

The Honduran Caribbean island of Utila (approx. 40 km² in area) houses a considerable number of animal and plant species of which several are exclusive to the island. The impressive Utila iguana (*Ctenosaura bakeri*) is one of them. This species is very much endangered. The Zoological Society Frankfurt, Germany, as well as the Senckenberg Nature Research Society are working towards a sustained conservation of this lizard by means of the "Conservation Project Utila Iguana, Honduras." Since 1997, a research and breeding station for iguanas has been operating on Utila. Unlike many other endangered iguana species, the Utila iguana has not been threatened by the destruction of its habitat so much as by over-hunting. Obviously, this will change dramatically within the near future.

A gigantic international airport is currently under construction on Utila along with the attendant infrastructure to accommodate tourist jets coming directly from Houston and Miami. In general, all signs on Utila indicate rapid and extensive development for mass tourism: several new resorts and hotels are being built and a four-lane highway from the airport to the town is under construction. On the North side of the island where the most important egg-laying sites for the iguana are located, the beach areas have been "cleaned" (burnt down) and divided into saleable portions. Once the beach areas have been sold, the mangrove swamps lying behind them will be "cleaned" as well and reclaimed by coral debris and garbage. The same thing occurred previously on the south side of the island (Blue Bayou and the former mangroves behind Cross Creek and RJ's).

Obviously, Utila has been slated for the development of mass tourism without consideration of ecological issues. In this scenario, the future of Utila's wild animals and plants holds little promise unless a nature preserve of considerable size can be created. Turtle Harbor Pond Refuge exists on maps, but it does not have any significant protected status.

Our goal

Creating and maintaining a protected natural area representing as many of Utila's native habitats and animal and plant species as possible with a view to long-term survival.

Size and location of the planned Nature Sanctuary

Based on the experiences gathered so far during field research on the biology of the Utila iguana and on the distribution of the amphibian and reptilian species on Utila, the region of Iron Bound seems to be most suitable for the planned protected area. An area of 1.5 to 2 km², which includes about 1 km of coastline, will include the following habitats: rocky coast, beach (behind the rocky belt), Caribbean dry forest, seasonal rain forest, and mangrove swamps. In this area we have been able to record all vertebrate species currently known to exist on Utila (including the three endemic lizard species) as well as the three species of mangrove known from the island. In no other location on the island do these four habitats occur in such close proximity.

Another advantage of the Iron Bound location is the fact that it is adjacent to the 1 km² parcel owned by Shelby McNab, president of the local nature protection organization, BICA-Utila. This area is made up largely of seasonal rainforest and Mr. McNab also proposes to retain his land as a nature preserve.

Project plan and estimated costs

Step 1: Buying of some 0.7 km², containing about 1 km coastline (*goal:* allocating beach habitat and habitat diversity). Estimated cost: \$600,000. **Step 2:** Buying of 0.8 km² mangrove adjacent to the area of Step 1 (*aim:* enlarging the protected area, connecting it with the Shelby McNab domain). Estimated cost: \$300,000. **Step 3:** Starting together with Step 1: safeguarding and development of the protected area. Estimated cost: \$100,000. In addition: maintenance measures (fences, stations, educational trails).

Concepts for the conservation of ecological values of the Nature Sanctuary

A minimal infrastructure must be set up in order to be able to protect the area efficiently. The boundaries of the protected area must be very clearly marked. A lath fence around the area, which does not hinder the animals, is a possibility. In strategically important places simple sentry posts must be erected. Several guards (Hondurans) must be employed to patrol the area. Educational trails, carefully planned to limit their impact on the ecology, are essential for the guards and are attractive for tourists. Elevated observation platforms have proven effective against poachers, because it is undetectable from below whether they are manned. Demonstration and explanation boards are important. In addition, volunteers can be on hand during egg-laying season (mid-March through end of April).

Ecological importance of the Nature Sanctuary and the long-term perspective

The proposed area houses an enormous diversity of animal and plant species. With the exception of the wet savannah (where few species are present), all habitat types as well as all known species of vertebrates on Utila are represented.

Hopefully, lodge and hotel owners possessing large lots are willing to conserve mangroves and forests as an attractive landscape. While these small pieces taken individually will not be suitable to conserve species, it is worthwhile trying to connect the remaining "nature islands" either by corridors or by agreed-upon introduction of hatchlings in order to ensure variability in the gene pool and avoid inbreeding in any isolated area. Further fragmentation and isolation of the smaller populations is serious, but it will not necessarily result in extinction of the species especially when appropriate protection measures are implemented. Once the protected area is established, expansion can be considered.

It cannot be overlooked that the present tourist development plans, presenting Utila as a "tourist paradise with hotel bunkers" and "clinically pure" beaches, may turn out to be economically unprofitable. It is quite possible that tourists will turn away within a few years because sufficient

well known "dream beaches" are available elsewhere. In this case it then makes sense to maintain a haven for the animal and plant species of Utila with the potential for dispersal in the future. It is clear that a protected area of this size is a minimum solution. However, observing the extreme rate of development on Utila and the minuscule size of the total area of the island, a protected area of this size is at least a basis for further activities. Hopefully, a well functioning protected area of this kind (one that is also of interest as a tourist attraction) will serve as an example.

Economic aspects related to the creation of a Nature Sanctuary on the island of Utila

The value of Utila as a tourist attraction is an important economic factor for the inhabitants of the island as well as for the State of Honduras. The Bay Islands together with the Maya ruins of Copán form the main attractions for travelers in the country. Under this premise it is very important to develop concepts that allow Utila to be developed as a tourist area for the long term and to ensure that the expected additional income will benefit the local people and the State of Honduras.

In order to do justice to the unique natural character of the island, it is important to recognize the geographic, geologic and ecological circumstances of the place as development is undertaken. For many visitors, the very original Caribbean landscape is the main attraction on Utila. Unfortunately, the volume and speed of recent development seems headed toward massive tourist exploitation. The small island dressed up as "nature's secret paradise" will hardly be able to cope with that situation, if you consider that the plant and animal world on land as well as in the sea is the principle attraction of Utila for the majority of visitors.

In the short term, the current development is creating jobs for local people, for instance with the construction of a new airport of massive proportion. In the long run, however, it can be expected that most of the income from the new large-scale tourist projects will flow into the pockets of foreign investors, a process which has already begun with the sale of beach lots. In addition, it is likely that the intensive development will lead to a dead-end-street. The interior of the island will hardly be exploitable because of its swampy soil composition

and mangrove vegetation. Furthermore, even along the coast there are only a limited number of areas suitable as bathing beaches, since at many places the surface consists of sharp coral rocks, which allow for the construction of roads only with considerable investment.

Utila's extremely limited resources will make large-scale tourism extremely problematic. Obvious problem areas include garbage, pollution and a scarcity of fresh water. Social problems are also inevitable with the influx of low-skilled laborers from the mainland attracted by the tourist projects. Unemployment problems will also inevitably ensue as the initial influx of tourists drops off.

The creation of one or more protected areas, guaranteeing the survival of the endemic Utila black iguana, *Ctenosaura bakeri* as well as numerous other animal and plant species, can provide the island with a long-term unique attraction if tourism is properly managed. Using educational trails as well as guided tours in the protected area in addition to the already existing visitor's center in the Iguana Station, visitors are given the opportunity to discover and observe reptiles and other animals in their natural environment.

Such a protected area will persuade many tourists to stay longer on the island and will add to the existing attraction of diving. The total Utila community (hotels, restaurants, etc.) will be able to profit from its existence. By creating a Nature Sanctuary the local populace will be employed both temporarily, installing fencing and labeling the area, by constructing the field stations as well as the trails for guarding and watching the area, and also permanently, as nature guides and guards for manning several sentry posts.

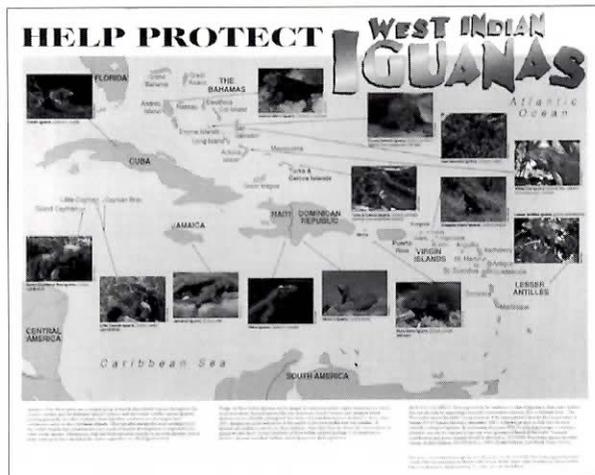
Financing of the Nature Sanctuary will be possible in the long term by tourists (gifts, taxes), the community of Utila (financial support because of mentioned economic profit for the whole community), private gifts ("mangrove stake holding") as well as by the support of nature conservation organizations. The project will also raise funds by means of selling postcards, posters and T-shirts.

The creation of a Nature Sanctuary will have a positive economic effect for the Utila community as well as for the country of Honduras as a whole. Simultaneously it will give a positive long-term perspective for the conservation of the biodiversity of Utila.



Iguanas of the West Indies Poster

The Fort Worth Zoo announces the publication of a beautiful new poster highlighting the conservation of Iguanas of the West Indies. Featuring rare and exceptional color photographs of 14 of the 18 *Cyclura* and *Iguana* species this high-quality poster measures 20 x 26 in. and is printed on a heavy-duty paper stock suitable for framing. Produced to assist the IUCN/SSC West Indian Iguana Specialist Group in promoting the preservation of these endangered lizards, all proceeds from the sale of this poster will help to fund critical iguana research and conservation projects throughout the Caribbean. Posters can be obtained in the U.S. for \$13.00 including postage and mailing tube; international orders are \$16.00. Checks or money orders (in U.S. currency) should be payable to the Fort Worth Zoo. Mail requests to:



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