

# A Holiday with a Difference and a Purpose

(a report on an experience in Mexico)

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It was quiet as we carefully made our way up the slippery trail, clambering over the occasional fallen tree, avoiding the hanging lianas and the vicious thorns on the stems of the chocho palms while picking out the jagged volcanic rock boulders littering the path with our flashlights. As we neared the top of the ridge, the sky lightened with the rays of the rising sun. The air was cool and damp. At the top, the four of us sat under a gigantic strangler fig tree and waited in silence.

The dawn was swift as usual in the tropics. Down below us in the mist covered valley, the lead male in a troop of howling monkeys began to give voice, the sound echoing against the hillsides. Over our heads we heard the unmistakable creaking cry of a Keel-billed Toucan. It was answered softly by another and then we watched seven dark shapes dive down into the greyness of the valley like cormorants diving into the sea, bill extended and wings held back. As they reached the tree tops lower down, they began to fly and disappeared.

We listened to one of the many songs of the White-breasted Wood Wren and the forest stirred with daylight life. The leaf-cutting ants began to run along their trails with their load of freshly cut leaves, entering their nest through holes in the top of little perfectly formed inverted flowerpot mounds under a nearby tree. Then we heard the lowing of cattle in the distance and the murmur of people rising and starting the day's work. The idyll was interrupted and we were reminded of our purpose there.

This memorable early morning excursion took place on the last day of a 16 day working holiday at the

University of Mexico research center near the little village of Balzapote in the region of Los Tuxtlas. This region in the south of the state of Veracruz of 2,500 sq. km (about twice the size of Greater London) had 85 percent tropical forest cover until the mid-forties. Then the Mexican government began to resettle surplus population there from the arid north of the country. By 1960, the forest had been reduced to 42 percent. By 1976 this was further reduced to 31 percent, by 1987 to 14 and today only 7 percent remains of virgin forest, most of it around the extinct volcano of San Martin. These forest remnants mark the northernmost limit of the American tropical rainforest ecosystem.

I was a member of an Earthwatch team consisting of two resident scientists, Dr. Alejandro Estrada and his wife Rosamond, three research students and ten lay volunteers, mostly from the United States. It was our task to survey the fragments of forest to determine the viability of the different sized fragments, establish what wildlife still remained and to provide a database for developing strategies for conserving the forest and its inhabitants. We set up mist nets in the early morning and late afternoon to catch and log birds and bats. We put out baited traps for small mammals, surveyed vegetation and carried out extensive visual censuses of all types of wildlife.

As the research center was being redecorated, we stayed at the home of Alex and Rosamond Estrada. A two story building built of concrete to avoid being eaten by termites, it was located in an idyllic spot, almost on the beach at Balzapote on the Gulf of Mexico. The nearest town was at Cat-

emaco, some 30 kilometers by rutted dirt road and nearly two hours drive in a pick-up. The house had, however, water, flush toilets, bathrooms and electricity as well as beautiful views.

The village itself was typically Third World with a number of wooden shacks or mud huts with earth floors, no water supply or sewage arrangements. The women washed clothes, pots and dishes standing up to their waists in the nearby river and the peasant farmers, the *campesinos*, shared their homes with their dogs, cats, pigs, chickens and turkeys. However, all had electricity, many had satellite dishes on the roof for television reception and some had video recorders. These items were bought with cash earned from crops that they sold in the markets of distant cities. Mexico City was twelve hours bus ride from Catemaco and the great port of Veracruz with its two million inhabitants was just three hours bus ride to the north.

Despite the deforestation, the area is still a birdwatcher's paradise. It provides sightings of sea birds, field and forest birds and at Catemaco, which is situated beside the second largest natural lake in Mexico, wading birds and waterfowl. On the shore we watched Brown Pelicans (*Pelecanus occidentalis*), Magnificent Frigate Birds (*Fregata magnificens*) as well as a variety of gulls and terns.

The orchards and disturbed forest areas adjoining pasture land provide roosting and feeding sites for large numbers of birds, including a significant number of North American migrants. It was here that we saw most of the raptors, which included Black Shouldered Kites (*Elanus caeruleus*), the beautiful White Hawk (*Leucopternis albicollis*), Roadside Hawks (*Buteo magnirostris*), the amazing Laughing Falcon (*herpetheres cachinnans*), kestrels and other hawks. One evening a Bat Falcon (*Falco rufifularis*) flew into our mist net chasing a bat and we had the opportunity to see this beautiful creature close-up with its stygian black wing and chest feathers, fawn belly feathers and enormous eyes. The next evening we actually observed it catch a bat in flight and settle on a branch to eat it.

As a parrot enthusiast, it was a real thrill for me to see the Red-lored Amazons (*Amazona autumnalis*) flying between their roosting sites

and feeding grounds early in the morning and in the late afternoon. They usually flew in pairs with wing tips almost touching. Even when there were a number of them, they never flew as a flock. Once I saw a pair with a third bird flying close by, presumably that year's young. We heard them some time before they flew overhead as they made such a raucous noise in flight.

Apart from these Amazons, we were visited as we worked once by a flock of twenty Aztec Conures (*Aratinga astec*). They settled in a leafless deciduous tree (it was early December) and watched us for about ten minutes before flying off making a great noise. After the project finished, I visited the famous Mayan ruins at Palenque and sighted a small flock of Orange-fronted Conures (*Aratinga canicularis*) there.

Keel-billed Toucans (*Rhamphastos sulfuratus*) were fairly common. We frequently saw them flying across open ground or perched on the top branches of tall trees. In addition to these we sighted Emerald Toucanets (*Aulacorhynchus prasinus*) and Colared Aracari (*Pteroglossus torquatus*). Two of the most striking birds we saw were the Violaceous Trogon (*Trogon violaceus*) and the stunning iridescent blue Lovely Cotinga (*Cotinga amabilis*).

In the forest we came across a wide range of warblers, wrens, tanagers, thrushes, vireos, orioles, flycatchers and woodcreepers. We sighted and also caught in the nets several species of hummingbird, including the exquisite White-bellied Emerald (*Amazilia candida*).

The heron family was well represented with the Great Blue Heron (*Ardea herodias*), the Great Egret (*Casmerodius albus*), Snowy Egret (*Egretta thula*), Little Blue Heron (*Egretta caerulea*), Green-backed Heron (*Butorides striatus*), Yellow-crowned Night-heron (*Nycticorax violaceus*) and the ubiquitous Cattle Egret (*Bubulcus ibis*). Once when we were working in a pepper tree plantation, a large tree nearby was occupied at dusk by several hundred Cattle Egrets, who spent nearly an hour squabbling and vying for roosting position. Several sub-species of kingfisher and woodpecker were also frequently sighted.

Altogether we surveyed four different sites and environments. The first was primary rainforest, which covered about 200 hectares (500 acres).

This area supported one troop of ten black howling monkeys (*Alouatta palliata*). As one troop requires a territory of some 150 hectares, this group is now isolated and, therefore, genetically doomed. However, it is hoped to connect this fragment of forest to a much larger area of undisturbed forest covering 6,000 hectares (15,000 acres).

The second site was a very disturbed forest fragment of 5 hectares (12.5 acres). This was close to the Estrada house and they hope to acquire the pasture land adjoining this area to allow the forest to regenerate. The campesinos sometimes leave the very large trees intact to provide shade for their cattle. If they do not die off because of desiccation, they can provide a good basis for a regeneration area.

The third site was a pepper tree plantation, which also contained cacao and citrus trees. The fourth and final site was a 20 hectare (50 acre) area of regenerated secondary forest beside Lake Catemaco. Thirty-five years ago the site was pasture, but the private owner had allowed the forest to grow back. He intends to leave it as it is and develop its touristic value. Our survey of the vegetation showed it to be much less diverse than the primary forest. The 200 hectare area of primary forest has 818 species of trees from 118 families. The area of secondary forest has far fewer species. Most noticeable is the total absence of the chocho palm (*Astrocaryum mexicanum*), which accounts for some 75 percent of the understory in the primary forest.

On each site we set up mist nets extending some 120 metres. Birds and bats caught were weighed, identified, measured, sexed and maturity established if possible. This information was logged. If rung, the number or color was entered. If not, one was put on, a numbered metal ring for migrants and a colored band for local birds. Bats had a colored band attached around their wing-bone. Together with the visual censuses we logged nearly 400 birds of 77 species and nearly 200 bats of 14 species. In the pepper tree plantation we caught 88 bats one evening and it became somewhat hectic. We ran out of cotton holding bags and had to use socks, hats and anything else suitable to put them in until they had been processed.

We also set baited traps for small

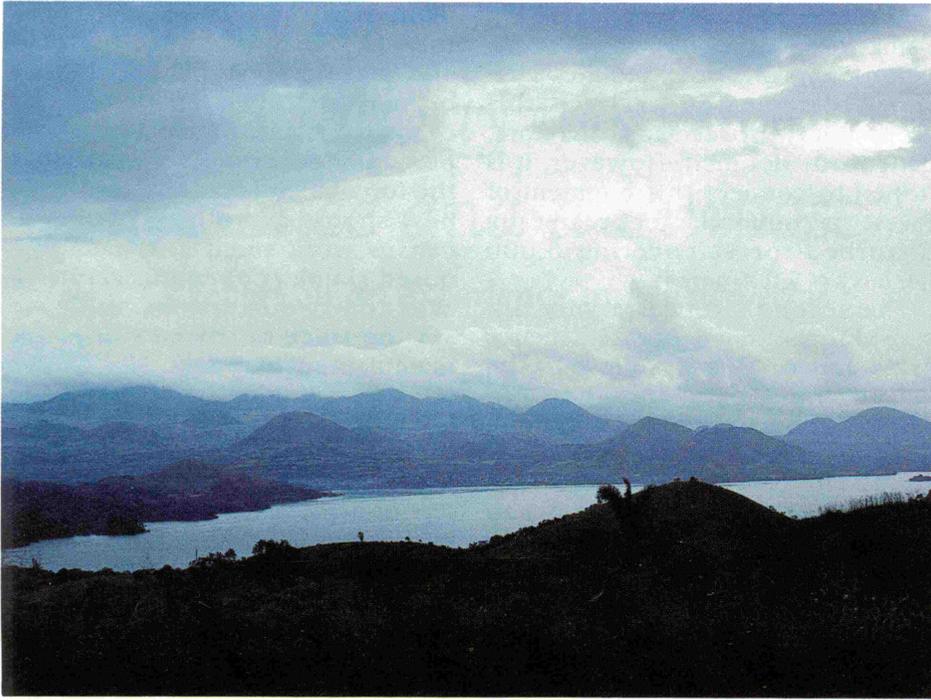
mammals such as opossum and rodents, which were weighed, sexed and maturity established before being released. We saw two species of squirrel frequently, spotted a hairy porcupine (*Coendou mexicanus*) at the top of a cecropia tree eating the new shoots and during nocturnal census work smelt a striped hog-nosed skunk (*Conepatus semistriatus*) on two occasions. Sadly we saw no trace of any cats or larger mammals such as deer. Nor did we see armadillos or agouti, although both species are fairly common there.

We discovered that reducing the rate of deforestation is vital not only because of the resulting global climatic changes, but because of the consequences for the local people and the effect on migrant bird populations, which accounted for nearly 30 percent of our sampling results. Many migrant birds from North America spend up to eight months in this part of Mexico. They are very territorial and return to the same trees every year. We recaptured a tiny Hooded Warbler (*Wilsonia citrina*) in the pepper tree plantation, which had been caught in the same spot in March 1990, rung, released, had flown to the USA across the Gulf of Mexico and returned in the autumn. If the trees are removed in the period the birds are in North America, they are vulnerable when they return.

Two American birdwatching enthusiasts in our group informed us that experts had estimated that the migrant bird population in North America had declined by 40 percent. Having seen the wide-spread deforestation in Central Africa two years ago, I wonder whether there has been a significant decline in the migrant bird population in the U.K. Recently I have heard that the sharp decline in migrant species in North America is manifesting itself in an increase in insects of all kinds there, particularly crop-harming species.

Loss of trees also affects some local birds drastically. Apparently the Red-throated Ant-tanager (*Habia fuscauda*) is so territorial that if its nesting tree is chopped down, it does not survive.

Pasture is disastrous to wildlife. Most small birds, bats and animals will not cross or venture into it. Therefore, unless there is some form of vegetation corridor, they become isolated. The campesinos are beginning to realize that birds and bats eat



*Lake Catemaco is also called Lago Loco or "crazy lake" because in drought its level rises.*



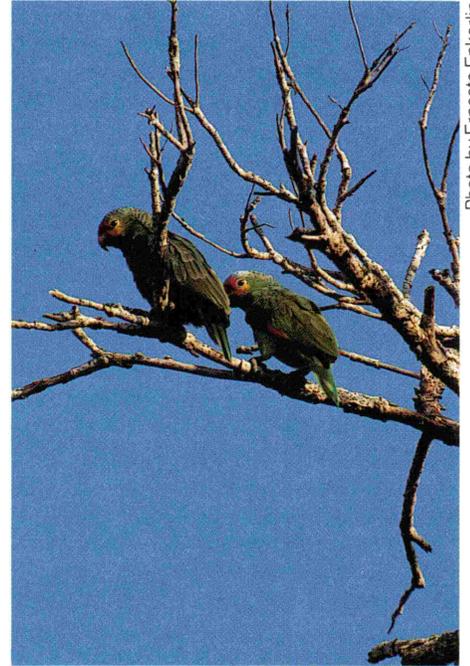
*An agrarian style of living means land must be cleared for crops and livestock. Before one becomes too critical, we should recall that the American settlers cleared 90% of our forests east of the Mississippi.*

vast amounts of insects, which would otherwise attack the crops and require expensive insecticides to control as well as make life generally uncomfortable. They can be persuaded to reduce cattle ranching and diversify their agricultural activities. Research to date seems to indicate that coffee, cacao, pepper and citrus plantations provide cover and feeding opportunity for both birds and bats, although they will not actually

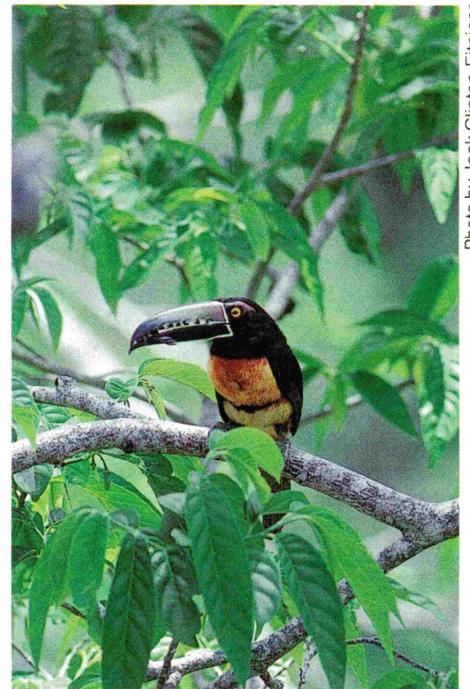
live there because of the disturbance. The active cooperation and good will of the local people is essential for forest conservation. International aid organizations and governments are sadly only just beginning to recognize this. The first priority of any family head anywhere will be to provide for his family. If any strategies can be developed which will allow him to do this, while at the same time conserving forest, he will listen and

cooperate. The work of Earthwatch projects such as that at Los Tuxtlas is vital in developing these strategies. It was a real privilege to be able to work on one.

Further information about taking part in important scientific projects can be obtained from Earthwatch, 680 Mount Auburn St., P.O. Box 403, Watertown, MA 00272-9104. Tel: (617) 926-8200. ●



*Red-lobed Amazons (Amazona autumnalis) are the only common, large psittacines in the Tuxtla Mountain area.*



*The Collared Aracari (Pteroglossus torquatus) is one of three ramphastids whose northernmost range is in Veracruz, Mexico.*