

on three occasions -- in 1983, 1985 and 1987 -- to win an exemption from the ban for the ranch, which provides 30 jobs. Unemployment is high in La Réunion. Craft workers at the ranch have been trained in mainland France to make jewelry, leather objects and other souvenirs. Martine Todisco of TRAFFIC, the wildlife trade monitoring organisation, says that turtle meat is also eaten or cooked in soup.

In June [1994], a French government mission investigated the ranch, and recommended that the collection of hatchlings and the trade in turtle products should stop. It said that the ranch should be turned into a centre for educating the public about wildlife conservation, and about turtles in particular. The official from the environment ministry says the government will follow the mission's recommendations. He points out that hatchlings have not been collected for the past two years, but that those turtles now being reared will keep the trade going for another five years. The change-over will be phased in gradually to ensure that the 30 workers at the ranch can be employed elsewhere. The plan met strong local opposition because of the potential loss of jobs. Corail began as a private enterprise but has struggled financially for years. It has repeatedly been bailed out by subsidies from local and central government. It now operates as a joint venture between private investors and the French government -- as part of its aid for overseas territories.

Todisco says that the legal position of the ranch is very complicated. Under the terms of CITES, all international trade in green turtle products is banned. Under France's own law on endangered species, the green turtle is protected in mainland France and its foreign departments of French Guiana and Martinique -- but not La Réunion. Todisco says France should now rectify this. The legal "oversight" raised the possibility that tourists might legitimately bring souvenirs made from turtles back into Europe. For while the European Union bans such imports from outside the Union, La Réunion is officially part of France, and under the EU's rules on free trade, produce should be allowed to move freely around Europe. The other question marks hung over the collection of young turtles. About 2000 hatchlings were taken each year from two islands: Tromelin, 600 km north of La Réunion, and Europa, off the west coast of Madagascar. Both islands are administered by France, and the hatchlings were collected by government employees working at weather stations on the islands. "France never asked for permission to import the hatchlings to La Réunion even though this should require a permit under CITES," says Todisco. The French environment ministry now accepts that France was wrong on both counts.

Perran Ross, a member of the Marine Turtle Specialist Group of the World Conservation Union, who was part of the mission and helped to draft the French report, says that the number of hatchlings taken to Corail was "insignificant" -- equivalent to the annual production of about 10 females. Some 2000 females nest on Europa and several hundred on Tromelin. France had consistently argued that the ranch was wholly a French issue, because the turtle hatchlings came from French possessions. But, according to Ross, the nesting turtles come to these island from Madagascar, Mozambique, Kenya, Tanzania and the Seychelles. "France was just pretending they were French turtles," he says. The official from the environment ministry says he hopes France's decision to stop the trade will encourage the British government to do the same on the Cayman Islands, where a similar ranch operates. Source: *New Scientist*, 1995, 145(1960):10.

TURTLE TRAVELS FROM AMERICAN SAMOA TO FRENCH POLYNESIA

A green sea turtle (*Chelonia mydas*) recently traveled 2000 km (1250 miles) southeast from Rose Atoll to French Polynesia, near Tahiti. Tiny Rose Atoll is the last remaining nesting

area for green turtles in American Samoa. Only about 30 green turtles nest on the atoll each year. This particular turtle was "tagged" with a satellite transmitter while nesting in October 1994. The turtle's post-nesting journey took 36 days. Last year, three similarly tagged green turtles traveled in the opposite direction, arriving in Fiji, some 1600 km to the southwest of the atoll, 34-45 days after nesting (Craig 1994). This year, as was the case last year, the Department of Marine and Wildlife Resources staged a contest, offering the winning entry US\$ 250. Tela Malaga guessed that the turtle would go the French Polynesia and that the journey would take 32 days. Tela takes home the prize money. Congratulations! We thank the public for their interest in this project (there were 250 entries, 11 of which guessed that the turtle would end up in French Polynesia), and the American Samoa Coastal Management Program for sponsoring this year's satellite transmitter.

Craig, P. 1994. Sea turtles migrate from America Samoa to Fiji. *Marine Turtle News*. 66:7-8.

PETER CRAIG, Department of Marine and Wildlife Resources, P. O. Box 3730, Pago Pago, AMERICAN SAMOA 96799 and GEORGE BALAZS, National Marine Fisheries Service, SWFSC Honolulu Lab, 2570 Dole Street, Honolulu, Hawaii 96822-2396 USA.

UNSHELLED LOGGERHEAD TURTLE EGGS

On 1 July 1994 a loggerhead turtle (*Caretta caretta*) nest on Topsail Island, North Carolina was found to contain 70 shelled eggs and a minimum of 30 unshelled eggs. The freshly laid nest was located below the high tide line, which necessitated excavation and reburial by trained personnel.

The first eggs encountered during excavation appeared normal; about 12 shelled eggs were removed before one unshelled egg was observed. As the excavation proceeded, additional unshelled eggs were found among the shelled eggs resulting in the shelled eggs being coated with yolk and albumin. The shelled eggs appeared to be of normal size and the eggshells neither abnormally thick nor thin. The unshelled egg material in the bottom of the nest was approximately 4 cm deep when all the shelled eggs were removed. Thirty of the unshelled eggs could be counted due to intact yolk and albumin. The remainder of the unshelled egg material in the nest indicated an additional 3-7 eggs.

The yolk-covered shelled eggs were wiped carefully with a towel dipped in sea water. The original orientation of the eggs was maintained during this process. The 70 shelled eggs were then relocated to a suitable site nearby. The nest was monitored daily during incubation and an abnormally high level of crab activity was noted. Gloria Seaborne of the National Marine Fisheries Service's Southeastern Fisheries Science Center in Charleston, South Carolina requested that two eggs from the nest be sent to that facility to be tested for pesticides, viruses and other agents in an effort to determine a cause for the unshelled eggs. On 30 July, sand was carefully removed from the top of the nest, two eggs were removed from the top of the clutch, and the nest was reclosed. None of the other contents of the nest were disturbed. The two eggs were frozen immediately and shipped to the Center using their standard procedures for shipping frozen tissue. The eggs are presently in storage awaiting analysis.

Thirty-three hatchlings emerged from the nest on 27 August. The hatchlings were examined to confirm species identification and detect abnormalities. No abnormalities were noted and the hatchlings were released within one hour of emergence.