

Marine Turtle Newsletter

Head-Started Kemp's Ridley Turtles Nest in Texas

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Most Kemp's ridley turtle (*Lepidochelys kempii*) nesting occurs in the vicinity of Rancho Nuevo, Tamaulipas, México (Márquez, 1994). In 1978, a bi-national, multi-agency, experimental project was initiated with an aim to establish a secondary nesting colony at Padre Island National Seashore (PINS) near Corpus Christi, Texas (Shaver, 1989; Byles, 1993). Between 1978-1988, 22,507 eggs were collected in Rancho Nuevo and shipped to PINS for incubation (Shaver, 1989, 1990). Attempts were made to imprint the eggs and hatchlings to PINS so that they would return there to nest as adults (Shaver, 1987). The hatchlings were raised in captivity ("head-started") at the National Marine Fisheries Service laboratory in Galveston, Texas where most were held for 9-11 months but some for longer time periods of time (Fontaine et al., 1990; Caillouet et al., 1995). The turtles were marked with up to four types of external and internal tags (Fontaine et al., 1993) and released in a variety of locations (Fontaine et al., 1990; Caillouet et al., 1995).

In 1996, as of 30 June, there were six confirmed Kemp's ridley nests on the Texas coast. The first nest was laid on 25 April, and the other five between 26 May and 5 June. Five were laid at PINS and one at Boca Chica Beach. The 589 eggs from these six clutches are being incubated under protected conditions at PINS and the hatchlings will be released there. The nesting on 29 May 1996, which I observed, constitutes the first documented nesting at PINS of a returnee from the experimental project to establish a secondary nesting colony of Kemp's ridleys. None of the turtles from the project had previously been confirmed to have nested at PINS or anywhere else outside of captivity. This female had a tag scar on her right fore flipper and a "living tag" (see Fontaine et al., 1993) on the 4th neural scute. Based on the location of the living tag, the turtle was identified as a member of the 1986 year class (see Fontaine et al., 1993, for an explanation of year class markings). Since neither metal flipper tags nor passive integrated transponder (PIT) tags were detected, it is not possible to determine with certainty when and where she was released. Most likely she was one of 1,630 turtles released offshore from Mustang Island, Texas on 21 April 1987, without PIT tags. However, it is remotely possible that she was one of 97 individuals from this year class that were PIT tagged and released in other areas after 22-39 months in captivity (Fontaine et al., 1990).

The turtles that laid the other five clutches of eggs on the Texas coast this year were observed and reported by members of the public. Subsequent to the discovery of the turtle described above, I received and closely examined photographs that a visitor took of a turtle nesting at PINS on 27 May. The turtle had a living tag on the 4th left costal scute, indicating that she was from the 1983 year class. All 190 individuals from the 1983 year class were living tagged and released off Mustang Island, Texas on 5 June 1984 (Fontaine et al., 1993; Caillouet et al., 1995).

However, it cannot be determined definitively that this turtle had been part of the project to establish a secondary nesting colony. Although 172 of the turtles from the 1983 year class were experimentally imprinted to PINS, a small number (n=18) were exposed only to Rancho Nuevo sand and surf (Caillouet et al., 1995). Mortality and gender records for those 18 individuals are currently being examined. None of the other clutches laid in Texas in 1996 have been conclusively linked to the experimental project because observers did not notice any metal or living tags on the nesting females. It is possible that some of these turtles were from the head-start project, but that their external tags were absent or unrecognizable (or observers simply failed to identify them).

The six Kemp's ridley nests found on the Texas coast so far this year are more than have been found during any previous year since 1979 when consistent record-keeping of sea turtle nesting began in Texas. A total of only 11 Kemp's ridley nests were found in Texas from 1979-1995 (Shaver, 1995, 1996). Since the Kemp's ridley nesting season extends through July, it is possible that more nests will be detected this year. Staff members and volunteers at PINS are conducting extensive efforts to search North Padre Island for nesting sea turtles and their tracks. Education efforts are ongoing to alert the public to immediately report observations of nesting turtles.

The sightings of the living tagged turtles are the first documentation of any sea turtle species nesting at an experimental imprinting site and outside of captivity after being head-started. Thus, the increase in nesting detected along the Texas coast this year is at least partially the result of the experimental effort to establish a secondary nesting colony. Long-term monitoring of Texas beaches for nesting, observations of nesting turtles by trained biologists, and evaluation of hatch success are all necessary to accurately assess project results. Details of the Kemp's ridley nestings in Texas in 1996 are being prepared for publication in a peer-reviewed journal.

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