UNITED STATES DEPARTMENT OF COMMERCE
National Oceanic and Atmospheric Administration
NATIONAL MARINE FISHERIES SERVICE
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April 3, 1984 F/SEC5:LHO:rb

TO: F/SEC2P - Ian Workman

FROM: F/SEC5 - Larry Ogren

SUBJ: Sea Turtle Sightings--R/V DELAWARE II Cruise, March 11-22, 1984

The following sea turtle observations were made off the southwest coast of Florida from the bridge of the R/V DELAWARE II. Captain Dick Adams is acknowledged for making a noteworthy sighting of a juvenile sea turtle--the second documented record for the Gulf of Mexico (to my knowledge).

- 15 March 1984. 0942 Hrs. Adult loggerhead (Caretta caretta) at surface in 40 fathoms. Position: 25°00'N, 83°35'W.

- 15 March 1984. 1108 Hrs. Adult loggerhead (Caretta caretta) at surface in 50-55 fathoms. Dove rapidly when 20-30 feet from bow. Position: 25°00'N, 83°46'W.

- 17 March 1984. 1007 Hrs. Juvenile sea turtle, approximately 6" TL, reddish-brown color, at surface and 10-15 feet from port side (observer: Captain Dick Adams). Turtle tentatively identified as a young loggerhead (Caretta caretta) from Adam's description. Turtle swimming rapidly when observed. Disappeared astern. Vessel heading 000°/7kts. Southerly current c. 2 kts. Depth 94 fathoms. Surface temperature 23.7°C. Pelagic environment: flyingfish commonly observed. Physalia common, all sizes present. Sargassum, occasional pieces and handful-sized clumps--not common. Water color blue, presumably in the "Loop" current system. Approximate position 4-5 miles SW of 26°46'N, 84°18'W at 84 fathoms. Latter position was east of "Loop" current system and in colder shelf water (20.7°C). Therefore, turtle sighting was immediately west of shelf water and density shear line demarking "oceanic" water of "Loop" system.

- 17 March 1984. 1209 Hrs. Adult loggerhead (Caretta caretta) at surface in 67 fathoms. Surface temperature 19.9°C. Position 26°45'N, 84°08'W.

Offshore waters characterized as two regimes: (1) "Loop" current system, blue color, c. 24°C and, (2) shelf water, blue-green color, c. 20°C. "Loop" water also characterized by southerly current set c. 2 kts.

All the adult loggerheads were observed in the shelf waters and were probably foraging on the live-bottom habitats common in the area (as determined from the trawl samples). The juvenile turtle was observed in the "Loop" waters and was

probably being entrained southward to the Florida current and dispersal into the Atlantic. It is hypothesized that this individual was being passively carried on its first or "lost year" developmental migration. It's size suggests it emerged last summer from a nest south and west of where it was seen, and not from any eastern Gulf (Florida) beaches. It may have been carried into the Gulf of Mexico by the Caribbean current, made a circuit via the "Loop" current and was about to be injected into the Florida current. This is conjecture, but any young turtle hatching on Florida's west coast beaches last summer would not be expected to remain in these shelf waters long before they entered the southward set of the "Loop", and from there, the northward flow of the Florida current.

The only other documented record of juvenile turtles in the Gulf of Mexico was made in April 1982 by the University of West Florida scientific party aboard the R/V BELLOWS. They observed 2-3 juvenile turtles tentatively identified as loggerheads at 27°02'N, 85°22'W.