LONG-RANGE RECOVERY OF A TAGGED YEARLING *Chelonia* ON THE EAST COAST OF NORTH AMERICA

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During the past 12 years Carr (*cf.* 1968) has been directly or indirectly involved in projects in which some eight thousand sea turtles, belonging to all the five recognized genera and in various stages of development, have been tagged.† As a rule, to be of value the results of such programmes must accumulate in volume. Once in a while, however, special circumstances impart special significance to individual tag recoveries. For example, the first recovery from the tagging programme begun in 1955 at the Tortuguero nesting ground of *Chelonia* in Costa Rica, was made in the Miskito Cays, off Nicaragua, precisely where widespread local belief held that the Tortuguero breeding colony came from (Carr & Giovannoli, 1957). The return was thus the first firm corroboration that *Chelonia* is a migratory animal. Another such case was one of Peter C. H. Pritchard's tags that came back when a Green Turtle (*Chelonia mydas*), tagged at Bigi Santi Beach, Surinam, was retaken 6 weeks later 1000 miles (1600 km) upstream in the Equatorial Current, across the Equator, near San Luis, Brazil (Pritchard, in press). This suggested that Braziiian turtles are recruited from two widely-separated nesting grounds: the Surinam rookery and that revealed by our earlier tagging project at Ascension Island (Carr & Hirth, 1962; Carr, 1966). Dual recruitment on residence grounds had not been indicated before.

A recovery of comparable importance has just been made on the Atlantic coast of the United States. A yearling Green Turtle that Sweat tagged and released at Bahia Honda State Park in the lower Florida Keys, on 17 October 1967, was retaken by Mr E. G. Williams, Jr, in a trap-net 7 1/2 miles (12 km) off Cape Hatteras Light in Pamlico Sound, North Carolina, on 15 November 1968—more than 800 miles (1280 km) from the place of release. The recovered turtle was one of 200 brought to Florida on 8 October 1966, when about two weeks old, by *Operation Green Turtle* from the hatchery of the Caribbean Conservation Corporation at Tortuguero, Costa Rica, and kept by Sweat in a tank at the Key West laboratory of the Florida Board of Conservation for the 12 months prior to release. The shell of the Turtle recovered was 18·8 cm in overall straight-line length at the time it was released; its weight was 764 grams.

Mr Williams said the tagged Green Turtle was taken in a trap-net with another Green Turtle of almost the same shell-length, and corroborated other reports Carr has heard that 'lady-turtles'—as young Green Turtles are called on the North Carolina coast, in reference to their smaller size, trim heads, and comely aspect as compared with the Atlantic Loggerhead—are frequently taken there in November. They generally arrive in small bands and are always immature.

The implications of this recovery go considerably beyond mere evidence that a Green Turtle reared in captivity has the ability to cope with feeding and sheltering problems through long distances and long periods of time: for they also suggest that pen-reared young of this strongly migratory species may be able to catch up with the usual developmental migration of their kind. The indications of the viability of released pen-reared Green Turtles is of importance both to the campaign to preserve the waning species by rearing the young past the critically vulnerable early months of life, and to the effort to solve problems of the ecological geography of first-year *Chelonia* which remain wholly unknown in this respect.

Fig. 1. Sketch-map indicating the points of release (below) and recapture (above) in the southeastern United States.

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THE RIDLEY MYSTERY TODAY

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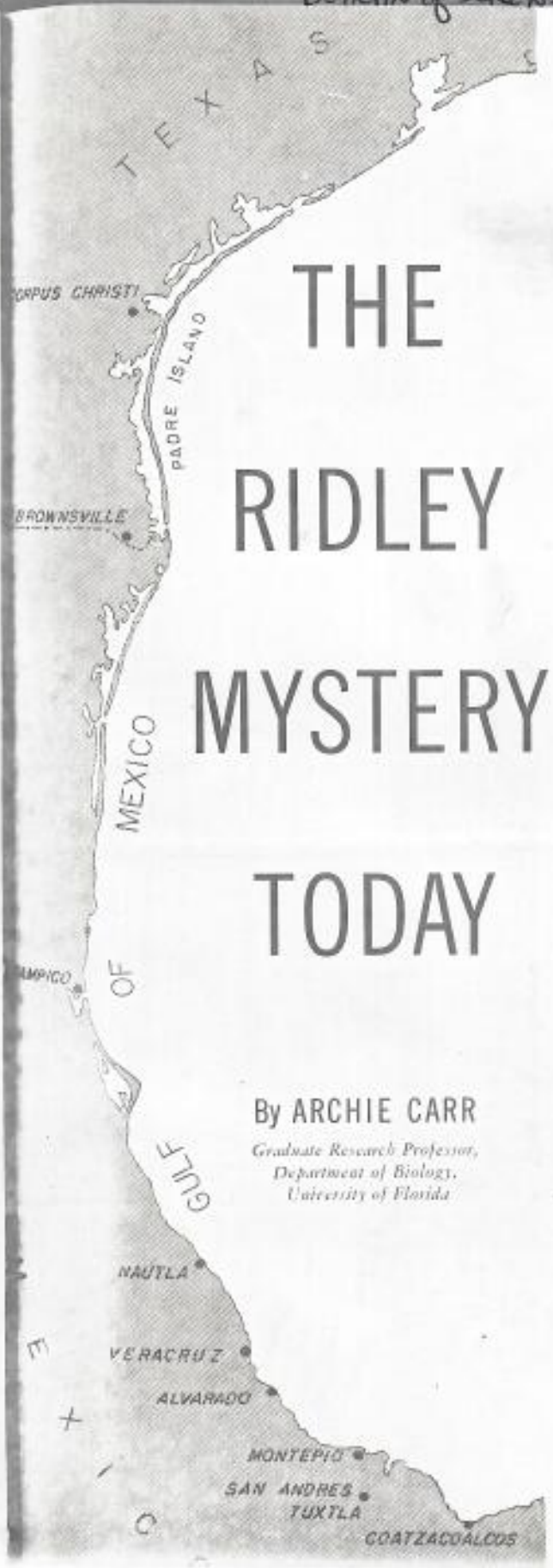

WHEN I WROTE "The Riddle of the Ridley" several years ago,* it seemed to me that the mystery this sea turtle's breeding habits would have to wait for its solution until somebody stumbled on masses of Ridleys ganged up in an overlooked place, perversely carrying out their sex rites in secret. But instead of coming in a burst of light the answer is just trickling in as time goes by. We finally know for sure that Ridleys come in two sexes. We know how big they are when they start to breed and what the hatchling looks like. Places where Ridleys go sparingly ashore to nest have been found along the Gulf coast in Veracruz, so we know they are able, at least occasionally, to reproduce their kind. The mystery has dwindled, and what remains to be done is fill in gaps and clear up stray uncertainties, and above all to learn how the skimpy nesting that goes on, in the only places it's known to go on at all, could furnish all the Ridleys that turn up in Florida and along the Atlantic coast, and on down the Gulf Stream in the British Isles.

During August and September, 1960, I made a sea turtle reconnaissance on the Pacific Coast of Mexico, travelling with my family by car from the level of Hermosillo down through Sonora and Sinaloa to San Blas in Nayarit. Partly, the trip was just an effort to learn something about the poorly known sea turtle fauna there. But a more special aim was to broaden my acquaintance with the Pacific Ridley, in the hope that this might help me understand its elusive relative in the Atlantic and Gulf of Mexico. In both ways the trip turned out to be a worth while venture, and its aftermath brought oddly coincidental developments, as I shall tell.†

It is 650 miles from Kino Bay down the coast to San Blas, part of the way along the eastern shore of the Gulf of California, part along beaches of the open Pacific. In all this territory the only turtles I found regularly were the Green (*Chelonia*) and the Ridley (*Lepidochelys*). The Trunkback and Hawksbill were known to the

* "The Riddle of the Ridley," by Archie Carr, *Animal Kingdom*, September-October, 1957.

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