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THE ATLANTIC LOGGERHEAD SEA TURTLE, *CARETTA CARETTA CARETTA* (L.), IN AMERICA

DAVID K. CALDWELL, ARCHIE CARR, and others

COORDINATORS' PREFACE

When the series of studies now being carried on under National Science Foundation sponsorship (NSF project G-1684 and G-5479, principal investigator Archie Carr) was planned it was proposed that the Atlantic green turtle, *Chelonia mydas mydas* (Linnaeus), be made the central subject of the research. The herbivorousness of green turtles was visualized as imposing on them a distinctive way of life, involving long periodic journeys between feeding and breeding grounds. This, in turn, was seen as a unique attribute, setting *Chelonia* off from other sea turtles—making it easy to study because it gathers to breed in rookeries, and especially interesting because the journeys to and from the rookeries posed special problems of orientation and suggested that *Chelonia* must have an extraordinary capacity to navigate. While all this still seems true, it is now clear that differences among sea turtles with respect to reproductive travel are less than was supposed.

Data from a tagging program at Tortuguero, Costa Rica, have been strengthening the credibility of fishermen's tales of navigatory feats by green turtles. These stories constituted the original assumption to be tested by the Tortuguero studies, and while final proof of their authenticity will be difficult to get, there remains no real doubt of their essential truth. While the case for the navigatory prowess of *Chelonia* has been growing, information from various other sources has suggested that *all* sea turtles migrate.

The following suite of papers supports our belief that the life cycle of the carnivorous Atlantic loggerhead, *Caretta caretta caretta* (Linnaeus), may in most ways be much more similar to that of the green turtle than we imagined. Like the green turtle, the loggerhead travels far, it travels in groups, it emerges more than once to complete a season's laying, it tends to return to the same place for successive layings and is able to locate these sites with some precision, and its breeding range includes places where aggregated nesting occurs as well as sites of separate emergence by lone individuals. Details of nesting and development of the young and their early behavior also are surprisingly similar for all the sea turtles.

To most people, including most zoologists, the loggerhead is an animal to be seen on the sea beach as a nesting female or an emerging hatchling, or at shipside or dockside as a big head stuck up out of the water to breathe. We really know almost nothing about what goes on between these few points of our contact with the animal. Though the information that can be added is fragmentary, it fits in with the fishermen's stories and our growing belief in the essential consonance of the life cycles of all the sea turtles.

The three papers on loggerheads included in this series were prepared independently. They are closely related, even overlapping in some aspects, and it was felt that workers in herpetology and marine ecology would find it convenient to have them available under one cover. We, and the various other authors, are indebted to our respective organizations for permitting, and to the editorial staff of the Bulletin for countenancing this unorthodox style of presentation.

David K. Caldwell, United States Fish and Wildlife Service,
and
Archie Carr, University of Florida,
Coordinators.
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