

up residence with the turtles. In a few months the once clean turtle shells are covered with algae and their colors dulled. The loggerhead now looks just like the other resident turtles.

The Future

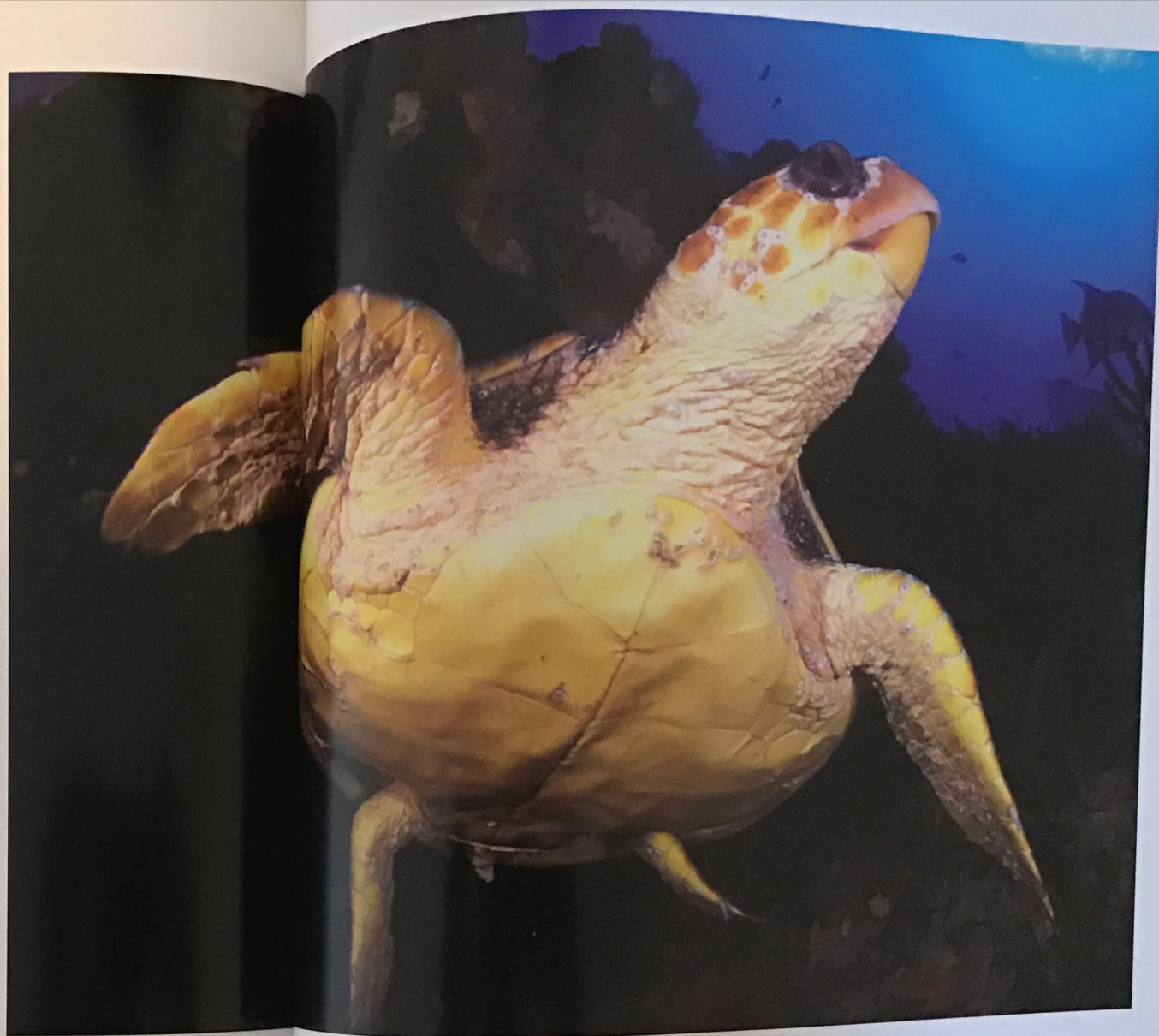
The "turtle next door" is a fascinating animal with a complicated life cycle, and it coexists with people in some of the most urbanized societies in the world. Its stronghold is in the Atlantic Ocean where its largest population (19,000) nests in south Florida. Another bright spot is Oman, which supports a population of about 13,000 loggerheads. Yet this turtle is much more threatened by humans than most biologists and conservationists have appreciated.

In fact, there are only about 10,000 nesting females each year among all of the loggerhead populations in the Pacific, Mediterranean, southern Africa, and large portions of the Atlantic. Heavy longline and gill net fisheries in the Pacific and Atlantic have put the populations there in jeopardy. Mediterranean loggerheads must survive the heaviest fishing pressure of any ocean area. Thousands are killed each year in Egypt alone. In addition, nesting beaches must compete with increasing tourist development and upland development, the latter causing siltation of the sandy nesting beaches.

If the small populations are lost the genetic diversity of the species will decrease and survival will be tied to the large regional populations in the southern United States and north Indian Ocean. While the U.S. population appears to be strong and both government and nonprofit organizations are working to protect the turtles, it is not clear that the turtles in Oman are as lucky. So far they have been blessed by being obscure. Recent reports of increased fishing activity off the coast of Oman and the deaths of many loggerheads should be taken as a warning that all is not well there either.

It takes about 25-35 years for a loggerhead hatchling to become a reproducing adult. During that time it must survive the natural and human dangers in the open ocean and then in the nearshore waters where it encounters fishing activities, garbage and other ocean debris, recreational boats, and various forms of pollution. If it survives that gauntlet the large juvenile must compete with humans for its food supply of conch, clams, crabs, and horseshoe crabs. Then it moves offshore to live on the continental shelf where it encounters more nets and longlines.

To maintain a viable population, loggerheads, like other long-lived vertebrates, must sustain very high annual rates of survival. The advent of TEDs in many nations will increase the odds for survival for this species, but this is offset by the effect of increasing longline fishing. There is much more that needs to be done, both to understand the biology of this, the best-studied species of sea turtle and to ensure that both its most vulnerable and most productive populations continue to survive in the twenty-first century. ~



Having made it through its juvenile years this loggerhead has taken up residence on a reef off Juno Beach, Florida. Its future is brighter than that of loggerheads in many other areas, as Florida trawlers consistently use TEDs and the state's remaining nesting beaches are largely protected.