

Abstract by George H. Balazs for XMAS 2025 Symposium in Xiamen, PR China

Seven species of ocean turtles exist globally as descendants of ancient reptilian lineages that have adapted and survived for millions of years. Over the course of human history an array of relationships has developed with turtles, and especially marine turtles, amongst coastal and island peoples including in the Hawaiian Islands. Turtles are woven deeply into the cultural, traditional, spiritual, and contemporary fabric of humanity with uses ranging from food to fortune telling, pets to funerary and ecotourism. In 2012, and again in 2019, the Hawaiian green turtle, or honu in the Hawaiian language (a genetically discrete population of *Chelonia mydas*), was downlisted from the IUCN Red List Category of Endangered to the category of Least Concern, following comprehensive assessments by IUCN <http://www.iucnredlist.org/details/16285718/0>. The biological recovery of the Hawaiian green turtle population can be attributed to bold steps of protection first taken by the State of Hawaii in 1975 completely banning the commercial harvest of turtles that were primarily being sold to restaurants involved in tourism. In 1978 green turtles in Hawaii were listed under the US Endangered Species Act, thereby transferring local management authority by the State of Hawaii to the USA Federal Government. The wisdom and need for this change are still being vigorously debated. Over the past 50 years Hawaii's honu have exhibited new behaviors and adaptations along with an increasing population expanding into new habitats. Changes have ranged from increases in terrestrial basking, occupying streams and harbors, feeding on new types of vegetation, and the slowing of somatic growth rates, as witnessed firsthand by the author since the early 1970s. In light of this huge rise in abundance, two key questions are currently being asked 1) Is the ecosystem carrying capacity of certain if not many Hawaiian green turtle foraging areas being reached or exceeded? and 2) Should a small legal and sustainable non-commercial harvest be allowed for Native Hawaiians? Considering the historical rise to abundance following depletion, green turtles in Hawaii constitute a unique experimental model to comprehensively understand the restoration dynamics and limitations of an increasing sea turtle population. Conservation practices in Hawaii can serve as a real-life learning site for people in other regions striving to save and sustainably use their own charismatic and culturally important sea turtle resources. However, this can only occur when management authority is returned from the USA Federal Government to local control by the State of Hawaii.