
MIGRATION PATTERNS OF MALE NORTH PACIFIC LOGGERHEAD TURTLES *CARETTA CARETTA* SPENDING SUMMER IN HIGH-LATITUDE WATERS*

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Knowledge of the spatiotemporal distribution of sea turtles has been biased toward adult females because of the inaccessibility of males. A recent study found a male-biased sex ratio among adult-sized loggerhead turtles (*Caretta caretta*) at a high-latitude summer-restricted foraging ground, the Sanriku Coastal area (northeastern Japan, 39°N), far from the nesting grounds of the North Pacific population. To describe the spatiotemporal distribution of males and explore potential mechanisms for the male bias in this area, we conducted satellite tracking of 16 juvenile- to adult-sized males (straight carapace length: 56.3–88.9 cm) migrating to the Sanriku Coastal area between 2009 and 2017. Of these, 9 males were tracked until the following spring's mating season; 4 (including 2 adult-sized males) migrated to the vicinity of their nesting grounds. After the mating season, these males left the nesting grounds until the middle of the females' nesting period, and all males, which include those migrating to the vicinity of nesting grounds and remaining in oceanic areas, remigrated to the high-latitude area (approximately 40°N) during the following summer. These results suggest that males may benefit from utilizing the nutrient-rich but distant high-latitude foraging grounds, including the Sanriku Coastal area, for longer period than post-nesting females, who must remain around the nesting grounds until mid-summer. This behavior likely explains the observed male-biased sex ratio in this summer-restricted foraging ground. Our study highlights the importance of comparative studies to understand the significance of high-latitude foraging grounds for male loggerhead turtles in the entire North Pacific population.

AN INTEGRATED SPECIES DISTRIBUTION MODEL FOR LEATHERBACK SEA TURTLES IN THE NORTHEAST US SHELF*

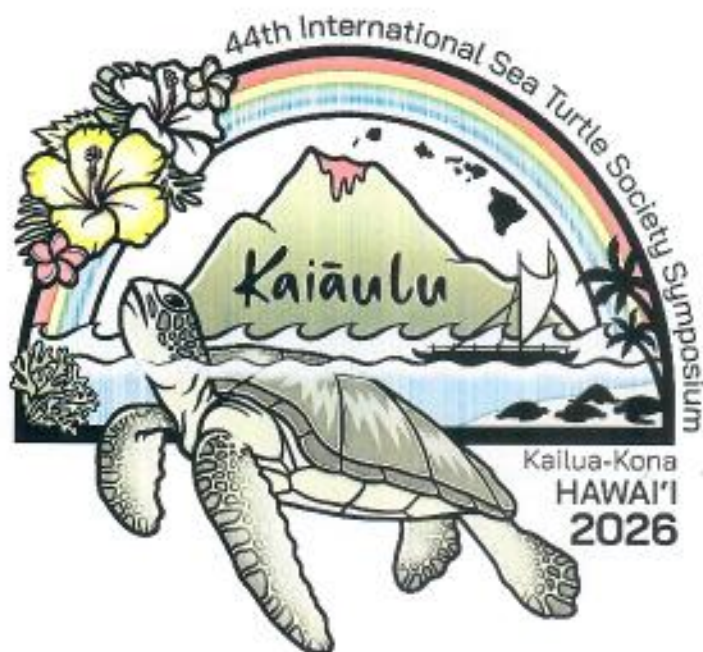
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Leatherback sea turtles (*Dermochelys coriacea*) inhabit the Northeast US Shelf, including state and federal waters, which provide important seasonal foraging habitats during the summer and fall. Understanding and predicting leatherback distribution is crucial for managing human impacts such as bycatch in fishing gear and vessel strike. However, knowledge gaps about leatherback distribution hinder the development of effective management strategies and impede our ability to predict climate-driven distribution shifts. We developed an integrated species distribution model to predict leatherback sea turtle distribution over the Northeast US Shelf. We combined presence-only and presence-absence data, collected between 2003 and 2023, from multiple sources including the New England Aquarium, North Atlantic Right Whale Consortium, the Mass Audubon Wellfleet Bay Wildlife Sanctuary, the Massachusetts Sea Turtle

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