

DERMOCHELYS CORIACEA (Leatherback Sea Turtle), **LEPIDOCHELYS KEMPI** (Kemp's Ridley Sea Turtle), and **CARETTA CARETTA** (Loggerhead Sea Turtle). **PELAGIC FEEDING.** Hendrickson (1980. *Am. Zool.* 20:597-608) discussed differences in the niches occupied by extant sea turtles. However, other studies have reported a high degree of dietary overlap among *Lepidochelys kempi*, *Caretta caretta*, and *Dermochelys coriacea* (Grant and Ferrell 1993. *Brimleyana* 19:77; Frick 1997. *Herpetol. Rev.* 28:149; Frick and Mason 1997. *Herpetol. Rev.* 29:166-168). Here, we report aerial observations of *D. coriacea*, *L. kempi*, and *C. caretta* feeding together within large flotillas of cannonball jellyfish (*Stomolophus meleagris*), as well as observations of *L. kempi* and *C. caretta* feeding together within large schools of migrating cownose rays (*Rhinoptera bonasus*). To our knowledge, *S. meleagris* and *R. bonasus* have never been reported from the diets of *L. kempi* and *C. caretta*. Additionally, our observations suggest a lack of resource partitioning between *D. coriacea*, *L. kempi*, and *C. caretta*.

Our observations occurred on 29 and 31 March 1998 (1011-1454 h). Water temperature was 20°C and water depth at feeding locations was 1.8-23.4 m. Our observations were made during aerial surveys conducted by the New England Aquarium along coastal waters from southeastern Georgia (31°17'N, 81°00.0'W) to northeastern Florida (30°14'N, 81°05.0'W). For more detailed information regarding similar surveys see Scott and Gilbert (1982. U.S. Dept. Interior Rep. AA551-CT8-48. 120 pp.) and Knowlton et al. (1994. *Can. J. Zool.* 72:1297-1305.).

During the spring, large, surface-active schools of cownose rays begin to migrate north through the coastal waters off Georgia and Florida (R. Kenney, unpubl. data). Schools of cownose rays can number up to 30,000 individuals. However, schools of 200-300 individuals are more common. Similarly, large flotillas of cannonball jellyfish also appear off the coast during much of the year (March-November), until colder weather drives them south.

On 16 separate occasions, 34 *C. caretta* and 4 *L. kempi* were observed feeding on cownose rays. Turtles were observed biting pieces from the wings of any *R. bonasus* that passed within ca. 0.9 m. Large schools of unidentified fish were observed swimming beneath feeding turtles. These fishes appeared to be feeding on injured rays. On 10 separate occasions, 17 *C. caretta*, 2 *D. coriacea*, and 4 *L. kempi* were observed feeding on cannonball jellyfish. Larger turtles appeared to be eating jellyfish whole, whereas smaller turtles appeared to be manipulating jellyfish with their foreflippers, and consuming them as smaller, manageable pieces. On four occasions, ocean sunfish (*Mola mola*) and sharptail molas (*Mola lanceolata*) were seen feeding on jellyfish alongside of turtles.

It is unclear to what extent sea turtles utilize the seasonal influx of potential prey items that migrate through their foraging areas. By combining low energy behavioral activities such as basking and pelagic foraging, sea turtles may attain enough energy to perform activities that require a high energy expenditure. Grant and Ferrell (1993, *op. cit.*) suggest that the low-cost benefits associated with simultaneous basking and pelagic feeding may enable leatherbacks to perform more lengthy migrations while following jellyfish, their primary food. Studies that address diet selectivity in sea turtles by relating relative abundance of potential food items in the environment to the food items that are ingested would help us to better understand the foraging ecology of sea turtles (Bjorndal 1997. *In: Lutz and Musick (eds.), Biology of Sea Turtles*, pp. 199-232. CRC Press, Boca Raton, Florida).