

South Florida subpopulation likely produces a larger number of male hatchlings than the smaller Northern and Florida Panhandle subpopulations. Male hatchlings from the Northern and Florida Panhandle subpopulations contribute to having sufficient males to mate with females from other subpopulations, including the female-dominated South Florida subpopulation, and thus help contribute to reproductive success of loggerheads in the western North Atlantic, as well as increasing outbreeding. Although this is an important management consideration in terms of survival and recovery goals, and it will be addressed in the update to the 1991 recovery plan, it does not indicate that the subpopulations are markedly separated in terms of the criteria for discreteness under our DPS policy.

Quantitative measures of morphological characteristics do not show differences between the subpopulations. Specifically, measurements of carapace length and width, and body depth, did not show distinctions among Atlantic loggerheads.

Genetic analyses indicate that immature loggerheads from the South Florida, Northern, and Florida Panhandle subpopulations are mixed in foraging areas. Although it is of management concern in terms of survival and recovery goals for the species that the Northern subpopulation is represented off the Atlantic coast in a higher proportion than its relative abundance would suggest, this does not meet the definition of marked separation in the DPS Policy. The study of epibionts on nesting females from the Northern and South Florida nesting assemblages provides an indirect indication that the adult females from these two subpopulations are using different foraging areas, and satellite telemetry and tagging data more clearly indicate they are using different foraging areas. The satellite telemetry and tagging data show that adult females from the Florida Panhandle and South Florida subpopulations overlap in foraging areas. Overall, the information on foraging distribution indicates overlap of immatures from different subpopulations, apparent use of different areas by adult females from the Northern and South Florida subpopulations, and apparent overlap by adult females from the Florida Panhandle and South Florida subpopulations. This information does not meet the definition for marked separation in the DPS Policy.

Differences in nesting chronology between the subpopulations (i.e., earlier

onset of the nesting season in south Florida) were mentioned by the petitioners as a possible behavioral measure of discreteness. These differences likely result from a combination of ecological and biological factors including climate, oceanographic conditions, and reproductive endocrinology. The effects of these factors on reproductive timing are not fully understood. Differences in nesting chronology could, in theory, provide a mechanism leading to reproductive separation between sea turtle populations. However, the nesting chronology differences are not extreme (i.e., nesting seasons of the petitioned subpopulations largely overlap), and other lines of evidence (nDNA data) show that they have not led to a marked separation as a consequence of behavioral factors, as required by the discreteness criteria of the DPS policy.

To be discrete under our DPS policy, a population segment of a vertebrate species must be markedly separated from other populations of the same taxon as a consequence of physical, physiological, ecological, or behavioral factors. The available information does not support a conclusion that the loggerhead sea turtle subpopulations are discrete according to our DPS policy.

#### **Significance**

Our DPS policy is clear that significance is analyzed only when a population segment has been identified as discrete. Therefore, we did not evaluate the subpopulations for significance under the DPS policy.

#### **Status**

Again, our DPS policy is clear that the separate evaluation of listing status is conducted only if a population segment is determined to be both discrete and significant. Therefore, because we concluded that the subpopulations are not DPSs, we did not evaluate the subpopulations for separate reclassification.

#### **Finding**

We have reviewed the petition, the literature cited in the petition, other available literature and information, and consulted with biologists and researchers familiar with the loggerhead sea turtle. On the basis of the best available scientific and commercial information, we find that the Northern and Florida Panhandle subpopulations of the loggerhead sea turtle are not discrete, and therefore are not distinct population segments and do not qualify for reclassification as DPSs. Therefore, we find that the petitioned action is not warranted.

#### **Effect of Finding on Management and Conservation of Atlantic Loggerheads**

The petitioned action was the reclassification of certain subpopulations of the loggerhead sea turtle as DPSs with endangered status. In ESA section 7 consultations, NMFS has characterized the southeastern U.S. subpopulations as critical components of the overall loggerhead species and found that significant adverse effects on the survival and recovery of the individual subpopulations would adversely affect the overall survival and recovery of the entire listed species (see e.g., NMFS, 2001). The subpopulations are interdependent for the species' survival and recovery.

Under the 1991 recovery plan, delisting of the southeastern U.S. population of the loggerhead may be considered if, over a period of 25 years, the following three conditions are met: (1) The adult female population in Florida is increasing, and nesting in Georgia, South Carolina, and North Carolina returns to pre-listing levels identified in the plan; (2) certain amounts of available nesting beaches are in public ownership; and (3) all the identified recovery tasks necessary to prevent extinction or irreversible decline have been successfully implemented (NMFS and USFWS, 1991). Since the adoption of the 1991 recovery plan, new information has become available on loggerhead population structure, status, and trends, and we recently convened a recovery team to revise and update the Atlantic loggerhead recovery plan and have solicited information from the public to use as part of this effort (68 FR 13662). We anticipate formal public review of the draft plan will occur in 2004.

As a result of their threatened status and through protective regulations implemented by us, the states (e.g., 1995 Florida gillnet ban), and several municipalities (e.g., 2000 Lighting Ordinance for Town of Ocean Isle Beach, North Carolina), loggerhead sea turtles receive significant legal protections. Taking sea turtles (i.e., to harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, or collect, or to attempt to do so) is prohibited, with certain exceptions specified at 50 CFR 223.206. In addition to these prohibitions, loggerhead sea turtles are the beneficiaries of research and conservation programs implemented under the recovery plans and other conservation measures that result from ESA section 7 consultations on projects that are funded, permitted, or carried out by Federal agencies. Incidental mortality of loggerheads from fisheries