

away from the nesting beaches, we use nesting beach survey data as an index to the status and trends of loggerheads. In the information that follows, we describe the general location and the amount and trends of known nesting for each of the five identified nesting assemblages in the western North Atlantic, including the Northern and the Florida Panhandle nesting subpopulations that are petitioned to be identified as DPSs and reclassified as endangered. Detection of nesting trends requires consistent data collection methods over long periods of time. In 1989, a statewide sea turtle Index Nesting Beach Survey (INBS) program was developed and implemented in Florida, and similar standardized daily survey programs have been implemented in Georgia, South Carolina, and North Carolina. Although data for the Dry Tortugas in Florida are from beaches that are not part of the INBS program, these beaches have moderately good monitoring consistency. There are few nesting surveys for loggerheads in Mexico; however, some nesting survey data for the Yucatan Peninsula are available. Survey results show that the five nesting subpopulations differ in their overall size and trends, as described below.

South Florida Subpopulation

The South Florida nesting subpopulation is the largest known loggerhead nesting assemblage in the Atlantic, with annual nesting totals (i.e., number of nests) ranging from 48,531 to 83,442 annually over the past decade. In terms of trends, data from all beaches within the subpopulation where nesting activity has been recorded indicate substantial increases when data are compared over the last 25 years. However, an analysis limited to nesting data from the INBS program from 1989 to 2002, a period encompassing index surveys that are more consistent and more accurate than surveys in previous years, has shown no detectable trend (Blair Witherington, Florida Fish and Wildlife Conservation Commission (FFWCC), pers. comm., 2002).

Northern Subpopulation

The Northern nesting subpopulation is much smaller than the adjacent South Florida subpopulation, with the reported total number of nests ranging from 4,370 to 7,887 annually between 1989 and 1998, representing an average of approximately 1,524 nesting females per year and characterized as stable or declining (TEWG, 2000). Although longer-term trends are not available for the Northern subpopulation, researchers have documented substantial declines

in nesting on some beaches within this nesting assemblage since the early 1970s. Data from standardized nesting beach surveys that were analyzed for a 30-year period showed that nesting decreased 1.2 percent. However, these results are based on information from only 3 beaches, representing 6 percent of the total nesting of the Northern subpopulation, that met the criteria for standardized surveys during this time period. An analysis covering a 21-year period, when 8 beaches representing 31 percent of the total nesting of the Northern subpopulation met the criteria for standardized surveys, showed no detectable trend. A longer time series may be necessary, however, to detect annual changes in nesting activity (Mark Dodd, Georgia Department of Natural Resources, pers. comm., 2003).

As stated earlier, taken as a whole, the Northern nesting subpopulation is characterized by the TEWG as stable or declining (TEWG, 2000). Within this subpopulation, South Carolina usually accounts for half or more of the annual nesting of the Northern subpopulation, averaging 3,471 nests annually from 1989 to 1998. Nesting in South Carolina has been declining at an average of 3.1 percent per year from 1980 to 2002, according to estimates of statewide nesting as determined through aerial surveys (South Carolina Department of Natural Resources, unpub. data). Northeast Florida is the next largest, with an annual average of 1,055 nests, followed by Georgia with an average of 991 nests, and North Carolina with an average of 730 nests (TEWG, 2000).

Florida Panhandle Subpopulation

The Florida Panhandle subpopulation appears to be the third largest in size, with annual nesting totals ranging from 113 to 1,285 nests between 1989 and 2002 (FFWCC, unpub. data). Evaluation of long-term nesting trends for the Florida Panhandle subpopulation is difficult because of changed and expanded beach survey coverage. Although there are six years of INBS data for the Florida Panhandle subpopulation, the time series is too short to detect a trend (Blair Witherington, FFWCC, pers. comm., 2003).

Yucatan Peninsula Subpopulation

The Yucatan nesting subpopulation appears to be one of the two smallest of the five identified subpopulations in the western North Atlantic. This nesting assemblage had 1,052 nests reported in 1998 and the nesting trend is believed to be stable or increasing, but with little nesting survey data available for trend analyses (TEWG, 2000).

Dry Tortugas Subpopulation

The Dry Tortugas nesting subpopulation appears to be the smallest of the five identified nesting assemblages, with an average of 213 nests reported per year (range of 184 to 270 from 1995 to 2001; FFWCC, unpub. data). Trend data for the Dry Tortugas subpopulation are from beaches that are not part of the INBS program but have moderately good monitoring consistency. There are 7 years of data for this subpopulation, but the time series is too short to detect a trend (Blair Witherington, FFWCC, pers. comm., 2003).

Distinct Population Segment Review

Pursuant to the ESA, we must consider for listing any species, subspecies, or DPS of vertebrates if there is sufficient information to indicate that such action may be warranted. The Services published the Policy Regarding the Recognition of Distinct Vertebrate Population Segments under the ESA (the DPS policy) on February 7, 1996 (61 FR 4722), to clarify the application of the provision in the ESA to list, delist, or reclassify DPSs of any vertebrate species of fish or wildlife.

The DPS policy describes a process for evaluating vertebrate populations as potential DPSs for ESA listing decisions. The first step involves determining whether the population is discrete in relation to the remainder of the taxon. Under our DPS policy, a population segment of a vertebrate species may be considered discrete if it satisfies either one of the following conditions: (1) It is markedly separated from other populations of the same taxon as a consequence of physical, physiological, ecological, or behavioral factors (quantitative measures of genetic or morphological discontinuity may provide evidence of this separation); or (2) it is delimited by international governmental boundaries within which significant differences in control of exploitation, management of habitat, conservation status, or regulatory mechanisms exist that are significant in light of section 4(a)(1)(D) of the ESA.

If a population is determined to be discrete under one or both of the above conditions, its biological and ecological significance to the taxon will then be considered in light of Congressional guidance (Senate Report 151, 96th Congress 1st Session) that the authority to list DPS's be used "...sparingly and only when the biological evidence indicates that such action is warranted" while encouraging the conservation of genetic diversity. The policy recognizes that the biological and ecological