

THE CONSERVATION STATUS OF LOGGERHEAD POPULATIONS WORLDWIDE

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The International Union for Conservation of Nature (IUCN) Red List of Threatened Species is probably the most popular tool for determining conservation status and comparing the extinction risk of different plant and animal species. To conduct Red List assessments, experts use a standard set of criteria that have been developed and tested for decades. For wide-ranging species—and especially for globally distributed species, such as sea turtles—a single assessment for the whole species may not capture the situation of the multiple geographically or demographically separate subpopulations.

For example, a species may be considered abundant globally, yet certain distinct populations of that species may be facing extinction.

In 2010, the IUCN's Marine Turtle Specialist Group (MTSG) identified subpopulations—called *regional management units*—for each sea turtle species and started to assess the extinction risk of each. The first species assessed at the subpopulation level was the leatherback in 2013 (see *SWOT Report*, vol. XI, pp. 28–31). The loggerhead was similarly assessed in 2015. The loggerhead assessment concluded that, of the 10 loggerhead subpopulations, four qualified for a high-risk

A male loggerhead turtle swims off of Zakynthos Island, Greece. According to a new IUCN Red List Assessment, loggerheads are now considered “vulnerable” globally. © KOSTAS PAPAITSOROS

category such as endangered or critically endangered, two were considered near threatened, and four were ranked least concern on the basis of past or projected trends, abundance, or distribution.

In addition to allowing comparisons of the conservation status of different subpopulations, the new Red List assessments provide useful inputs for conservation strategies. For instance, the “least concern” category indicates that a sea turtle population has successfully benefited from past or current conservation efforts and that (a) the key threats have been successfully identified and addressed, and (b) conservation

actions should be continued, otherwise the population will be in trouble again. Conversely, a “threatened” category (e.g., endangered or critically endangered) indicates that past or current conservation efforts may not be sufficient (or their effects are not evident yet), possibly because the key problems have not been identified. In that respect, the loggerhead Red List assessment can provide useful insights for conservation action at regional levels. Completing similar Red List assessments for all sea turtle species will be a tremendous step forward in addressing the challenge of conserving sea turtles worldwide.



GLOBAL – Vulnerable

The loggerhead turtle is categorized as vulnerable globally for two reasons: (a) the global population is estimated to have declined 47 percent since long-term monitoring studies began between 10 and 50 years ago, and (b) the causes of the decline have not ceased. The global decline for loggerheads is mainly driven by one subpopulation (the northwest Indian Ocean subpopulation). This subpopulation, which was once very large, has declined precipitously. This case shows that global assessments for wide-ranging species such as sea turtles can be misleading because the decline or even extinction of one subpopulation does not necessarily imply a global-scale species extinction risk. Because we aim to preserve not just the species but also its regional populations, however, subpopulation Red List assessments are much more meaningful and useful for conservation.



MEDITERRANEAN SEA – Least Concern

The Mediterranean subpopulation of loggerheads breeds along the coasts of the eastern Mediterranean basin (with only a few nests recorded in the western Mediterranean), and its marine habitat extends throughout the entire Mediterranean Sea. The subpopulation is classified as least concern because the available long-term nest monitoring data show an overall modest increase. The Mediterranean subpopulation should be considered entirely conservation dependent, however, because the observed population increases are the result of decades of intensive conservation programs, especially at key nesting sites.



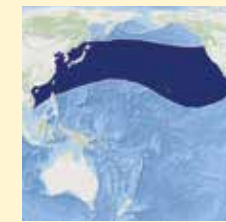
NORTHEAST ATLANTIC OCEAN – Endangered

The northeast Atlantic loggerhead subpopulation nests in the Cape Verde archipelago, with a few nests also recorded in Mauritania and Guinea. Its marine habitats extend across a large area off northwest Africa, spreading out to the Azores in the northwest down to the coastal areas of Sierra Leone in the southeast. The subpopulation is considered endangered because the vast majority of nesting habitat is concentrated in a relatively small area in Cape Verde and is subject to continuing anthropogenic pressure (e.g., intensive sand extraction and tourism development), which is causing an ongoing decline in habitat area, extent, and quality.



NORTHEAST INDIAN OCEAN – Critically Endangered

The northeast Indian subpopulation nests on the beaches of Sri Lanka, and its marine habitats are thought to extend throughout a large marine area around and to the east of Sri Lanka, including the Bay of Bengal, and as far east as offshore areas of Myanmar and Sumatra, Indonesia. The population is considered critically endangered because of its extremely small size: the number of nests laid annually is thought to be fewer than 25.



NORTH PACIFIC OCEAN – Least Concern

The North Pacific loggerhead subpopulation nests along the eastern coast of Japan and inhabits a vast marine area covering nearly the entire North Pacific Ocean, from the waters of the South China Sea off Vietnam in the west, to the western coast of the United States and Baja California, Mexico, in the east. The subpopulation is ranked least concern because the combined long-term nesting population trend is increasing; this status should be considered conservation dependent, however, because it results from intensive long-term protection of nesting habitat in Japan.



NORTHWEST ATLANTIC OCEAN – Least Concern

The northwest Atlantic loggerhead subpopulation nests throughout the southeast United States and the Caribbean region, with the most significant nesting aggregations in Florida, Georgia, and South Carolina in the United States, and along the Yucatán Peninsula of Mexico. Its marine habitat encompasses nearly the entire Gulf of Mexico, Caribbean Sea, and North Atlantic Ocean. Long-term studies of this large and widespread population show an overall increase (of 2 percent), although the population is declining at a number of individual beaches.



NORTHWEST INDIAN OCEAN – Critically Endangered

The primary nesting sites for northwest Indian Ocean loggerheads are in Oman (Masirah Island) and, to a lesser extent, Yemen, and their marine habitats encompass the Gulf of Aden and Arabian Gulf. This subpopulation is considered critically endangered because observations have revealed a decline of about 70 percent since nest monitoring began, and that decline is projected to reach more than 90 percent by 2043 because of the ongoing nature of threats, including fisheries bycatch, egg predation, and coastal development.



SOUTHEAST INDIAN OCEAN – Near Threatened

The southeast Indian Ocean subpopulation of loggerheads nests in Western Australia and inhabits the waters of western and northern Australia, East Timor, and Indonesia. It is probably one of the largest loggerhead subpopulations, with more than 2,500 females estimated to be nesting annually. The subpopulation is considered near threatened because it nests over a relatively small area, and our knowledge about the population's status and threats is incomplete. Known threats include predation by foxes, vehicular traffic, light pollution associated with industrial development, and fisheries bycatch, although the impact of threats has not been fully evaluated.



SOUTH PACIFIC OCEAN – Critically Endangered

The South Pacific Ocean loggerhead subpopulation nests in eastern Australia and New Caledonia, and its marine habitats extend across a broad swath of the southern Pacific to the coasts of Peru and Chile in South America. This subpopulation is critically endangered because the nesting population in eastern Australia, where most nesting takes place, has declined by greater than 80 percent since the mid-1970s and continues to decline today because of effects that have not ceased and are not completely understood.



SOUTHWEST ATLANTIC OCEAN – Least Concern

Southwest Atlantic loggerheads nest along the coast of Brazil and inhabit waters of the southwest Atlantic Ocean, from northern Brazil to southern Argentina. Long-term monitoring of nesting beaches in Brazil shows an overall increase in this subpopulation, leading to the classification of least concern. The southwest Atlantic subpopulation should be considered conservation dependent because its current status is the result of decades of intense conservation programs, especially at nesting sites, that, if removed, would likely result in an immediate population decline.



SOUTHWEST INDIAN OCEAN – Near Threatened

The southwest Indian Ocean loggerhead subpopulation nests primarily on the northeast coast of South Africa in southern Mozambique and in southern Madagascar, and its marine habitats encompass the southwest Indian Ocean, as far north as Somalia; east to the Seychelles, Mauritius, and Reunion; and south around the Cape of Good Hope to coastal Namibia in the west. Long-term monitoring data from South Africa show an overall population increase, but the population qualifies as near threatened because of its small nesting distribution and limited number of nesting beaches.