

Iconic species are animals or plants which are important to cultural identity as shown by their involvement in traditional activities such as local ethnic or religious practices and/or which are locally or more broadly recognized for their existence and aesthetic values. Species important exclusively for economic reasons are not included, but economic importance does not disqualify species that are also culturally significant.

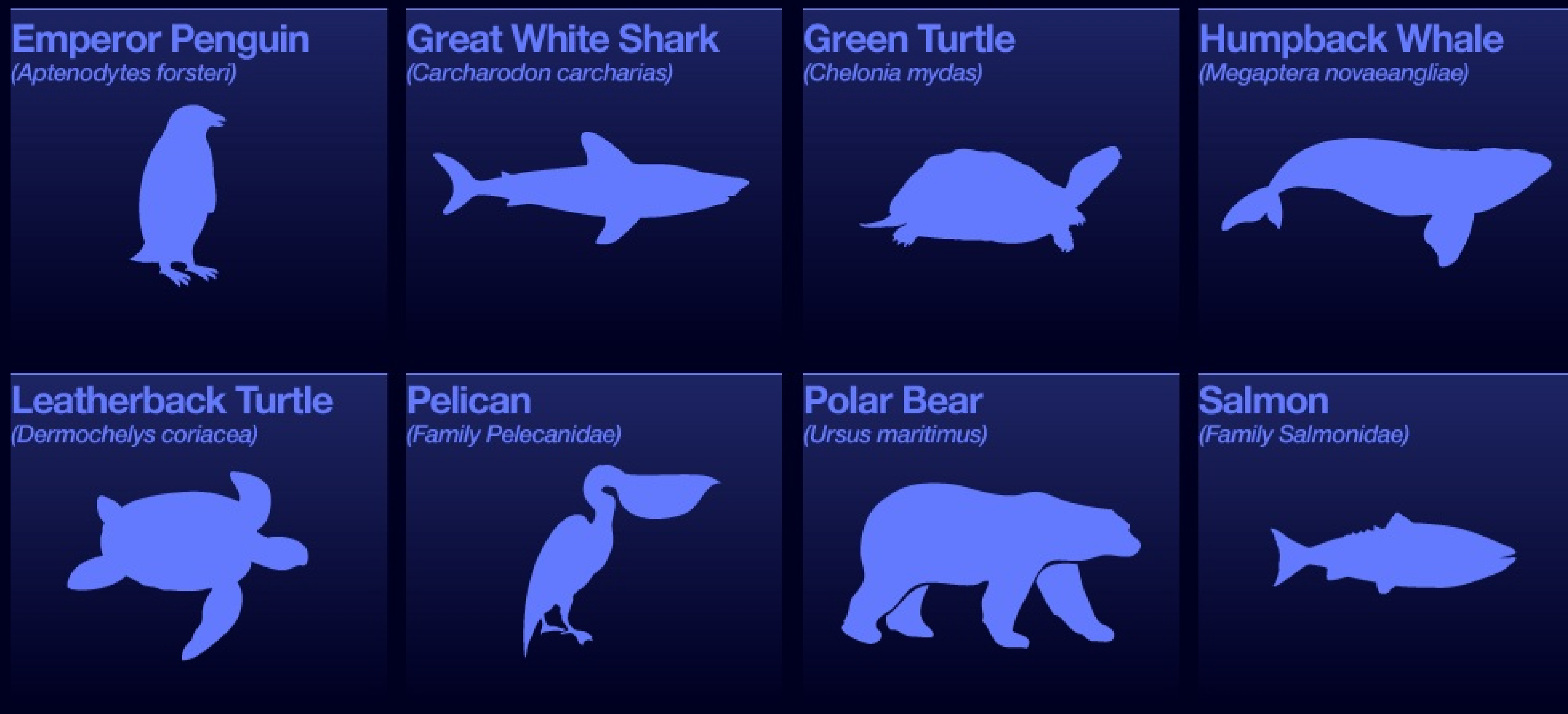
Marine species may be iconic not only to people living near them, but also to those who live far away and may never even see them, but still derive a sense of identity or value from knowing that such species exist.

Substantial progress has been made towards the population recovery of certain iconic species, thanks to many national laws and international agreements. Successfully conserving or recovering populations of iconic species will require knowledge and actions on regional and global scales as well as improved understanding of how cultures relate to marine life.

In certain cultures, entire habitats or sets of species within a landscape have special spiritual and existence value. This more extended definition of iconic species is not addressed in this subgoal, though sets of species are included in the models for other goals. For example, habitat-forming species (e.g. mangroves, coral reefs, seagrass meadows, salt marshes) are assessed in association with a number of other goals, and landscapes are included within both the Lasting Special Places subgoal of Sense of Place and the Habitats subgoal of Biodiversity.

ICONIC MARINE SPECIES

Iconic Marine Species



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HOW WAS IT MEASURED?

The species that are iconic within each country or territory could not be determined directly, because country- and culture-specific lists do not exist. Though many lists exist for globally important, threatened, endemic, etc. species, the extent to which those species represent culturally iconic species is not clear. As a proxy measure, the Ocean Health Index drew from lists of iconic species produced by the World Wildlife Fund (WWF), particularly for Priority Species (especially important to people for their health, livelihoods, and/or culture) and Flagship Species ('charismatic' and/or well-known). The World Wildlife Fund lists are the only source that included cultural reasons for listing iconic species.

Status calculation for this sub-goal uses the IUCN threat categories that express risk of extinction. Each of the six threat categories is assigned a weight following Butchart et al. (2007): EX (extinct) = 0.0, CR (critically endangered) = 0.2, EN (endangered) = 0.5, VU (vulnerable) = 0.7, NT (not threatened) = 0.9, and LC (least concern) = 0.99. The reference point is for the risk category of all species to be 'least concern', that is, a goal score = 1.0). See [this Web site's page on IUCN Risk Assessment](#) and the supplementary information for [Halpern et al. \(2012\)](#) for further information.

To calculate a region's Status, for each threat category the number of species in that category is multiplied by that category's weight. The sum of those values is then divided by the sum of the number of species in each threat category. Because different populations within a species may have different risks of extinction, calculations use the threat category assigned by IUCN to the population in the region being scored. Species within a region that have not been assessed or that are labeled as data deficient are not included in the calculation.

The IUCN also provides information about whether the population size of assessed species is increasing, stable or decreasing, or whether the trend is unknown. Trend is calculated as the average of the recorded (categorical) trend for all the iconic species assessed by IUCN in each country, giving scores of 0.5 (increasing population), 0.0 (stable), and -0.5 (decreasing population) to each species. Pressures and Resilience factors included in computing the subgoal score are described in the supplementary information to [Halpern et al. \(2012\)](#).

It is unlikely that all of the world's cultures and countries will in the near future develop lists of the species iconic in their regions, but improved lists can be produced for regional assessments. For example, [Halpern et al. \(2014\)](#) developed a list of 17 iconic species specific to the U.S. West Coast by consulting local experts who chose species that were locally important in one or more of the following ways: 1) traditional activities such as fishing, hunting or commerce; 2) local ethnic or religious practices; 3) existence value; and 4) locally-recognized aesthetic value.

Countries and cultures will need to assemble lists of their iconic species in order to permit better assessments of their status.

[See Raw Data](#)

WHY ARE ICONIC SPECIES IMPORTANT?

ECOLOGICAL IMPACT

Iconic species may play an important or unique role in ecosystem function and have ecological significance independent of their iconic status. However those may not necessarily be the reasons why a species has gained iconic status.

Species that were once common but not particularly valued may become iconic if they become threatened, especially if they are symbolic of a particular place, culture or activity.

HUMAN HEALTH IMPACT

Iconic species have inherent sociological importance as their existence is highly valued by human communities. Although a community could fundamentally survive without some of these species, its unique cultural identity would be altered or jeopardized.

ECONOMIC IMPACT

Though not always the primary reason for their iconic status, these species can be important components of local economies and provide food and livelihoods for millions worldwide. Iconic species can also generate tourism revenue and social benefits for local populations. Whale watching, for example, has increased in popularity in recent years and generated approximately \$2.5 billion in revenue worldwide in 2009 (Cisneros-Montemayor et al. 2010).

GET MORE INFORMATION

WORLD WILDLIFE FUND (WWF)

WWF is focusing conservation efforts on a select group of priority and endangered species.

[Learn More](#)

INTERNATIONAL UNION FOR CONSERVATION OF NATURE AND NATURAL RESOURCES (IUCN)

IUCN Red List of Threatened Species

[Learn More](#)

REFERENCES

Butchart S.H.M., H.R. Akçakaya, J. Chanson et al. (2007). Improvements to the Red List Index. Plos One. Published: January 3, 2007. DOI:10.1371/journal.pone.0000140

Commonwealth of Australia Department of Sustainability. (2003). Marine Turtles - Marine Species Conservation in Australia.

Recovery Plan for Marine Turtles in Australia. (Environment Australia: Australia, 2003).

Brostrom, I. (2006). The Cultural Significance of Wildlife: using the National Historic Preservation Act to protect Iconic Species. Hastings College of the Law. West-Northwest Journal of Environmental Law & Policy 147.

Cisneros-Montemayor, A. M., U.R. Sumalla, K. Kaschner and D. Pauly. (2010). The global potential for whale watching. Marine Policy 34, 1273-1278.