

Save a Whale, Save the Planet

Whales, Blue Carbon and Climate Change

Our oceans are the largest active carbon sink on earth. Healthy coastal and marine ecosystems store atmospheric carbon and help mitigate climate change. Their degradation decreases the ocean's existing carbon stock and its capacity to mitigate climate change.

New research points to the potential role that the conservation of whales and large fish can play as part of the solution to climate change. Scientists from the United States and Canada recently published work on the impact of whaling on the ocean's carbon cycle.

They found that carbon naturally accumulates in the bodies of whales, and that this carbon is sequestered – out of the atmosphere – for the life of the animal. Because of their potential to store carbon for years, individual whales contain huge amounts of carbon, amounts only exceeded by the largest trees. Those that die natural deaths (not harpooned) transport their carbon to the ocean depths, away from the atmosphere.

By removing whales, sharks and large fish, we've reduced the amount of carbon stored in these populations and reduced the ocean's capacity to mitigate climate change. According to the researchers:

Rebuilding the blue whale population of the southern hemisphere would sequester the same carbon as preserving 43,000 hectares (166 square miles) of temperate forest, about the size of Los Angeles.



It is reported that the Southern Ocean blue whale population has been reduced by more than 99 percent. Restoring this population will help mitigate climate change.

Blue Carbon – Some coastal ocean ecosystems are already recognized as important natural carbon sinks. These include tidal marshlands, mangrove swamps, and seagrass meadows. These ‘blue carbon’ ecosystems are extremely effective at storing atmospheric carbon – mangroves and coastal wetlands store 50 times more carbon than tropical forests by area. The conservation and restoration of these ecosystems can mitigate the effects of climate change.

The blue carbon concept is gaining interest with policy makers and in the marine conservation community, and was recently recognized in draft US climate change legislation, with eleven Senators endorsing blue carbon language. However, with the Senate shelving climate change (for the moment), this will have to be re-visited at a future date. In the least, blue carbon has been introduced into the climate change legislative lexicon and is eminently politically feasible.

It is currently early days for blue carbon policies, but its future may include the protection of marine vertebrates – with potential broad implications to the management of marine resources including:

-  The conservation of whales, sharks and tuna;
-  How illegal, unreported and unregulated (IUU) fishing is tackled; and
-  The establishment of coastal and oceanic marine protected areas.

References:

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