

Meeting Report: “Workshop on Climate Change and Adaptation Options for Cetaceans and Other Marine Biodiversity of the Eastern Pacific,” Santo Domingo de Heredia, Costa Rica, 9-11 February 2009

Ana Fonseca, WWF Latin America and the Caribbean, San José, Costa Rica  
Daniel Palacios, JIMAR and NOAA/NMFS/SWFSC, Pacific Grove, CA, USA  
Jennifer Hoffman, EcoAdapt, Seattle, WA, USA  
Mark Simmonds, Whale and Dolphin Conservation Society, Wiltshire, UK

In recognition of the potential threat posed by climate change to the ecology of the Eastern Pacific and in support of the International Whaling Commission’s (IWC) initiatives regarding the impact of climate change on cetaceans, the government of Costa Rica hosted a Workshop on Climate Change and Adaptation Options for Cetaceans and Other Marine Biodiversity of the Eastern Pacific, in Santo Domingo de Heredia, Costa Rica, 9-11 February 2009. This three-day meeting was presided by Roberto Dobles, Costa Rica’s minister of environment, and brought together 72 international experts in cetacean biology, oceanography, biodiversity, conservation and climate to discuss the current status of cetacean populations in the eastern tropical Pacific and to assess their vulnerability and adaptation options to climate change in the region.

The primary goal of the workshop was to conduct a collaborative scientific review of the impact of climate change on oceanographic conditions in the eastern tropical Pacific and their interpretation for the design of adaptation responses for cetaceans and other marine biodiversity. A secondary objective was to further develop the concept of “sensitivity indices” as a means of assessing the vulnerability of cetacean species to climate change. The dynamic of the workshop followed, with some adjustments, the “Climate Camp” methodology developed by WWF ([www.worldwildlife.org/climate/climatecamp.html](http://www.worldwildlife.org/climate/climatecamp.html)). Several presentations were given during an initial plenary session, covering the topics of climate change scenarios, implications for biodiversity, and adaptation measures. During the rest of the workshop, breakout groups conducted an assessment of the impacts of climate change on marine and coastal environments, using as a guide the variables addressed in the “Marine Climate Change Impacts Partnership Annual Report Card 2007-2008” put out by the Marine Climate Change Impacts Partnership ([www.mccip.org.uk](http://www.mccip.org.uk)). Five groups worked in parallel by considering how these variables affect: 1) cetaceans, 2) other endangered species (seabirds, marine turtles, sharks), 3) fish and plankton, 4) marine and coastal ecosystems (reefs, mangroves, estuaries, beaches, intertidal, marine bottoms), and 5) physico-chemical oceanographic variables. The results from the working groups were discussed during a final plenary session and potential adaptation measures were considered. The group working with cetaceans also assessed the knowledge and conservation status for the 38 species or subspecies known to occur in the region, and, based on this knowledge, selected three representative species and ranked them on 15 criteria based on earlier work, to arrive at a sensitivity index for each species.

This workshop provided a rare opportunity for scientists from Latin America and elsewhere to come together and discuss how climate change scenarios might affect cetaceans and their marine environments in the region. Some of the results from the

workshop were subsequently presented at the “Second IWC Workshop on Cetaceans and Climate Change,” held in Siena, Italy, 21-25 February 2009. A report from the workshop will be published on 15 June 2009 and distributed electronically ([www.panda.org](http://www.panda.org)), as well as in hard copy at the 61<sup>st</sup> Annual Meeting of the IWC, in Madeira, Portugal. The workshop was possible through the joint efforts of Costa Rica’s Ministry of Environment, Energy and Telecommunications; Conservation International; EcoAdapt; Fundación PROMAR; the International Fund for Animal Welfare; the Inter American Institute for Global Change Research; The Nature Conservancy; the Whale and Dolphin Conservation Society and WWF.