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Fisheries Stock Assessment Software Now Publicly Accessible

The most widely used software package for the development of state-of-the-art fisheries stock assessment methods, AD Model Builder, or ADMB, can now be downloaded without charge from a public Web site, <http://admb-project.org>.

The National Center for Ecological Analysis and Synthesis (NCEAS) at UC Santa Barbara is a partner in the project.

ADMB-based computer models are used globally to monitor populations of many endangered and commercially valuable species, to develop place-based resource management policies, and to reconstruct movements of animals tracked with electronic tags.

ADMB-based stock assessments are critical to the management of commercially important fisheries stocks worth billions of dollars, as well as ecologically sensitive species in the United States and internationally.

Every NOAA Fisheries Science Center uses the ADMB software.

In 2007, scientists from the University of Hawaii at Manoa Pelagic Fisheries Research Program and the Inter-American Tropical Tuna Commission, in consultation with scientists from NOAA Fisheries, created the non-profit ADMB Foundation with the goal of increasing the number of ADMB users by making the software free and open source.

During its first year of operation, the UH Pelagic Fisheries Research Program provided a home and logistical support for the ADMB Foundation. In partnership with NOAA Fisheries and NCEAS, the ADMB Foundation drafted a proposal to the Gordon and Betty Moore Foundation to acquire the copyright to the ADMB software suite, in order to make it broadly and freely available to the research community.

A generous grant from the Moore Foundation to NCEAS enabled an agreement with Otter Research Ltd. to open the ADMB source.

ADMB has proven to be an essential tool for a wide range of statistical analysis, especially in fisheries stock assessments. With its recent emergence as free software, it is likely that ADMB will be used to address a growing number of challenges in ecological modeling.

Many top fisheries scientists have testified to the importance of ADMB for creating sound stock and management models.

Creation of the public download web site is only the first step in making all aspects of ADMB publicly available. Over the next year, a team of software developers will improve documentation of the computer code with the goal of making ADMB an open source enterprise. Releases of binaries (executable code) for the Windows and Linux operating systems are currently freely available, with a port to OS X to follow.

Ultimately, the full source code will be available, enabling researchers to contribute their own enhancements and add-ons, using the code repository and support forums established on the ADMB project web site (<http://admb-project.org>).

The Gordon and Betty Moore Foundation, established in 2000, seeks to advance environmental conservation and cutting-edge scientific research around the world and improve the quality of life in the San Francisco Bay Area. For more information, go to www.moore.org.

The National Center for Ecological Analysis and Synthesis, located in downtown Santa Barbara, is a research center of the University of California, Santa Barbara. NCEAS supports cross-disciplinary research that uses existing data to address major fundamental issues in ecology and allied fields, and their application to management and policy. NCEAS is a unique institution with an explicit mission to foster synthesis and analysis, turn information into understanding and, through effective

collaboration, alter how science is conducted.

[ADMB Project](#)

[ADMB Foundation](#)

About UC Santa Barbara

The University of California, Santa Barbara is a leading research institution that also provides a comprehensive liberal arts learning experience. Our academic community of faculty, students, and staff is characterized by a culture of interdisciplinary collaboration that is responsive to the needs of our multicultural and global society. All of this takes place within a living and learning environment like no other, as we draw inspiration from the beauty and resources of our extraordinary location at the edge of the Pacific Ocean.