

A call for additional proposals for US GLOBEC Synthesis from the U.S. GLOBEC Science Steering Committee.

Program Description – U.S. GLOBEC NEP/CGOA Program

The NEP regional program has two subregions, the California Current System (CCS) and the Coastal Gulf of Alaska (CGOA). Syntheses in the CCS and CGOA were initiated with solicitations corresponding to Phase IIIa, NSF 04-554; and Phase IIIb, NSF 05-552. However, synthesis proposals selected for funding in the CGOA left a major gap in the program, since they did not adequately address factors controlling the structure of the zooplankton community. In particular, they did not address the second of the three fundamental NEP hypotheses, that environmental changes in the circulation and water column structure constitute “the dominant physical forcing on zooplankton biomass, production, distribution, species interactions and retention and loss in coastal regions” (NEP Implementation Plan, U.S. GLOBEC Report 17, p. 18, 1996).

This announcement from the U.S. GLOBEC Science Steering Committee and the U.S. GLOBEC Office encourages proposals to be sent to NSF, OCE, Biological Oceanography (PD 98-1650) by 1 July for projects to fill the gap identified above and described further below. The selected project or projects will complete the Phase IIIb synthesis program for the CGOA. It is anticipated in prior discussions with program managers that less than \$1 million will be available for possible additional synthesis efforts depending on merit.

The objective of Phase IIIb is to foster integration and synthesis of data collected during the field phases of the CGOA program and other relevant data and knowledge through group interactions and modeling activities. Therefore, proposals should describe the relationship of their proposed project to, and the mechanisms for interacting with, the previously selected projects in the CGOA synthesis. Short descriptions of previously funded CGOA synthesis projects can be obtained at <http://globec.coas.oregonstate.edu/groups/nep/projs.html>.

A fundamental goal of the U.S. GLOBEC NEP/CGOA program is to understand the processes regulating the abundance, distribution and composition of zooplankton communities on the northern Gulf of Alaska shelf. We request synthesis efforts that integrate estimates of *in situ* zooplankton abundances and their condition and reproductive rates. The primary sources of this information are the data sets collected during the long-term observation program (LTOP: for cruise reports see http://globec.coas.oregonstate.edu/groups/nep/reports/cgoa_cruises/cgoa_cr_rpts.html), but might also include retrospective data sets.

This synthesis must be integrated with numerical models and must consider mechanisms and pathways that link lower trophic levels to juvenile salmon. There is a need to better understand the mechanisms controlling larvacean and pteropod populations, as they appear to be important prey for juvenile pink salmon on the shelf. The results of this synthesis should yield new insights on how zooplankton communities respond to the variable physical structure and circulation on the Northern Gulf of Alaska shelf and how in turn zooplankton affect higher trophic levels. Novel strategies to bridge models of the planktonic ecosystem and those of higher trophic levels are particularly welcome.