

High resolution modeling of the North Pacific and along the US west coast using a nested HYCOM model.

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A high resolution regional model of the US west coast has been nested within a model of the North Pacific using the Hybrid Coordinate Ocean Model (HYCOM). The Pacific model extends from 20S to 65.8N, has horizontal grid resolution of  $1/12^{\text{th}}$  degrees, includes input from 254 rivers and is forced by ECMWF surface fluxes from 1979 to 2003. The regional model, which uses daily boundary information from the Pacific simulation, extends from 30N to 50N and from 115W to 135W. The regional model simulations focus on the period from 1999 to 2002 and include a variety of experiments in which horizontal resolution varies from  $1/12^{\text{th}}$  degrees to  $1/25^{\text{th}}$  degrees, and surface forcing varies from the ECMWF global fluxes to those from the Navy's COAMPS mesoscale atmospheric model. As part of PARADIGM, project ecosystem models will be incorporated into both the Pacific and regional HYCOM models, as discussed in a related presentation in this session.