

## **MODELING THE CIRCULATION OF THE INTERMEDIATE LAYER IN THE SEA OF OKHOTSK**

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The Sea of Okhotsk has recently gotten noticed as a main source region of iron in the western subarctic Pacific. On the northwestern shelf in the Sea of Okhotsk, iron with other particles is incorporated into DSW, is transported southward in the intermediate layer off Sakhalin Island, and goes out of the Sea of Okhotsk into the northwestern Pacific.

We have been constructing a model to simulate the circulation in the intermediate layer of the Sea of Okhotsk. We will implement an iron model in the model and simulate the iron flow as mentioned above in the future. The model is based on the Iced COCO developed at Center for Climate System Research, the University of Tokyo. The model domain is from 136°E to 180.5°E and 39°N to 63.5°N. The horizontal grid spacing is 0.5°, and the number of the vertical levels is 51. The vertical diffusivity coefficient is enhanced along the Kuril islands as tidal mixing effects.

We have satisfying results, considering the resolution of the model. The features in the intermediate layer are comparable with those of climatological data. The tracer experiment shows that tracers injected on the northwestern shelf as DSW are transported southward in the intermediate layer and that some of them go out into the Pacific.