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Abstract

In this study, we estimated the radioactivity concentrations of radioactive cesium (^{134}Cs and ^{137}Cs) in the body of Japanese whiting (*Sillago japonica*) in Tokyo Bay and evaluated the safety of the fish for human consumption. We performed the estimation of the radioactivity concentrations using the National Institute of Advanced Industrial Science and Technology's Chemical Bioaccumulation Model for Windows Ver. 4.0. To increase the computational speed of this model, it was utilized by compiled a database of the calculation results obtained using the three-dimensional flow model, the ecosystem model, and the fate model for chemical substances. We also improved the ease of use of this model for general users, rather than just researchers and engineers, by incorporating a graphical user interface. We evaluated the safety of Japanese whiting for human consumption using the committed effective dose. Assuming a typical daily intake of Japanese whiting of 100 g, the committed effective dose was approximately 0.04 mSv, which was much smaller than the committed effective dose specified by the Japanese government (1 mSv). Therefore, Japanese whiting in Tokyo Bay can be considered safe as human food.