

## **Prediction Of Bioaccumulation Potential of Selected Persistent Organic Pollutants Using Food Web Bioaccumulation Modeling**

The release of ever-increasing number of chemicals to the environment is inevitable. Some of these chemicals are persistent; they have long retention times in environmental media and may enter the food-chain and accumulate in organisms. Understanding bioaccumulation potentials of persistent organic pollutants (POPs) is crucial to prevent possible adverse effects on wildlife and human health. In this study, the bioaccumulation potential of selected POPs measured in aquatic environments in Türkiye will be predicted in organisms at various trophic levels along the food chain. Currently, there are numerous studies reporting concentration of POPs in a variety of environmental media in Turkey, yet no study on evaluating bioaccumulation potential on aquatic organisms. Two food web bioaccumulation models will be selected from the literature to predict bioconcentration factor (BCF), bioaccumulation factor (BAF), and biomagnification factor (BMF) in freshwater and seawater ecosystems for selected POPs. Results will be evaluated in terms of potential health impact of consuming fish and other aquatic organisms from impacted ecosystems, such as the Marmara Sea. Upon availability of adequate data sets, fish advisories may also be suggested for studied locations.

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