

**Title** A multi-compartmental model for estimating metal bioaccumulation in fish  
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### **Abstract**

In this work, a model for metal bioaccumulation in fish is presented. The model captures the basic principles driving the dynamics of metal bioaccumulation in fish, taking into account different exposure routes and the distribution among representative organs. The model is demonstrated to be robust and structurally identifiable. The complete set of parameters can be estimated univoquely, for a specific pair specie-metal, by using concentration measures in a reduced number of organs.