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SESSION TRACK: Integrated Environmental Assessment and Management
REQUESTED SESSION: Integrated Understanding of Biogeochemical Cycling of Mercury around Ocean Environmen... [Noriyuki Suzuki]
REVIEWER COMMENTS:
Noriyuki Suzuki: [No Comments]
Kohji Marumoto: [No Comments]
REVIEWER RECOMMENDATIONS:
Noriyuki Suzuki: [No Recommendation]
Kohji Marumoto: [No Recommendation]
REQUESTED PRESENTATION TYPE: Platform
Student Presentation Award:
TITLE: Methylmercury production in the Oceans: links to physics, chemistry and biology
AUTHORS/INSTITUTIONS: Lars-Eric Heimburger, CNRS / Mediterranean Institute of Oceanography; Jeroen Sonke, OMP-GET Toulouse; David Point, Université Paul Sabatier / Géosciences Environnement Toulouse UMR IRD UR
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AGREE TO BE RECORDED: FALSE
ABSTRACT BODY: We will review and synthesize the current understanding of the marine biogeochemical cycle of mercury and how its natural cycling may have been altered by anthropogenic emissions and changing climate. The presentation will focus on potential sources of methylmercury to the marine food web, which is of most socioeconomic and health concern. Marine methylmercury production is a function of at least three variables: inorganic mercury availability, organic matter supply and bacterial assemblages. All of these variables are prone to be influenced by global changes. We will make use of recently published and unpublished data to attempt evaluating the relative importance of these variables. With this we will examine the possible impacts of the temporal variation of anthropogenic mercury emissions and warming climate on marine methylmercury production. We will also point out remaining knowledge gaps, share ideas of future research needs and potential approaches to furthering our understanding of methylmercury dynamics in the ocean.
KEYWORDS: Aquatic toxicity, Bioaccumulation, Metals, Toxicity