



Contribution ID : 12

Type : **Oral**

The “bad” breath of the ocean: Greenhouse gas emissions from Eastern Boundary Upwelling Ecosystems

Wednesday, 5 September 2018 09:35 (35)

Eastern Boundary Upwelling Ecosystems (EBUS) are well-known “hotspots” for production of greenhouse gases (GHG). Although each year tons of GHG are emitted out of the global ocean, EBUS are focal points with a disproportionately high share of the total efflux of these gases. Given that EBUS are a fundamental component of the socio-economic development of the bordering countries, the associated anthropogenic activities bear the potential to exacerbate the already increasing GHG emissions. Since GHG-driven warming is thought to be the major cause for ocean deoxygenation, it is of utmost importance to understand the distribution and variability of these gases over wide temporal and spatial scales. Throughout the last decade great progress has been achieved in the development of methods for continuous in situ monitoring of GHG, which not only contributes to fill the existing gaps in data coverage but also helps improving modelling approaches for predicting the emission trends of GHG with future climate change. In this talk I will present observational trends of GHG in all four EBUS and discuss how to find reasonable temporospatial scales for linking observational and modelling programs. Likewise I will address some of the major environmental problems leading to increased deoxygenation and how they influence the emissions of the major GHG in EBUS.

Position

Affiliation

Email Address

Are you a SFB 754 / Future Ocean member?

Primary author(s) : ARÉVALO-MARTÍNEZ , Damian L.

Presenter(s) : ARÉVALO-MARTÍNEZ , Damian L.

Session Classification : 05 Major Upwelling Systems