

Update on:

*Eastern Boundary Upwelling Systems (EBUS)
Research Focus*

*CLIVAR SSG meeting
10 March, 2021*

Some recent works: participation in OceanObs'19 review papers

Todd, Robert E., et al. "Global perspectives on observing ocean boundary current systems." *Frontiers in Marine Science* 6 (2019): 423.

Stammer, Detlef, et al. "Ocean climate observing requirements in support of Climate Research and Climate Information." *Frontiers in Marine Science* 6 (2019): 444.

Foltz, Gregory R., et al. "The tropical Atlantic observing system." *Frontiers in Marine Science* 6 (2019): 206.

Ongoing (and final) work: A perspectives manuscript on priorities in EBUS science

We aim to draw upon the broad atmosphere-ocean-ecological expertise of the group to propose “critical questions” that might help guide research concerning EBUS sensitivities to climate change.

We identified 6 questions that deserve some focused research before the scientific community can confidently project the impacts of future climate change on EBUS.

Ongoing (and final) work: A perspectives manuscript on priorities in EBUS science

#1 - What large-scale characteristics control the position, strength and seasonality of upwelling?

Lead author : Thomas Toniazzo

#2 - At the regional scale, what are the impacts of orography, bathymetry, and topography on EBUS processes?

Lead author : Paquita Zuidema

#3 - What are the physical and biogeochemical interactions within EBUS that need to be resolved?

Lead author : Martin Schmidt

#4 - What effect do EBUS have on large-scale climate conditions?

Lead author : Alban Lazar

#5 - What are the sensitivities of EBUS to larger-scale climate processes?

Lead authors : Art Miller, Moussa Diakhate

#6 - What are the relative roles of physical and biogeochemical processes (bottom-up) vs fishing practices in influencing important fish populations in EBUS?

Lead author : Ryan Rykaczewski

EBUS RF evolution in 2020

Co-chairs Alban Lazar (France), Ryan Rykaczewski (USA), and Thomas Toniazzo (Norway) made a pause

COVID required significant life adjustments , that overall slowed down our work

and furthermore R. Rykaczewski

- changed his work position for an operational one at NOAA, Honolulu

- got a fascinating baby

Outlook for the coming months

Intention to finalise a version of the draft during a FG meeting this spring.
and present it to the Pacific and Atlantic Regional Panels in order to narrow
down the scope of the paper

Thanks!