



Azores' Fish Diversity - projections derived from climate changes

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Climate change & Marine life - impacts and responses:

Major impacts:

- Ocean warming
- Ocean acidification
- Habitat loss
- Shifts in species distribution

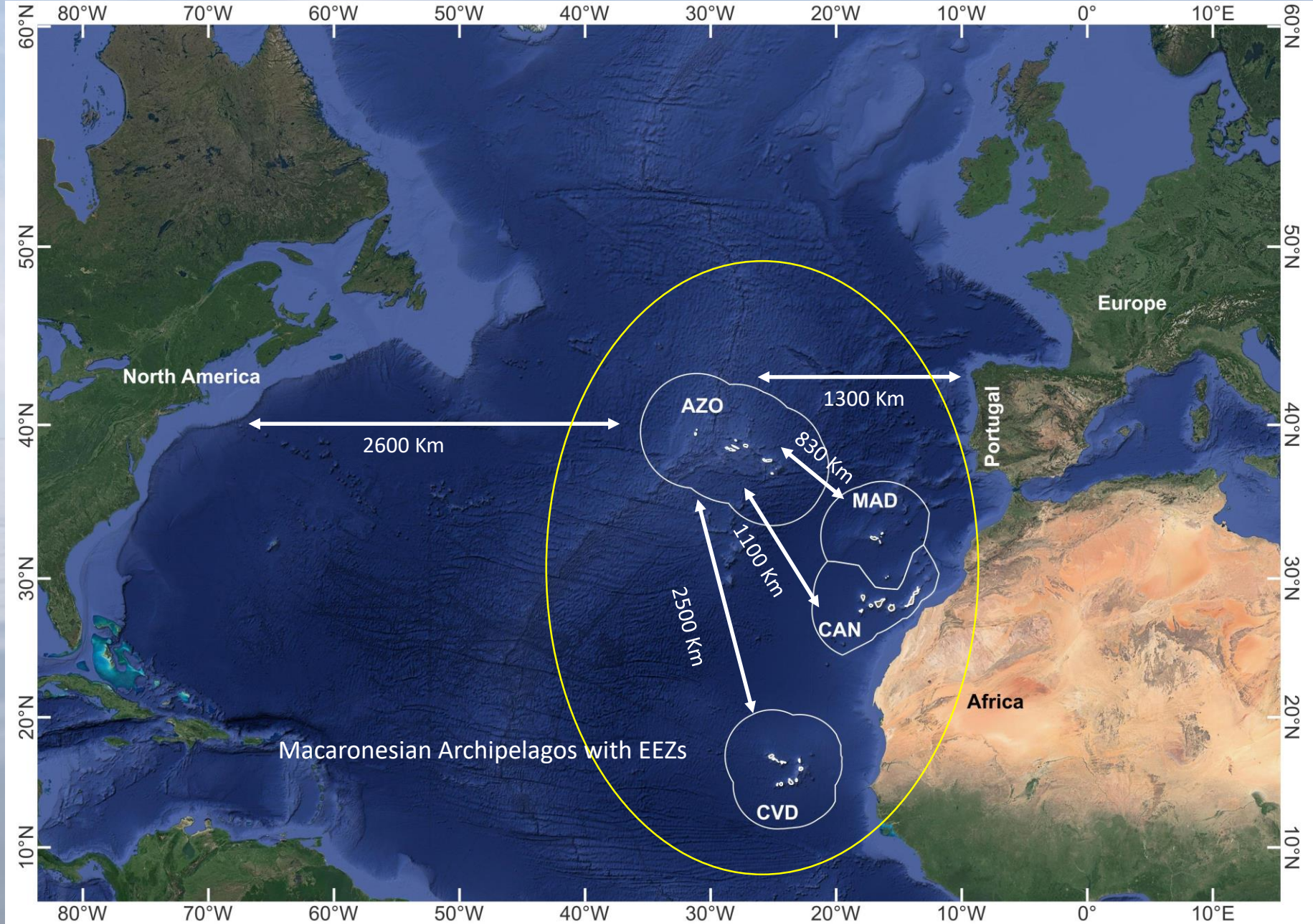
Responses:

- Migration
- Behavioural adjustments
- Vertical movement
- Physiological adaptations



Azores: Locations & proximities

Remote North Atlantic archipelago



Azores' species

- 534 marine species: 63 Chondrichthyes & 491 Actinopterygii (last update)
- 20 % above 200m
- Predominantly Reef-associated



Biodiversity Data Journal 9: e62812
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Data Paper

Updated checklist of Azores Actinopterygii (Gnathostomata: Osteichthyes)

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Data Paper

Updated checklist of Azores Chondrichthyes (Vertebrata: Gnathostomata)

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Azores' species - recent new records

ACTA ICHTHYOLOGICA ET PISCATORIA (2017) 47 (3): 259–263

DOI: 10.3750/AIEP/02238

FIRST RECORD OF THE CUBERA SNAPPER, *LUTJANUS CYANOPTERUS* (ACTINOPTERYGII: PERCIFORMES: LUTJANIDAE), FROM THE AZORES (NE ATLANTIC) AND POSSIBLE RANGE EXTENSION FOR THE EAST ATLANTIC

Pedro A. RIBEIRO^{1,2}, João M. GONÇALVES^{1,2}, Govindraj CHAVAN^{1,2}, Ronald FRICKE³, Antonio M. GARCÍA-MEDEROS⁴, Víctor M. TUSET⁵, and João P. BARREIROS^{6*}



Tropical west Atlantic affinity

Arquipelago - Life and Marine Sciences

ISSN: 0873-4704

SHORT COMMUNICATION

Life goes on: *Oblada melanura* (Linnaeus, 1758) (Perciformes, Sparidae), the saddled seabream, expands its distribution range westwards to the Azores

JOSÉ M.N. AZEVEDO AND RAUL M.A. NETO



Azevedo, José M.N. and R.M.A. Neto 2020. Life goes on: *Oblada melanura* (Linnaeus, 1758) (Perciformes, Sparidae), the saddled seabream, expands its distribution range westwards to the Azores. Arquipelago. Life and Marine Sciences 37: 65 - 69.



Mediterranean affinity

Barcelos & Barreiros (2023). Azores' Fish Diversity - projections derived from climate changes.



Azores' species – what future?...on *RCP 4.5 & 8.5 scenarios

- Poleward migrations – seeking suitable temperatures....?
- Amphiatlantic dispersion
- Going deeper – vertical migrations for cold waters
- Episodical populations' diminishment

Modelling using five endemic of Macaronesian to:

- a) Understand the environmental and physiological limitations
- b) Predict potential migrations and / or extinctions
- c) Predict possible new successful occurrences, its origins and invasive potential
- d) Mitigation and adaptation procedures

* Representative Concentration Pathway

Barcelos & Barreiros (2023). Azores' Fish Diversity - projections derived from climate changes.



Thank you!

Questions?

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