Navigating the governance discourse of the Southern Ocean can inform climate-smart ocean planning

... and carry lessons elsewhere, towards a more resilient Global Ocean.

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NAVIGATING THE GOVERNANCE DISCOURSE OF THE SOUTHERN OCEAN TO INFORM CLIMATE-SMART OCEAN PLANNING

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| BACKGROUND

Antarctic waters are managed under a rather unique governance system that not only brings together a wide range of nations but does so while placing environmental protection at its core.

Representing both a key element in global climate regulation and a hotspot for climate-related impacts, it is imperative that ocean planning and management in the Antarctic region be “climate-smart” – something still rarely developed worldwide.

| GOALS

We aim to analyze the Southern Ocean’s governance landscape to derive insights on what may facilitate or constrain climate-smart ocean planning in the region.

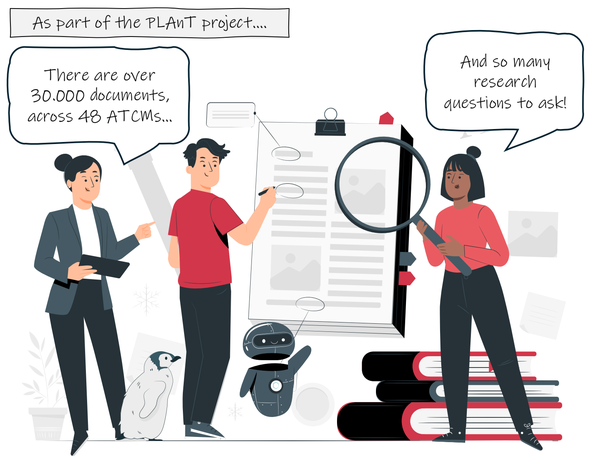
Further, we hope to derive lessons for international cooperation in marine governance frameworks across the globe – such as those pertaining to areas beyond national jurisdiction.

| GENERAL OVERVIEW

Several reseach questions across distinct issues relevant to ocean planning are currently under consideration. But, in a nutchell, we look into...

1. ATCM parties engage relevant issues
2. Longitudinal trends and historical context
3. Saliency and relationships between issues

… to understand implicit **priorities, challenges, and consequences** for conservation and sustainability and shed light on structural **constraints and windows of opportunity for climate-smart ocean planning in an established international governance system.**



| METHODS SNAPSHOT

Drawing on over sixty years of official ATCMs documentation (provided by the Secretariat for the Antarctic Treaty), we use text mining, natural language processing, and manual qualitative analysis to systematically analyze (R environment) discursive patterns surrounding ocean planning, conservation, climate change, ocean use, and other relevant topics. Specific approaches may differ depending on the research question under consideration.

| SOME EXAMPLES

| How do different **parties engage** with relevant **ocean planning** issues, such as **tourism**, **area protection** and **climate change**?

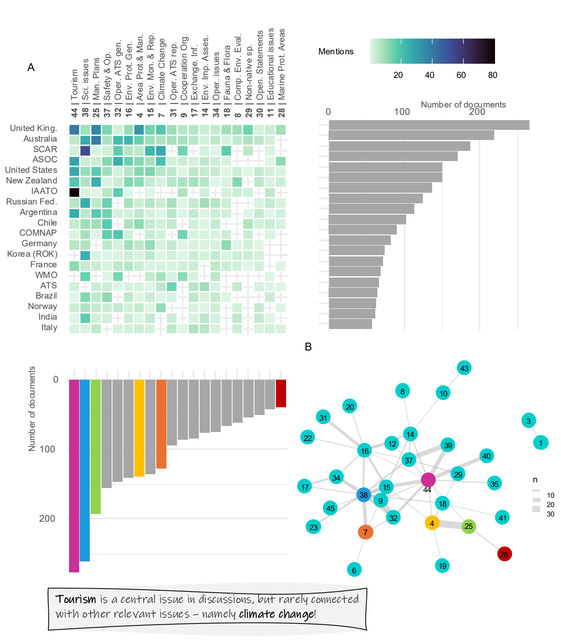


Figure 1 | **(A)** Heatmap and bar plots highlighting the number of ATCM documents per topic (vertically) and submitting party (horizontally). **(B)** Co-occurrence network plot for topic mentions across all ATCM documents.

| How is **Blue Justice**, in its multiple dimensions, **framed** within the ATCMs? How do justice discussions interplay with **ocean planning** issues?

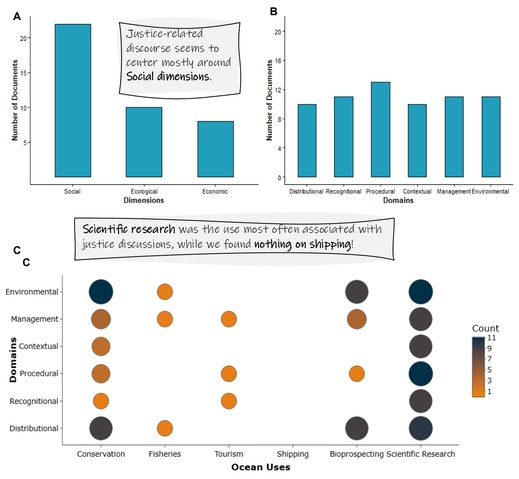


Figure 2 | **(A)** Distribution of analysed documents across the three blue justice dimensions (social, ecological and economic), with the social dimension most frequently represented. **(B)** Distribution of analysed documents across the six justice and equity domains, with procedural justice being the most frequently identified domain. Documents may be assigned to multiple representative categories, dimensions and domains. **(C)** Distribution of justice and equity domains across ocean uses within the ATCM documents. Documents may be assigned to multiple ocean uses and justice and equity domains.

| Does the **Ecology of the ATCM discourse** reflect the underlying ecosystem and **conservation priorities**?

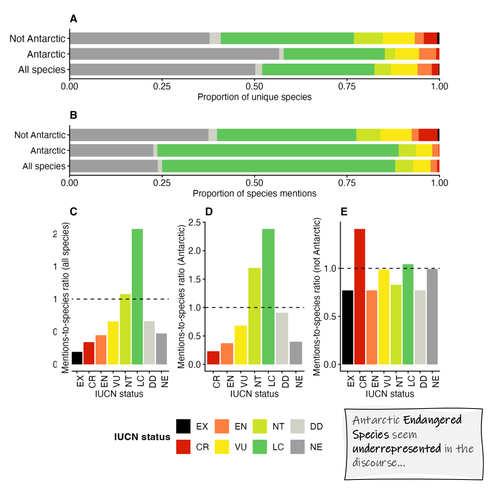


Figure 3 | Representation of species across IUCN Red List categories in ATCM discourse. Proportional composition of unique species **(A)** and of distinct species mentions (document–species co-occurrences) **(B)** for all species mentioned, both Antarctic and not Antarctic [according to the Register of Antarctic Marine Species (RAMS)]. **(C–E)** Mentions-to-species ratios for each IUCN category for **(C)** all species; values > 1 (dashed line) indicate disproportionate policy attention relative to within category richness.

To learn more about our results on **Blue Justice in the ATCMs**, check out the digital poster 1433!

And check the digital poster 1451, to learn more about the **Ecology of ATCM discourse**!

With the **Antarctic Treaty System** representing a **leading model of international governance**, this exercise provides valuable insights for the global ocean, namely for the **BBNJ Agreement***.

*United Nations Agreement on the Conservation and Sustainable Use of Marine Biological Diversity of Areas beyond National Jurisdiction

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