

Top Story Living with Oceans – Local Marine Stewardship and Ocean Defenders + **Event** Ocean Equity + **Collaboration** Global Sustainability Scholars at HIFMB + **Personalia** Prof. Iliana Baums + **Research** Top Recent Publications + **Editorial** View from Northwest #13 + **Fun Fact**



Photo © Paula Sartizabal

TOP STORY

Living with Oceans – Local Marine Stewardship and Ocean Defenders

In the past decades discussions on ‘environmental defenders’ have reached international forums with growing concerns over the intensifying violence experienced at the frontlines of environmental protection and climate change. Indeed, in 2012, Global Witness started releasing a series of annual reports on the killings and human rights abuses faced by ‘land and environmental defenders’, aimed at raising awareness and linking the violence to places and industries.

Almost every year has been reported as the worst year on record, with Colombia, Mexico, Philippines, and Brazil emerging as the most violent places on Earth for environmental and human rights activists. However, the violence experienced by environmental defenders remains largely underreported with current accounts only offering a land-locked and partial picture of the patterns of repression. Importantly, not all environmental activists are subjected to the same forms of violence, which is primarily targeting historically marginalised Indigenous, Black, and ethnically diverse groups.

The United Nations Human Rights Council recognised the importance of environmental defenders in 2019, defining them as: “Individuals and groups who, in their personal or professional capacity and in peaceful manner strive to protect and promote human rights relating to the environment, including water, air, land, flora and fauna”. Questions including who counts as an environmental defender and what does this mean; where do defenders live, what are they defending and how; and who is responsible for patterns of repression and violence, have been the focus of growing research. →

»In critically engaging with the complex ways in which violence is experienced at sea and justice is being defined and negotiated by ocean defenders, we seek to contribute to more socially just and inclusive approaches to marine governance. «

Paula Satizábal, Marine Governance Group

→ The absence of oceans in discussions on environmental defenders is the focus of a new perspective published in *npj Ocean Sustainability*. There are multiple ways in which coastal dwellers are working to protect our oceans, mobilising within and beyond the coastline, while being subjected to increasing criminalisation, threats, and violent assaults. Locally driven 'marine stewardship efforts' encompass all the "actions to sustainably use, manage, protect, and/or restore the marine and coastal environment", which are often the continuation of historical customary practices shaped by deep social connections to places at sea.

These actions open space to listen, learn, and imagine different ways of living with oceans. 'Ocean defenders' are "individuals and groups who defend and protect the marine and coastal environment and the human rights of coastal populations against existential threats."

The perspective stresses the importance of studying the challenges faced by ocean defenders and local marine stewardship efforts, offering the following recommendations:

- Raise the profile of local marine stewardship and ocean defenders in international discussions of environmental defenders and global policy fora. This work should be done in collaboration and solidarity with those individuals and groups involved in grassroots initiatives and who are actively challenging colonial and exclusionary forms of marine conservation, uses, and extraction.
- Recognise and provide support for local marine stewardship efforts, emphasising the importance of marine and coastal tenure rights, as well as empowering community-driven initiatives, particularly those led by historically marginalised groups, including small-scale fishers, Indigenous peoples, and women.



Shellfish Harvest in the Gulf of Tribugá (Colombia);

Photo: © Paula Satizábal

- Protect ocean defenders and increase accountability, addressing the root causes of socio-environmental conflicts and advocating for greater protection for ocean defenders from dispossession, criminalisation, and repression. Political and legal actions are needed to increase accountability for human rights violations and abuses against ocean defenders, coastal communities, and ocean spaces.

- Employ marine social science to understand local marine stewardship efforts, studying and learning from historical place-based ways in which oceans are protected, as well as

analysing the violence and struggles faced by ocean defenders. There is a need for critically examining the economic and political forces driving exclusionary and destructive ocean economies and human rights abuses. This work requires serious ethical considerations to ensure that research processes and outcomes support rather

than increase the risks faced by ocean defenders.

- Mainstream local marine stewardship in and through international policy. This highlights the importance of listening and securing the active participation of ocean defenders in policy decision-making arenas. Global policy initiatives have a role to play in setting up financing mechanisms to support the financial independence of grassroots initiatives and securing the participation of ocean defenders in international fora.

In critically engaging with the complex ways in which violence is experienced at sea and justice is being defined and negotiated by ocean defenders, the recommendations offered in this perspective seek to contribute to more socially just and inclusive approaches to marine governance.

Bennett, N.J., Le Billon, P., Belhabib, D., and Satizábal, P. Local marine stewardship and ocean defenders. *npj Ocean Sustainability* 1, 3 (2022). doi.org/10.1038/s44183-022-00002-6

Global Witness reports available at: www.globalwitness.org/en/campaigns/environmental-activists/

EVENT

Ocean Equity

The concepts of intragenerational equity (i.e., equitable burden-sharing between states) and intergenerational equity (i.e., equitable burden-sharing between different generations) feature prominently in discussions on climate change, pollution, extinction, and planetary habitability.

As an UN Ocean Decade event, the conference on Equity Perspectives on Global Ocean Law and Governance strived to push these concepts into the sea. The interdisciplinary event was held on September 7th in the historical Warburg-Haus in Hamburg. Legal experts discussed intra- and intergenerational ocean equity with environmental humanities scholars, anthropologists debated common heritage principles and rights of nature with policy practitioners and the burdens of plastic pollution were examined through the lens of physical sciences and public international law. As the dire consequences of systemic neglect of the ocean temperatures, chemistry, and

extraction have been made increasingly clear, myriad industries are building futures that recreate the status quo regarding overextraction and environmental injustices. On account of this, and the latency between understanding and action, bringing together a broad group of ocean thinkers is important to develop speculative dialogues of ocean futures that reimagine our social relations with ocean natures. This event was funded by the Helmholtz Institute for Functional Marine Biodiversity at the University of Oldenburg and the Academy of Sciences in Hamburg (AWH).

COLLABORATION

Global Sustainability Scholars at HIFMB

Over the summer of 2022, two outstanding students from the prestigious Global Sustainability Scholars (GSS) programme, Valeria Menendez and Marilyn Smith, assisted Jan-Claas Dajka with ongoing work on the Belmont funded MARISCO project.

Valeria and Marilyn immersed themselves in crafting a survey directed at stakeholders of the Wadden Sea, the southernmost part of the North Sea. We are currently finalising the survey and ask the stakeholders from governmental management organisations how Nature's Contributions to People (NCPs) derived from the Wadden Sea have changed with biodiversity change over time.

Specifically, we ask the stakeholders how they think biodiversity change of various organism groups (phytoplankton, fish, birds and macrozoobenthos) has changed with regards to three Essential Biodiversity Variables (EBVs): population, traits and biomass. For example, how has changing phytoplankton biomass over the last few decades affected their ability to regulate the climate? In total, we ask the stakeholders about how 18 NCPs have changed for the four organism groups.



Photo © HIFMB

Valeria's and Marilyn's time in Northern Germany was rounded off with a field trip to the Wadden Sea island Spiekeroog but their vital work with the MARISCO project is ongoing.

We will send the survey out to the stakeholders in October 2022, in both English and German. The survey will be a vital continuation from previous, already accepted work (Dajka et al. 2022, Conservation Science and Practice). In this study, we already built an understanding of how various environmental variables have affected biodiversity change of our four organism groups. Our survey results will connect the dots here and we aim to give a full picture of how environmental change affects biodiversity change and what this means for people. We expect to analyse the survey results by the end of 2022.

PERSONALIA

Prof. Iliana Baums

Evolutionary ecologist and coral expert Dr. Iliana Baums has been appointed as professor of Marine Conservation, making the cloverleaf of four HIFMB professorships perfect.



Photo © UJOL / Daniel Schmidt

Iliana studied biology in Tübingen, Bremen and Miami before earning her doctorate at the University of Miami in 2004. She then worked as a postdoctoral researcher in Miami and at the University of Hawaii. In 2006, Iliana continued her scientific career at Pennsylvania State University, first as an Assistant Professor and since 2019 as Professor of Molecular Ecology.

She spent one year as a Humboldt fellow at the Max Planck Institute for Marine Microbiology in Bremen and two research stays as fellow to the Hanse-Wissenschafts-Kolleg, Institute for Advanced Study in Delmenhorst.

Iliana's main research focus is genetics and coral reef restoration. She studies how corals and their symbionts acclimate and adapt to rapidly changing environments bridging the fields of ecology, evolution and conservation genetics.

At HIFMB, she will continue to explore the question of how to maximize the future adaptive potential of marine ecosystems. Her goal is to translate results of fundamental research into concrete measures for marine protection in cooperation with different stakeholders and practitioner groups of marine nature conservation.

RESEARCH

Top Recent Publications

Hildebrand T., Osterholz H., Bunse C., Grotheer H., **Dittmar T. & Schupp P. J.** (2022). Transformation of dissolved organic matter by two Indo-Pacific sponges. *Limnology and Oceanography*, n/a. doi.org/10.1002/lno.12214

Busch K., Slaby B. M., Bach W., Boetius A., ... **Franke A., ... Schupp, P. J. ... & Hentschel, U.** (2022). Biodiversity, environmental drivers, and sustainability of the global deep-sea sponge microbiome. *Nature Communications*, 13, 5160. doi.org/10.1038/s41467-022-32684-4

Dajka J.-C., di Carvalho J. A., Ryabov A., Scheiffarth G., Roenn L., Dekker R., **Peters K. ... & Hillebrand H.** (2022). Modeling drivers of biodiversity change emphasizes the need for multivariate assessments and rescaled targeting for management. *Conservation and Practice*, e12794. doi.org/10.1111/csp2.12794

de Lacerda L. D., Ferreira A. C., Ward R. & **Borges R.** (2022). Mangroves in the Anthropocene: From local change to global challenge. *Frontiers in Forests and Global Change*, 5, 993409. doi.org/10.3389/ffgc.2022.993409

Gross T. & Barth L. (2022). Network Robustness Revisited. *Frontiers in Physics*, 10, 823564. doi.org/10.3389/fphy.2022.823564

Roik A., Reverter M. & Pogoreutz C. (2022). A roadmap to understanding diversity and function of coral reef-associated fungi. *FEMS Microbiology Reviews*, fuac028. doi.org/10.1093/femsre/fuac028

+ More on google scholar: scholar.google.de/citations?user=uCoLTyAAAAAJ&hl=en

VIEW FROM NORTHWEST #13

Diversity is an Investment in Excellence



Strategies to promote underrepresented groups in academia are often met with the connotation that this comes at the expense of striving for excellence. This connotation becomes visible in direct comments about hiring processes („excellence should be our only criterion“) but also in disguise of superficially positive statements (“this person would also have made it without any equal opportunity measure“). It seems this resentment is still strong despite the efforts made to improve the transparency of recruitment processes and deal with (un-)conscious biases. It is time to abandon this negative connotation, and here are three reasons why.

The first one is our inability to measure excellence objectively. The multidimensional aspects that contribute to someone being an excellent scientist cannot be put on objective and comparative scales. There are of course tons of metrics, but they do not answer the central questions: How much is co-authorship on a high impact paper worth in relation to a single author paper in a less prestigious journal? How is grant money evaluated against publishing and how does successful mentoring ECRs weigh in here? This is a simple reflection of the fact that excellence comes in many fashions, and almost nobody is able to master them all equally well. In fact, the scientists I admire most are excellent in very different ways, some write beautiful articles, others have a sincere deepness of thought, others are fantastic teachers.

Second, even if there were ways to compare these dimensions of excellence, we all know that being your best self depends on many externalities. Underrepresentation is not a statistical issue but it affects performance and thus the extent of leveraging the potential. You do not even have to do research to find that minorities often have to spend more time on group efforts and thus have less time to devote to their individual careers. One example: There is a minimum women quota for search committees, but as long as this quota is not achieved in the staff, women will sit in more committees than men. It is a little bit like watching a 100m sprint championship while pretending not to see that only some of the runners have to run uphill.

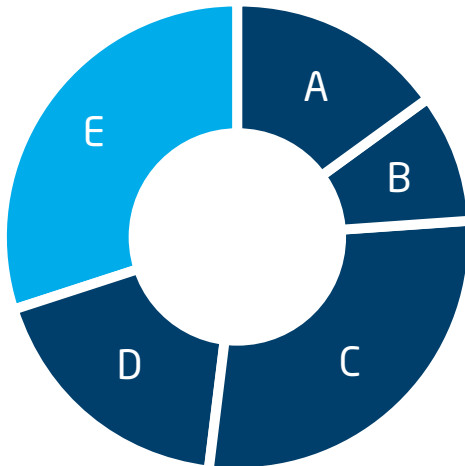
The third reason for abandoning the dichotomy between excellence and minority support is that it values team excellence less than individual excellence. Science still plays the individual genius game (just hire the best brains and everything will be fine) but that is an overcome narrative. Current research topics and societal demands from science require group work, often in inter- and transdisciplinary groups. There is ample evidence that diverse teams do better in such contexts independent of the measure of productivity used. Investing into team diversity is an investment in team excellence.

Sincerely, Helmut Hillebrand
Director – Professor of Pelagic Ecology
helmut.hillebrand@hifmb.de

HIFMB TEAM

Fun Fact*

What are your favorite hours of the day to work?



- A 15 % Between 25 and 27 o'clock.
- B 9 % Owl is my second name, you sleep, I work.
- C 28 % Eyes open, coffee and off you go. All the sooner the end of the workday calls.
- D 18 % I'm a workhorse, I always work everywhere.
- E 30 % 9 to 5 - or longer, depending on how long the lunch break was.

* answered by HIFMB employees

PUBLISHER

Helmholtz Institute for Functional Marine Biodiversity at the University of Oldenburg (HIFMB)

Ammerländer Heerstraße 231 / 26129 Oldenburg / Germany / T +49 471 4831 2546 / info@hifmb.de

Twitter @HIFMB_OL / V.i.S.d.P.: Ruth Krause / Legal Notice: hifmb.de/legal-notice/

Sign up for our online newsletter: hifmb.de/newsletter

hifmb.de