

HIFMB NEWS #04/20

Top Story: A Better Future for Oceans + HIFMB Inside: So, Here We Go: The First PostDoc Cohort Starts Moving On + HIFMB Inside: HIFMB Launches New Website + Editorial: View from Northwest #6 + HIFMB Team Fun Fact

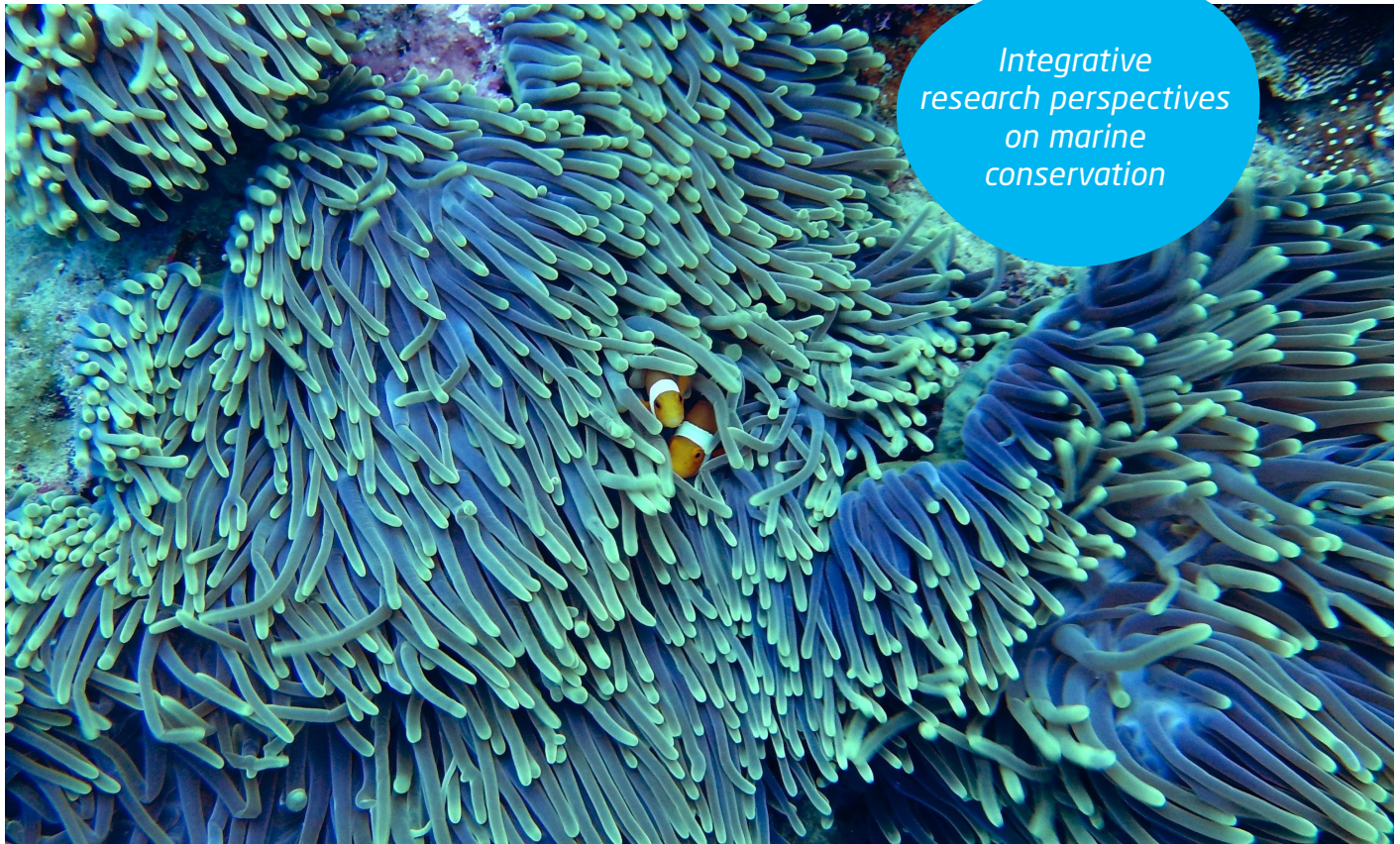


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TOP STORY

A Better Future for Oceans

Marine conservation research is at a watershed moment. Human activities are impacting coastal and marine ecosystems to a greater degree and at faster rates than ever before in human history. Understanding these impacts and developing effective marine conservation strategies to address them requires leveraging all the tools of ecology as well as other natural and social science disciplines. Observation, experiments, models, meta-analysis and other synthetic approaches, as well as interdisciplinary forms of inquiry, are essential.

To join forces and discuss state of the art, marine conservation researchers from around the world gathered in Oldenburg in June 2019, as part of the 2nd Symposium on Functional Marine Biodiversity hosted by HIFMB (See Newsletter #1/2019 for a report of the meeting).

There were many outstanding results of this symposium, including the new theme issue in Philosophical Transactions of the Royal Society B:

'Integrative research perspectives on marine conservation.'

Compiled and edited by Helmut Hillebrand, Ute Jacob and Heather Leslie, the theme issue brought together 60 authors working in 12 countries. The theme issue focuses on the knowledge and scientific tools needed to ensure a better future for ocean ecosystems and the many species, including humans, that depend on our marine world. →



photo © HIFMB

Helmut Hillebrand (HIFMB) and Heather Leslie (University of Maine) on the beach at Spiekeroog Island, "We should organize a Special Issue"

→ The Introduction and 16 Articles in the theme issue showcase the diversity of methods marine conservation scientists are using around the globe to understand coastal and ocean ecosystem dynamics. They illuminate not only the complexity of these highly valued and threatened natural systems, but also the diverse ways that people – as part of coastal and marine ecological systems – can contribute to their conservation, restoration and sustainability.

We have organized the theme issue into four sections that reflect areas of future scientific development.

In the first section, entitled 'From data to information', novel approaches and advances in assessing marine biodiversity trends are presented. The second section 'From traits to function' asks how changes in temporal and spatial biodiversity pattern affect the processes characterizing marine ecosystems. The third section 'From theory to prediction', in which we feature different types of modelling approaches and predictive frameworks, underpins the ideas and perspectives presented in section one and two. In the final section 'Nature and people', we approach marine conservation as a socio-ecological management issue.

This theme issue represents an unprecedented effort to address a fundamental problem: How do we manage marine ecosystems to protect both biodiversity and the ecosystem services on which society relies? A major challenge of the current century is to ensure the sustainability of ecosystem services, while also managing our growing human population and the climate crisis. We need to 'bend the curve' of marine biodiversity loss to ensure human well-being and healthy oceans. People and nature are highly interconnected; you can't have one without the other. So please have a read!

+ The Editors

Helmut Hillebrand, Plankton Ecologist and Director of HIFMB

Ute Jacob, Marine Ecologist and responsible for the science-policy interface at HIFMB

Heather M. Leslie, Director of the Darling Marine Center and Associate Professor at the School of Marine Sciences, University of Maine

+ Connect to Marine Conservation

Theme Issue: <https://royalsocietypublishing.org/toc/rstb/2020/375/1814>

Twitter: @HIFMB_OL, @RSocPublishing, #PhilTransB

HIFMB contributions to Philosophical Transactions of the Royal Society B: 'Integrative research perspectives on marine conservation.'

Rishworth, G.M., Adams, J.B., Bird, M.S., Carrasco, N.K., Dänhardt, A., Dannheim, J., Lemley, D.A., Pistorius, P.A., Scheiffarth, G. and **Hillebrand, H.** (2020). Cross-continental analysis of coastal biodiversity change. *Philosophical Transactions of the Royal Society B*, 375(1814), 20190452.

+ Link: <https://doi.org/10.1098/rstb.2019.0452>

Laakmann, S., Blanco-Bercial, L. and Cornils, A. (2020). The crossover from microscopy to genes in marine diversity: from species to assemblages in marine pelagic copepods. *Philosophical Transactions of the Royal Society B*, 375(1814), 20190446.

+ Link: <https://doi.org/10.1098/rstb.2019.0446>

Peters, K., 2020. The territories of governance: unpacking the ontologies and geophilosophies of fixed to flexible ocean management, and beyond. *Philosophical Transactions of the Royal Society B*, 375(1814), 20190458.

+ Link: <https://doi.org/10.1098/rstb.2019.0458>

Jacob, U., Beckerman, A., Antonijevic, M., Dee, L.E., Eklöf, A., Possingham, H.P., Thompson, R., Webb, T.J. and Halpern, B.S. (2020). Marine conservation: towards a multi-layered network approach. *Philosophical Transactions of the Royal Society B*, 375(1814), 20190459.

+ Link: <https://doi.org/10.1098/rstb.2019.0459>

So, Here We Go: The First PostDoc Cohort Starts Moving On

Lab experiments, mesocosm undertakings, field work, research cruises, new collaborations, postdoc journal clubs, coffee breaks and Friday cakes, workshops, New Year receptions, conferences, HIFMB retreat...

The last three years were filled with exciting projects and opportunities. We were part of the first postdoc cohort at the newly founded institute and just recently turned from office mates to colleagues with home office distance. From here, we will continue our scientific journey with new skills, extended networks, new friends and new perspectives. The HIFMB, or so called "child" of the University of Oldenburg and the AWI, has proven to be a place of creativity and inspired strongly our future scientific path.

One highlight was the interdisciplinary exchange in our small postdoc cohort when we started. Each of us worked independently in our own project with study organisms, systems and methods and had to find a "common" language to communicate across disciplines. From microbes to whales, models, physiology, economics, genes, ecosystems... you know what we are getting at. It was challenging, but provided us with new expertise and viewpoints that enriched our science communication and work. This interdisciplinary dialogue

has clearly helped to plan research projects from a different perspective to provide better links to other subjects. No more Science in a Nutshell, but thinking about how we jointly contribute to the big picture. Now that the institute is growing in size, we hope that the lively exchange between disciplines will continue for the next generations of postdocs, students and seniors. We found new networks of experts and colleagues among ourselves, the university and AWI, bridging institutions. None of this would have been possible without the help and countless efforts of the HIFMB administration, management and directorate. It was amazing how you found a solution for all our problems and always had a friendly attitude and an open ear.

For the future, we wish the institute, all researchers and staff fun, productive, and exciting times ahead. We will observe you creating great science and jointly disentangling some of the exciting puzzles and mysteries the creatures of the sea – thus far – keep secret.

Office mates at sea:
Carina Bunse and
Sylke Wohlrab



hifmb.de
in a new
look



HIFMB INSIDE

HIFMB Launches New Website in February

Did you know that fossil shells of the bivalve *Arctica islandica* inform us about sea water temperature one million years ago and that shade sails (yes, the ones around hotel pools or your neighbour's patio) can be used to assist coral reef recovery?

If not, it will be worth taking a look at the new HIFMB website in February 2021. There you will find interesting and surprising facts about our research, and the names behind this research will be given a face. The blog gives an insight into everyday research in the lab, at the desk and on field trips.

Anyone interested in more details can learn about our mission, the foci of HIFMB's three research areas and about current international cooperation projects, in which new insights are generated to protect marine biodiversity.

The relaunched website will be online on 15 February 2021: www.hifmb.de

RESEARCH

Top Recent Publications

Meyer, B., Atkinson, A., Bernard, K. S., Brierley, A. S., Driscoll, R., Hill, S. L., ... & Rombolá, E. (2020). Successful ecosystem-based management of Antarctic krill should address uncertainties in krill recruitment, behaviour and ecological adaptation. *Communications Earth & Environment*, 1(1), 1-12.

Filun, D., Thomisch, K., Boebel, O., **Brey, T.**, Širović, A., Spiesecke, S., & **Van Opzeeland, I.** (2020). Frozen verses: Antarctic minke whales (*Balaenoptera bonaerensis*) call predominantly during austral winter. *Royal Society Open Science*, 7(10), 192112.

Fahimipour, A. K., & **Gross, T.** (2020). Mapping the bacterial metabolic niche space. *Nature communications*, 11(1), 1-8.

Jamieson-Lane, A., & **Blasius, B.** (2020). Calculation of epidemic arrival time distributions using branching processes. *Physical Review E*, 102(4), 042301.

Mentges, A., Blowes, S. A., **Hodapp, D.**, **Hillebrand, H.**, & Chase, J. M. (2020). Effects of site-selection bias on estimates of biodiversity change. *Conservation Biology*.

Steen, A. D., Kusch, S., Abdulla, H. A., Cakić, N., Coffinet, S., **Dittmar, T.**, ... & Koch, B. P. (2020). Analytical and Computational Advances, Opportunities, and Challenges in Marine Organic Biogeochemistry in an Era of "Omics". *Frontiers in Marine Science*, 7(718).

+ More on google scholar:
bit.ly/HIFMB-publications

VIEW FROM NORTHWEST #6

Of Dungeons and Unicorns



Dear readers, I am a late addict to Twitter (@hillebr), which turns out to be much more fun than anticipated. My bubble in the social media (Twitter being the only one I use) is #ScienceTwitter, with little tiptoeing in other interests such as art and jazz. I am actually positively surprised by the amount of information I get from colleagues (my handling of statistics in R has profited strongly from approaches suggested in tweets), the level of mutual support in discussion processes, and the discussions of science. I am remotely participating in a synthesis group, which originated from discussing an exciting new paper on fluctuations with interested tweeps. I am fully aware of the amount of trolling and hate that occurs on this platform (as in other social media) and some political tweeting I observe actually evokes the immediate question whether they (names shall not be mentioned) and I inhabit the same universe.

Obviously, advertisements for new positions, projects and publications make a large portion of #ScienceTwitter, but it also brings in a wide range of perspectives on a wide range of topics. One of the discussions I find important is about science as a job. The views I see on Twitter cover the extremes from dungeon to unicorn job (the latter term copied from my dear colleague @mixotrophe). The dungeon part is about job insecurity, soft money jobs, toxic levels of pressure and expectations leading to anxiety and imposter syndromes. The unicorn part often stresses the privilege to do curiosity driven research, to plan your own projects, and to interact with people from all over the world. I am leaning towards the unicorn side, but do not dare to write that without a sequence of “althoughs” regarding the dwindling ratio of science: administration, the decline of time for thinking (instead of doing), and the multitasking of simultaneous minijobs. Still, the moment I first plot new data, get the results of a new statistical test or put down a project idea does not stop to thrill me.

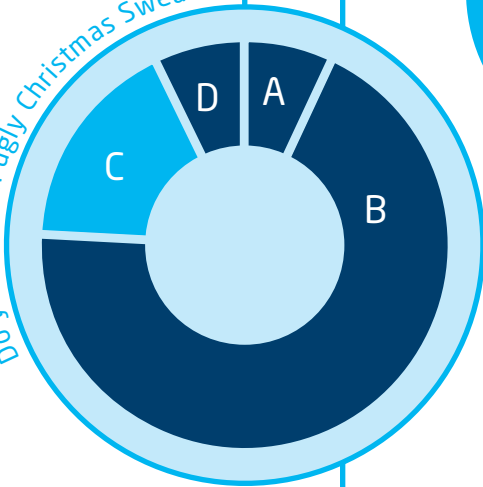
At the same time, I have no difficulties seeing where the dungeon extreme comes from and why utterly talented persons leave academia. Social media cannot replace job security and project funding, but I see some healthy discussions about imposter syndromes and the need to #normalizefailure and to accept that #rejectionisthenorm. Tweets about rejections of manuscripts or applications and about the number of trials needed to run an analysis or experiment potentially help to reduce expectation on success rates. In the real world this also extends to acknowledging of “not knowing” in discussion rounds and accepting that learning never stops. (In these respect, from 4 grant applications submitted this year 1 has been declined, 1 needs a complete revision, and 2 are undecided and I just as of this morning realized that my mastering of linear mixed models is much less complete than I thought). Creating an atmosphere of open discussion online and in situ hopefully creates more unicorns and closes some dungeons in science.

Not to forget: [@HIFMB_OL is the institute's twitter handle.](#)

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



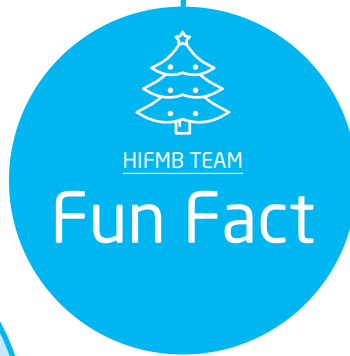
Do you own an ugly Christmas Sweater?



- A 7% Yes
- B 69% No
- C 17% Maybe (beauty lies in the eye of the beholder)
- D 7% Other

Yes, but I have more than 1... I promise to fashion them in December if we are still allowed in the institute!

No, but might go and get one this year



HIFMB's Christmas Playlist

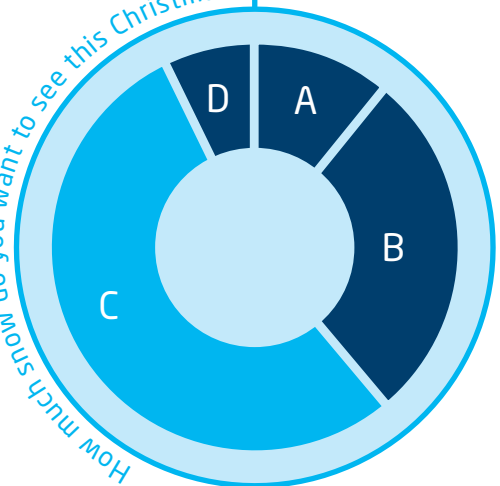
- All I Want For Christmas Is You
- Last Christmas
- The Little Drummer Boy
- Driving Home For Christmas
- Have Yourself a Merry Little Christmas
- Jingle Bells
- Silent night, holy night
- Winter Wonderland
- Do you hear what I hear
- Highway to Hell
- Wonderful Dream
- Gummibaum (Maybebop)
- Fairytale of New York
- Stop the cavalry



HIFMB's Christmas TV Programme

- Home Alone
- The Grinch
- A Charlie Brown Christmas
- Love Actually
- Three Gifts For Cinderella (Drei Haselnüsse für Aschenbrödel)
- National Lampoon's Christmas Vacation (Schöne Bescherung)
- Miracle on 34th Street (Das Wunder von Manhattan)
- Little Lord Fauntleroy (Der kleine Lord)
- The Muppets: A Christmas Carol
- Merry Christmas, Mr. Bean
- Die Hard

How much snow do you want to see this Christmas?



- A 11% None
- B 28% 1-2 inches
- C 54% Blizzard conditions
- D 7% Other

PUBLISHER

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