



# SARChI

## MARINE ECOLOGY & FISHERIES

### NEWSLETTER

A healthy and happy new year 2021 to you all! We, too, are relieved to leave 2020 behind us and start 2021 with reviving our newsletter. Despite the havoc the pandemic (and some other curve balls) wreaked last year, we're celebrating successes and would like to share some of our highlights with you.



#### Updated EwE model of the southern Benguela

Over the past couple of years, Lynne has spent much time and effort to update her EwE model of the southern Benguela, and to re-fit it with improved time series. The resulting paper has been published in *Frontiers in Marine Science*, and is the basis for new forays into spatial modelling using EcoSpace.

#### Towards indices of social vulnerability

Astrid and Louise are very excited to be collaborating with NOAA colleagues Lisa Colburn and Trish Clay to create social vulnerability indices for coastal communities in our Western Cape province, [following their approach](#), which contributes to the US integrated ecosystem assessments and is also taken up in ICES. We've got a first prototype set of indicators together and expect that the second prototype will yield a publication.

Oh, and Louise rounded a sharp corner! All the very best for the next decade!!



#### POLICY FORUM

##### BIODIVERSITY

### Set ambitious goals for biodiversity and sustainability

Multiple, coordinated goals and holistic actions are critical

By Sandra Díaz, Noelia Zafra-Calvo, Andy Purvis, Peter H. Verburg, David Obura, Paul Leadley, Rebecca Chaplin-Kramer, Luc De Meester, Ehsan Dulloo, Berta Martín-López, M. Rebecca Shaw, Piero Visconti, Wendy Broadgate, Michael W. Bruford, Neil D. Burgess, Jeannine Cavender-Bares, Fabrice DeClerck, José María Fernández-Palacios, Lucas A. Garibaldi, Samantha L. L. Hill, Forest Isbell, Colin K. Khoury, Cornelia B. Krug, Jianguo Liu, Martine Maron, Philip J. K. McGowan, Henrique M. Pereira, Victoria Reyes-García, Juan Rocha, Carlo Rondinini, Lynne Shannon, Yünne-Jai Shin, Paul V. R. Snelgrove, Eva M. Spehn, Bernardo Strassburg, Suneetha M. Subramanian, Joshua J. Tewksbury, James E. M. Watson, Amy E. Zanne

### Global trends in nature's contributions to people

Kate A. Brauman<sup>a</sup>, Lucas A. Garibaldi<sup>b,c</sup>, Stephen Polasky<sup>d,e,1</sup>, Yildiz Aumeeruddy-Thomas<sup>f</sup>, Pedro H. S. Brancalion<sup>g</sup>, Fabrice DeClerck<sup>h,i</sup>, Ute Jacob<sup>j</sup>, Matias Enrique Mastrangelo<sup>k</sup>, Nsalambi V. Nkongolo<sup>l,m</sup>, Hannes Palang<sup>n</sup>, Néstor Pérez-Méndez<sup>o</sup>, Lynne J. Shannon<sup>p</sup>, Uttam Babu Shrestha<sup>q</sup>, Evelyn Strombom<sup>r</sup>, and Madhu Verma<sup>s</sup>

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#### High-profile publications from contributions to IPBES and BioDiscovery

Lynne's involvement in the IPBES Global Assessment and in Future Earth's BioDiscovery programme is reflected in two high profile publications in *Science* and *PNAS*. The [Science paper](#), emerging from a meeting organised in collaboration with the [CBD](#) and [Future Earth](#) and led by Sandra Diaz, provides well-

reasoned input to the 15th Conference of the Parties (COP15) of the CBD in 2021. The [PNAS paper](#) summarises key findings of Chapter 2 of the IPBES Global Assessment, focussing on trends, patterns and key messages of global analyses of Nature's Contributions to People (NCP).

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### "As die see byt"

We've collaborated with the non-profit company "[The Rainbow Exchange](#)" to create a musical theatrical production, based on the scenario stories that Louise developed with fishers from Melkhoutfontein. Through this collaborative experiment, we seek to understand how we can use creative projects to enhance our communication with a wider part of society about our research results, and whether they can form the basis of improved research questions. Entitled "As die see byt" - best translated as "Hooked by the sea" - it was performed in the Melkhoutfontein community hall in the first week of December by professional and community actors, as well as professional musicians and the local school choir, and the audience loved it. Having since unfortunately been sent back into much more restrictive lockdown, we will focus on evaluating the lessons learnt so far and plot how best to take this initiative forward.

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### Supporting ICES' expansion into the human dimensions of marine SESs

In an [article](#) for the "Stories from the Frontlines" collection of the ICES Journal of Marine Science, Marieke shares her thoughts on relationships between people in the southern Cape, the Goukou River and the MPA off the (holiday and fishing) town of Still Bay. Written in a style easily accessible to natural and social scientists alike, it's very well worth the read!



### Awesome blog

Clara Steyn, who has graduated with a MSc in Conservation Biology, shares her fascinating journey from registering for undergraduate studies in Drama to becoming a marine biologist and hatchling modeller [here](#).

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### TRIATLAS

Within [TRIATLAS](#), we collaborate on spatialised ecosystem modelling and on improving our understanding of interannual and long-term variability. Lynne, Astrid and Louise also taught at the TRIATLAS summer school that was held at UCT in January 2020 and got much positive feedback on the lectures and pracs around social vulnerability, trophic modelling and ecosystem indicators!



**TRIATLAS**

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## Mission Atlantic

The second project funded under the EU Horizon 2020 call on an All Atlantic Ocean Research Flagship, [Mission Atlantic](#) kicked off in October 2020. It aims to systematically develop integrated ecosystem assessments (IEAs) in case studies around the Atlantic. Lynne is leading the southern Benguela case study. She pursues two particular questions: the first, very much in line with the IEA development, is how to continue our work towards making ecosystem-based management operational in the southern Benguela. The second question she asks is, how we can expand our understanding of ecosystem changes in the southern Benguela in a way that practically enhances adoption of improved fisheries management strategies in a changing environment.



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## One Ocean Hub

Lynne and Kelly have been running extensive model simulations as contribution to the global [Fisheries and Marine Model Intercomparison Project](#) (FishMIP) and have also spent many happy months building spatial models for further investigation of climate-fisheries interactions under both [One Ocean Hub](#) and the [Triatlas](#) projects.

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## Interesting reads

Take a look at our publications [here](#).

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ME&F SARChI Website



Email

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