

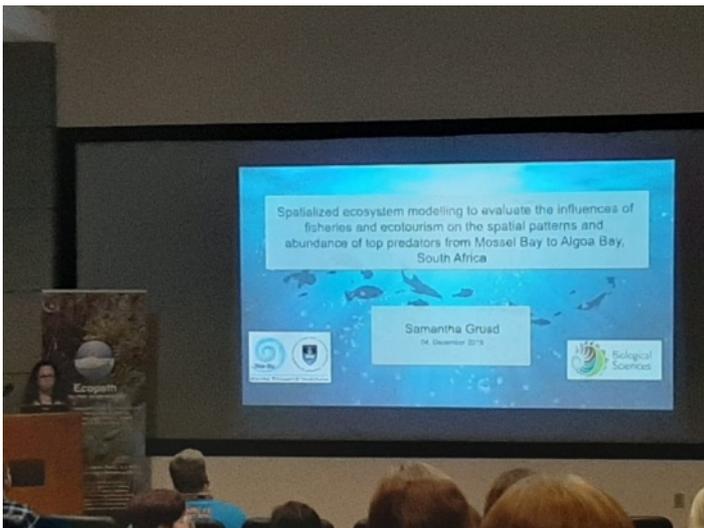
## Ecosystem modelling picks up speed

*Samantha Grud*



*Group photo of all the conference attendees and organizers*

I attended the ["Ecopath 35 Years – Making Ecosystem-Based Management Operational"](#) conference and workshops in St. Petersburg, Florida (USA) from 04<sup>th</sup> – 11<sup>th</sup> December 2019. The focus of this conference was to explore the progression of the Ecopath with Ecosim (EwE) and Ecospace framework in fields such as fisheries management, ecosystem-based management, marine conservation, ecosystem dynamics, and climate impacts over the last 35 years, and to initiate new capabilities of the framework. Ecosystem modelers from all over the world, from students to experts and developers of EwE, gathered at the Fish and Wildlife Research Institute, located at the College of Marine Science, University of South Florida. I was one of three participants from South Africa, along with my principal PhD supervisor, Dr. Lynne Shannon, and Dr. Kelly Ortega-Cisneros. This conference gave me the opportunity to network and make connections with well-established ecosystem modelers from all over the world, and to establish myself in this field while paving the path for future collaborations.



*Samantha presenting at the conference*

I presented my current PhD research, "Spatialized ecosystem modelling to evaluate the influences of fisheries and ecotourism on the spatial patterns and abundance of top predators from Mossel Bay to Algoa Bay, South Africa", during session one of the conference. This was my first conference, so I was a bit intimidated at first, but Lynne assured me that it would all go smoothly– she was right. Once my presentation was over, I got to relax and enjoy the rest of the talks and focus on meeting new colleagues. Overall, there were many interesting talks and posters, and it was interesting to



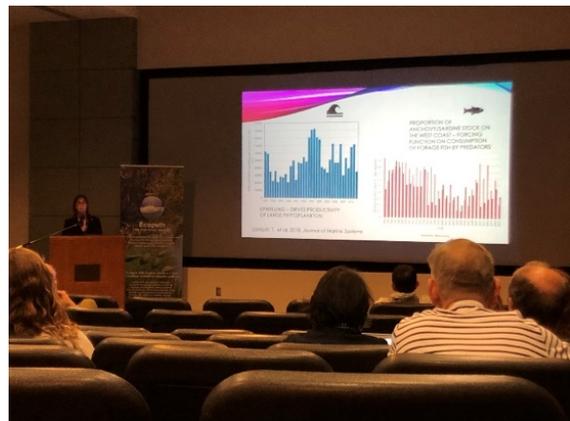
*Screenshot of the MSP*

learn how EwE and Ecospace have been applied for various fields and ecosystems.

Following the three conference days, were the workshops. I participated in the courses on Marine Spatial Planning (MSP), Model Boot Camp (bring your own model to discuss and work on), the Temporal-Spatial Framework,

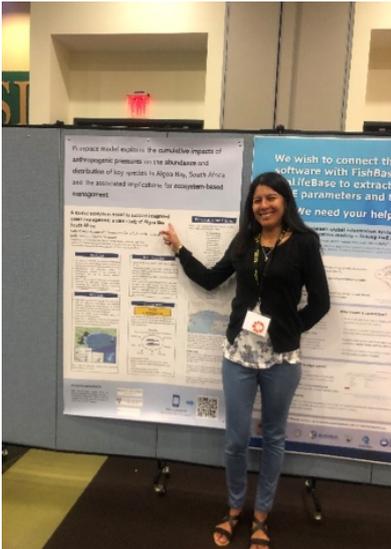
Incorporation of Uncertainty in EwE and Ecospace, and Management Strategy Evaluation (MSE). All these workshops were hands on, where we got to work through exercises and play around with the various capabilities of EwE and Ecospace. The MSP course (<https://www.mspchallenge.info>) was a cool experience, as it involved a computer simulation game where we had to work in teams, where each team was allocated a country on the North Sea. We had to implement hypothetical game changes in our area of the North Sea (e.g., addition/removal of pipelines, wind farms, ports and aquaculture farms, altering shipping lanes/routes, fishing effort, etc.), and in the end, we needed to collaborate with the other teams to make sensible decisions. This really highlighted the importance of communication when it comes to long-term marine ecosystem management. The model bootcamp session was another highlight. I got to discuss my ideas for modelling an innovative ecotourism scenario in Ecospace and received constructive feedback and advice from well-established EwE experts.

Lynne, who has more than 20 years of experience with EwE modeling, commented, *“Although rather all rather daunting jumping back into EwE modelling after my career took me a million other paths in recent years, I can only say that I am SO happy to have re-entered the EwE world and I am embarking on Ecospace modelling with renewed energy and a team of fabulous colleagues and students from what we always refer to as ‘the Ecopath family’.”*



*Lynne presenting at the conference*

Aside from networking during the conference sessions and workshops, there were plenty of opportunities to socialize with our colleagues outside of the workspace. For instance, one evening after the workshop sessions, all the conference attendees and organizers gathered at a local brewery (Cycle Brewing) to chat, try some local beers and relax after a hard-working day.



*Kelly standing with her poster*

In the midst of the conference, workshops and networking, Lynne, Kelly and I had one unexpected day off following a course schedule shuffle – we spent the day exploring Egmont Key Island, a small uninhabited island turned into a national wildlife refuge in 1974. We spotted some dolphins during the boat ride to the island, and even had a very quick swim in their presence as the boat was about to depart. We then



*Beach path on Egmont Key Island*

enjoyed a beautiful sunset at Clearwater beach. It was a nice, relaxing day before diving back into the long, but worthwhile workshop sessions.



*Sunset at Clearwater Beach*