

The 6th International Symposium on Chemosynthesis-Based Ecosystems (CBE6)

, organized by Woods Hole Oceanographic Institution (WHOI), took place from August 27th to September 1st in Woods Hole (Massachusetts, USA).

More than 160 participants took part in the symposium, which included 4 plenary sessions and 72 talks. A total of 68 posters were presented along with 18 selected flash talks. The program of the congress included several topics such as biogeography, biogeochemistry, chemosynthetic habitats and society, community structure and dynamics, evolution and evolutionary history, metapopulation and metacommunity (including connectivity and resilience), microbiology, physiology and adaptation, symbiosis, and trophic interactions (including chemosynthetic energy transfer). Questions about gaps and challenges of the deep-sea research were the main subject of the panel discussion ending the conference.

InterRidge open meeting took place on 29th August. The IR coordinator introduced the activities of our program with particular focus on actions supporting early career scientists. Stace Beaulieu (WHOI) presented the vent database and highlighted some aspects of its upcoming revision. Nadine Le Bris (IR co-chair) has launched the discussion about the revision of the Code of Conduct on responsible research practices at hydrothermal vents.

InterRidge has awarded Travel Grants to 11 students and 3 post-docs from 8 countries in order to foster exchange across fields and disciplines and promote international collaboration, by increasing the participation of early career scientists at symposia.



Photo of awarded students

We have also participated to the General Assembly and young scientist meeting of the Deep-Sea Biology Society

and took the opportunity to present and discuss about InterRidge's support initiatives to early career scientists.

CBE6 summary

Rachel Boschen

The 6th International Symposium on Chemosynthesis-Based Ecosystems (CBE6) was a lively six days of fascinating science, great networking opportunities and social events. The event was hosted at Woods Hole Oceanographic Institution and celebrated the 40th anniversary of the discovery of hydrothermal vents on the Galapagos Rift in 1977.

The week kicked off with the DOSI (Deep-Ocean Stewardship Initiative) Day, where we heard about progress from the various working groups, key stewardship issues on the horizon, and future plans for DOSI. Whilst it was sobering to acknowledge the many challenges that face our oceans, it was uplifting to see so many people actively engaged in stewardship.

The theme of discovery was strong throughout the Symposium, starting with an entertaining public seminar by Dr Bob Ballard on the discovery of the first hydrothermal vents, and adventures from later discoveries around the world. The following panel event explored how important chemosynthetic research is here on Earth, as we search for life elsewhere in the solar system. The sense of adventure continued in the Symposium opening plenary with Dr Jim Childress's inspiring account of the biological discoveries at vents since 1977.

All of the plenary sessions, talks and posters showcased just how far chemosynthetic research has come in the last 40 years. And it wasn't just about vents - the diversity of science presented featured new research at cold seeps, and exciting discoveries at other chemosynthetic habitats, such as seagrass beds and underwater caves.

The Symposium radiated a great sense of collegiality and collaboration, both across disciplines and nationalities. This was a common theme for the various networks and societies that held meetings during the Symposium: DOSI, InterRidge, and the Deep-Sea Biology Society. All three groups stressed the need to share information and expertise amongst networks, whilst pledging to work together to reach out to more of the scientific community.

Whilst the anniversary was a time to reflect and be inspired by how far the scientific community has come, it was also a fitting moment to look forward. The Symposium panel event on the final afternoon stimulated lively discussion on areas for future research, and ways to further the field, with collaboration being a common theme.

CBE6 was a wonderful opportunity for me, as an early career researcher, to re-connect with previous collaborators and make new connections to take my own research forward. I am proud to be part of such a diverse and multidisciplinary scientific community, and I look forward to what the future will bring for chemosynthetic research.

6th International Symposium on Chemosynthesis-Based Ecosystems

Abbie Chapman

As a fortunate recipient of the generous InterRidge Student Travel Award, I was able to attend the 6th International Symposium on Chemosynthesis-Based Ecosystems (CBE6 - <http://cbe2017.org>), hosted by Woods Hole Oceanographic Institution (Boston, USA) from 27th August to 1st September 2017. This was my first international conference, at which I was proud to give a talk and present a poster.

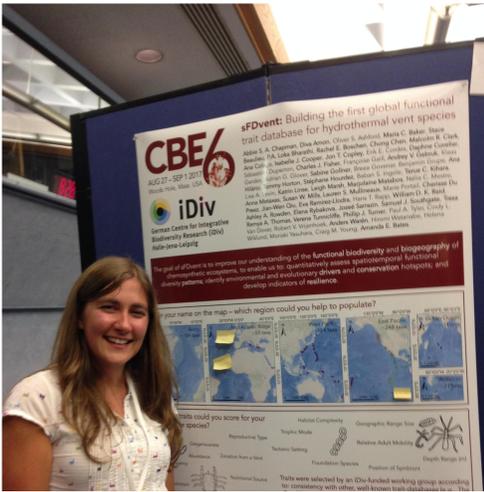
After participating in a meeting of the Deep-Ocean Stewardship Initiative (DOSI - <http://dosi-project.org>) on Sunday 27th August, I attended a public talk given by Dr Robert Ballard (<http://www.whoi.edu/darklife>). Dr Ballard gave an awe-inspiring account of the deep-sea exploration that resulted in the discovery of life at Galápagos Rift hydrothermal vents forty years ago, which was the perfect way to start a symposium dedicated to ecosystems like these, supported by chemosynthesis. The next day, I gave my talk on 'Contributions of rare and common species to the functional diversity of basalt-hosted tubeworm bush communities from the Juan de Fuca Ridge', summarising the research I have been conducting with Dr Amanda Bates and Professor Verena Tunnicliffe for my PhD.



Presenting my talk on Monday 28th August. The abstract for this talk is available on cbe2017.org. (Photo credit: V. Tunnicliffe.)

After supportive feedback on my talk, I thoroughly enjoyed learning from other researchers working on chemosynthesis-based ecosystems – shallow and deep – during a wealth of excellent and intriguing presentations and posters. At the end of the week, I was thrilled to be awarded 'Best Student Talk' by the Deep-Sea Biology Society!

On the penultimate day of the symposium, I presented a poster on the work of the iDiv-funded sFDvent working group (<https://www.idiv.de/?id=423>) and a growing, international team of collaborators. The aim of sFDvent is to compile the world's first global trait database for hydrothermal vent fauna using the expertise and contributions of scientists across the globe. The poster session at CBE6 provided an exciting opportunity to explain the project to those that might have appropriate data and expertise to contribute and to make a final call for contributions, ahead of the assembly of version one of this database (with a deadline set for 29th September 2017). (For more information on this database and to collaborate on this project, please contact me via email on: asac1g09@soton.ac.uk.)



I presented a poster as co-PI (with Dr Amanda Bates) of the 'sFDvent' working group, building the first global trait database for vent fauna. (Photo credit: Ana Colaço.)

To conclude, I would like to thank InterRidge for supporting my attendance at CBE6. The symposium was thought-provoking and exciting. I also hugely appreciated how welcoming the chemosynthetic-based ecosystem research community were. With support, friendly faces, and stimulating discussions all week, the symposium has helped to develop my confidence as a scientist, for which I would like to thank InterRidge and all those that participated in the symposium.