ID: Type: **Oral**

Acoustic Monitoring: Finding New Populations of the Endangered Blue Whale

The blue whale remains endangered, the species has not recovered post whaling. A difficultly has been that this species is extremely hard to survey in the Southern Hemisphere. There are different blue whale subspecies, but although the subspecies look identical they are easily distinguishable by their distinctly different acoustic signals. We have been using the differences in acoustic signals to investigate the ecology of the blue whale complex. We build algorithms to detect blue whale vocalizations in the continuous multi-year (over 16-years at some sites) underwater acoustic data of the UN General Assembly CTBT Nuclear Test Ban Treaty system along with other underwater passive acoustic data collected at sites across the Southern Ocean. To date we have found two previously unknown blue whale populations around the coast of Australia, and we have found that not all Antarctic blue whales return to the Antarctic to feed in the austral summer. We have detected Antarctic blue whale vocalizations year-round in mid and low latitude northern waters and as far north as the Lau Basin. This has rewritten our understanding of this species. This information is being used by the International Whaling Commission, the international body managing the return of these endangered animals.

Primary author: ROGERS, Tracey (University of NSW, Australia)

Presenter: ROGERS, Tracey (University of NSW, Australia)

Track Classification: 1. The Earth as a complex system