Ocean Tracking Network Futures Panel – Summary Brief

Sunday 12 July 2015, 1:30 – 3 pm, WTCC summit suite

The OTN hosted a Futures Panel at the 3rd ICFT to get input from the broader aquatic telemetry community on the best way forward for the Network as OTN begins to prepare for the next phase and future opportunities.

Potential big challenges for the next phase of OTN (Fred Whoriskey; not prioritized):

- Identify globally the important aquatic animal migration corridors, at a level of resolution that will assist with managing potential impacts from the incipient mass expansion of industrial ocean development (e.g., guide sustainable development of the blue economy) and other anthropogenic stressors.
- Explicitly engage with industry to identify infrastructure and research needs to better serve industry and management issues: e.g., to determine stock structure, spawning grounds and movement/habitat use of key commercially targeted species for which data are sorely lacking. Together demand for federal support for meeting these needs.
- Move telemetry work from observation to experimental science
- Link to science done in aerial and terrestrial animal telemetry for comparative purposes to elicit new scientific insight
- Identify animal movement metrics that serve as indicators of the health of aquatic ecosystems (e.g., identify Essential Ocean Variables in the parlance of the Framework for Ocean Observation of the Global Ocean Observing system) and implement long-term monitoring programs based on these metrics.
- Build on the expertise within the OTN to create high-power, go-to science groups focused on high priority areas that align with international priorities (e.g., the International Year of the Salmon). Focal areas could include a shark group, a salmon group, a group on coastal ecosystems, and a group on estuarine systems.
- Grow next generation scientific domains (i.e., Movement Ecology, Conservation Physiology)
- Identify and incorporate other fields (marine technology, telecoms, space science, etc.) into the work of the OTN
- Better define connections between fresh water, terrestrial and marine systems, and develop a predictive capacity for how these will change in the face of changing environmental conditions.
- Expand OTN research into the high seas using 'bioprobes' for improved management, and in doing so aim to partner with developing countries bordering the oceans as there are opportunities to create partnerships, enhance their/our expertise, and build capacity (Kes Morton)
- Unite 4 arenas (Pacific, Atlantic, Arctic, Great Lakes) using telemetry to provide information on the effects of environmental change (due to the impacts of climate change) on natural and human systems (Scott Hinch)

Themes from the Break-out Session

- Expansion of technology to enhance the spatial resolution of animal movement and a synthesizing of data to increase the range of questions to be addressed for effective management/conservation
- Observation systems/platforms (i.e., OTN) need to move to rigorous and highly defined measurement systems, increase infrastructure with connections/platforms with/for commercial opportunity, cross-platform data sources, and increase association to new visualization techniques (DIDSON, SONAR, etc.)
- OTN must identify and improve/make connections with the right partners/stakeholders to open up appropriate corridors/opportunities for the research OTN conducts (i.e., integration with national and international universities, aboriginal groups, NGOs/other conservation organizations/H.T.A.s, big population / developing countries (i.e. China, India, Japan), technology organizations/companies, World Bank)
- Offer mandatory orientation/training for all new HQPs on network tools, expectations, and opportunities, as well as opportunities for HQPs post-graduation (Post Docs within OTN could foster synthesis and use resources)
- Increase visibility by enhancing public outreach activities and ensuring a continuous flow of information from scientists to the public/community/media (e.g., talks at public forums, viral media campaigns to generate more attention, snapchat photos from critter cams, "story maps," Ocean/OTN podcasts, education tools to involve the general public/kids, phone apps to connect kids to learn more about what tagging is)
- With regards to future science communications: Development of a communication strategy/brand, tracking of public perception/uptake with interactive web polling/plotting, and evaluation metrics of science communication tools