
Phil Bouchet



PhD Candidate

University of Western Australia

This year our student ambassador will be Mr Phil Bouchet from the University of Western Australia who will attend the 4th International Marine Conservation Congress at St John's in Canada.

Born at the foot of a mountain in the northern French Alps, my career choices have earned me more than a few quizzical looks over the years. But the heart wants what the heart wants, right? I was blessed to discover scuba diving and snorkelling at the age of fifteen on the tropical reefs of the Red Sea, back when tourist visitation (and its impacts on habitats) was merely a fraction of what it is today. Cupid's arrow hit me the minute I broke the surface. I was dazzled by the explosion of colours, diversity, and the otherworldly tranquillity that reigned despite them. I knew I had to learn more, and I never looked back.

My academic training has been filled with good fortune, not least in that it has taken me places. I completed the first half of my undergraduate degree in Grenoble before moving to Brittany (on the west coast of France), where I majored in marine biology. After working in IT/administration/banking for a year, I had saved up enough pennies to pay for tuition at the University of St. Andrews (Scotland), where I enrolled in a Masters of Research in marine mammal science, squeezing in a 4-month work contract to conduct visual surveys of oceanic wildlife down under before the semester kick-off. My Masters of Research (MRes) dissertation focused on producing an updated abundance estimate for Southern Hemisphere Stock D humpback whales

based on aerial counts. Though I absolutely loved my time in the UK, the call of the warm and sun-filled Australian weather was impossible to resist. So I migrated back to Australia, assisting with a variety of cetacean projects in Geographe Bay, the Perth canyon and off the Pilbara coast. It wasn't long until I commenced my doctoral studies within the Centre for Marine Futures (Oceans Institute, School of Animal Biology) at UWA.

My main supervisor, Prof. Jessica Meeuwig, fervently (yet lovingly) converted the whale geek in me into a fish and shark aficionado. For my PhD, I helped pioneer novel underwater digital camera technology (termed "drifting baited stereo-videography") that can be used to monitor and protect poorly known pelagic species in remote, offshore waters. Statistics and computer programming really are what gets me out of bed in the morning though, so a substantial part of my work revolved around developing large-scale predictive distribution models to identify areas of high ecological and conservation value for mobile vertebrate predators. I was particularly interested in the role that bottom topography plays in aggregating animals. Seamounts, for example, have been documented as hotspots of life in the "barren blue desert", but other prominent features like submarine canyons or submerged banks and shoals, have received little attention in comparison. Using a global database of historical commercial fishing records, I was able to demonstrate that tunas, mackerels and marlins are found in greater abundance around a number of deep West Australian canyons, few of which currently overlap the Australian National Network of Commonwealth Marine Reserves, even partially. This tells me two things: first, that abrupt topography may be a useful blueprint for spatial planning, and second, that significant opportunities exist to improve management frameworks for pelagic species within the Australian maritime estate.

Like many of my peers, I am a great believer in applied research that has a measurable impact on the environment and our society. "Making marine science matter" was the theme of this year's Fourth International Marine Conservation Congress (IMCC4), which was held in St John's, Newfoundland and Labrador in July. I am both honoured and incredibly excited to have been granted the 2016 AMSA Allen Award to present my results at this conference. The study, like the rest of my PhD work, is an output from the National Environmental Research Program (NERP)'s Marine Biodiversity Hub (a multi-institutional partnership funded by the Australian Government), so my attendance was a great way to promote quality Australian science to an international audience.