Project Update: July 2018

We have been studying sea snakes in bycatch at Sindhudurg, Maharashtra since January 2018. Our aim is to characterise the sea snake diet in relation to fishing pressure and to understand how fishing activity, in particular trawlers, has affected their trophic ecology. We encountered approximately 400 snakes in various fishing nets. The hook-nosed sea snake (*Hydrophis schistosus*) has been dominant followed by the Shaw's sea snake (*Hydrophis curtus*). We have started with preliminary characterisation of diet for both species. Scale and blood samples have been collected from snakes and stored at the Indian Institute of Science, Bangalore. Mass spectrometry will be carried out at the University of Agricultural Sciences, Bangalore. We have also been collecting opportunistic data on the reproductive biology of *H. schistosus* and have captured a live birth event of this species in captivity for the first time on video.

We have had several student volunteers and interns helping us with fieldwork and lab work. We have also mentored the work of one postgraduate student who successfully completed her dissertation while assisting us at Malvan. In addition to the sea snake work we have begun monitoring other species that comprise bycatch as well as elasmobranch fisheries in the region.

Over the course of fieldwork, we have been in touch with Br. Nath Pai Sevangan, a local non-profit engaged with the rights of the fishing community and have attended various events organised by them. We have also conducted a presentation on sea snakes and other marine life to students at a school at Tambaldeg. There have been a few setbacks during the previous months including procuring equipment and funds for mark recapture studies and difficulty in acquiring logistic support to initiate the work in Tambaldeg, but we plan to resume fieldwork and overcome these shortcomings post-monsoon in September.

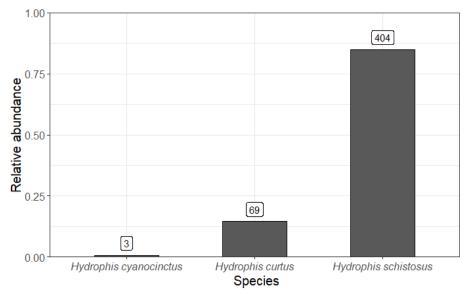


Figure 1: Relative abundance of sea snakes encountered during the pre-monsoon sampling season (January to May 2018). Absolute abundance is indicated above each bar.

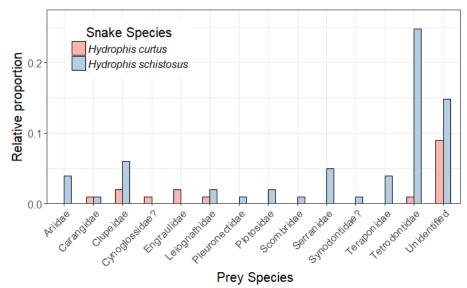


Figure 2: Diet profiles of sea snakes sampled between January and May 2018.



Figure 3: Talk on marine life given to local school children



Figure 4: Measurement of a juvenile H. schistosus



Figure 5. Article in Tarun Bharat, the local newspaper at Malvan, about the sea snake project