



## **The Ups and Downs of the White's Seahorse *Hippocampus whitei* in Australia.**

David Harasti

**Presenting Author:** David Harasti

Fisheries NSW, Australia

**Abstract:** The White's seahorse *Hippocampus whitei* is a species endemic to estuary systems along the east coast of Australia and is currently considered to be at threat from anthropogenic impacts. There are two known estuaries in New South Wales, Australia, where the species is known to be abundant (Port Stephens and Sydney Harbour); however, both localities have recently experienced population declines. Over the past decade, over 1,000 individuals have been tagged across both locations using Visible Implant Fluorescent Elastomer, allowing individuals to be identified on a long-term basis. Using mark-resight analysis of tagged individuals, this has provided annual population estimates using open and closed population models in Program Mark. This study details how populations of *Hippocampus whitei* have changed over the past decade, and assesses how changes to the preferred habitats of *Hippocampus whitei* can be detrimental to the species. The results from this study are contributing towards the future management of *Hippocampus whitei* and being used to support the listing of the species as 'threatened' under State and Commonwealth legislation and inclusion on the IUCN Redlist.

**Keywords:** Conservation and management, Behavioural ecology