

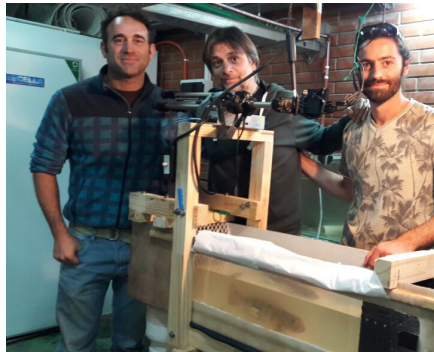
Template Scientific Report for STSM board

The formal report should be written within a month after the end of the STSM in the format of a short communication (4 pages max.)

SCIENTIFIC REPORT	
Reference	Short Term Scientific Mission COST FA1304
Beneficiary	Dr Paolo Domenici, CNR IAMC Paolo.domenici@cnr.it
Host Researcher	Dr Javier Ciancio CONICET- CENPAT ciancio@cenpat.edu.ar
Period	from 03/03/2018 to 22/03/2018
STSM Reference Code	COST-STSM -FA1304-39206
STSM Title	The swimming behaviour and activity patterns of the argentine sandperch <i>Pseudoperca semifasciata</i> , and bioenergetic implications

1. Summary (300 words, a photograph of you alongside your collaborators and a short quote describing your experience), to be published on the web site of the action)

Accelerometry has become an important tool to understand the behaviour of fish and other animals in the wild. Three-axes accelerometers, in particular, can be useful in discerning various types of behaviours and activities performed by fish. Linking a given behavioral pattern with accelerometry signals is a fundamental step in monitoring fish activity and in testing individual differences in behaviour. In this project, supported by COST Action FA1304 “Swimming of fish and implications for migration and aquaculture (FITFISH)”, we investigated the swimming behaviour of a key reef species, the Argentine sandperch *Pseudoperca semifasciata*, using a combination of video and telemetry/accelerometry observations. In addition, we tested potential differences among individuals in this species and in a co-existing one (the Argentine Seabass *Acanthistius patachonicus*), for which we have also recovered accelerometry data from free-living fish. Preliminary results show that (1) sandperch uses a complex swimming style with many gaits, from pectoral fin used alone (in phase and in alternation) to swimming with both pectoral fins and tail at higher speeds. These swimming styles showed distinct accelerometry signals. (2) Individual sandperch and seabass in the field tend to show high day-to-day repeatability of their main activity patterns. Further analysis will allow us to test differences in activity patterns throughout the day for each individual.



Javier Ciancio, Paolo Domenici and PhD student Lucas Beltramino with a sandperch in the swim tunnel