{rokbox title=|Female Sthenoteuthis pteropus of 25 cm mantle length :: Figure: Authors| thumb=|images/stories/ieo/imagenespublicaciones/centro-oceanografico-baleares-deteccion-visual-oportunista-calamar-naranja-atlantico-centrooriental-peña-et-al-2018-thumb.jpg|}images/stories/ieo/imagenespublicaciones/centro-oceanografico-baleares-deteccion-visual-oportunista-calamar-naranja-atlantico-centrooriental-peña-et-al-2018.jpg{/rokbox}

Marian Peña, Roger Villanueva, Alejandro Escánez, Alejandro Ariza, 2018. **Opportunistic acoustic recordings of (potential) orangeback flying squid *Sthenoteuthis pteropus* in the Central Eastern Atlantic.**
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Abstract: Squids are fast swimmers that are difficult to catch by nets and to record with echosounders in the open ocean. A rare detection of orangeback flying squid *Sthenoteuthis pteropus* in the Central Eastern Atlantic Ocean off the coast of Senegal was accomplished during the MAFIA oceanographic survey carried out between Brazil and the Canary Islands in April 2015. Although net sampling did not yield any subadult or adult individuals, dozens were visually detected from the vessel jumping out of the water at night and displaying their characteristic dorsal photophore patch. A few squids were caught with fishing lines and identified at the species level. The acoustic echograms revealed distinctive previously unobserved acoustic echotraces that seemed to be caused by those squids, which were the only new species detected at that station (over a bottom depth ranging from 4010 to 5215 m, between 10° 45′ N 22° 41′ W and 10° 53′ N 22° 40′ W). The acoustic response and swimming behaviour shown by those echotraces reinforced this hypothesis. The (potentially) squid recordings dove rapidly (0.19 m/s to 0.48 m/s) from around 10 m below the mesopelagic fish layer, which had migrated to the subsurface at night (35 m depth), to depths of 70–95 m, and swam upward, apparently attacking fish from below. The morning squid migration to deeper waters (250–300 m) was also recorded acoustically. Downward movements of squid swimming at speeds of 0.22 m/s were calculated from the echogram, while the mesopelagic migrating fish swam at 0.27 m/s reaching 250 m depth. Sv120−Sv38 averaged 2.7±3.2 dB for the squid echotraces while the mesopelagic layer showed values of −8.8±0.9 dB. These ranges agreed with values in the literature and from theoretical models. This study provides more insight into the migrating behaviour of oceanic squids, a species group that is poorly represented in the acoustic literature due to challenges in studying them.

Keywords: *Sthenoteuthis pteropus*, Behaviour, Migration, Mesopelagic fish, Acoustics