

A joint CEAUL / CE3C / MARE seminar

(and a guest lecture for the Modelação Ecológica MSc Ciências ULisboa course)



Sperm Whale Scale, Measuring Northeast Atlantic Sperm Whales

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Thursday, 17th October 2024 – 14:00h – Room 2.2.21



Aerial photogrammetry has rapidly become a mainstay tool in cetacean research over the past decade thanks to the availability of more affordable and commercially available multirotor quadcopters or drones. This piece of equipment has enabled the possibility of collecting a variety of data from cetaceans near surface waters for measurement estimation purposes (photogrammetry) but also from a behavioural monitoring and sampling perspective that typically is minimally invasive for the target species. Between 2020 - 2024 data was collected from sperm whales off Andenes in Northern Norway, Mayo in Ireland and in the Azores off Portugal to estimate the total length of live whales while at the surface. Male whales were targeted off their high latitude feeding grounds in the Arctic and off Ireland while females, juveniles and calves were accessed off the Azorean nursery grounds. This data will be used to evaluate the species size structure across these key habitats and evaluate growth

rates for recaptured individuals in addition to developing a new method to photo-identify sperm whales at sea.

Short bio: Seán O'Callaghan is a second year PhD candidate based at the Marine and Freshwater Research Centre (MFRC) at the Atlantic Technological University (ATU) in Galway, Ireland. His study species is the sperm whale where he has focused on the species size structure in the Northeast Atlantic using a variety of techniques including aerial photogrammetry. He has been collecting data on sperm whales using this technique with a drone since 2020 in collaboration with whale watching companies and research groups in northern Norway and in the Azores. Outside of sperm whales, he has been heavily involved with stranded cetaceans in Ireland and in the drone related studies assessing anthropogenic disturbance from harbour seals to common dolphins in Ireland and the Azores to fin whale population monitoring work in the Mediterranean off Catalonia.

