



**CETUS CIL Co-deployment Project  
MUL240028**

**RISK ASSESSMENT FOR ANNEX IV SPECIES**

**Introduction**

Under Article 12 of the Habitats Directive (92/43/EEC) Member States are required to establish a system of strict protection for species listed in Annex IV of that directive. This protection is afforded to these species at all stages of the life cycle and wherever they occur. This protection includes deliberate disturbance of these species, particularly during the period of breeding, rearing, hibernation, and migration. This has been transposed into Irish Law by Regulation 51 of the European Communities (Birds and Natural Habitats) Regulations 2011.

**The Project**

The proposed maritime usage is to deploy passive acoustic monitoring devices ("acoustic receivers"), which can detect the presence/absence of acoustically tagged elasmobranchs (sharks, skates and rays) in the western Irish Sea and the southern Celtic Sea. The requested maritime usage license is to allow for the deployment of acoustic receivers on any relevant Commission of Irish Lights controlled buoy in the western Irish Sea and two selected CIL buoys in the southern Celtic Sea.

Receivers will be fixed onto existing CIL infrastructure using a 14 mm steel shackle connected to an insulated 12mm Polysteel rope terminating in a 40 kg clump weight (used to maintain the depth and orientation of the receiver). A cabled safety line will be attached to both the eye of the buoy and receiver tether in case of extreme weather events to minimise the chance of equipment loss. The total length of the line will depend on the buoy type. The receiver will sit 3 m below the water's surface, which will equate to a line total length of 5 to 8 m, depending on the buoy configuration. Note that this attachment method has proven successful both in Irish waters and elsewhere in Europe (see 8. *Supporting evidence for Maritime Usage License application\_MUL240028*). Initially, five acoustic receivers will be co-deployed on CIL buoys. During this pilot, a 3-month service interval will be followed. If successful, routine maintenance will be carried out every 6-12 months.

**Receiving Environment**

The receivers will be deployed in the western Irish Sea and Celtic Sea. Five receivers will be co-

deployed on existing CIL buoys during the pilot phase. If successful, this deployment will extend to approximately 20 receivers in the western Irish Sea and 2 in the southern Celtic Sea. The ambition is to add more receivers over time to achieve a coherent, connected, monitored area along the east coast of Ireland.

The proposed study area is dominated by the EUNIS habitat types, coarse sediments, sand, and muddy sand; however, the receiver and tether will not be in contact with the seabed. In the western Irish Sea, 21 CIL buoys are located within SAC or SPA areas. One of the selected CIL buoys is located within a SAC and SPA in the southern Celtic Sea.

### **Article 12 Assessment**

All marine mammal species are afforded protection in Irish waters. Annex II of the EC Habitats Directive lists the European otter (*Lutra lutra*), Grey seal (*Halichoerus grypus*), Harbour seal (*Phoca vitulina*), harbour porpoise (*Phocoena phocoena*) and bottlenose dolphin (*Tursiops truncatus*). Annex IV of EC Habitats Directive lists all cetacean species. In addition, Annex II lists the leatherback turtle (*Dermochelys coriacea*) and the Loggerhead turtles (*Caretta caretta*). All the above are recorded in the Irish Sea and southern Celtic Sea, although seals and most cetaceans are most abundant on the west coast.

All marine mammals are vulnerable to anthropogenic sounds, particularly loud (>190dB) impulsive sounds, but not exclusively so. The proposed deployments here are passive and will not emit any sounds into the environment, meaning there is no potential impact on sensitive species. Any impact due to our proposed maritime activity will likely relate to potential disturbance due to vessel presence, vessel sound and collision risk.

Considering the vessel activity levels in the regions, with the Arklow Bank included in the Arklow Phase II wind farm development, the impact of a 7 m RIB would be trivial. The sound emitted from a small outboard engine overlap with the hearing range of most cetacean species. However, a source level in the 160 dB re 1  $\mu$ Pa m (Parsons et al. 2021) is not known to cause permanent or temporary threshold shifts in marine mammals and is rapidly attenuated by distance (NPWS 2014). Consequently, the likelihood of significant impacts on sensitive species would be negligible or low.

Deploying passive receivers on the existing Commission of Irish Lights infrastructure will have a negligible impact on the receiving environment. The scale of the study, while broad, is physically trivial. Moreover, similar methods in the Wadden Sea have proven successful, with no equipment losses (see 8. *Supporting evidence for Maritime Usage Licence application\_MUL240028*). It is reasonable to conclude that the proposed project will not disturb Annex IV species or result in the deterioration or destruction of their breeding sites or resting places.

### **References**

- NPWS (2014) Guidance to Manage the Risk to Marine Mammals from Man-made Sound Sources in Irish Waters. Dep. Arts, Heritage, and the Gaeltacht.
- Parsons, M.J., Erbe, C., Meekan, M.G. and Parsons, S.K. (2021) A review and meta-analysis of underwater noise radiated by small (< 25 m length) vessels. *Journal of Marine Science and Engineering*, 9(8), p.827.