

## **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") to identify the presence/absence of acoustically tagged elasmobranchs (sharks, skates and rays) in the Celtic Sea. The maritime usage is for an area encompassed within Courtmacsherry Bay and will include the deployment of 22 acoustic receiver moorings.

The practical activities involve deploying and monitoring the moorings, consisting of acoustic receivers for acoustic monitoring. Each mooring consists of a mooring weight, an acoustic receiver (VR2W or VR2AR model), and one (VR2W mooring lines,  $n = 12$ ) to three subsurface trawl floats (VR2AR mooring lines,  $n = 10$ ). The set up is anchored to the seabed using a 100 kg clump weight. The moorings will be recovered annually for maintenance and redeployment, with the aim of assessing seasonal and annual site fidelity of the Critically Endangered flapper skate (*Dipturus intermedius*)

### **Receiving Environment**

The temporary moorings with acoustic receivers will be deployed in the Courtmacsherry Bay area, off Co Cork, which is situated in the southern Celtic Sea. The tracking array will consist of 22 acoustic receivers deployed at key points of interest, and to form a "gate" of listening receivers to detect tagged flapper skate as they move in and out of the Bay (depths 18-33m). Equally acoustic "gates" of receivers extending from the Seven Heads headland and Old Head of Kinsale headland will capture movements near-to the coastline (receivers deployed >500 m from shore; 15-40m depth).

The benthic substrate in the wider area consists of rock, sand, and gravel substrates, with depths in the area ranging from ca. 18 – 60 m. The proposed moorings are not located within any European designated site(s) (i.e SAC or SPA) or ferry routes.

### **Article 12 Assessment**

In Ireland, Annex IV marine mammal species are European otter (*Lutra lutra*), Grey seal (*Halichoerus grypus*), Harbour seal (*Phoca vitulina*), Harbour porpoise (*Phocoena phocoena*), and Bottlenose dolphin (*Tursiops truncatus*). Leatherback sea turtle (*Dermochelys coriacea*) and the Loggerhead sea turtles (*Caretta caretta*), regularly reported in Irish waters, are also listed as Annex II species. All cetacean species are listed as Annex IV in Ireland. The potential impact on these animals, due to our proposed maritime activity is related to vessel operations during the deployment and retrieval of moorings.

Potential impacts from the vessel include visual and acoustic disturbance to the environment, and the risk of injury from collisions with the vessel. Considering the vessel activity levels in the regions, the temporary addition of a single vessel for a period of one to two days is not regarded as having

any substantial effect. Consequently, the likelihood of significant impacts on Annex IV species resulting from the proposed initial deployments and maintenance of the proposed moorings is very low.

During the operational phase, the mooring will be equipped with non-invasive, silent environmental sensors. Consequently, there is no potential for underwater noise to impact marine mammals or other Annex IV species in the area.

The moorings themselves will be sub-surface, with either a loop for recovery (“pick up” receiver moorings), or a pop off acoustic release system (“pop up” receiver mooring) resulting in no surface buoy. “Pop up” receiver moorings will have a low profile (5m height; deployed at 15-40m depth) to minimize risk, while “pick up” moorings (depths of 18-33 m) will have a subsurface float that terminates 6-9 m before the water's surface (9-24 m total mooring height) to enable recovery. This mooring set up aims to minimize the risk for entanglement in the rising line leading up to a surface buoy through the water column, by any of the Annex II or IV species, or other animals.

Because of the non-invasive nature and small scale of the temporary moorings, it can be concluded that the proposed project will not result in killing or disturbance of Annex IV species or result in the deterioration or destruction of their breeding sites or resting places.