

International scientific collaboration – its importance and role in saving a species from the brink of extinction

Harbour porpoises are one of the many species listed under Annex II of the European Union Habitats Directive, requiring each member state to create Special Areas of Conservation (SAC) for them. Member states are also in charge of managing and monitoring these SACs and providing the EU with reports on their conservation status.

Harbour porpoises are well distributed in the northern hemisphere. There are a number of subspecies that have been identified and are divided into several populations. As a whole, the general population of harbour porpoises is thought to be in the hundreds of thousands. Unfortunately, like many other marine mammals harbour porpoises are an extremely mobile species and do not seem to stay in any given area for long. There are some areas that they are known to frequent, but these areas can often change due to various factors usually concerning their environment or their prey. Unfortunately, this makes their conservation a very difficult task.

Two sub-populations of harbour porpoise in the Baltic Sea have been recently discovered through nuclear and mitochondrial DNA analysis, skull morphometrics, and tracking via satellite and acoustic detections. These two populations have since then both been listed as vulnerable and critically endangered by the ICUN. The harbour porpoise is thought to be one of the only cetacean resident in the Baltic region, and their numbers have recently declined significantly due to several environmental and anthropogenic factors including severe ice conditions, environmental contaminants, and the introduction of new types of fishing gear which led to an increase in harbour porpoise bycatch.

Upon realising the danger that the populations were in, scientists from Sweden, Denmark, Germany, Finland, Poland, the United States and the United Kingdom came together to assist in the quest to find out more about these populations. A two-year acoustic monitoring project was launched to try and assess the movement patterns of each population, as well as attempts to identify which areas they frequented were of biological significance (i.e. mating grounds, feeding grounds).

The study was concluded in 2013, and the results were published earlier this year. The preliminary results were shared with governmental bodies and are now serving as a solid scientific foundation for taking decisive management actions for this critically endangered population. It is an excellent example of how nations need to come together for the conservation of transnationally migratory animals.