

Have reductions in fishing effort been achieved?

Figures 5.1 - 5.2 (below) show recent trends in effort (kWdays) in OSPAR Regions II-IV. In the North Sea part of OSPAR Region II, decreases in effort by trawl gears and beam trawls have resulted in an overall decline in effort (Figure 5.1A). In the western channel component, however, there has been an increase in effort recently, largely driven by non-regulated gears or gears for which details were not available (Figure 5.1B).

Trends in the various areas making up the wider Celtic Seas, (OSPAR Region III) vary. Declines in effort can be seen in the Irish Sea (Figure 5.2B) and particularly the West of Scotland (Figure 5.2A). Celtic Sea effort has, however, remained high with no obvious trend over the time period (Figure 5.2C).

Recent trends along the Iberian coast (part of OSPAR Region IV) are difficult to interpret but overall appear to have risen (Figure 5.2D).

Spatial information on fishing activity in some of the OSPAR Regions is available in different forms. For OSPAR Region I information compiled by the Norwegian authorities provides a partial picture of activity in the region for 2008 (Figure 5.3 below). The data are screened to provide fishing activity (vessel monitoring system (VMS) signals with speed 1-5 knots) for vessels above 24 meters (EU vessels above 15 meters) in an area limited by N 82 W 045 and N 62 and E 050. Note that it is only in the Norwegian Economic Zone and the zone around Jan Mayen that VMS tracking of both Norwegian and foreign vessels is available. In the Svalbard-zone, VMS from foreign vessels is incomplete. Outside the economic zone/Jan Mayen/Svalbard only Norwegian vessel VMS is available.

The spatial distribution of towed gear effort (hours fishing for years 2003 - 2007) is also available from the STECF analysis (Figures 5.4 - 5.8 below). Again this relates to areas which are not identical to the OSPAR boundaries but are close enough to provide a helpful insight.

In OSPAR Region II (Figures 5.4 and 5.5), trawl effort is mainly distributed in the northern part of the North Sea and is also intense at the western end of the Channel. In contrast, beam trawl activity is mainly located in the southern North Sea and Channel. Taken together these observations indicate that the western channel is subject to considerable towed gear activity from a variety of sources.

In OSPAR Region III (Figures 5.6 and 5.7) the trawl activity is distributed throughout the area but is relatively more intense in the southern parts and has declined off Scotland. Beam trawling is almost absent from West of Scotland but is more evident in the south, particularly the Celtic Sea.

Figure 5.8 shows the Iberian coast and here the trawl effort is fairly widespread.

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a = otter trawls; b= beam trawls; c= gill net: d= trammel net; e =longline; none = non-regulated gear or unspecified gear.

Figure 5.1: Trends in effort (kWdays) for the principal regulated gears in use in OSPAR Region II (wider North Sea including Western Channel).



Figure 5.2: Trends in effort (kWdays) for the principal regulated gears in use in OSPAR Region III (Celtic Sea Areas including West of Scotland, Irish Sea and Celtic Sea) and OSPAR Region IV (Bay of Biscay and Iberian Coast). a = otter trawls; b= beam trawls; c= gill net: d= trammel net; e =longline; none = non-regulated gear or unspecified gear.



Figure 5.3: Distribution of fishing activity from VMS data in OSPAR Region I for 2008. Limitations are indicated in the text.



Figure 5.4: OSPAR Region II - Distribution of <u>aggregate</u> trawl effort for EU vessels covering the period 2003 – 2007.



Figure 5.5: OSPAR Region II - Distribution of aggregate <u>beam</u> trawl effort for EU vessels over the period 2003 – 2007.



Figure 5.6: OSPAR Region III - Distribution of aggregate trawl effort for EU vessels covering the period 2003 – 2007.



Figure 5.7: OSPAR Region III - Distribution of aggregate beam trawl effort EU vessels covering the period 2003 – 2007.



Figure 5.8: OSPAR Region IV - Distribution of aggregate trawl effort for EU vessels covering the period 2003 – 2007.