

# THE HARBOUR PORPOISE *PHOCOENA PHOCOENA* IN THE BELGIAN PART OF THE NORTH SEA: TRENDS IN ABUNDANCE AND DISTRIBUTION

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The harbour porpoise *Phocoena phocoena* is once again an important component of the ecosystem in the Belgian part of the North Sea (BPNS), after decades of virtual absence. The basic analysis of strandings and bycatch data over four decades clearly demonstrate its return, with only few animals between 1970 and 1998, an increasing number between 1999 and 2004 (8 to 40 per year), and a high number between 2005 and 2009 (62 to 94 per year). The combined results of aerial surveys, passive acoustic monitoring and strandings monitoring reveal a seasonal pattern, with harbour porpoises being typically abundant from late winter to April, while being scarcer from May to early winter. Average densities in 2008 and 2009, as estimated by aerial monitoring, ranged from a maximum of 1.11 animals per km<sup>2</sup>, or in total about 4,000 animals in the BPNS during spring, to a minimum of 0.06 animals per km<sup>2</sup>, or in total about 200 animals in the BPNS during summer. In late winter and early spring porpoises occur throughout the BPNS, including in waters very close inshore, while they are restrained to more offshore and northerly waters between late spring and early winter. Erratic invasions of harbour porpoises in the BPNS however blur the general seasonal spatio-temporal pattern, which complicates our understanding of its spatial distribution and migration behaviour.