Still a sea of plenty?
Seals and soles in the southeastern North Sea

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Abstract

Many fish stocks in the North Sea are depleted and both fishermen and piscivorous predators suffer the consequences. Perhaps surprisingly in this situation, numbers of seals have largely been increasing over the last decades. In the eastern North Sea, numbers of harbour seals *Phoca vitulina* have increased from about 4,000 in 1975 to over 15,000 today, while numbers of grey seals *Halichoerus grypus* have increased from virtually zero to over 2,100 in the same period. There is thus an apparent paradox of increasing numbers of predatory seals and a decreasing prey base. Diet studies on harbour seals in the eastern North Sea are mostly dated however, while such studies on grey seals have only just commenced. We studied the diet of grey seals from scats collected in March/April 2007 in the Dutch *Voordelta*, one of the sites of population growth of this species. Sole *Solea solea* was the main prey species, both in terms of relative occurrence and prey numbers as in terms of relative prey mass or energetic contribution to the diet. The grey seals were highly selective in their feeding, as sole made up about 70% of the diet in terms of relative prey mass. For the time being, there seems to be plenty of fish in the sea for the growing population of grey seals in the eastern North Sea.

Keywords: Halichoerus grypus, diet, *Solea solea*, selectivity, Voordelta, faeces, otoliths, flatfish