

## Seabirds and fishery discards in the Southern North Sea

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The high amounts of discards produced by the flatfish beam trawl fishery constitute a source of readily accessible food for scavenging seabirds. This use of discards has led to a dependence of seabird populations on them. Changes in the quantity of fishery waste disposal are thus bound to cause disruptions in feeding habits and reproductive success of these birds. Such changes are envisaged in the reform of the Common Fisheries Policy in 2013 (e.g. a total ban on discards and/or an increased gear selectivity).

The present study aims at investigating the use that seabirds make of fishery discards in the Southern North Sea, by single and multi-item discard experiments. Vessel-following seabirds in this area are mainly represented by the herring gull (*Larus argentatus*), lesser black backed gull (*Larus fuscus*), great black backed gull (*Larus marinus*), kittiwake (*Rissa tridactyla*) and common gull (*Larus canus*). Consumption of different sizes, shapes and species of discarded fish (mainly whiting, sole and plaice) was assessed, taking into account the different species and age classes of consumers. Differences in the reliance on kleptoparasitism (i.e. food robbery), as well as seasonal or spatial variations in this behaviour were also sought for.

Data from five monthly single-item discard experiments (April-August 2011) were collected onboard RV Zeeleeuw at four different distances off the harbour of Zeebrugge, where a colony of lesser black backed and herring gull is located. These data present age-related differences in competitive ability and reliance on kleptoparasitism, as well as possible time-related variations in kleptoparasitism performed by adults, probably related to the breeding season. The expected time-related changes in the use of discards by different age classes, as well as spatial variation in foraging by different species are also reflected by the obtained data.

Two further campaigns are planned in February and April 2012, where multi-item experiments will be coupled to the presented results. These will allow suggestions on the potential effects of altered discard patterns on seabird populations, and provide the basis for management advice on these side effects.