BIODIVERSITY OF THE SOUTHERN NORTH SEA

Lucy Shuff RPS Energy 11th May 2023







Introduction

Setting the Scene

- Benthos
- Fish & Shellfish
- Marine Mammals
- Bats



Benthos

- Influenced by the hydrodynamics moderate to high energy
- Generally associated with high turbidity and mobile bedforms
- Substrates: Coarse (gravelly sand/sandy gravel), sand, muddy in places
- Habitats: circalittoral coarse sediment, circalittoral sand, mixed and muddy in places
- Impacted through long history of fishing, aggregates, O&G and other developments







Benthos

 Various species including bryozoa, chordates, cnidaria, crustacea, echinoderms, molluscs, polychaetes, porifera



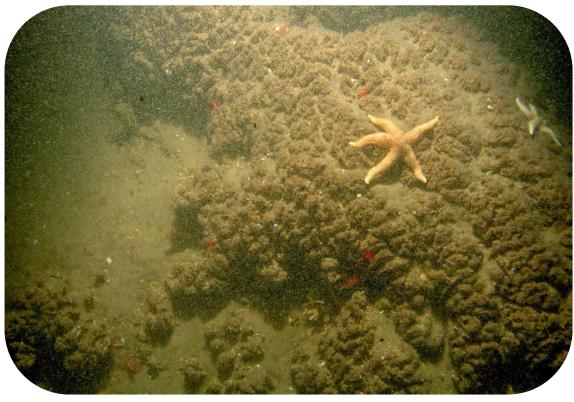
Images from Habitas and MarLIN

- Key sensitive (Annex I) habitats:
 - Sandbanks which are slightly covered by sea water all the time
 - Reefs
 - Biogenic (<u>Sabellaria spinulosa</u>, Modiolus modiolus)
 - Geogenic (stony/rocky reef)



Benthos





Oceana

JNCC



Fish & Shellfish







British Marine Life Pictures

- Key fish species
 - Ecology: herring, sandeel, shad, smelt, European eel, lamprey, sea trout
 - Commercial: cod, whiting, flatfish, gurnards, seabass, anglerfish, mackerel, skates and rays, lesser spotted dogfish
 - Shellfish: brown crab, velvet crab, lobster, pink/brown shrimp, whelk, cockle
 - Other: gobies, dragonets, pogge, sculpins, bib/pouting, wrasse, rockling, butterfish, garfish, lumpsucker and many more!
- Long history of commercial harvesting of fish and shellfish in SNS
- Sensitive species and habitats
- Occasional vagrant species such as grey trigger fish, sunfish, thresher shark

Marine Mammals

- Resident species
 - Harbour porpoise
 - White beaked dolphin
 - Minke whale
 - Grey Seal
 - Harbour Seal
- Vagrants include sperm whale, Atlantic white sided dolphin and fin whale
- Sensitive species and habitats





Sea Watch Foundation

Bats

- 18 resident species in the UK with 17 breeding here
- Species include common pipistrelle (Pippistrellus pippistrellus), the noctule (Nyctalus noctula) and the brown long-eared bat (Plecotus auritus)
- Key species: Nathusius' pipistrelle (Pipistrellus nathusii)
 - Small number of resident colonies
 - European colonies migrate SW in autumn/winter
 - Winter migrants supplement the resident UK population
 - Individuals recorded on North Sea O&G platforms
- Other species known to migrate over UK waters:
 - Common pipistrelle
 - Noctule
 - Leisler's bat (Nyctalus leisleri)
 - Parti-colored bat (Vespertilio murinus)



- Northern bat (Eptesicus nilssonii)
- Serotine bat (*Eptesicus serotinus*)

Summary

Much more I could say...

- Key species and habitat sensitivities in region
- Long history of disruption and exploitation has shaped communities and their habitats
- The area continues to be important for commercial fisheries
- There are many well-known commercially targeted species, but many more interesting and ecologically important species present



THANK YOU!

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