A COMPARISON OF DIET OF VELVET BELLY LANTERN SHARK *(EPTOMEUS SPINAX)* AND BLACKMOUTH CATSHARK *(GALEUS MELASTOMUS)* IN THE NORTH SEA AND NORWEGIAN FJORDS

BACKGROUND

The Velvet belly lantern shark and Blackmouth catshark are small, deep-dwelling shark species. There is little research feeding habits of the species in the northern parts of the Atlantic Ocean. Our research focused on their role in the food chain by conducting a stomach analysis to investigate any difference in dietary habits based on different habitats.

The research question we want to answer by conducting this study is:
Is there a difference in diets of *G. melastomus* and *E. spinax* based on their habitats?

RESEARCH AREAS AND METHODS

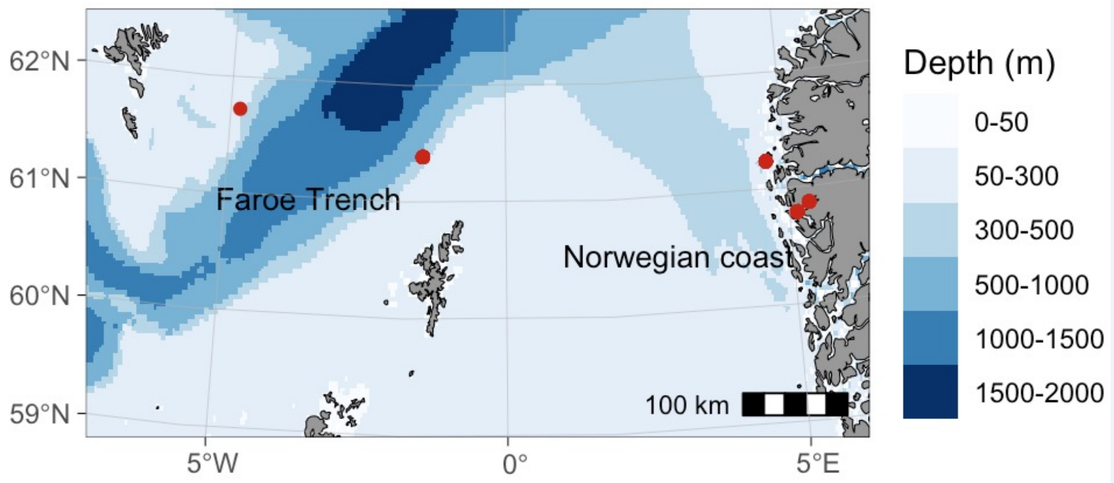


Figure: Map of the sampling stations in the Faroe Trench and Norwegian coast

RESEARCH AREAS

The research areas in this study reached from the Norwegian fjords on the west coast of Norway to the Faroe Islands across the North Sea, with samples taken in sheltered fjords, open coastal waters and in the Faroe Trench.

METHODS

75 stomachs from *E. spinax* (45) and *G. Melastomus* (30) were collected. The fish were weight- and length measured before extracting the stomachs. The stomach analysis were conducted by measuring and analysing:

- Total stomach weight
- Total stomach volume
- Solid content
- Gue colour

STOMACH CONTENTS AND GUE COLOUR

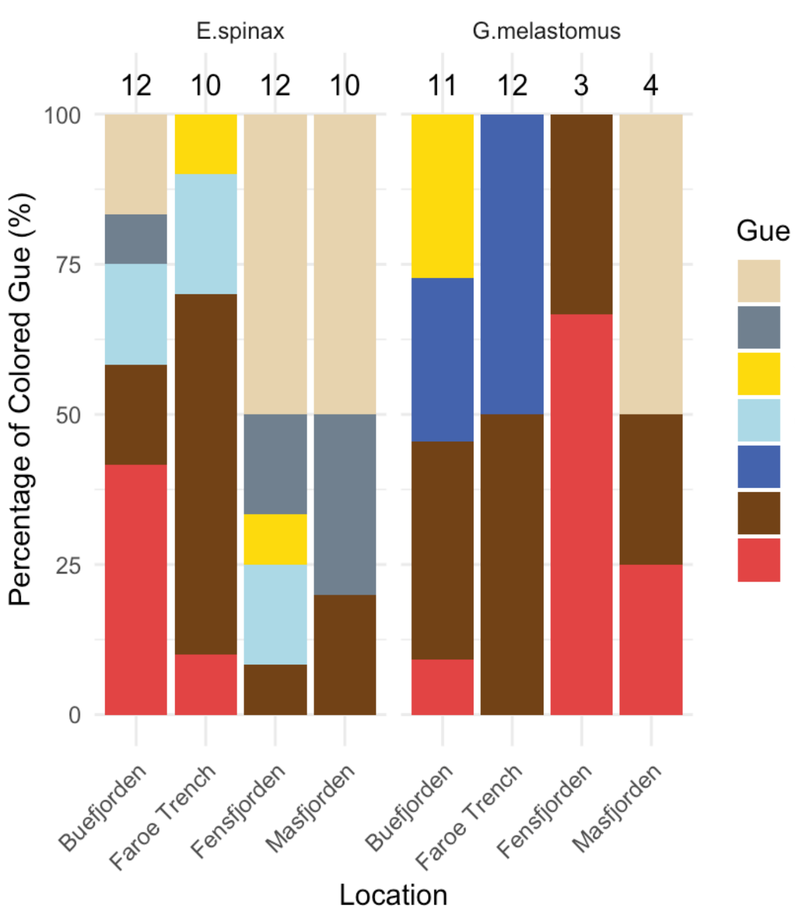


Figure: Comparison of stomach gue-colour in sampled shark species' locations.

The analysis showcased that *E. spinax* and *G. melastomus* had differences in diets, based on habitat, location and species consumed.

Coloration of the stomach fluid (gue) was observed and used as an indicator for their feeding habits and diets. In addition, solid contents, eye lenses, and otoliths from the stomachs were studied to determine what species the shark had been feeding on, and prey was identified to the lowest taxonomic level possible.

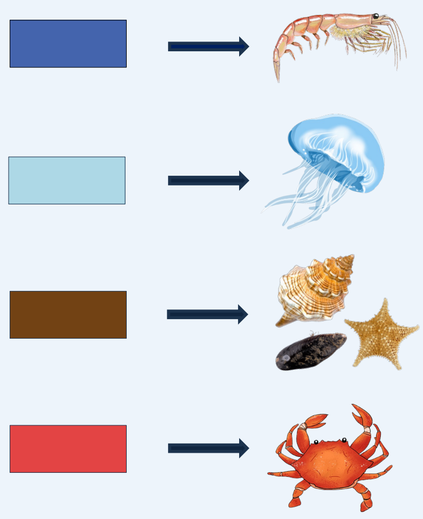
OPEN WATERS

Greater amount of variation in gue colours in the sharks of both species situated in open waters.

SHELTERED WATERS

Greater number of empty stomachs and low variety in gue colour of both *E. spinax* and *G. melastomus* situated in sheltered waters.

GUE COLOUR INDICATOR



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