

Hidden in the depths

Vertical distribution of gelatinous zooplankton in the Norwegian sea and adjacent fjords

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Abstract

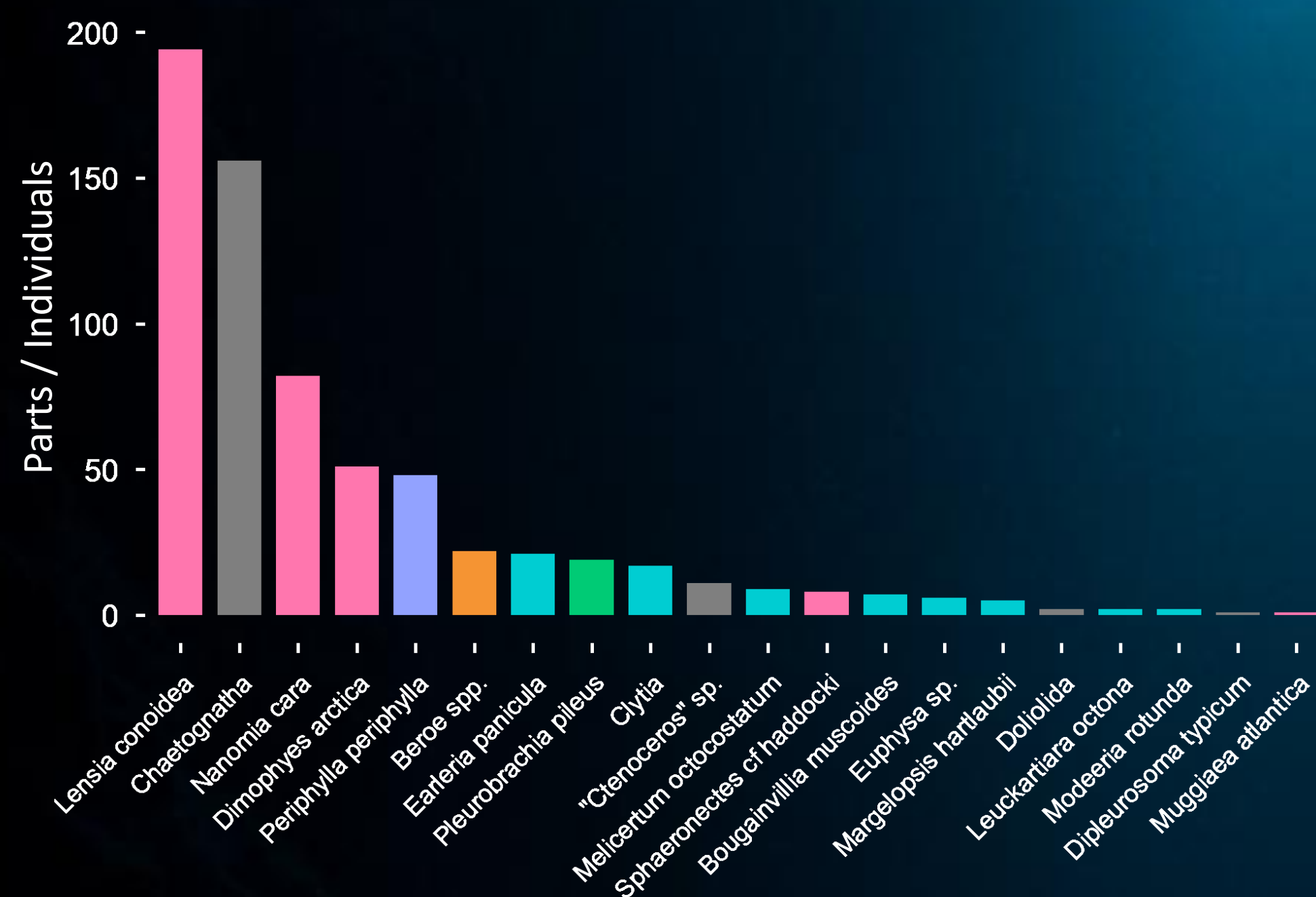
UiB and OceanX cooperated in a research cruise in August 2023, sailing the Norwegian sea and adjacent fjords. They sent ROVs beneath the surface to capture footage of the diversity of animals in those areas. My job is to work with and analyze data from the ROV video transects and plankton net samples, focusing on gelatinous zooplankton. How do the different methods of sampling compare and how do they cooperate in expanding our knowledge?



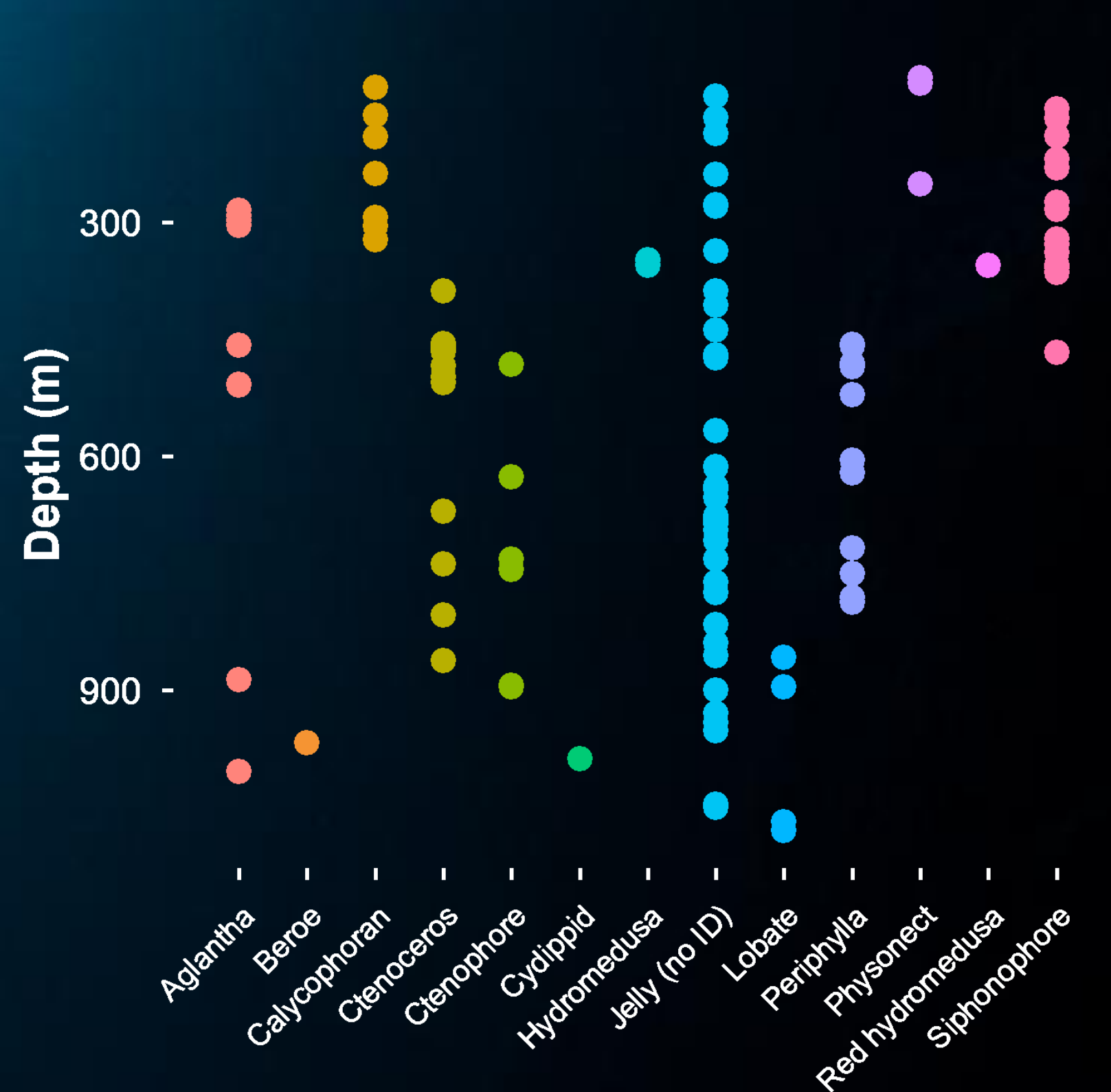
Methods

ROV videos were uploaded to the annotation software Biigle. All occurrences of gelatinous zooplankton were then marked with their respective depth and label name (right figure). These findings from each dive were then compared to the physical net samples (left figure).

Brekke – Sognefjorden (Physical net samples)



Brekke – Sognefjorden (ROV observations)



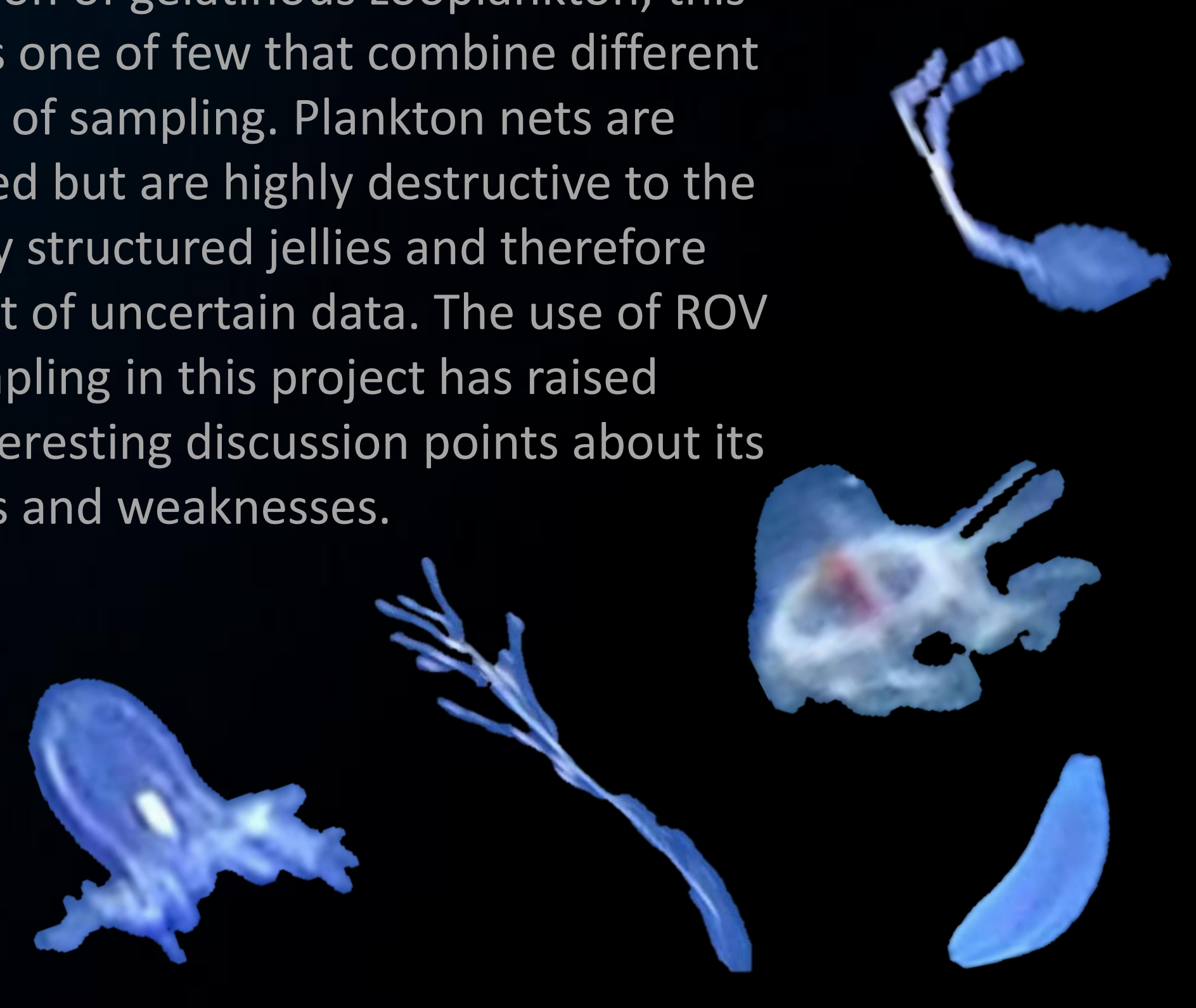
Results

The net samples show specific species and taxonomic groups, with no unidentified jellies. The ROV data offer much rougher estimates of taxonomic groups but contribute greatly to the vertical placement of these jellies. All groups have correlated observations between both methods for certain dives but it is clear that the two sampling methods add missing data to one another.



Discussion

Not much is known about the vertical distribution of gelatinous zooplankton, this project is one of few that combine different methods of sampling. Plankton nets are often used but are highly destructive to the delicately structured jellies and therefore have a lot of uncertain data. The use of ROV data sampling in this project has raised many interesting discussion points about its strengths and weaknesses.



Acknowledgements

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