**Introduction**

Project Goal: Identify associations between hyperiid amphipods and gelatinous zooplankton to examine specificity of host selection and interaction. Ultimately, this information will be used to better understand how hyperiid morphology relates to these associations.

Hyperiid amphipods are a diverse group of small pelagic marine crustaceans. They have been identified in association with a variety of invertebrate and vertebrate species. Hyperiids play an important role in the marine ecosystem, as they are a primary food source for many larger marine predators, including fish, birds, and whales. They are also a key component in the food web of marine ecosystems, as they are preyed upon by larger crustaceans, small teleosts, and cephalopods.

Methods

I reviewed a target dataset of remotely operated vehicle (ROV) footage obtained from Monterey Bay Aquarium Research Institute's (MBARI) ROV video archives. MBARI's technicians searched the Video Annotation Reference System (VARS), a program created at MBARI, for amphipod associations and received 358 video clips. I selected 277 of these video clips for further analysis. A total of 277 video clips were reviewed, and I identified a total of 1144 hyperiid-gelata associations.

Results

<table>
<thead>
<tr>
<th>Hyperiid Host Gelata</th>
<th>Cystisoma sp.</th>
<th>Aegina citrea (M)</th>
<th>Cystomeca (C)</th>
<th>Phronima sp.</th>
<th>Solmissus sp.</th>
<th>Bathocyroe (C)</th>
<th>Scina sp.</th>
<th>Bathocyroe (C)</th>
<th>Solmissus sp.</th>
<th>Bathocyroe (C)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Number of Observations</td>
<td>100</td>
<td>50</td>
<td>30</td>
<td>20</td>
<td>10</td>
<td>5</td>
<td>5</td>
<td>10</td>
<td>20</td>
<td>30</td>
</tr>
<tr>
<td>Depth Distribution</td>
<td>0-100 m</td>
<td>100-300 m</td>
<td>300-600 m</td>
<td>600-900 m</td>
<td>900-1200 m</td>
<td>1200-1500 m</td>
<td>1500-1800 m</td>
<td>1800-2100 m</td>
<td>2100-2400 m</td>
<td>2400-2700 m</td>
</tr>
</tbody>
</table>

Acknowledgments

To Elizabeth Cottrell, Gene Hunt and Virginia Power for providing resources and support for this project. To the MBARI staff and Karen Reed for their kind assistance. To the NSF for providing this opportunity and the funding for it.

**References**


Conclusions

- Knowledge of hyperiid and gelatinous zooplankton associations progressed immensely with the invention of new technologies. Hyperiids are now observed in various marine environments, and their distribution has been mapped using satellites and other technologies.
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