Subtidal biodiversity on the central coast of British Columbia

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BACKGROUND

- Biodiversity is declining at an accelerated rate, yet our ability to track these declines is hindered by incomplete data on the distribution and abundance of many species.
- To improve our ability to monitor changes in biodiversity, we are building a comprehensive genetic database of species on the central coast of British Columbia.
- Our previous work has shown that the number of unrecorded species dramatically increases in subtidal habitats, which have received less scientific attention than the intertidal zone.

METHODS

- We conducted an intensive survey to catalogue deep-water biodiversity on the central coast of British Columbia.
- Specimens were collected to a depth of 40m by SCUBA, and a remotely operated vehicle (ROV) was used to target specimens down to 275m.

RESULTS

- In 5 days our team sampled 944 individuals from 17 phyla
- Many are new records for the central coast, lack sequence data, or are previously undescribed.
- Below we present a visual snapshot of these beautiful yet understudied taxa.

WORKFLOW

1. Samples are collected by SCUBA and ROV
2. Specimens are identified by taxonomists

[3] Collection info, photo, and DNA sequence are accessioned in a public database (BOLD)
[4] Specimens are vouchered at the Florida Museum of Natural History