



## Key Vocabulary and Definitions

### Forams as Storytellers

**Abundance** - the number of individuals found in a region. In this case, represented as the number of individuals in a volume of seawater.

**Anomaly** - something that deviates from a normal or average

**Benthic** - an organism living in the 'benthos' or sediments. Foraminifera tend to live in the benthos or be free-floating plankton.

**Bioprovince** - a large geographical area that has a distinct group of species. For foraminifera, bioprovinces are defined by the sea surface temperatures that a group of foram species are typically found in.

**Calcium carbonate** -  $\text{CaCO}_3$  - chemical compound and mineral. Calcite is the most common and stable type of calcium carbonate and is what most foraminifera shells are made out of.

**Foraminifera** - microscopic, single-celled organism that grows a shell or test. Forams are an important tool for our understanding of ancient climate and climate change because their tests are well-preserved in deep sea sediment cores.

**Longitude** - measurement of east or west of the prime meridian

**Latitude** - measurement of north or south of the equator

**Marine heatwave** - prolonged period (of at least 5 days) of unseasonably and above average warm sea surface temperatures.

**Newport Hydrographic Line** - a long-term sampling transect off of the Yaquina Head Lighthouse in Newport, OR established in the 1950s to sample the oceanography of the region. There are set geographic locations where regular sampling occurs extending from 1 nautical mile to 200 nautical miles offshore.

**Plankton** - an organism living in the water that cannot swim out of a current, a 'drifter'

**Planktonic/Planktic** - describing a plankton life cycle. Some foraminifera are planktonic, whereas others live in the sediments or are benthic.

**Protist** - any eukaryotic organism (that is, an organism whose cells contain a cell nucleus) that is not an animal, plant, or fungus.

**Proxy** - a variable which correlates with the variable of interest which can be measured and then used to infer the value of the variable of interest.

**Sea Surface Temperature** - the temperature of the surface of the ocean.

**Sediment core** - a long tube of mud, that shows layers of mud, sand, etc. how sediments have accumulated over time. It looks like slices of a cake. Sediment cores are collected by researchers, often using research vessels like the *R/V JOIDES Resolution*, to study how sediments collect and change over time.

**Test** - shell of a foraminifera, which is made out of calcite for most species (and all we discuss in this curriculum). Foraminifera have multi-chambered shells and grow a new chamber every other day.