

## 15 Multiple choice questions

Term 1 of 15

What hypothesis relates to oxygen availability in polar gigantism?

- ☐ High oxygen coupled with lower metabolic rates.
- ☐ The phenomenon of larger body sizes in polar organisms.
- ☐ Stable oxygen with fluctuating metabolic rates.
- ☐ Variable oxygen with increased metabolic rates.

Term 2 of 15

What is the term for the invasion of polar seas by giants from the deep sea?

- ☐ Abyssal gigantism
- ☐ High sea-ice years
- ☐ Digging and bioturbation
- ☐ Benthic-Pelagic Processes

Term 3 of 15

What type of sediment is found in Arctic benthic communities?

- ☐ Giant kelp
- ☐ Ice
- ☐ Soft sediment
- ☐ Hard bottom

Term 4 of 15

What is a primary factor for macrofauna in Arctic environments?

- ☐ Digging and bioturbation
- ☐ Benthic-Pelagic Processes
- ☐ High sea-ice years
- ☐ Low sea-ice years

Term 5 of 15

What is the coupling between surface and seafloor in polar regions called?

- ☐ Benthic-Pelagic Processes
- ☐ Low Sea-ice Years
- ☐ High Sea-ice Years
- ☐ Abyssal Gigantism

Term 6 of 15

What favors krill in the Antarctic Ocean?

- ☐ High sea-ice years
- ☐ Low sea-ice years
- ☐ Fish
- ☐ Hard bottom

Term 7 of 15

What type of bottom is found in Antarctic benthic communities?

- ☐ Bikini bottom
- ☐ Hard bottom
- ☐ Vegetated soft bottom
- ☐ Unvegetated soft bottom

Term

8 of 15

Are Antarctic food webs dependent on krill?

- ☐ True
- ☐ Ice
- ☐ Krill
- ☐ Fish

Term

9 of 15

What is the role of brine channels in pack ice?

- ☐ They stabilize the ice structure.
- ☐ They create a variable substrate for communities.
- ☐ They regulate ice melting rates.
- ☐ They provide a uniform habitat for life.

Term

10 of 15

What affects calcifying organisms in polar waters?

- ☐ More soluble CO<sub>2</sub> in colder waters.
- ☐ Increased calcium carbonate levels in colder waters.
- ☐ Reduced CO<sub>2</sub> Absorption in polar waters.
- ☐ Higher salinity in warmer waters.

Term

11 of 15

What favors salps in the Antarctic Ocean?

- ☐ Soft sediment
- ☐ High sea-ice years
- ☐ Fish
- ☐ Low sea-ice years

Term

12 of 15

What are Arctic food webs based on?

- ☐ Mammals
- ☐ Fish
- ☐ Insects
- ☐ Ice

Term

13 of 15

What are Antarctic food webs based on?

- ☐ Plankton
- ☐ Krill
- ☐ Jellyfish
- ☐ Fish

Term

14 of 15

What is polar gigantism?

- ☐ The phenomenon of larger body sizes in polar organisms.
- ☐ The increase in polar organism diversity over time.
- ☐ The phenomenon of smaller body sizes in polar organisms.
- ☐ The adaptation of polar organisms to warmer climates.

Term

15 of 15

What is a major disturbance factor in polar communities?

- ☐ Salt Water
- ☐ Fish
- ☐ Hot Springs
- ☐ Ice