Name: Score:

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**

LIVEWORKSHEETS

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 CO2 in colder waters.
- ○ Increased calcium carbonate levels in colder waters.
- ○ Reduced CO2 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

LIVEWORKSHEETS