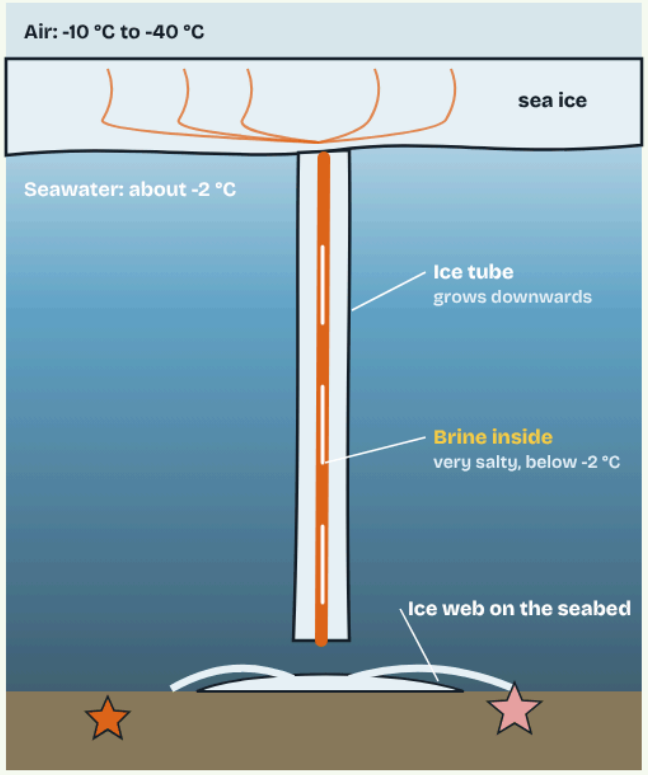
That is why

How does a brinicle form?

Salty brine leaking from sea ice is colder than seawater can be, so it builds a tube of ice around itself as it sinks.

A Under the sea ice



Slow animals, such as sea stars, can be frozen in place.

B Step by step

1. **Freezing pushes out salt**
   As sea ice grows, salt is left behind as very salty, very cold brine.
2. **Heavy brine drains**
   The brine collects in tiny channels, then leaks out and sinks.
3. **It freezes the water around it**
   The brine is below the freezing point of seawater, so a tube of ice forms.
4. **It reaches the seabed**
   The brine spreads out and freezes a web of ice across the bottom.

C Key facts

1. **About 6 times saltier**
   Brine can reach 224 parts per thousand; seawater is about 35.
2. **Usually under a metre**
   Most are 10 to 100 cm long; a few reach several metres.
3. **Slow, not sudden**
   They grow over hours or days. Films speed them up.
4. **First filmed in 2011**
   For the BBC series Frozen Planet.

Ice floats: it is the sinking brine inside that builds the tube.

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