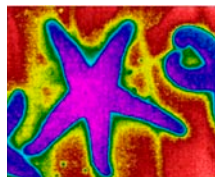


An infrared photo (above) shows that arms filled with cold water keep sea stars (left) cool even in the sun.

Stars In the Sun An exposed ochre sea star may appear to be basking in the sun, but air that's above 73°F can harm—and, at 95°F, kill—this colorful icon of the North Pacific coast. So how does it keep its cool? By taking the temperature, then using its balloon-like anatomy.

An international team of biologists in Bodega Bay, California, say sea stars use their time on land during low tide to assess the air. When the waves roll back in and submerge them, they fill the cavities in their arms with frigid water, taking in more or less based on



the perceived air temperature. During the next low tide, those arms act like cold packs in a lunch bag, slowing the heating.

Yet researchers warn that climate change could compromise this novel strategy. Much like trying to chill a sandwich with cold packs you left

on the counter overnight, the sea star's cooling system will break down as ocean temperatures rise. And because it's a keystone species, playing an outside role in its ecosystem, the consequences could be far worse than just a spoiled lunch. —*Juli Berwald*