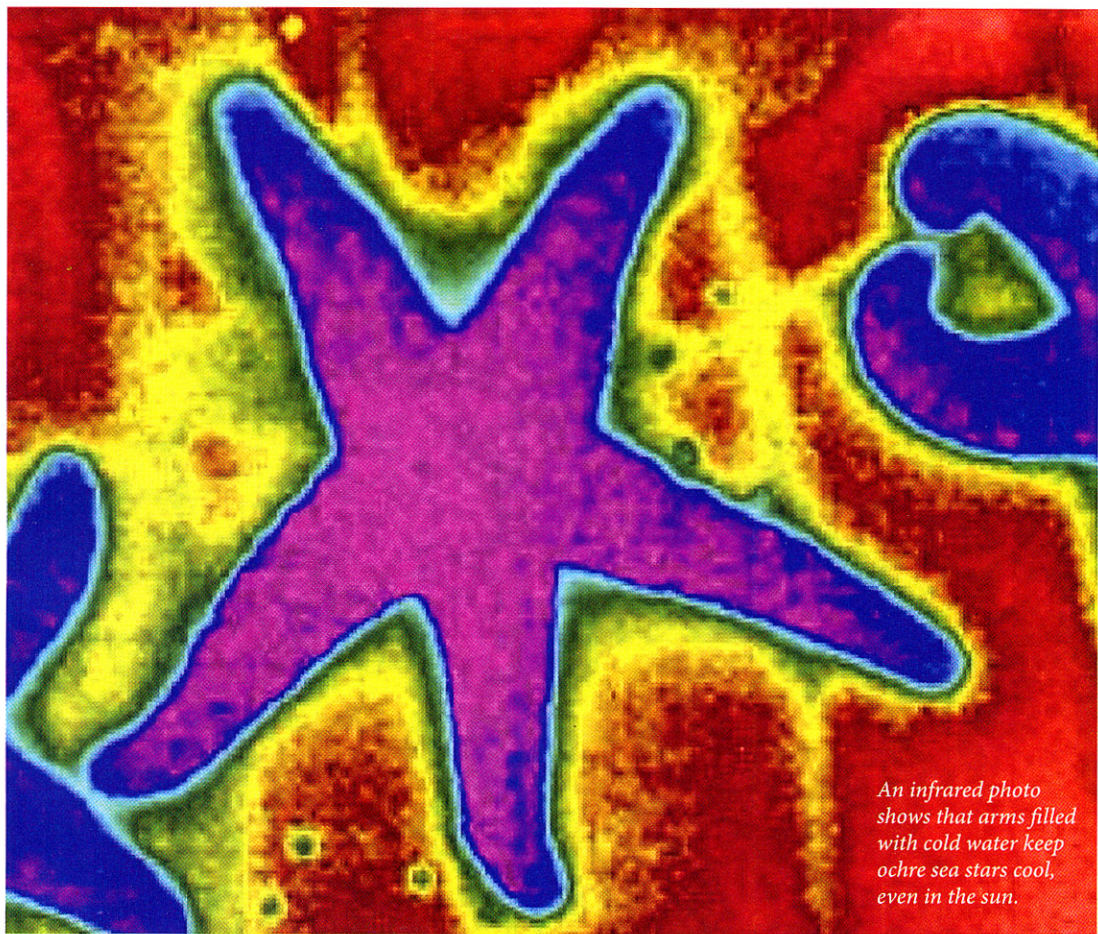


NOW



An infrared photo shows that arms filled with cold water keep ochre sea stars cool, even in the sun.

Stars in the Sun An exposed ochre sea star may appear to bask in the sun, but air that's warmer than 73°F can harm—and, at 95°F, kill—this icon of the North Pacific coast. How does it keep its cool? By taking the temperature, then using its five-armed, balloon-like anatomy.

A team of biologists in Bodega Bay, California, say sea stars use their time during low tide to assess the air. When waves roll in and submerge them, they fill cavities in their arms with frigid

water, taking in more or less, based on the perceived air temperature. During low tide, those arms act like cold packs in a lunch bag, slowing heating.

Yet these animals are also susceptible to changes in water temperature. Much like trying to chill a sandwich with cold packs left out overnight, the sea star's cooling system will fail if sea temperatures rise. Because it plays an outside role in its ecosystem, the consequences could be worse than a spoiled lunch. —Juli Berwald