

Marine biologists do a lot of different things. They can...

Raise awareness about problems with ocean pollution



Measure sea turtles to see how big they are



Track sea animals to see where they travel to



Marine Biologists in Action

Marine biologists can work in a lot of different places. They can work...

In the ocean to observe plants and animals.



In a laboratory to do experiments about ocean water.



In an aquarium to figure out what habitats sea animals need to live in.



Marine Biologists in Action



Tracking Devices

- Problem #1: Size and Shape



- Current tracking devices are large and heavy. They only fit on large animals. They also can fall off animals while they swim.

- Problem #2: Staying Charged



- Current tracking devices only stayed charged for part of the day.

Problems with Current Tracking Devices

- Problem #3: Changing Swimming Patterns



- Because tracking devices are heavy, they affect when and where animals swim. Animals who have the device might swim less because the device is heavy. This is a problem. Marine biologists won't have accurate information on where sea animals go.

- Problem #4: No Pollution Information



- Current tracking devices don't give information on if there is pollution in the water. This is a problem. Marine biologists want to know if sea animals are swimming where there is pollution.

Problems with Current Tracking Devices

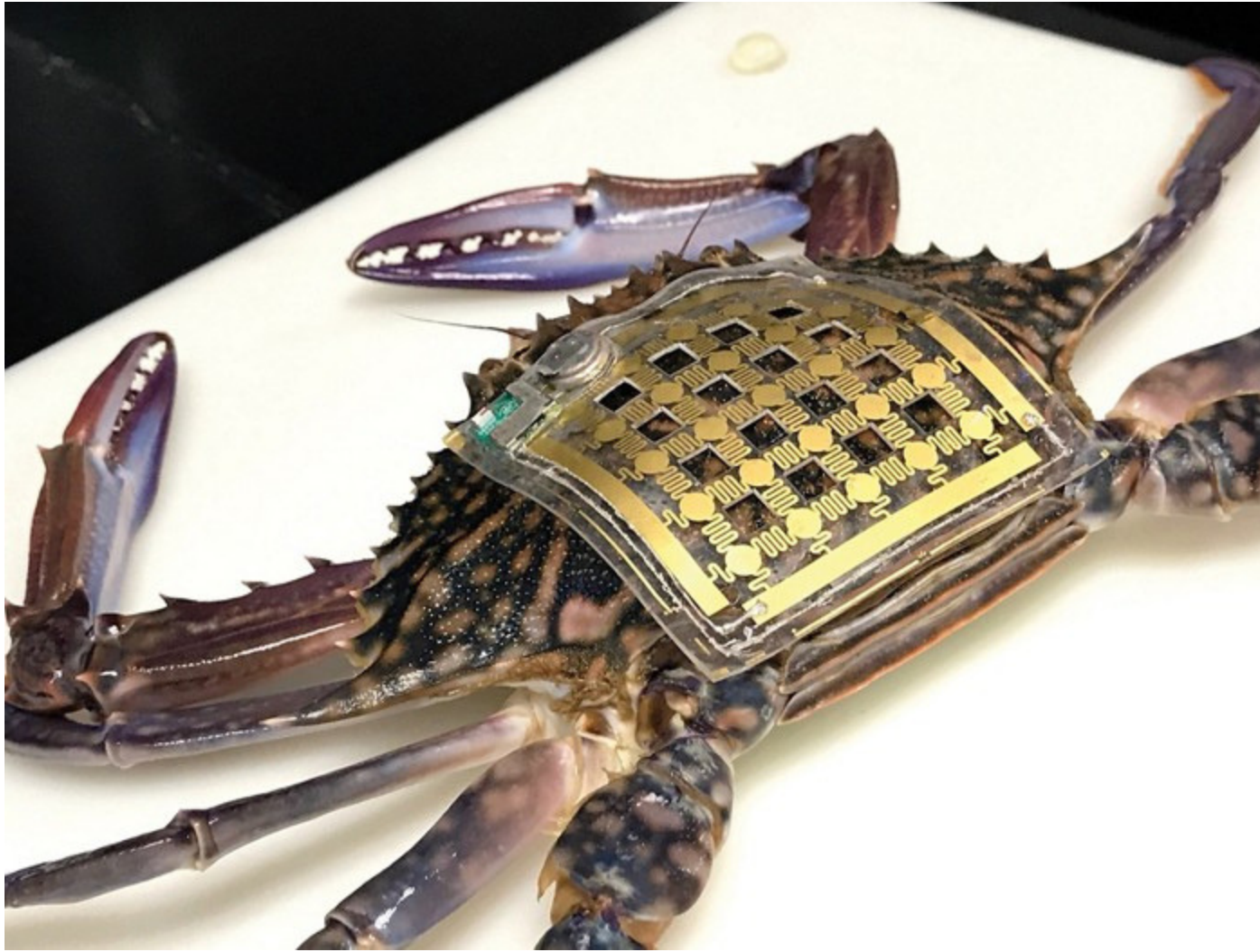


Photo Credit: Joanna Nassar

Smart Skin for Crabs

How Does it Work?

- Device has a small computer in it. It tracks where and when animals swim.
- The information is sent to a phone or computer.
- Marine biologists can look at the information to learn about sea animals.

How is it Different From Other Devices?

- Small and light. It can fit on any size animal.
- It can stay charged for a very long time.
- It can tell you what the pollution levels are in the water.
- It doesn't affect animals' behavior. It doesn't change where and when they swim.

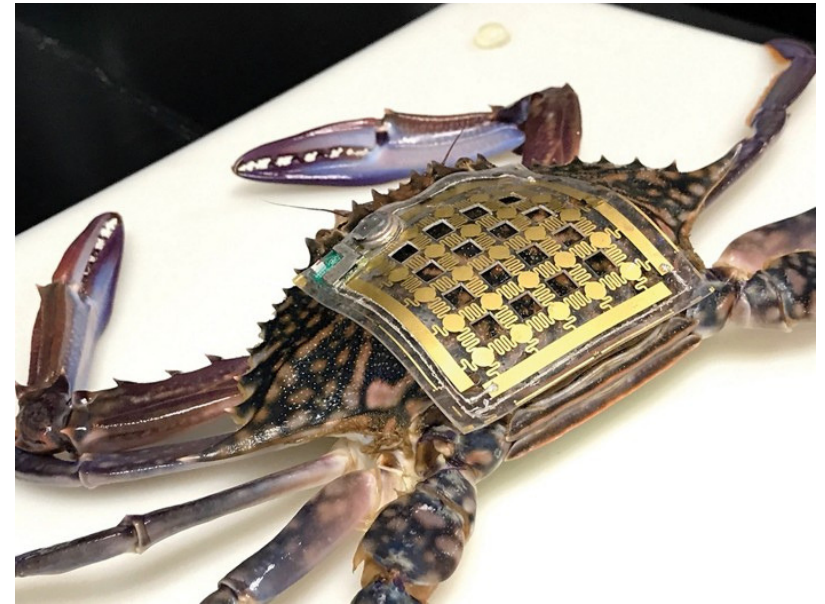


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