

Cute chick rover: A new way to spy on shy penguins (w/ Video)

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Brooding emperor penguin with its chick approached by a rover camouflaged with a fake chick. Credit: Le Maho, et. al.

The newest tool for biologists is the baby penguin robotic spy.

It's pretty darn cute, and so convincing that penguins essentially talk to it, as if it is a potential mate for their chicks.

Emperor penguins are notoriously shy. When researchers approach, these penguins normally back away and their heart rate goes up. That's not what the scientists need when they want to check heart rate, health and other penguin parameters.

So international scientists and even filmmakers, led by Yvon Le Maho of the University of Strasbourg in France, created a remote control rover disguised as a chick to snuggle up to shy penguins in Adelie Land, Antarctica—the same place where the 2005 documentary "March of the Penguins" was filmed.

Researchers watched from more than 650 feet (200 meters) away.

The first disguised version of the rover, made of fiberglass, didn't pass muster and scared the real birds, Le Maho said.

Researchers tried about five versions until they hit upon the right one. It's covered in gray fur, sports black arms, and has a black-and-white painted face and black beak.

The penguins didn't scamper away and even sang to it with "a very special song like a trumpet," Le Maho said.

Le Maho suggested that the adult penguins were trying to find a mate for their chicks and they were listening for a response, but researchers didn't program the rover to make a sound.

"They were very disappointed when there was no answer," Le Maho said. "Next time we will have a rover playing songs."

At other times, the rover crowded in with a group of chicks, acting as "a spy in the huddle," Le Maho said.

There's a reason scientists want to use rovers. Some, but not all, researchers worry that just by coming close to some shy animals they change their behavior and can taint the results of their studies, Le Maho said.

Le Maho also used a rover without any animal disguise to spy on king penguins and elephant seals because those animals don't flee strangers. The king penguins attacked the small rover with their beaks, unless it stayed still, but that still allowed the device to get close enough to get readings. The large lumbering elephant seals didn't budge when the rover zipped by and around them.

In the future, the researchers plan to use a more autonomous robot to spy on the emperor penguins. The idea is to use devices on the rover to read signals from radio tags on the birds.

The study is published Sunday by the journal *Nature Methods*.

More information: *Nature Methods*, [dx.doi.org/10.1038/nmeth.3137](https://doi.org/10.1038/nmeth.3137)

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