

# **A whale meets itself at last: Belugas may have crossed a cognition line to join an elite group of animals**

May 21 2026, by Paul Arnold

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Beluga whale. Credit: Marine Mind/Abigail Carleen Dahl, [CC BY](#)

For humans, recognizing our reflection comes naturally, and we barely give it a second thought. Called mirror self-recognition (MSR), it is

widely considered a sign of self-awareness and cognitive development. In the animal kingdom, this ability, as far as we know, is incredibly rare, documented in only a few highly intelligent species such as chimpanzees, elephants, and bottlenose dolphins. To that list, we can now add the beluga whale.

In a new study [published](#) in *PLOS One*, scientists from the City University of New York report that two belugas may have recognized their reflections and used a mirror to investigate their own bodies.

[Beluga whales](#) are highly intelligent mammals with large brains, advanced communication skills, and problem-solving abilities, making them ideal for this kind of research.

## **Mirror tests**

The experiments took place about 25 years ago at the New York Aquarium. However, they're being published now because the video data wasn't fully analyzed at the time.

The study focused on a social group of four female beluga whales. Researchers placed a two-way plexiglass mirror on the outside of an underwater viewing window for two hours at a time. To ensure the whales were responding to the mirror, not just a shiny surface, the team also ran control sessions with a clear piece of plexiglass. As the whales passed the glass, a hidden digital camera captured their movements.

## **You look familiar**

Two of the whales, Natasha and her daughter Maris, showed strong interest in the mirror and progressed through the classic stages seen in [mirror self-recognition](#) studies. These were social responses (treating the

reflection like another whale), contingency testing (checking whether the reflection mirrored their movements), and self-directed behavior (inspecting their own bodies). For example, they would blow bubbles, turn and bite them while watching their reflection.



Beluga whale. Credit: Marine Mind/Abigail Carleen Dahl, [CC BY](#)

The other two whales largely ignored the glass, and so did not progress to the next stage of the study. Here, researchers marked Natasha and Maris with temporary black lipstick. Natasha turned toward the mirror to look at the marked area on her body, but Maris did not show the same response.

"Such self-directed behaviors provide compelling evidence in support of the belugas' capacity for MSR," noted the researchers in their paper.

"The emergence of self-directed behavior in two beluga whales and mark-directed behavior in one beluga whale after exposure to a mirror indicates that this capacity may be more widespread beyond the family Delphinidae and extend to Monodontidae."

Although not every whale in the group showed interest in its reflection, the study authors write that this is normal in mirror studies. They explain that individual attention levels vary, and some animals may simply choose to ignore the glass.

**More information:** Alexander Mildener et al, Evidence for mirror self-recognition in beluga whales (*Delphinapterus leucas*), *PLOS One* (2026).

[DOI: 10.1371/journal.pone.0348287](https://doi.org/10.1371/journal.pone.0348287)

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Citation: A whale meets itself at last: Belugas may have crossed a cognition line to join an elite group of animals (2026, May 21) retrieved 21 May 2026 from

<https://sciencex.com/news/2026-05-whale-belugas-cognition-line-elite.html>

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