

Giant tortoises found to be trainable and to have long memories

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A trio of researchers with the Okinawa Institute of Science and Technology, the Hebrew University and Tiergarten Schönbrunn, Maxingstrasse, has found that giant tortoises are not only trainable, but

have long memories. In their paper published in the journal *Animal Cognition*, Tamar Gutnick, Anton Weissenbacher and Michael Kuba describe training exercises they carried out with the huge tortoises and what they learned from them.

As the researchers note, little study has been carried out regarding turtle intelligence—and most of the studies that have been conducted have focused on marine turtles. Because of that, very little is known about giant tortoises that live on land. What is known is that they sometimes travel long distances in the wild, interact infrequently with others of their kind, and live a very long time—sometimes up to 100 years. Because of their ability to travel long distances, the researchers suspected that the giant turtles of the Galapagos and Aldabra Islands likely have a good [memory](#)—they seemed to remember the path to intended destinations and how to get back. Because of that, the researchers set up an experiment designed to test their memory—and in so doing, discovered that the large creatures are also trainable.

The experiment was simple—it consisted of training [giant tortoises](#) living in zoos in Austria and Vienna to bite a colored ball affixed to the end of a stick. When they bit the right colored ball, they received a reward. Biting the wrong ball resulted in no reward. The researchers report that all of the tortoises were able to learn this simple task. Then, to test their memory, they presented the tortoises with the same sticks and colored balls 95 days later. The researchers report that all of the tortoises were able to remember their training and pick the right ball. The researchers came back to the zoo nine years later and tested all the tortoises again, and found the same result—every [tortoise](#) chose the correct colored [ball](#) with no reminders. The researchers also noted that, during [training](#), the tortoises seemed to learn what to do faster when they were trained as a group—even if [group members](#) were being trained with different colored balls.

More information: Tamar Gutnick et al. The underestimated giants: operant conditioning, visual discrimination and long-term memory in giant tortoises, *Animal Cognition* (2019). [DOI: 10.1007/s10071-019-01326-6](https://doi.org/10.1007/s10071-019-01326-6)

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