How brainless jellyfish are capable of learning

Cnidarians — the animal group which includes jellyfish, sea anemones and coral — are brainless, instead getting by with a “dispersed” central nervous system.

Despite this considerable disadvantage, the Caribbean box jellyfish responds to what is called “operant conditioning,” according to the study in the journal *Current Biology*.

This means they can be trained to “predict a future problem and try to avoid it,” said Anders Garm, a marine biologist at the University of Copenhagen and the study’s lead author.

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To test the jellyfish, the researchers put them in a small, water-filled tank with stripes of varying darkness on the glass walls to represent mangrove roots.

After a few bumps into the walls, the jellyfish quickly learned to move through the parts of the enclosures where the bars were least visible.

The jellyfish learned their lesson in between three to six tries, “which is basically the same amount of trials for what we would normally consider an advanced animal, like a fruit fly, a crab or even a mouse,” he said.

They said their research supports the theory that even animals with a very small number of neurons are capable of learning.

That such a simple organism is able to achieve this feat “points to the very intriguing fact that this may be a fundamental property of nerve systems,” Garm said.

*This is an excerpt. Read the full article here*