The problem-solving skills of the hyena

The clever opportunists of the savannah

Hyenas are considered cowardly scavengers, ugly and devious. The evolution, however, has equipped the pack robbers very well. In addition to tremendous bite force and keen senses, spotted hyenas in particular also have a lot of brains.

The biologist Lily Johnson-Ulrich tested the abilities of these animals in Kenya's Masai Mara National Park. To do this, she set up a so-called MAB, a multi-access box. This cube with a side length of around 40 centimetres had several access doors and was filled with tasty bait. If an animal wanted to get hold of the bait, it had to activate a certain opening mechanism. So that the hyenas don't just bite open the box, Johnson-Ulrich chose an MAB made of steel that has four different access options: a sliding door, a drawer, a hatch with a doorknob and a pressure door. If a hyena had "cracked" a door, it was locked during the next test and the MAB was put in front of the animal again. Now it had to look for another way.

Working with the wild test subjects required a lot of effort from the staff. The four-legged friends first had to learn to trust Johnson-Ulrich and her colleagues. Second, the researcher wanted to test as many different hyenas as possible - young and old, dominant and subordinate, females and males. The latter in particular were difficult to achieve. "It took many, many hours," says Johnson-Ulrich. The background: packs of hyenas are consistently organised in a matriarchal manner, the males are always at the lowest rank. Once one of them was finally on the MAB, he was in danger of being quickly scared away by a curious upper-class.

Despite such obstacles, the biologist was ultimately able to involve 72 hyenas. 23 of them solved the puzzle at least once. Most of the time, these animals also managed to bypass a locked door by opening another, so they demonstrated innovative behaviour. In many cases, however, hyenas were not interested in the MAB at all. Instead, they dozed off in the sun or courted. "Your personality is probably the deciding factor when it comes to examining the box at all," says Johnson-Ulrich. Perhaps, she adds with a smile, it is a sign of prudence not to bite the metal box in the first place.