A huge dark blob is speeding through the shallows of Queensland's Moreton Bay. Two inflatable boats carrying men and women in wetsuits close in on the fleeing shadow. Then the unmistakable broad head of a dugong breaks the surface. As it gulps for air, four men pounce on it, leaping into the chilly blue bay off Brisbane. But this adult male dugong is no easy target. He bucks off his attackers and an underwater wrestle begins. Long scars from past battles crisscross his back — a telltale sign he'll put up a fight. But the men are persistent. Two grab his tail and the other two each grab a pectoral fin. Seconds later, the dugong is immobilised.

More people in wetsuits crowd around, each with a mission. Samples are hurriedly taken while they all float as one knot of wetsuits, limbs and flippers, but there's more to be done. One of the boats unfurls a sling which is slipped under the 485kg mammal.

The other end of the sling is strapped to the other boat and between them, they tow the 2m-long dugong to the main research vessel. Looking like a hot dog, the sling nursing the dugong is hooked to a crane and he is gently lifted onboard the boat Sea World One.

Experts from the University of Queensland, Sea World, Sydney Aquarium and Western Plains Zoo work quickly, aware this is a stressful experience for the animal. "It's the first time these animals feel the weight of their bodies on their lungs and ribs, so you want them back in the water as quickly as possible," Sea World director of marine sciences Trevor Long says.

In about half an hour, the dugong is weighed, measured and undergoes a number of health checks. Samples of his blood, semen, urine, stool and even his tears are taken, all of which will give researchers vital information on his health and breeding potential.

Lead researcher Dr Janet Lanyon, from the University of Queensland, estimates the dugong to be 20 or 30 years old. It has taken them many years to develop the best method of catching and restraining dugongs.

"It’s only over the last three years that we have been able to bring the animals up on deck and collect these medically important samples," Dr Lanyon says.

"We do most of our tagging and body measures in the water, but we can’t collect blood or urine from animals that are moving around in the water."

A total of 20 wild dugongs were tested over eight days and Dr Lanyon says all were in good health with none so far showing any signs of disease or sickness.

Dugongs are vulnerable to extinction with only 100,000 remaining in Australian waters.