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Paraplegic sea turtle finds love, thanks to student and Lockheed aerospace technology

Leora Eren Frucht

When a young green sea turtle with two nearly severed limbs washed up on Israel's Mediterranean shore, his future looked grim. His rescuers had no choice but to amputate both limbs, leaving him unable to swim or even keep his head above the water.

A human amputee could be fitted with prosthetic limbs. But what do you do with a turtle?

Make him prosthetic flippers, of course.

That, at least, is what the folks at the Israel Sea Turtle Rescue and Rehabilitation Center thought after they brought the injured creature to the center, a sort of turtle hospital, located in Michmoret, a coastal community north of Netanya. But it took an industrial design student to come up with space-age faux flippers for the 40-kilo green sea turtle named Hofesh ("Freedom," in Hebrew).

Shlomi Gez, a 30-year-old animal lover with three dogs (and a wife and baby girl, he hastens to add) was looking for a final project for his studies at Hadassah Academic College in Jerusalem when he



Hofesh can now swim freely with the help of his high-tech flipper.

Yaniv Levy, NPA

came across the website of the turtle rescue center, which operates under the auspices of the Israel Nature and Parks Authority. He went there in November. "As soon as I saw the place, I was inspired, and I knew I could help solve their most acute problem, which

was Hofesh," he says.

Because he was missing two limbs on the same side of his body, the unfortunate reptile had no balance and kept being dragged under water, Gez explains. The turtle rescue center had fastened a snorkeling flipper on the left

side of Hofesh's body just to keep him afloat, but it was an improvised, messy solution that left the marine animal bumping into things all the time.

Gez's solution was a custom-designed flipper made of polypropylene, a water-

resistant durable but flexible plastic, which he attached to Hofesh's back with a harness.

"A flipper enables fish to retain their balance, so I decided to adapt the idea to a sea turtle," Gez explains.

Lockheed and a lease on life

His inspiration worked and Gez began fine-tuning the prototype. The final version was inspired by a particular model of a Lockheed Martin plane, the Raptor F22: "I'm using two small flippers placed at the same angle as the two rear winglets on the aircraft," he explains.

Hofesh is due to get his permanent set of flippers by the end of the month, says Gez. In the meantime, he has been fitted with an earlier version.

But the turtle already has a new lease on life.

"At first we could only put him in a shallow water pool because he would have drowned, but now that he has his artificial flipper he swims completely normally," says Yaniv Levy, director of the center, which has rescued

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over 500 sea turtles – both green turtles, a highly endangered species, and loggerheads -- since it was founded 15 years ago, and successfully returned about 70 percent of them to the sea.

Hofesh - not withstanding his name - cannot be set free, because if his flippers ever came loose, he would drown.

Who'd want a disabled turtle?

But things are looking up for the paraplegic turtle, who recently started a new chapter in life with a significant other.

As a member of a globally endangered species, Hofesh has been selected for a breeding program. "We hope his offspring will be returned to the sea," says Levy.

But who would want to mate with a visibly disabled turtle with an odd set of plastic fins on his back?

Why, a blind sea turtle, of course. That would be Tsurit, a green sea turtle who lost her sight as a result of a boat injury.

In a literal case of the blind leading the lame, the pair of injured turtles are now happily swimming in their shared tank at the Michmoret center and lately, Levy reports, the now boisterous Hofesh has been

making moves on Tsurit.

"He nibbles her neck, and likes to frolick with her," recounts Levy, noting that green sea turtles have about the same average life span of human beings, but reach sexual maturity only around age 30. (And, no, they don't live at home with their parents until then.)

The couple are still in their twenties, so there is likely to be a few years of foreplay before any mazal tovs are in order.

If the match is successful, it will be a small step toward restoring the decimated population of green sea turtles. Between the first and second world wars, some 30,000 of the creatures – then known also as the Edible Sea Turtle -- were killed by hunters off the northern Mediterranean coast of what is now Israel. Today there are no more than two dozen left in the area.

The center runs a breeding program, which currently includes 26 green sea turtles, says Levy. Its hospital treats the green turtles and the more common, but also endangered, loggerhead species – and now has about 15 patients under care. Like Tsurit and Hofesh, most are injured by boats and fishing nets.

"It's unfortunate that Hofesh will never be free," says Levy, "but he has a good life here." And thanks to the lame creature and his blind companion, the population of rare green sea turtles in the Mediterranean may just increase a little.