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Under a Full Moon, a Search for Horseshoe Crabs

By ANDY NEWMAN

The full moon rose blood-pink over the Rockaways Wednesday night. On Plum Beach in Brooklyn, a narrow stretch of unpristine sand stashed behind a notorious Belt Parkway rest area, it was time to count the horseshoe crabs.

John Rowden paced off 18 meters, set down a large plastic square on the sand and waded out into the soupy water. Any crab within the invisible line formed by extending the left and right sides of the square out into the shallows fell into his sample space. Nothing there. He picked up his plastic square and continued walking.

Every May and June, teams of observers fan out along the state's beaches to take a census of the horseshoe crabs. These crabs, hard-hats with spike tails, come up near and on shore during new and full moons for the females to spawn and the males hitchhike behind them, latched on in long crab chains, to fertilize the eggs.

Though the crabs were clacking around the oceans long before dinosaurs stalked the earth and will likely continue to do so long after the age of man has passed, their numbers have been declining for years because of overfishing and other factors. And so the state is trying to keep tabs on them.

Dr. Rowden, an ornithologist (horseshoe crab eggs are a main food source for migrating shorebirds) and citizen-outreach director at New York City Audubon, was accompanied by three volunteer crab counters. One of them, P.J. Vazzana, 8, came straight from a baseball game. Another, Nicole Budine, a college biology student, was there, she said, because, "I just like them. I think they're really cool."

As it turned out, the peak for crabs on this beach was at the new moon on June 1. On Wednesday, the main animal in evidence was the biting sand gnat. P.J. and his father, John Vazanna, an accountant, moved their square along the beach. "Zero, zero," father would call out as son took notes. Then at transect No. 35, Mr. Vazzana yelled "One! One male!" "Finally," P.J. said. The crabs grew more numerous as the search party moved east. Dr. Rowden pulled out a hefty male with a shell nearly a foot across and flipped it so that passersby could admire its seven pairs of scrabbling claws. Its back was

covered with a city of barnacles two inches high.

Night fell and the moon brightened to flame yellow. Only a few stray fisherman remained on the beach. An old man yanked a line and a big fluke flopped up on the sand. By the searchers' headlamps, the crabs in the water were pulsing shadows, disappearing and reappearing with the rhythm of the waves.

Dr. Rowden stepped out into the water. A crab nudged his boot. "This guy is mating my foot," he said. A few yards further down, his light found a cluster of nine males scrumming around a female.

Ms. Budine tried her hand at drilling a hole in a crab shell so that it could be fitted with an ID tag. "It felt like breaking the skin of an apple," she said as she worked the hand drill. "It's really hard, and then it's soft."

Dr. Rowden scanned the beach. "The craziest thing I ever saw," he said, "we were walking around with our headlamps and we ran into a nude photo shoot, all this fancy photo equipment and these nude women frolicking in the waters. And we said hello and they said hello. It was the perfect New York moment: everyone using the beach for their own purposes, coexisting."