

Future Problem Solving: SharkWatch

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Topic: Depletion of Oceanic Species

Middle Division

Panic.

Though only an animal, the shark felt that choking emotion as it hurtled through the water. A basking shark could swim like lightning, but it could not outswim this new predator.

The weight in its belly was slowing it down. Fear was dulling its keen senses, making it blunder in the water. It turned apprehensively, trying to scent, but caught only the foreign smell of metal. It darted forward, but something exploded, hissing, strangling, a crisscrossing of hard thin lines cutting into its sides.

It struggled, eyes rolling in its head. The glaring light beam bore down upon it as it was yanked mercilessly upwards, and broke the surface writhing. Pain seared through its body as it was smacked down onto the mesh surface.

Its jaws sought flesh to tear and rip, but they were of no use now – out of the water, out of its element. It could smell the humans approaching. They kept their distance, but the cruel gleam in their eyes was reflected in the cruel gleam of the smooth blade unfolding from the long pole they wielded.

It fought harder, jaws working, but to no avail. Momentarily, the blade was whirring coldly against the base of its fin, and then the world was ripped into a bloody morass of pain.

“Told you it was a good idea to get that electronic net,” remarked the fisherman.

His partner merely grunted, having been against spending a large part of their savings on the new equipment, but the technology had proven to be worth the high cost. Today's catch was nearly double that of last week's. With the profit from this, perhaps they could replace the old-fashioned single-bladed retracting knives they were using to slice off the sharks' fins. Perhaps the latest CircuBlade models, which could fold seamlessly into the long steel handle?

The spider tweezers seized the tag embedded in a shark's fin and neatly severed it, leaving a raw bloody circle. He added it to the pile of satellite tags in the vaporiser, which would obliterate them, along with body covers, boots, anything bloodstained. The automatic PoroSuction floor had already absorbed the bloody pools on the deck.

It was paranoid, but there was reason to be. With the new ocean conservation laws that were passed in 2037, shark finning had become completely illegal. The maximum penalty was imprisonment for twenty years. It hadn't fully stopped the practice, though. With the ban – and the fact that sharks were one of the most endangered species on the planet – the black market for shark's fin soup had become even more exclusive, and prices soared. A lucrative business.

Still, they had barely escaped the SharkWatch trackers each time. Now, every single bloodstain had to be obliterated, every piece of equipment and every fin stored in their warded cellar. The oceanic life seen through the glass window at the back of the StealthSub was actually a mere hologram, which hid behind it a false wall and the cellar. If a patrol came by, they would find no evidence to base an arrest on.

“Let's move,” he grunted. “We don't want to be around when the trackers come a-calling.”

The Tunnelnose StealthSub dipped quietly and fled like a fugitive, sonic nose first, beneath the mercury-saturated waves.

“Trouble!” called Roberts.

His partner Madge was at the dashboard immediately. “What is it?”

“Distress signals.” The SharkWatch tracker pointed at several bleeping red dots on the 3-D HoloMap of the Northwest Atlantic. Tapping some keys, he zoomed in on the distress signals. “From the shark reserve. Two hundred. Think it’s another finning?”

Madge turned to a screen. It displayed several rapidly jumping lines. “Their panic rates are all pretty high.”

The information on the holograms came from the satellite feed from the tracking devices installed in the sharks living in the Atlantic reserve. Over the last decade, SharkWatch, the largest international shark conservation group, had been tagging these sharks with the satellite tags in order to keep tabs on the shark population and control finning. An embedded tag could record every heartbeat, even brain signals, and send them via satellite to SharkWatch headquarters.

Suddenly, a signal flickered and evaporated offscreen, followed by two more, cut off mid-transmission – as if the tags had been plucked out and destroyed.

Roberts whistled. “Definitely a finning. They know about the tags. And how to get them out.”

He summoned their SubCraft while Madge went to fetch her field chemical kit. When she got back, Roberts had already activated the satellite fluid coating on the glass dome of the SubCraft, which would act as a receiver for the satellite broadcasts.

The SubCraft submerged and whirled out of the bay, like a Frisbee with propelling blades, spinning towards where the last signal had come from. They put on speed, although they both knew that by the time they got there, it would be too late.

Madge’s knuckles were white on the tabletop. Roberts always said she was too emotionally affected by her work. She envied his professional detachment from the cause he worked for, but she could never emulate it. It was different for him. He was the technician. She was the vet, the one who dealt with the carcasses.

“Faster,” was all she said, although she knew that Roberts was pushing the SubCraft to its limit of 7500km/h.

Swiftly they approached the triangulated area. Madge pressed her face to the glass of the domed roof, anxious.

There. That dark mass in the grey before them. As they drew closer, Madge felt sick to her stomach. The other sharks had already found their finned companions, attracted by the blood spreading through the water.

The SubCraft spun through the group, scattering the cannibals. Chunks of flesh and viscera were suspended amidst the blood. She felt like vomiting.

Suddenly, Madge spotted movement. Feebly, the rapidly-sinking shark twitched again, as if pleading for help. Not for itself. For the other lives that could be saved.

Madge dashed back inside, where she began to don her diving suit. “I’m going out,” she declared.

Roberts looked up, surprised. “Why? They’re beyond saving.”

“There’s a pregnant female among them.” Madge snatched her waterproof kit and went back outside. “I think her embryos are still intact.”

"It's unsafe," began Roberts.

She flared up. "You always say it's unsafe!" He began to protest, but she continued. "Remember the Paihia incident? You stopped me from going out to save the sharks there! You forced me to watch a finning, helpless!"

"Those poachers were armed," said Roberts flatly. "They would have shot you."

Madge felt the prickling of tears. "I could have saved those sharks," she whispered. "This time, I *will* save this one."

She shut the hatch on him. The pneumatic door was barely open when she plunged out of the airlock chamber and began swimming..

She did not fear the prowling sharks; her suit was chemicalized to disorient sharks' telencephalon olfactory lobes. Steeling herself, she worked quickly. One shot for the mother shark to euthanise her, and then the dissection. Madge saved as many embryos as she could locate in the belly.

"I suppose we can't go after the culprits," she remarked as she climbed dripping through the hatch, the embryo-filled compartments in her bag clinking.

Roberts was staring silently at the HoloMap. Madge followed his gaze. There was a faint red dot moving towards the coast. The signal was weakly flickering, but it was there.

"The fishermen must have missed one tag!" she breathed excitedly. "And the tag is still in the fin..."

Roberts shot her a rare grin. "I'll call Retrieval," he said, turning on his Comlink.

Madge let out a sigh of relief. The Retrieval team had the power to arrest illegal finners and bring them to justice. But with the vindictiveness came a wave of sorrow. Justice could not bring back the two hundred sharks that lay finned and mangled beneath the ocean.

Roberts made the call, then turned back to his partner. "By the way...good job, Madge."

Madge was in her lab when the lawbreakers were brought in. Roberts fetched her. He knew she would want to watch.

There were two of them, bulky and hostile-looking. One of them shot her a hateful glance as he was frogmarched past.

The Retrieval team leader stopped to chat. "Good job," he remarked. "Both staunchly denied any finning activities, but we followed the tracking signals to the cellar. The tag was so deeply embedded it escaped their notice."

"Lucky," agreed Madge, and returned to her lab.

Each of the thirty embryos now floated in its own special incubation tank, an illusory replica of the conditions of its mother's womb. They would be kept under her care for twelve months, then released into their natural environment when they could fend for themselves.

Madge recalled the dead mother, and prayed that none of them would have her fate.

Her kind had reduced their kind to ashes. It was only fair that her generation should rekindle the flame of life.