

# KNOWLEDGE

*You must remember this.*

BY JOHN FRIZELL

No human could have grasped the squid's name. Human eyes could not distinguish the differences in shades of colour or register the intervals at which they changed to define the unique pattern that was his name. The squid was concentrating hard because he was holding two conversations at once, one deliberately misleading, the other closer to the truth, as he glided through the deep ocean, his mantle pulsing gently, powering him with puffs of water.

On his right side the flowing patterns of colour were attempting to persuade a female to mate with him. He was being as persuasive as possible without exaggerating; females were very good at picking up on male lies, and like all female giant squid she was considerably bigger than him, or any adult male.

On his left he was chatting to another male about recent sightings of Loud Shadows, the huge predators that were the only things in the ocean that attacked giant squid.

"Our hatched memories are not right," he said.

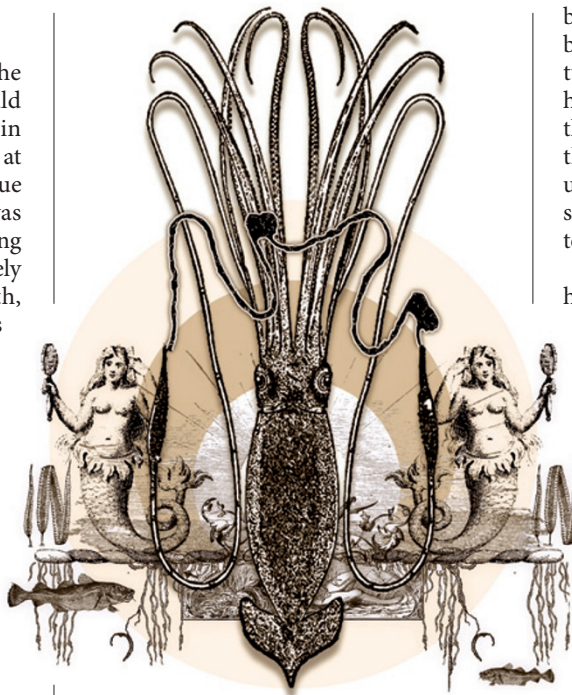
A squid was lucky to live for more than 80 or 90 lunar cycles. But everyone had memories with which they were hatched and that went back hundreds of millions of cycles.

"It was much worse back then," said the other male. "The ocean was infested with Shadows. But the light-songs we get from others say that thousands of cycles ago, they began to disappear. The legend is that they were hunted by a surface predator. But it is so hard to know. We have to rely on stories passed from one generation to the next, on memories of memories. But it seems that the surface predator has ended its hunt and the Shadows are returning."

Then, like a horror called up by saying its name, a Shadow's ranging pulse swept over them. All three went dark.

The squid's hearts pounded faster, and he shot off on a jet of water, veering away from the source of the sound. There was another pulse and then the Killing Sound, the noise that the Shadows used to disorient their victims while their terrible long jaw with its sharp conical teeth dismembered its prey. But the sound was not directed at him.

The female lit up in a display of rage and defiance. She was right in front of the Shadow and it hung there in the water,



pouring sound energy into her. She lashed out with her arms and wrapped them around its massive head, locking its jaw shut. If she could hang on long enough, she might live. The Shadows were not proper sea creatures: they had to return to the surface at regular intervals and could not remain at depth for long. Even so, her chances were not good. She was almost as long as a Shadow, and the sharp cutting rings of her suckers would be ripping into its skin, but that rarely made them give up. The monster was a solid mass of muscle, many times thicker than the thickest tentacle.

The squid swam away at full speed. Shadows sometimes hunted in groups. When he slowed, he was far away and as safe as he could be in the ocean, where an attack could come at any time. He was ravenous from the energy expenditure and did a bit of hunting of his own, caught a fish and pushed it into his beak where his radula quickly shredded it and fed it into his stomach. He could feel the energy spreading through his body.

His rival had got one thing very right. Because they had to rely on memories of memories, the past was hard to know. And

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if you did not know the past, how could you learn from it? How could knowledge be preserved other than

by memory? The preservation of memory became an obsession, doomed in the featureless ocean wilderness. In desperation he had tried to dive to the bottom where there might be something he could use, but the deep was a place of strange smells and unsettling cold, a hostile environment that sucked energy out of him and made it hard to move.

Cycles went by. All too soon he found himself more than 80 cycles old. Squid do not become feeble with age or decline slowly — they retain their vigour to the end — but when the end comes, it comes quickly. He could feel his digestive system shrivelling. He would be lucky to last another cycle.

He was hunting for a snack when he made his breakthrough.

As he glided down on his prey he realized it was not a fish: it was Transparent Death, one of the unbreakable filaments that had started appearing hundreds of cycles ago. He banked away automatically, then circled back, thinking furiously. To preserve knowl-

edge independently of memory, it needed to be stored outside the body. Here was something that would last for thousands of cycles, perhaps millions. He flexed his tentacles. Tentacles were for catching and eating, occasionally for fighting if subterfuge and diplomacy failed, but if they could hold a fish, they could hold other things as well.

He approached the drifting strand as carefully as if it were a sleeping Shadow, caught an end and swam slowly away, trailing it so it could not wrap around him. He grasped it farther down with an arm and then caught the free end with his two tentacles, formed it into a loop and pulled on it. It started to tighten around a tentacle and he whipped it out before it was caught. He tried again. Finally he had the strand crossing over itself and grasping itself to form a nodule. He moved a bit down the filament and tried again. The second knot was easier. If he allowed each nodule to represent 'yes' and the absence of a nodule to represent 'no', he could record information.

He set off, carefully trailing the line, to show his discovery to others before it was too late. ■

**John Frizell** was trained in biochemistry and works in ocean conservation for Greenpeace. In his spare time he walks, builds robots and writes short stories.

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