TALES FROM THE BUSH

What Darwin never saw

Her face glued to the submarine's rear porthole, **Victoria Turner** found herself eye to eye with alien beings, night-time visitors from the abyssal plain thousands of metres below.

All sounds from the outside world ceased as the calm, dark waters of the Galapagos night closed over our submersible. Only the whirr of the sub's motors disturbed the silence of our descent as our searchlights illuminated the dense biological soup that enveloped us.

Cramped as I was in our tiny machine, I felt incredibly privileged. The astronomical operating costs of research submersibles (£10,000 per day) mean that they remain a fantasy for most. My role was as an observer from the Charles Darwin Research Station on the island of Santa Cruz. I was checking that the scientists on the *Seward Johnson*, which is operated by Harbour Branch Oceanographic Institution, did not overstep the mark while they collected research specimens and filmed for the Discovery Channel.

Our planned dive was the last of three that day. It would only be shallow – some 50 metres or so – but we were over an ocean trench and hoped to see some of the deep-sea creatures that migrate to the near-surface during the night.

"Hey, Victoria – you still there?" The voice of Dr Bruce Robison crackled across the tinny intercom, interrupting my reverie. I realised that I'd been speechless throughout the descent, and I launched into a barrage of questions. Bruce sat in the front of the sub next to the pilot; they had the luxury of a large perspex 'bubble' window with about 220° viewing angle, while I sat in the isolated rear section with the second engineer, Rick Hackbarth. We had one porthole, and my head had been glued to it permanently. I even failed to notice a very concerned Rick fiddling with my hair, which had apparently become trapped in the cooling fan.

Bruce was a senior scientist at the Monterey Bay Aquarium Research Institute and a world guru on soft, squidgy, mesopelagic zooplankton. He explained that the 'bug soup' outside was the famous 'deep scattering layer', once mistaken for large, solid animals on ships' sonar displays. The zooplankton's bulbous and winged gelatinous forms slid past us, some wiggling on contact with our pressure wave.

A shark – large, coal-eyed, pale and gaunt – bumped into my porthole, disorientated by the light. This creature was not one of familiar sunlit shallows but hailed from somewhere deep, dark and unknown. I was

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abruptly aware of how alien we were in this pelagic netherworld, and I fell silent again.

Time had flown by, and the pilot was soon discussing our ascent co-ordinates with the mother-ship. I heard my name mentioned and I was reminded to collect my polystyrene cup, which had been placed in a net outside the sub and taken down on a previous, much deeper, mission.

In a rather endearing tradition, the crew all drew complicated designs in felt-tip pen on the cups before the dive. These would emerge in miniaturised form after the immense pressure had crushed them to a quarter of their previous size, making a great souvenir. The mother-ship also informed us that, after surfacing, we should make our way to the wet lab where an aquarium had been prepared by the head cameraman Al Giddings to film the creatures collected.

Back on the ship, I slid out of the hatch after our two-hour trip feeling strangely insignificant and with a very different perspective of the underwater world. I made my rather giddy way to the wet lab where scientists and crew were gathered around the filming tank in awe. A deep-sea bat fish fixed the spectators with an aggressive stare. Oddly human thick, red lips contrasted with its white face and ribbed, white body.

The real star of the tank, however, was a new species of free-swimming sea cucumber. The lines of pulsing cilia on its ridges diffracted the lowered camera lights in rainbow colours. Al poked an incongruous finger at it, and it flashed green bioluminescence in response.

An excited babble broke out over what to call this creature, this latest addition to science from the underwater world that Darwin never saw. ■

Going down. The *Johnson Sea Link*, which is capable of diving to 1,000m, submerges over the Galapagos Rift. *Inset*: Bat fish, a regular visitor from the deep.