

A deep mystery unfolds

May 1, 2004



The trip was the first whale-spotting adventure for Peter Gill, centre, and Pelican, a \$2 million catamaran built for marine research, filming and environmental education by a group of Melbourne-based ethical business people.

Picture: Sandy Scheltema

Related

- [Hunting the big blue](#)

To the whale it means food, to man it means oil and gas riches - and thereby hangs a tale. By Melissa Fyfe.

"Behold Leviathan! The largest of the creatures on earth, the largest that has ever lived. Sometimes he is a hundred feet long and perhaps fifteen feet high - the size, maybe, of a three-coach electric train."

F. D. Ommaney, British whaling scientist writing of the blue whale hunting, South Georgia, 1930.

Peter Gill is standing to attention on deck, scanning the horizon. Even now, after 21 years, the whale biologist's heart races at the white puff of a blue whale blow.

But it was not always like this. He once studied gliders and owls, then penguins, the minions of the sea. "About a year after that I just woke up one morning and wanted to know about whales," he says.

And so he did, becoming one of Australia's leading experts. Then, seven years ago, Mr Gill made a remarkable discovery that would consume his life: a blue whale feeding ground off Victoria's coast, one of a dozen globally, and among a few where they can be seen surface-feeding.

Each year, near the south-west town of Portland, a particular oceanic phenomenon "fires up" between November and May.

The Bonney Upwelling brings up nutrient-rich water that hits the surface, explodes into a bloom of photosynthesis and feeds swarms of krill, the shrimp-like food of blue whales.

It is a huge summer ocean banquet. Other diners include fish, dolphins, seals, fin, sei and minke whales, albatross and flocks of other seabirds.

But the critically endangered blue whale - which makes a runt of the biggest dinosaur and can grow up to 30 metres long - is the star attraction.

Mr Gill and fellow researcher Margie Morrice have recorded more than 800 blue whale sightings in the Bonney Upwelling and nearby waters since 1998.

This year they set a record of 50 blue whales in an aerial survey - a bonanza compared with the miserly 35 blue whales spottings recorded in Victoria between 1869 and 1999. (Despite this, blue whales are not back from the brink; mothers and calves are not common.)

"The fact that blue whales come in numbers means something really special is going on here," Mr Gill says.

But all is not so bonny at the upwelling. Underneath the blue whale feeding ground are rich pockets of gas. And companies such as Santos, BHP, Woodside and Origin are busy exploring their

government-approved blocks of ocean in the Otway Basin gas fields, conservatively worth an estimated \$3 billion.

They do this with seismic surveys, blasts whose frequency matches the sound blue whales use to communicate.



Blue whales feeding off the Victorian coast chase the tiny krill.

Picture: *Sandy Scheltema*

Recent research - funded mostly by industry - has produced some surprising results.

The industry is interpreting the work as evidence the creatures are becoming tolerant to the blasts - a claim that worries conservationists.

"A lot of assumptions are being made about a species of which very little is known," said Michelle Grady, Australasian policy co-ordinator with the Whale and Dolphin Conservation Society.

For the early whalers, the sleek blue was too fast - it can travel at almost 40km/h - and it sank, unlike a dead right whale, which floated. But with better equipment whalers were able to tame the planet's mightiest game.

More than 360,000 blues in the southern hemisphere were slain, and by the 1960s it was outlawed (the Soviets later admitted to killing blues up to the 1970s, many in waters south of Australia).

It is thought that blue whales, the third-most-endangered whale, are just 2 per cent of their original number, perhaps about 10,000 worldwide.

The blue is the most mysterious of whales. No one is sure even where they breed.

Mr Gill hopes to change this when next season he attempts to satellite tag some and follow them to their breeding grounds.

"Everything we learn just opens up a whole raft of new questions," Mr Gill says.

"There is heaps more we don't know than we do know. We are just scratching the surface. It's all very mysterious."

Mr Gill and Ms Morrice, part of the Whale Ecology Group (Southern Ocean) at Deakin University, are trying to understand how the blue whales use the Bonney Upwelling.

Ms Morrice is zooming in on the secret life of krill, and on sea trips a high-tech depth sounder tells them where the krill is swarming in the water column (the day *The Age* went out the krill were 120 metres below, and the whales were diving after them). They also analyse the giant plumes of bodily waste the whales excrete after a feed of krill.

But perhaps one of the most important parts of their work is trying to work out the whale's energy balance: how such a giant thing deals with its dietary needs.

Because they are the length of several buses - the biggest ever measured was 32.6 metres long - blue whales must eat up to three million calories each day, or three to four tonnes of krill.

Contrary to popular myth, krill do not float aimlessly. They are sentient beings, shifty little things that do not want to be caught. The blue whale's meal is a hunt, not a picnic.

A key concern over seismic testing is that the sonic pulses might keep the whales out of their key feeding grounds (as well as inflict possible acoustic injury).

Mr Gill's initial research on the whale behaviour around seismic vessels seemed to bear this out. In 2000 Mr Gill recorded whales 95 kilometres from the guns, despite krill in the survey area. In 2002 they were seen 60 kilometres away, and recently they were seen a mere three kilometres away.

The Commonwealth's guidelines - whales are federally protected - say that seismic operations are likely to have a significant impact on a whale if it is within 20 kilometres. So what do these findings mean?

That depends on who you ask. Mr Gill says the jury is still out. It could be, he says, that - because of their huge energy requirements - the whales just need to feed and will put up with the noise.

But there's another interpretation, put forward in the oil and gas exploration industry's recently published brochure *Seismic and the marine environment*.

Perhaps, says the industry, the whales are becoming tolerant to the seismic testing. "I believe they do tolerate those seismic sounds because they are relatively benign," said John Hughes, chief operations geophysicist of Santos, the oil and gas company that funds some of Mr Gill's work.

The Federal Government will be the umpire on seismic guidelines, which are now being independently reviewed.

For more information on Pelican go to www.svpelican.com.au

Related

- [Hunting the big blue](#)

More news

- [Care and calculation](#)
- [The PM and the shock jock](#)
- [Governing without police support is impossible](#)

[Home](#) > [Features](#) > [National](#) > Article

Copyright © 2004. The Age Company Ltd.