



# Whales in the Freezer

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Whales are enormous, intelligent, friendly giants that have fascinated humans for centuries. Swimming with whales is one of the most celebrated diving experiences - a fantasy shared by many but lived only by a fortunate few. Although images of divers with whales may be much publicized, anyone with experience knows how difficult and rare such encounters are. Whales are unpredictable, difficult to pinpoint in broad areas and to predict individual movements to place divers in their immediate area.

Even if successful, limited visibility may make capturing such encounters on film impossible. Most areas with large populations of whales also have strictly enforced regulations to limit contact and protect the animals from harassment. Such laws are unquestionably in the whales' best interests but make it more difficult for divers to find areas where personal interaction with whales is both possible and legal.

Divers who wish to swim with leviathans typically head to the Dominican or Tonga to see humpbacks. Dolphin encounters in the Bahamas are reasonably certain and whale sharks are relatively regular off Ningaloo Reef in Western Australia. One of the newest and least known areas for whale encounters is the high arctic, which provides some of the best circumstances for predictable encounters with playful whales.

Three species of whales live permanently in arctic waters - the mammoth 60-90 ton bowhead, the endearing white beluga and the mythical tusked narwhal. Each species has its own distinct behavior and requires a slightly different approach to engage, play with and photograph. Although each whales' personality is unique, they all share the constraints imposed by the arctic environment and it is precisely these factors which make it so favorable for intimate whale encounters. The formation and eventual breakup of the arctic sea ice dictates the whales' movement. As the ice forms in the early winter the whales are gradually pushed further south to open waters where they can surface to breathe. This migration pattern is generally reversed in the spring months as the ice breaks up and the arctic whales return to the higher latitudes for feeding, breeding and molting. The speed of the journey back north is governed completely by the gradual breakup of the ice, which can take months to open up completely.

In the Arctic Ocean, the thick sea ice thins slightly from rising spring temperatures and stress from wave action form cracks called 'leads'. These expand and eventually free large sheets of ice that drift away. Just as a beach divides land from sea. Immediately beyond lies the open Arctic Ocean; behind the floe edge, solid sea ice extends all the way back to land. Unlike a beach, the floe edge doesn't make the beginning of a gradual depth increment of either water or ice - it may sit over tens or thousands of feet of water and can range from a few inches thick to a small wall dropping over twenty feet. After a long winter, the sea ice is thick enough to support significant weight. It's possible to reach the floe edge by snowmobile where boats can be launched to travel beyond into the Arctic Ocean. As new ice sheets separate and float away, they create a new floe edge behind them on the land-fastened side of the lead. As the breakup progresses, the floe edge gradually moves closer to shore until the ice cover disappears completely.

In the spring and early summer, the location of the arctic whales is governed entirely by the progression of the breakup. The ice serves both as a barrier and a funnel as the whales congregate as far along their annual migration routes as possible. As leads expand, pods of whales may follow these narrow openings in the hopes of finding a passageway through. Divers can wait on the edge of the lead and slip into the water as whales approach. These whale 'highways' make encounters infinitely easier as there are a limited number of clearly identifiable 'roads' so it's merely a question of waiting for the next pod to come along. Setting up camp next to an active lead makes for a very special experience. Just like a roadside motel, the traffic passes day and night along the whale thoroughfare!

Earlier in the breakup, there are few leads that expand sufficiently to permit whale travel - the animals instead congregate along the floe edge where regular patrols search for newly formed channels the pod can follow. The floe edge not only marks the limits that the whales can travel but also provides safety. Apart from humans and the very rare threat posed by polar bears, killer whales are the only predators but orcas don't pursue their prey under the ice because of the risk of suffocating. Unlike the orca, beluga, narwhal and bowhead don't have a dorsal fin and can rise flush with the ice to breathe through small cracks or holes. The natural instinct to find a path through the ice, and the protection the ice provides, draws the arctic whales towards the floe edge.





Encounters are quite regular and on a good day there may be hundreds of whales swimming along and around the edge. Camping next to the floe edge puts the whales literally at your front door! Tents must be set back a considerable distance as the breakup accelerates so the camp won't be carried away on a newly released free-floating ice sheet!

Whale numbers tend to increase as the breakup progresses and so there's a tradeoff between the largest concentrations of whales and the difficulty moving over the ice. Water visibility is also directly related to the extent of the breakup. The partly desalinated sea ice creates a fuzzy halocline as it melts that reduces visibility. Algae grows on the bottom the ice over winter and is released in large amounts as the ice melts. The continuous 24-hours of sunlight also boost algae growth which can drop visibility from hundreds of feet to less than ten. The trick is selecting the best time to dive with whales is to go late enough that the breakup has started while early enough that the camp site will not need to be moved frequently from the receding edge and that crystal clear waters are not reduced to pea soup by the algae and fresh water mixing.

Water depth has an enormous impact on the willingness and interest of the whales to approach divers. Many whales congregate in large numbers at different times of the year in specific bays, but though these shallow waters make for amazing topside photos, it's impossible to swim or interact with the whales. The less room they have to maneuver and escape, the more skittish they are - even putting a toe in the water could trigger a mass exodus from the area. Conversely, the extremely deep waters of some passageways are particularly conducive to interaction. The whales approach from below and initiate the encounter out of their own curiosity. The best whale encounters are found at the floe edge in very deep waters where the whales are waiting for the breakup and are completely at ease with their ability to maneuver. They approach divers and stay as long as their interest holds. Playful encounters with whales zooming by and blowing bubbles from below can last for hours and are occasionally ended by divers rather than the whales that will follow the diver right back to the floe edge.

As the whales initiate contact, decide how close they'll come and when to exit, there's nothing a diver needs or can do to control the encounter, which profoundly impacts on the choice of equipment, bulk and bubbles, which are thought to scare some whales away. Freediving allows a much more rapid entry, faster swimming and more maneuverability so encounters tend to be closer. Rebreathers have been tried but the whales kept the same distance as with freediving and photographs taken using ambient light at the surface are far superior to those of whales maintaining the same distance in deeper waters.

There are three simple approaches to waiting for the whales. The most straightforward method is to simply enter the water and swim away from the edge. Belugas especially will come to one or two divers swimming on the surface. It is not uncommon for people to enter the water with no whales in sight and within minutes see separate pods of up to a dozen whales coming at full speed towards them from different directions. The whales will converge on and around the divers and begin their humorous antics of blowing bubbles from below the people to mirroring a diver's every change in direction to buzzing by less than two or three yards away. When they've had their fill of games for the day and move on, divers can float patiently waiting for the next pod to come along. Pulling out on an inflatable boat also effectively extends the total time on the water while maintaining proximity for immediate entries. Soar Inflatables makes a 16' canoe that can hold three divers in full gear and is stable enough for a diver to pull himself up into an empty boat.

The arctic is not a region that comes to mind as a diving destination. Simply visiting the arctic offers an experience completely unlike any other part of the world. Adding a diving component to see below the ice further enhances the adventure but the ultimate experience, perhaps the very essence of what diving is about, to feel and be part of the ocean life. Amidst all the ice and apparent barrenness lies an ocean teeming with life. An ocean full of inquisitive friendly animals still very accepting and welcoming of human visitors. To play with these animals, to hear their sounds in the water, through the ice and through your body, to make eye contact and to connect in a way impossible to describe is a real privilege. The great expanse and solitude is broken only by the sounds of thousands of animals waiting for those intrepid enough to visit one of the few remaining places where life still flourishes today as it has for thousands of years.

### Sidebar - Dancing with Belugas

The beluga whale and I stare deep into each others eye's - the beluga upside down, facing the surface of the Arctic Ocean craning her neck to examine me with a seemingly permanent smile, and me, floating face down, with only a few feet of crystal clear icy water separating us. I float in the water, breathing gently through my snorkel, totally mesmerized by the dark pools of brown that make up the beluga's eyes & a stark contrast to her milky white body. I am oblivious to everything except the surreal world below me. Any direction I face, I see pods of white Beluga and charcoal speckled Narwhal whales swimming toward me from the black depths below & all with necks angled towards me in unison. All I can hear, aside from my breathing, are their canary-like songs enveloping me from all sides & a virtual orchestra of clicks, whistles and flute-like notes. All I can





feel is the icy arctic water pressing tightly against my drysuit. My lips are numb from the cold, but I don't care, this is a beautiful and magical world unlike any I've ever experienced before and I never want this to end. As I turn away from my beluga to look at the other 30 face-up beluga's surrounding her, she turns and follows. With a kick of my right fin, I turn left and she follows my lead. I kick right, and she mirrors my move. I think to myself, "I'm dancing with a beluga!" and from the depths of my soul, I let out an uninhibited laugh through my snorkel. A laugh of pure joy and exhibition of having connected one to one with one of nature's most wonderful animals. I had never laughed so freely and spontaneously before until that moment. I want to share the moment with the other expedition members and reluctantly break my gaze with my beluga, and lift my head to the surface. I squint in the sudden brightness of the arctic daylight and scan the blue mirror-like surface of the water for the others. A chuckle of laughter 20 feet away comes from Graham Dickson the expedition leader. He's snorkeling face down in the water and lazily kicking his fins. A little further over, Nell Battye from England makes cooing and chirping noises through her snorkel to answer back to the belugas "talking" to her. I turn to the floe edge and see Paul Jackson an Australian adventurer sitting by the ice edge in a camping chair, head back, eyes closed, legs outstretched, and arms folded, basking in the warm spring arctic sun listening to the symphony of whales through his hydrophone. I decide there's no need to share my experience – we each have our own – and put my head back under and enter the world of the beluga whale once again.

