Swimming with Arctic Whales

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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 and is 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 merit an honorary mention for the relatively regular presence off Ningaloo Reef in 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-ton Bowhead Whale, the endearing white Beluga Whale 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 whale's personality is unique they all share the constraints imposed by the arctic environment and it is precisely these factors which make the arctic such a favorable location for intimate whale encounters.

In the arctic, the formation and eventual breakup of the sea ice dictates the whales' movement. As the ice forms in the fall the whales are gradually pushed further south to stay in open waters where they can surface to breath. 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 the increasing spring temperatures and stress from wave action forms cracks called leads. The leads expand and eventually free large sheets of ice that drift away. Just as a beach divides land from sea, the floe edge is the boundary between ice and sea. Immediately beyond the edge lies the open Arctic Ocean while behind the floe edge solid sea ice extends all the way back to land. Unlike a beach, the floe edge does not mark the beginning of a gradual depth increment of either water or ice. The floe edge 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 is possible to reach the floe edge by snowmobile at which point 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 only a limited number of clearly identifiable 'roads' and so it is 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 and 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 limit 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 arctic whales' only predators. Orcas do not pursue their prey under the ice because of the risk of suffocating. Unlike the Orca, the Beluga, Narwhal and Bowhead do not have a dorsal fin and can rise flush with the ice to breathe through small cracks or holes. Between the natural instinct to find a path through the

ice and the protection the ice provides, the arctic whales gravitate towards the floe edge. As a result, whale encounters along the floe edge 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 from the edge as the breakup accelerates to prevent the camp from being carried away on a newly released free-floating ice sheet!

The number of whales tends to increase as the breakup progresses and so there is a tradeoff between the largest concentrations of whales and the difficulty moving over the ice. The water visibility is also directly related to the extent of the breakup. Sea ice is partly desalinated creates a fuzzy halocline as it melts that reduces visibility. Algae grows on the bottom of the ice over the winter and is released in large amounts as the ice melts. The continuous 24-hours of sunlight provide an additional boost to algae growth which can drop visibility from hundreds of feet to less than ten. The trick to 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.

The depth of the water 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. Although these shallow waters make for amazing topside photos, it is impossible to swim or interact with the whales. The less room they have to maneuver and escape, the more skittish the animals are. Simply 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. The whales approach the divers and stay for as long as their interest holds. Playful encounters with whales zooming by and blowing bubbles from below can go on for hours and are occasionally ended by the diver rather than the whales that will follow the diver right back to the floe edge.

As the whales initiate contact, decide how close they will come and when to make their exit, there is nothing a diver needs or can do to control the encounter. This has a profound impact on the choice of equipment and tends to lead to a simpler approach. Scuba diving adds additional equipment, bulk and bubbles, which are thought to scare some whales away. Free diving allows a much more rapid entry, faster swimming and improved maneuverability than scuba and the encounters tend to be closer. Rebreathers have been tried but the whales kept the same distance as with free diving and the photographs taken using ambient light at the surface are far superior to those of whales maintaining the same distance in deeper waters.

Free diving in a drysuit in the frigid 31° arctic waters involves some special considerations. Crushed neoprene, trilam or rubber suits have the least inherent buoyancy at the surface and so are preferred to the neoprene drysuits for free diving. Harness weight systems are essential to distribute the forty plus pounds most divers need with full insulation in salt water. When free diving in very deep waters it is important to consider the safety issues of over weighting as once passed a certain depth where the suit and undergarments are compressed the diver may struggle to ascend, especially if air has been vented from the suit on the way down. Suit squeeze when descending is not normally a problem but if air is vented the suit will not be as warm once back on the surface. When surrounded by playful whales the impulse to dive that much deeper and stay down that much longer is irresistible. A custom solution to address the inherent problems of free diving with a drysuit is to use a small 8 cubic foot pony bottle mounted to the back of the DUI weight system using an Aquavit pony bracket. A similar system is Brownie's Rapid Entry System. The pony bottle is attached to an environmentally sealed regulator with inflator whip for the drysuit. The regulator is available for the occasional breath (after which care must be taken to exhale on the way up!) and in the case of emergency. The suit can be inflated on the surface and air can be added to reduce the squeeze when descending. By having the extra air for the suit, the ideal amount of weight needed to sink quickly can be used without running the risk of going too negative.

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 floe 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 the divers 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 are satisfied they've had their fill of games for the day and move on the divers can float patiently waiting for the next pod to come along. Pulling out on an inflatable boat is an effective way to extend the total time on the water while maintaining proximity for immediate entries. Soar Inflatables makes a 16' canoe that can hold 3 divers in full gear and is stable enough for a diver to pull himself up into an empty boat. The boat was found to actually attract Bowhead Whales that like to play with it and rub their back on it. When not floating on the surface or relaxing in the inflatable, just sitting on the side of the floe edge allows for a rapid seated entry and sometimes even the simple act of putting fins in the water will attract inquisitive Belugas.

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, is to feel and be part of the ocean life. Amidst all the ice and apparent barrenness lies an ocean teaming 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.

–End

SIDE BAR - 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 exhilaration 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 – 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.

–Thomas Lennartz

Author Biography - Graham Dickson

Graham Dickson is the Chief Expedition Leader for Arctic Kingdom Marine Expeditions, the world's only company to specialize in the animals of the arctic and to have successfully led diving expeditions for all of the Arctic's marine animals. Graham has been diving for over a decade and is a PADI Master Instructor. He has a driving desire to explore the arctic regions where there is such a great range of diverse and exotic animals, historically significant locations and unique geography. He successfully led the first sport diving expedition to Nunavut to dive with Walrus in 1999 and has since led expeditions for Bowhead whales, Narwhals, Belugas, Polar Bear and the Greenland Shark.

Graham is an avid and active diver and prior to starting Arctic Kingdom in 1999 led expeditions all over the world - including shark diving in the Bahamas and Australia, shipwreck dives down the American east coast, from the Great Lakes to North Carolina to Key West and cave diving in Florida and Mexico. Graham founded the University of Pennsylvania Scuba Club in 1994, which grew to more than 300 divers over three years. He has worked with stores in Philadelphia (Blue Horizons Dive Center), New York City (Sea Horse Divers), Toronto (Upper Canada Scuba) and Ottawa (Adventures in Diving, Scuba Consultants and Alpha Dive Center). He teaches many specialty areas including: photography, wreck, dry suit, enriched air (Nitrox), deep diving and ice diving and is trained in cave diving through the National Speological Society (NSS-CDS) and underwater archaeology through the Nautical Archaeological Society (NAS). Graham is a Medic First Aid/CPR Instructor and teaches Rescue Diving and DAN Oxygen Administration. He is the author of the scuba section in the popular book "The Worst Case Scenario Survival Guide."

Graham is Canadian and shares his time between Ottawa & Toronto. He speaks English, and basic French, Spanish and Italian and holds a Bachelor of Applied Science in Mechanical Engineering and Economics from the University of Pennsylvania.