





CLOCKWISE FROM ABOVE: Humpback calf watching its mom and their escort; Humpback calf at the surface; The massive fluke of an a adult humpback. PREVIOUS PAGE: Humpback whale slowly swims by for a close look

Humpback whales (Megaptera novaeangliae) are intelligent, communicative, aerobatic, social, curious, playful and sometimes devious mammals that can grow to 16 meters in length, weigh 41tonnes (41,000 kg) and live over 50 years. The Dominican Republic's Silver Bank and Tonga are the prime destinations to snorkel with these magnificent creatures. North Atlantic humpbacks annually migrate thousands of kilometers south to the Silver Bank, a relatively shallow (less than

35 meters in depth), 500 square kilometer area located almost equal distance (105 kilometers) between Grand Turk, Turks and Caicos and the northern coast of the Dominican Republic. The whales may stay there from mid-December to mid-April to mate or have calves. The Dominican Republic wisely recognized the importance of this national treasure by establishing the Sanctuary for the Marine Mammals of the Dominican Republic via legislative acts in 1986 and 1996.





CLOCKWISE FROM ABOVE: Humpbacks regularly slap their flukes at the surface (called tail lobbing); Calves are often more inquisitive than their mothers or any accompanying male escort. Humpbacks breach more than any other species of whale

My visit to Silver Bank is aboard the Turks and Caicos Aggressor II, one of only three vessels with the necessary permit to enter the sanctuary. Amanda Bryan, the Aggressor II's captain and my inflatable boat guide for the day, spots a mother and calf slowing swimming toward us.

Inflatable guides are invaluable in facilitating safe and successful encounters for both humans and whales. A guide looks for a whale or whales that might be receptive to the presence of snorkelers, positions the inflatable near the humpbacks projected path, then instructs the six to eight guests to slowly enter the water and wait for the whales to approach. Humpbacks dictate the proximately and duration of any encounter.

Amanda tells us to get ready as she moves the inflatable a little further from the whales. I am the last snorkeler to slip over the side. After retrieving and adjusting my camera system, I look back to Amanda to see if the whales are still headed our way. She smiles, nods in the affirmative and then quickly turns to her right and points excitedly. I do not see anything on the surface, so stick my head in the water to scan the area. In seconds, two adult humpbacks are almost upon me.

The largest whale is a 13-meter female and the second is her 10-meter male escort. She is obviously in the area looking for a mate, and he is trying to convince her of his prowess. The the surface and then submerges for a dive. As I watch her slowly swimming back up, I am in awe of her sheer size. The whale stops about five meters below me and then begins to turn this thrilling encounter into an episode of the Twilight Zone.

The female humpback turns upside down and stays that way as she resumes swimming in circles. She gets a little closer to me with each passing turn. Next, I hear high-pitched sounds emanating from her and see her belly ripple from one end to the other as if in sync with the sound vibrations. I have no clue what





COUNTER-CLOCKWIISE FROM LEFT: Humpback's bright while pectoral fins seem to glow in sunlight—pectoral fin slapping, like tail lobbing, is another attention-grabbing ploy of humpback whales; Humpback breathing at the surface; Breaching humpback at ploy

this means, but my toes are curling in my fins at the thought of capturing point blank images of this mesmerizing beauty.

When she is only 2.5 meters from the surface, she veers slightly to move directly underneath me. My eyes widen as I see her four-meter fluke (tail fin) behind bend sharply down and then quickly accelerate up towards me. The next thing I know is... impact.

The whale's fluke slams into my chest and simultaneously knocks \$15,000.00 worth of camera gear out of my hands, the air out of my lungs, all thoughts from my head and my body up and out of the water. I shake my head to clear it and breathe deeply as the world stops spinning. It

## Humpbacks

dawns on me that something is missing, so I look down to see my hands are no longer grasping the handles on the Aquatica camera housing. Instead, the slightly negatively buoyant housing and attached strobes are sinking.

I gulp a big breath of fresh air and dive. When I reach the housing, it is only a couple of meters from the mischievous whale's head. I warily grab the housing and kick to the surface. As my face feels air once again, I open my eyes to see Lauren, my dear wife, with a camera stuffed in her face. Either she thinks I am dead and is attempting to document the fluking for the life insurance company, or she knows I survived and thinks it is awesome that a 33-tonne (33,000 kg) whale just kicked my ass.







Humpback attempting to defeat gravity, yet again

As I pat my chest and abdomen to make sure I am indeed still in one piece, the female humpback returns to the surface upright and starts another game of ring around the human piñata. Still breathing hard, I keep my eyes on her and wonder what comes next. She is only a few meters away when she comes to a stop and rolls ever so slightly to her

right. The whale looks at me, into me, with her large, twinkling left eye and in my mind, I hear her say, "Now you know your place in the scheme of things." Then, she slowly swims away. I feel both deeply honored by her attention and pretty ticked she did not stick around for a few parting pictures.

In retrospect, my humpback admirer or assailant (take your pick) clearly knew what she was doing. If she intended to harm me. she could have crushed my body almost effortlessly. I still have no idea why she singled me out. Maybe she saw a reflection off the

dome port of my housing. Maybe she had just left a wild whale party and was looking for some kinky action. I really do not know. Even so, I feel blessed to have been soundly fluked by a humpback whale because I now have one whale of a tale to share with others.



Lauren Johnson, Piers Van der Walt and a guest watching me get fluked

Scientists baffled by stunning accuracy of 10,000-mile migrations

## Do humpback whales use the stars to navigate?

Traveling thousands of miles in an astonishingly straight line, humpback whales may be utilizing the sun, moon and stars for assistance.

Using satellite technology, scientists have tracked 16 tagged whales as they migrated thousands of kilometres northwards from the South Atlantic and South Pacific but have, until now, been baffled as to how they manage this feat with such uncanny accuracy.

## Straight course

New research has revealed that the huge mammals may use a combination of the sun's position, Earth's magnetism and even star maps to guide their journeys, which can be up to 10,000 miles.

In a series of experiments conducted between 2003 and 2010, the majority of the tracked whales maintained a virtually arrowstraight course, never deviating more than five degrees from their migration courses despite the effects of weather and ocean currents. Writing in the Royal Society journal, Biology Letters, Travis Horton from the University of Canterbury stated: "They are orienting with something outside of themselves, not something inter-

Most long-distance travelling animals are believed to navigate using a compass based on either the Earth's magnetic field or the position of the sun. However, scientists have stated that neither method could account for the

extraordinary navigational ability of humpback whales, suspecting the mammals use a combination of all three. The Earth's magnetism varies too widely to explain the straight lines and solar navigation needs reference points not available in the water.

They wrote It seems unlikely in their paper: "It that individual seems unlikemagnetic and ly that individual magsolar orientation netic and cues can, in isosolar orientation cues lation, explain can, in isolathe extreme navtion, explain the extreme igational precinavigational sion achieved precision by humpback achieved by humpback whales. whales. The relatively

slow movements of humpback whales, combined with their clear ability to navigate with extreme precision over long distances, present outstanding opportunities to explore alternative mechanisms of migratory orientation based on empirical analysis of track data."

Humpbacks feed during the summer near polar oceans and migrate to warmer tropical oceans for the winter where they mate and calves are born.

