

familiar imposter

the masquerade tactics of pseudorca

Written by **INGRID VISSER**

Photographed by **RICHARD ROBINSON**



An underwater photograph showing a large group of false killer whales (Pseudorca crassidens) swimming together in clear blue water. The whales are seen from below, with their tails and dorsal fins visible. They are swimming in a loose formation, and the water is very clear, allowing for a detailed view of the animals. The lighting is bright, creating a serene and majestic atmosphere.

Whale's tale

With at least 27 individuals captured in one image, a group of *Pseudorca crassidens* (false killer whales) head off into the blue. Typically pelagic (found in open ocean waters), their offshore distribution makes them difficult to study and therefore little is known about their lives. Like other dolphins, *Pseudorca* are very tactile, often touching each other whilst swimming—in this case brushing tails and pectoral fins over each other.



School of thought

Pseudorca, like other dolphins, have very good vision, yet with their eyes positioned on the side of their heads, they will often roll onto their sides or completely upside down to get a better or even binocular view. Their long fusiform body shape and grey pigmentation clearly distinguish them from classic black and white “killer whales”. However, their slender head is deceptive as it hides a robust skull with strong teeth which is so similar to their namesakes that they received the common name “false killer whale”.

HOW BELITTLING to call a whole species “false”—yet that is how the false killer whale is known. Such a derogatory name has a simple explanation, and it lies with the skull of this little-studied species. Externally they bear little, if any, resemblance to “killer whales”. They do not have the distinctive black and white coloration, nor the robust body shape. Instead, they are shades of dark to light grey, with a rather pronounced “underslung” lower jaw, which gives them a perpetual visage of good humour. Internally, however, their skulls are very similar to orca and they too have 38–40 teeth equipped for effectively capturing prey.

Their scientific name, *Pseudorca crassidens*, gives rise to their common name, as Pseud (silent P, so pronounced *sood*) is derived from the Greek word for false or counterfeit. Combining this with orca gives us their common moniker; however, anyone in the know calls them Pseudorca. They are the only member of this genus and their species name, *crassidens*, is derived from the Latin for thick-tooth.

They were first discovered by Europeans as a fossil on land in England, in 1846, and thought to be extinct. But within 20 years, the fossil evidence came to life when 100 individuals beached themselves on the coast of Germany. Pseudorca are intensely social and mass strandings have continued to occur around the world, with New Zealand being no exception—230 stranded at Manukau, Auckland, in 1978. Yet it wasn’t until the late 1950s that observations at sea were collated and behavioural records were published scientifically,

although they are still considered one of the least understood of the dolphins. And, yes, again, their common name is a misnomer as they are not true whales but rather one of the larger members of the dolphin family.

Pseudorca are generally found in tropical to warm-temperate waters and were first recorded in our waters by James Hector in 1872. However, their distribution is constantly being refined, with new records expanding their known range to now include waters with a wide temperature range of 9–30° C. Off Northland, where most New Zealand sightings occur, Pseudorca are typically seen between December and April. Although considered pelagic (an open-ocean species), they are occasionally sighted closer to shore. But regardless of where they are found, remarkably little is known about them.

We have hints about their food preferences from looking at stomach contents collected from strandings and have found that their diet consists predominantly of squid and fish. Like orca, they are known to take dolphins and have also been observed attacking humpback and sperm whales. The Pseudorca, rather than attempting to kill these larger whales, may be intending only to remove mouthfuls or intimidate their larger cousins. Another theory has it that the Pseudorca are harassing these bigger species to the point of vomiting, then feeding on the regurgitations.

However co-operation may be the driving force behind their frequent associations with other species of dolphins, in particular bottlenose dolphins.



Pelagic gypsies

Pseudorca can be identified by scars on their dorsal fins and bodies. To date, 54 individuals have been catalogued in the Bay of Islands by Jochen Zaeschmar. Of those, at least 43 have been re-sighted, with 10 seen on four or more occasions, indicating that their occurrence in these waters is far from random. Pseudorca are thought to live 50–60 years and their repeated occurrence with the same individuals indicates strong social bonds. The presence of calves in this group is characteristic, as pods normally contain both sexes and all age classes.

Jochen Zaeschmar, who has taken an interest in Pseudorca since first encountering them in the Bay of Islands in 2000, has found that 93 per cent of encounters involve more than one species. There are many theories about why they mix. One species may benefit from the abilities of the other (such as expertise in locating food) or they may be available as sexual partners, even though they are different species. There are instances of Pseudorca and bottlenose dolphin hybrids in captivity—the offspring are referred to as “wolphins”—so interspecies mating can’t be ruled out when it comes to mixing in the wild. Conversely, given that Pseudorca are known to eat dolphins, it remains a mystery why they don’t prey on the bottlenose dolphins with which they travel.

Still another theory is that mixing is predator-driven, in keeping with the adage of “safety in numbers”. This is particularly apparent in the open ocean, where there are few locations to hide. The more individuals in a group, the higher the chance of detecting a predator and the lower the chances of any one individual being eaten. Yet until recently, no predators for Pseudorca had been recorded.

It was confirmed in dramatic fashion in the Bay of Islands this year, when a group of 50–60 Pseudorca (accompanied by a few bottlenose dolphins) were attacked by eight orca, in front of boats full of tourists. The orca rammed the Pseudorca three times, tossing them into the air. Given that there were at least 15 Pseudorca calves in the group, it is likely that the orca anticipated that the young

had little chance of escaping, whilst their mothers would remain to protect them. The orca finally managed to kill at least one calf and possibly an adult as well. Zaeschmar photographically identified some of the Pseudorca and has confirmed that the group contained many known individuals.

Pseudorca are certainly gregarious—group size is usually between 10 and 60 animals but some groups number in the hundreds, with the largest-known group of 835 recorded from yet another mass stranding on the coast of Argentina.

There are social bonds within these groups and some bonds are strong enough for the Pseudorca to risk their lives for one another. During a stranding in Florida, a group of 30 stayed with an injured male, physically supporting him in the shallow waters until he died three days later. Then the rest of the group, many of whom were badly sunburnt, headed out to sea. It was clear that this wasn’t a mass suicide attempt, but a gesture of support for the fatally injured male.

Communication between individuals is intense. Like other dolphins, Pseudorca use echolocation to navigate and find food, but their distinctive drawn-out and high-pitched contact whistles can be clearly heard, even above water. Another aspect of communication is their aerial behaviour—dramatic high leaps, belly-flops, breaches, side-slaps and dolphin-like porpoising are all part of their daily lives. There is still much to learn about these animals and, although they might be called “false”, there is nothing phoney about the Pseudorca. ■



EXPLORE IMAGES (BOTH PHOTOS)

Shaken, not stirred

Witnesses on tour boats this summer were in for a shock when an orca rammed a Pseudorca, tossing it high into the air. Despite the obvious impact, the Pseudorca managed to escape. A calf (apparently also butted into the air) was the only confirmed casualty of five attacks. The group of orca responsible, which had attacked bottlenose dolphins in the Bay of Islands two years previously, are not part of the mainland New Zealand population. They had prolific fist-sized bites from cookie cutter sharks, evidence of which can be seen in the bright pink spots just to the right of the grey saddle patch and to the left of the white flank-patch.