

Britain's last 'resident' orca pod

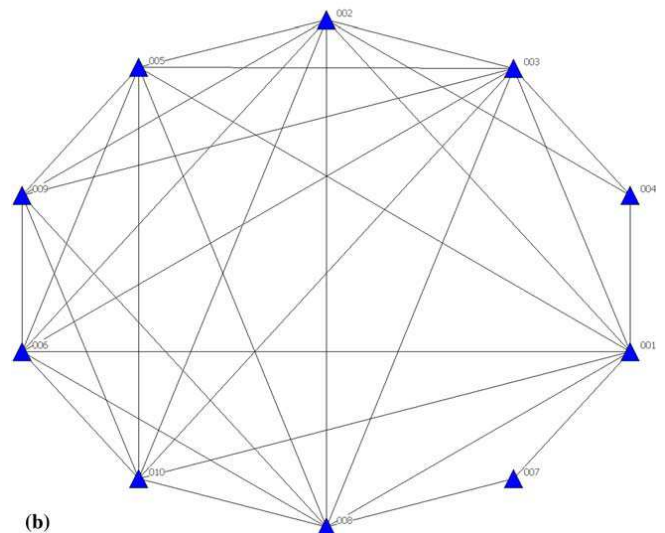
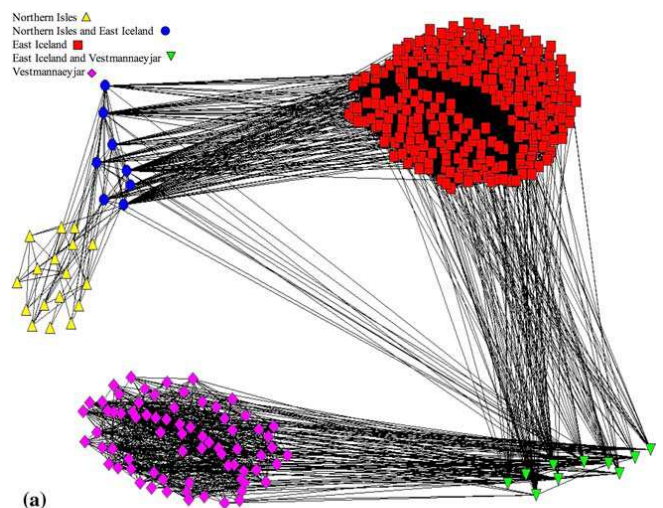
The Hebridean Whale and Dolphin Trust (HWDT) and PhD student Andy Foote have together been studying the small population of killer whales that inhabit the waters off the west coast of Scotland.

The 'west coast community', as they are known in the field, is only thought consist of nine animals. Using a technique called photo-identification (photo-ID) each animal in the group can be recognised by unique markings on their dorsal fins. Photo-ID studies have also revealed that of the nine individuals, there are four males and five females. All the animals associate with each other although some individuals are more regularly sighted together than others. The conservation status of the group is thought to be critical since no live calves have been recorded since research began almost two decades ago.

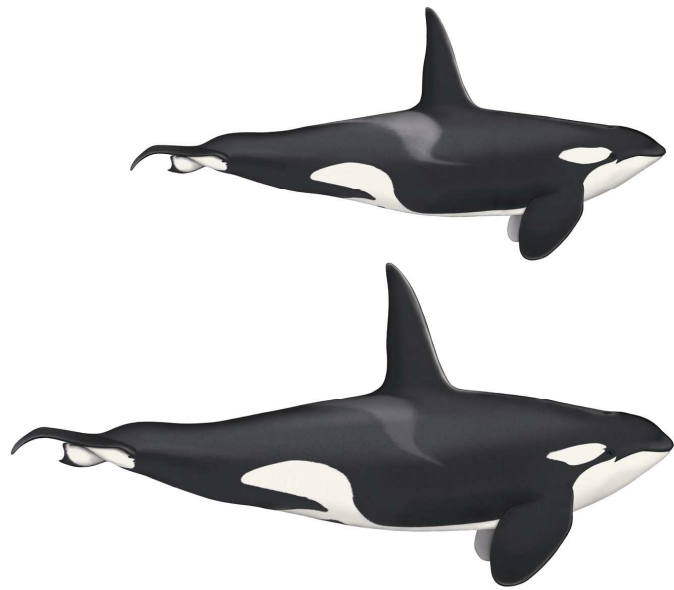


Photo-ID has also helped HWDT better understand the wide-ranging nature of these apex predators. Although dubbed the 'west coast community', in the past sightings off Ireland have been reported; on one occasion all nine individuals were present off the Cork coast. An extremely distinctive male 'John Coe' (pictured below left) was also sighted off the Pembrokeshire coast in 2007 – 09 almost exclusively during May and June.

Andy Foote's research into orca populations of the north east Atlantic has shown that there is no association between the Hebridean orca and the groups found off the rest of Scotland's coasts; mainly off Orkney and Shetland. The diagram on the right shows the interactions between all orca populations of the North East Atlantic. As you can see the groups found further north (like the ones Gordon Buchanan filmed off Shetland) interact and associate with each other, while the Hebridean pod (blue triangles) never interact with the migratory pods found further north.



Moreover, recent findings have revealed that the populations are also morphologically different, suggesting separate ancestry. Genetic analysis indicates the two types belong to two different populations. "Type 1 specimens (groups found in the Northern regions) were from closely related lineages, but the type 2 whales (the west coast community) were more closely related to a group of Antarctic killer whales," Dr. Foote explains. Type 1 (pictured top) are small than type 2 (pictured bottom) and their eye patches are orientated differently. The saddle patch is also a different pigmentation. Type 2 are the orca that form the West Coast Community while Type 1 form the other populations found off the Scottish coasts.



Unlike the other orca populations in the north Atlantic, who feed primarily on pelagic fish and seals, HWDT have still not confirmed exactly what the west coast group are feeding on. However, we believe that the unique population are feeding, exclusively, on other cetaceans, such as harbour porpoises (an attack and kill has been recorded by a local wildlife boat) and possibly minke whales (two orca

surfacing either side of a minke whale in the Minch). Differentiation in tooth wear from stranded orca has allowed Foote to highlight this difference in diet and ecological niche; the west coast community have virtually no tooth wear (pictured at the bottom) while in the other groups adults have worn their teeth down quite substantially (pictured at the top). This lack of tooth wear is comparable to other populations who prey exclusively on marine mammals. A male orca, thought to be from the west coast community, washed ashore on the Isle of Lewis in 2008 – minke whale baleen was found to be in his stomach.

There is still much to learn about the Hebridean orca. Only with continued study can we better understand the only 'resident' population found in British waters. Every year HWDT welcomes volunteers onboard their research yacht *Silurian* to assist with data collection from onboard. These cetacean research surveys, alongside reports from the public and other organisations, have allowed for more information on Scotland's cetaceans to become apparent. If you would like to join HWDT onboard or would like to report a sighting please visit www.hwdt.org.

