



Re-sighting over a seventeen year period, of an orca known as “Stumpy”
Lofoten Island in northern Norway in 2012

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On the 17.05.2012 I encountered a group of orca (NKW-AZ), with 10 members. This included one adult male, several females, two new born calves and one additional orca known as X-163 or “Stumpy”.

Stumpy has previously been described and reported by Stenersen & Similä (2004). They stated that this animal was born in 1995, first photographed in 1996 inside Tysfjord, Norway and was a male. Stenersen & Similä (2004) further reported that by 2002 Stumpy was not accompanied by a presumed mother, but rather by other orca’s. Stumpy was seen with at least five different groups that were protecting and feeding the youngster Stenersen & Similä (2004).

Stumpy has an injury to the dorsal fin and what is either an injury (Stenersen & Similä, 2004), or possibly a structural spinal deformity, in the caudal peduncle area. This assumption is made as cetaceans with similar body profiles have been reported before (e.g., see Berghan & Visser, 2000 and compare to Figure 1, herein). Regardless of the origin of the spinal deformity, Stumpy appears to be physically impaired and does not perform the exact same swimming activity as the accompanying and healthy orcas.

I have recorded Stumpy in 2003, 2004 and 2005 in the Vestfjord and Tysfjord, when Stumpy was feeding on herring with two different orca groups (NKW-H and NKW-V). During the observation in 2005, a fishing boat had a large load of fish and the net broke open, releasing herring on which over 60 orcas fed. When Stumpy was present I was able to record underwater sounds as this animal was close to my boat. I did not encounter Stumpy during the 2006-2011 field research seasons (a five year period). Additionally, although I received pictures of orca from other regions around Norway, but there were no images of Stumpy, until recently. It is typical to not encounter individuals or groups of orca for extended periods of time.

Based on the original birth year (Stenersen & Similä, 2004), Stumpy is now 17 years old. Given that this animal has not yet ‘sprouted’ a larger dorsal fin, it is probable that it is a female, as males would be expected to begin their secondary sexual dorsal-fin growth by this age (Olesiuk et al, 1990).

Despite its physical spinal deformity this orca has managed to survive. Although it can clearly keep up with the group to some degree, it also has limitations. From underwater images of Stumpy, one can clearly see that she requires two tail strokes, compared to a healthy orca’s single tail stroke, when swimming. Stumpy is also required to stabilise her body movements by the use of her pectoral flippers.

Stenersen & Similä (2004) stated that Stumpy had been in the company of, and provisioned by, no less than five different groups. I have observed her with at least three different groups.

Whilst I watched Stumpy in 2005 I observed her participating in the search of and catching of fish but she was seen often close to a big male, who may have been provisioning her or providing her with protection.

From 17 May until 19 Sept 2012, I observed group NKW-AZ, with Stumpy present. They were continuously inside Øksfjord (a side fjord of the Vestfjord in northern Norway) and feeding on salmon and mackerel. Foraging on salmon was confirmed on more than eight separate days with further probable predation observations. This will be published in Vester and Hammerschmidt (Under Review). The methods use to forage as well as the taking of this prey indicates the flexibility of this population with regards to their diet.

Norwegian orcas have been recorded eating a range of prey species: herring (*Clupea harengus*), salmon (*Salmo salar*), saithe (*Pollachius virens*), mackerel (*Scomber scombrus*), eider ducks (*Somateria mollissima*), little auk (*Alle alle*), northern fulmar (*Fulmarus glacialis*), jellyfish (unknown species), harbour porpoise (*Phocoena phocoena*) and minke whales (*Balaenoptera acutorostrata*) as well as grey (*Halichoerus grypus*) and harbour (*Phoca vitulina*) seals (Stenersen & Simila 2004, Vester & Hammerschmidt, 2012).

Norwegian orcas have been subjected to intensive whaling undertaken in the two decades after 1960, especially in 1969, 1970 and 1979, (Vongraven and Bisther, 1995). This is likely to have had an impact on reproduction and social behaviour in the present Norwegian orca community. Furthermore, as the catches were both sex- and age-biased, this might have triggered compensatory mechanisms (Vongraven and Bisther, 1995). Additionally, Williams and Lusseau (2006) found that removal of young female orca (from a population which had previously been harvested) was the most detrimental age-sex class for removal.

To establish and keep close social bonds between individuals and show altruistic behaviour may be a way to survive for Norwegian orcas. Stumpy's example indicates that a young female orca such as Morgan may be readily accepted by non-family groups. Her return, as a young female from a harvested population may be vital to the populations' stability and recovery.



Figure 1. "Stumpy" photographed in 2012. Note the injured dorsal fin (top of fin missing) and prominent curves to caudal peduncle area (right of fin). © Heike Vester / Ocean Sounds.



Figure 2. “Stumpy” photographed in 2012. © Heike Vester / Ocean Sounds.



Figure 3. “Stumpy” photographed 23.05.2012 at 19:03 hrs. © Heike Vester / Ocean Sounds.



Figure 4. “Stumpy” photographed 17.05.2012 at 10:21 hrs. Accompanied by an adult male (behind) and an adult female (foreground). © Heike Vester / Ocean Sounds.



Figure 5. “Stumpy” photographed 17.05.2012 at 12:04 hrs. Stumpy is accompanying the group, but is on the far right peripheral of the group. © Heike Vester / Ocean Sounds.



Figure 6. “Stumpy” photographed in November 2005. Stumpy was accompanying the group NKW-V. © Ocean Sounds.

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