

## **A description of severe injuries on humpback whales in southeastern Alaska**

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Humpback whales in southeastern Alaska have been studied since the late 1960s. These longitudinal studies have provided useful information on life history parameters including reproduction and survival. Another useful outcome of these long term sighting histories of individual whales is health assessment, although this was not a consideration when these studies began, hence determining when the injury occurred is difficult. Using photography, initially 35mm slides and black and white film and now digital, we documented 35 humpback whales with an injury and classified 18 as severe (Appendix A.). A severe injury was defined as penetrating the blubber layer. The source of these injuries was not determined for certain; however over half (10) of the injuries were most likely caused by a collision with a motorized vessel propeller (two were seen with fresh injuries). Three whales have injuries caused by probable entanglements with a line wrapped around the body. One whale has had an unhealed injury at the base of the tailstock for at least 20 years, possibly resulting from a line entanglement. The source of four injuries is unknown: two which have not healed occurring on the flukes or tailstock. All but two of the 18 whales seen with injuries have been sighted in two or more years. Six whales are known females, two are males and 10 are of unknown sex. Of the six females, five have been seen with calves after the first sighting with the injury. It is apparent that humpback whales can sustain severe injuries, survive and continue to reproduce. However, some whales with no visible outside injury do not survive as evidenced by a humpback whale found dying with an inflated tongue and no obvious external severe injuries during the summer of 2007. The draft necropsy report concluded the probable cause of death was trauma but this is not definitive. It is suspected that there was a blow to the chest/neck that caused a rupture of part of the respiratory tract with air exhaled into the tissues of the tongue, causing it to inflate.