

# Interactions between an Adult Male and Juveniles in Captive Killer Whales



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## Introduction

The killer whale is a long-lived species in which individuals normally remain in stable social groups. Observations of wild whales indicate that such social groups are matrilineal, and that both sexes are philopatric. In other words, both female AND male offspring characteristically remain in their natal group, even into their own adulthood, and through the time when they themselves are producing offspring.

Yet, there is little available information about the nature of any interactions that may occur between adult males and young in this species. In an effort to fill in this gap, the goal of the present study was to characterize the interactions between a single adult male and three of his own calves, held at Marineland of Canada.

## Methods

The subjects of this investigation were one male and one female wild-caught killer whales (*Orcinus orca*) of Icelandic origin, and three captive-born offspring (aged 1-3 years). All of the animals were held in a 5 million liter pool at Marineland of Canada.

In all, 317 hours of observation were completed from video footage obtained via underwater viewing windows. The distances maintained among the whales was recorded at one minute intervals utilizing a scan sampling paradigm, and all instances of touching among the animals were recorded on a second by second basis utilizing a focal-animal paradigm.

## Acknowledgements

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## Results

In all, 908 instances of touching were recorded.

Of those, 770 (84.8%) were initiated by one of the calves, 104 (11.5%) were initiated by the female, and 34 (3.7%) were initiated by the male.

Both adults initiated touches on the other adult more often than on any of the calves.

The calves initiated touches on the adult female far more often (92.5%) than on the adult male (7.5%).

The calves were almost never observed touching each other.

The average inter-whale distances recorded were closest for female-calf, intermediate for calf-calf, and farthest for male-female & male-calf.

Figure 1: Male and calf



Figure 2: Touching Frequency

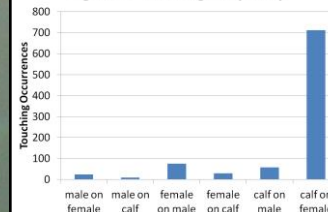
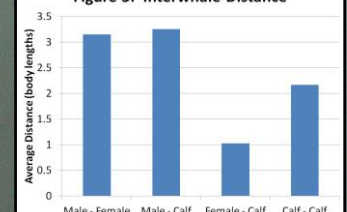


Figure 3: Interwhale Distance



## Discussion

**Female-Calf Contact:** It is not surprising that greatest amount of touching was between the calves and the adult female. That this was most often initiated by the calves suggests that in this species, there is a greater obligation for the calves to keep track of their mothers rather than the reverse. In this regard, they may be considered to be following a "follower" calf life style, comparable to that seen in many artiodactyla species.

**Male-Calf Contact:** Overall, the findings obtained here suggest only a minor role for an adult male in the care of young killer whales. Nevertheless, it can be emphasized that contact between the adult male and the calves *did* occur, comprising 7.5% of all touching recorded, and 29.4% of the touches specifically initiated by the male. Moreover, when they did occur, these interactions often resembled the care-giving behaviors that were normally shown by mothers with their babies. A tentative conclusion may consequently be warranted that "fathering" behavior should be included in the normal behavioral repertoire of this species.