

CULTURE AND COMPETITION IN KILLER WHALES

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ABSTRACT: Humans have long been fascinated by killer whales. They roam every ocean, hunt in packs, and prey on the largest animals that have ever lived on earth. They also form remarkably strong bonds and use vocal dialects. Fifteen years ago, researchers were astonished to discover another aspect of their social behaviour: in some areas, independent fish-eating and mammal-eating populations share the same waters. To learn how this unusual situation developed, I collected and analyzed several hundred DNA samples from Pacific killer whales. Among other questions, my study asked whether individuals ever migrate between the two groups and whether the populations are, in fact, cryptic species. I will discuss my findings and present the case that the population segregation reflects cultural rather than genetic differences, and that it arose and persists because it reduces competition and conflict.

