

Preface

The orca (*Orcinus orca*), or killer whale, is a toothed whale that is the largest member of the oceanic dolphin family. It is the only extant species in the genus *Orcinus*. Orcas are recognizable by their black-and-white patterned body. A cosmopolitan species, orcas are found in diverse marine environments, from Arctic to Antarctic regions to tropical seas.

Orcas are apex predators with a diverse diet. Individual populations often specialize in particular types of prey. This includes a variety of fish, sharks, rays, and marine mammals such as seals and other dolphins and whales. They are highly social; some populations are composed of highly stable matrilineal family groups (pods). Their sophisticated hunting techniques and vocal behaviors, often specific to a particular group and passed along from generation to generation are considered to be manifestations of animal culture.

The International Union for Conservation of Nature assesses the orca's conservation status as data deficient because of the likelihood that two or more orca types are separate species. Some local populations are considered threatened or endangered due to prey depletion, habitat loss, pollution (by PCBs), capture for marine mammal parks, and conflicts with human fisheries. In late 2005, the southern resident orcas, which swim in British Columbia and Washington waters, were placed on the U.S. Endangered Species list.

Orcas are not usually a threat to humans, and no fatal attack has ever been documented in their natural habitat. There have been cases of captive orcas killing or injuring their handlers at marine theme parks. Orcas feature strongly in the mythologies of indigenous cultures, and their reputation in different cultures ranges from being the souls of humans to merciless killers.ⁱ

In the present book, thirteen typical literatures about the orca published on international authoritative journals were selected to introduce the worldwide newest progress, which contains reviews or original researches on the orca. We hope this book can demonstrate advances in the orca as well as give references to the researchers, students and other related people.

ⁱ <https://en.wikipedia.org/wiki/Orca>