

Alaska sea otter food web data: Kodiak isotope catalog

Website: <https://www.bco-dmo.org/dataset/742763>

Data Type: Other Field Results

Version: 1

Version Date: 2018-07-30

Project

» [Establishing baselines for nearshore marine ecosystems by examining sea otter trophic variation over 5,000 years of climatic and anthropogenic change](#) (Sea Otter Trophic Variation)

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Dataset Description

These data have been submitted to BCO-DMO and are in the process of being served.

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Parameters

Parameters for this dataset have not yet been identified

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Project Information

Establishing baselines for nearshore marine ecosystems by examining sea otter trophic variation over 5,000 years of climatic and anthropogenic change (Sea Otter Trophic Variation)

Coverage: North Pacific, Kodiak Island, Alaska, USA

The PIs will utilize natural stable isotopes of carbon, nitrogen and oxygen to define the trophic position of sea otters and how it has varied from pre-historic (5000BP) to historic (last 300 years) times in the Kodiak and eastern Aleutian regions of Alaska. Stable isotope data from known prey species in each area will be analyzed to construct an isotopic food web to compare with changes in sea otter bone isotope ratios over time. Prehistoric data will come from faunal remains in middens. Oxygen and carbon stable isotope data from archaeological and modern shells and paleo-proxy data from marine sediment cores will be used to evaluate changes in environment that may have affected nearshore ecosystems. These data will be used to evaluate mechanistic explanations for the dramatic recent changes in sea otter trophic position and abundance. One of the extant populations that will be studied is declining, while the other is doing well. Understanding the mechanisms behind these divergent modern trajectories is of fundamental ecological as well as management interest.

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Funding

Funding Source	Award
NSF Division of Ocean Sciences (NSF OCE)	OCE-1155426
NSF Division of Ocean Sciences (NSF OCE)	OCE-1264306

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