

# SeaBird SBE19 underway CTD information for the R/V Falkor 160115 cruise in the Central Pacific for the ProteOMZ expedition in 2016.

**Website:** <https://www.bco-dmo.org/dataset/730925>

**Data Type:** Cruise Results

**Version:** 1

**Version Date:** 2018-06-15

## Project

» [The ProteOMZ Expedition: Investigating Life Without Oxygen in the Pacific Ocean](#) (ProteOMZ (Proteomics in an Oxygen Minimum Zone))

Contributors	Affiliation	Role
<a href="#">Saito, Mak A.</a>	Woods Hole Oceanographic Institution (WHOI)	Principal Investigator, Contact
<a href="#">Santoro, Alyson E.</a>	University of California-Santa Barbara (UCSB-LifeSci)	Co-Principal Investigator
<a href="#">Ake, Hannah</a>	Woods Hole Oceanographic Institution (WHOI BCO-DMO)	BCO-DMO Data Manager

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## Coverage

**Spatial Extent:** N:10.544984 E:-158.320979 S:-26.364655 W:-179.289931

**Temporal Extent:** 2016-01-16 - 2016-02-11

## Dataset Description

These CTD data were originally served by R2R and can be accessed here: [doi.org/10.7284/121562](https://doi.org/10.7284/121562)

CTD data collected during research cruise FK160115 using a Sea-Bird SBE-911+ instrument system onboard the platform RV Falkor.

Location: Tropical/equatorial Pacific along 150 deg W; Honolulu, Hawai'i to Pape'ete, French Polynesia

## Methods & Sampling

Underway CTD (Conductivity, Temperature, Depth) data collected during research cruise FK160115 using a Sea-Bird SBE-911+ instrument system onboard the platform RV Falkor.

## Data Processing Description

## BCO-DMO Data Processing Notes:

- Data is served as they appear in the R2R catalog.

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## Related Publications

Rolling Deck To Repository. (2016). CTD (Conductivity, Temperature, Depth) data collected during research cruise FK160115 using a Sea-Bird SBE-911+ instrument system onboard the platform RV Falkor [Data set]. Rolling Deck to Repository (R2R) Program. <https://doi.org/10.7284/121562>  
*Results*

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## Related Datasets

### IsRelatedTo

Saito, M. A., Saunders, J. (2022) **Relative protein abundance from scaled and corrected exclusive peptide spectral counts from the ProteOMZ R/V Falkor expedition cruise FK160115 in the Pelagic central Pacific Ocean in 2016**. Biological and Chemical Oceanography Data Management Office (BCO-DMO). (Version 1) Version Date 2022-01-13 doi:10.26008/1912/bco-dmo.868030.1 [[view at BCO-DMO](#)]  
*Relationship Description: This dataset was collected asynchronously using another instrument at the same stations during the expedition.*

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## Parameters

*Parameters for this dataset have not yet been identified*

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## Instruments

<b>Dataset-specific Instrument Name</b>	SeaBird SBE19 CTD
<b>Generic Instrument Name</b>	CTD Sea-Bird
<b>Dataset-specific Description</b>	Used for water sampling
<b>Generic Instrument Description</b>	Conductivity, Temperature, Depth (CTD) sensor package from SeaBird Electronics, no specific unit identified. This instrument designation is used when specific make and model are not known. See also other SeaBird instruments listed under CTD. More information from Sea-Bird Electronics.

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## Deployments

### FK160115

<b>Website</b>	<a href="https://www.bco-dmo.org/deployment/708387">https://www.bco-dmo.org/deployment/708387</a>
<b>Platform</b>	R/V Falkor
<b>Report</b>	<a href="https://service.rvdata.us/data/cruise/FK160115/doc/FK160115_OfficialCruiseReport_Saito_v3.pdf">https://service.rvdata.us/data/cruise/FK160115/doc/FK160115_OfficialCruiseReport_Saito_v3.pdf</a>
<b>Start Date</b>	2016-01-16
<b>End Date</b>	2016-02-11
<b>Description</b>	Project: Using Proteomics to Understand Oxygen Minimum Zones (ProteOMZ) More information is available from the ship operator at <a href="https://schmidtocean.org/cruise/investigating-life-without-oxygen-in-the...">https://schmidtocean.org/cruise/investigating-life-without-oxygen-in-the...</a> Additional cruise information is available from the Rolling Deck to Repository (R2R): <a href="https://www.rvdata.us/search/cruise/FK160115">https://www.rvdata.us/search/cruise/FK160115</a>

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## Project Information

### **The ProteOMZ Expedition: Investigating Life Without Oxygen in the Pacific Ocean (ProteOMZ (Proteomics in an Oxygen Minimum Zone))**

**Website:** <https://schmidtocean.org/cruise/investigating-life-without-oxygen-in-the-tropical-pacific/#team>

**Coverage:** Central Pacific Ocean (Hawaii to Tahiti)

From Schmidt Ocean Institute's ProteOMZ Project page:

Rising temperatures, ocean acidification, and overfishing have now gained widespread notoriety as human-caused phenomena that are changing our seas. In recent years, scientists have increasingly recognized that there is yet another ingredient in that deleterious mix: a process called deoxygenation that results in less oxygen available in our seas.

Large-scale ocean circulation naturally results in low-oxygen areas of the ocean called oxygen deficient zones (ODZs). The cycling of carbon and nutrients – the foundation of marine life, called biogeochemistry – is fundamentally different in ODZs than in oxygen-rich areas. Because researchers think deoxygenation will greatly expand the total area of ODZs over the next 100 years, studying how these areas function now is important in predicting and understanding the oceans of the future. This first expedition of 2016 led by Dr. Mak Saito from the Woods Hole Oceanographic Institution (WHOI) along with scientists from University of Maryland Center for Environmental Science, University of California Santa Cruz, and University of Washington aimed to do just that, investigate ODZs.

During the 28 day voyage named “ProteOMZ,” researchers aboard R/V *Falkor* traveled from Honolulu, Hawaii to Tahiti to describe the biogeochemical processes that occur within this particular swath of the ocean’s ODZs. By doing so, they contributed to our greater understanding of ODZs, gathered a database of baseline measurements to which future measurements can be compared, and established a new methodology that could be used in future research on these expanding ODZs.

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## Funding

<b>Funding Source</b>	<b>Award</b>
<a href="#">Gordon and Betty Moore Foundation: Marine Microbiology Initiative (MMI)</a>	<a href="#">GBMF3782</a>
Alfred P. Sloan Foundation (Sloan)	<a href="#">Unknown ProteOMZ Sloan Foundation</a>
Schmidt Ocean Institute (SOI)	<a href="#">R/V Falkor 160115 SOI ProteOMZ Expedition</a>

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