Species list from R/V Centennial trawl surveys in the Hood Canal, WA from 2012-2013 (PelagicHypoxia project)

Website: https://www.bco-dmo.org/dataset/718636
Data Type: Cruise Results
Version: 1
Version Date: 2017-11-02

Project
» Consequences of hypoxia on food web linkages in a pelagic marine ecosystem (PelagicHypoxia)

Contributors	Affiliation	Role
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Abstract
Species list from R/V Centennial trawl surveys in the Hood Canal, WA from 2012-2013

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Coverage

Spatial Extent: **N**:47.8299 **E**:-122.0915 **S**:47.3626 **W**:-123.1324
Temporal Extent: 2012-06-11 - 2013-10-03

Dataset Description

Species list containing common name, scientific name, family, genus, speices, and aphiaID (taxanomic identifier at the World Register of Marine Species, WoRMS, marinespecies.org).

Data Processing Description

BCO-DMO Data Manager Processing Notes:
* added a conventional header with dataset name, PI name, version date
* modified parameter names to conform with BCO-DMO naming conventions

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Data Files

File
SpeciesTable.csv (Comma Separated Values (.csv), 6.23 KB) MD5:6ac80bcf9be9b4bcb437beab46f94308 Primary data file for dataset ID 718636

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Related Datasets

IsRelatedTo

Essington, T., Horne, J. K., Keister, J. E., Parker-Stetter, S. (2021) **Fish and jellyfish sample data from R/V Centennial trawl surveys in the Hood Canal, WA from 2012-2013 (PelagicHypoxia project).** Biological and Chemical Oceanography Data Management Office (BCO-DMO). (Version 1) Version Date 2017-11-02 doi:10.26008/1912/bco-dmo.718698.1 [view at BCO-DMO]
Relationship Description: Fish and jellyfish sample data from R/V Centennial trawl surveys

Essington, T., Horne, J. K., Keister, J. E., Parker-Stetter, S. (2021) **Fish and jellyfish stomach contents from R/V Centennial trawl surveys in the Hood Canal, WA from 2012-2013 (PelagicHypoxia project).** Biological and Chemical Oceanography Data Management Office (BCO-DMO). (Version 1) Version Date 2017-11-02 doi:10.26008/1912/bco-dmo.718675.1 [view at BCO-DMO]
Relationship Description: Stomach contents from R/V Centennial trawl surveys

Essington, T., Horne, J. K., Keister, J. E., Parker-Stetter, S. (2021) **Site information for R/V Centennial trawl surveys in the Hood Canal, WA from 2012-2013 (PelagicHypoxia project).** Biological and Chemical Oceanography Data Management Office (BCO-DMO). (Version 1) Version Date 2017-11-02 doi:10.26008/1912/bco-dmo.718711.1 [view at BCO-DMO]
Relationship Description: Site information for R/V Centennial trawl surveys.

Essington, T., Horne, J. K., Keister, J. E., Parker-Stetter, S. (2021) **Survey locations and times for R/V Centennial trawl surveys in the Hood Canal, WA from 2012-2013 (PelagicHypoxia project).** Biological and Chemical Oceanography Data Management Office (BCO-DMO). (Version 1) Version Date 2017-11-02 doi:10.26008/1912/bco-dmo.718649.1 [view at BCO-DMO]
Relationship Description: Survey locations and times for R/V Centennial trawl surveys.

Essington, T., Horne, J. K., Keister, J. E., Parker-Stetter, S. (2021) **Trawl catch composition from R/V Centennial trawl surveys in the Hood Canal, WA from 2012-2013 (PelagicHypoxia project).** Biological and Chemical Oceanography Data Management Office (BCO-DMO). (Version 1) Version Date 2017-11-02 doi:10.26008/1912/bco-dmo.718662.1 [view at BCO-DMO]
Relationship Description: Trawl catch composition from R/V Centennial trawl surveys.

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Parameters

Parameter	Description	Units
CommonName	Name as appears in trawl and sample tables	unitless
ScientificName	Approved Name from WoRMS	unitless
Family	Taxonomic family	unitless
Genus	Taxonomic genus	unitless
Species	Taxonomic species	unitless
AphiaID	Unique taxonomic identifier at the World Register of Marine Speices (WoRMS: marinespecies.org)	unitless
WoRMS_link	Unique taxonomic identifier at the World Register of Marine Speices (WoRMS: marinespecies.org)	unitless

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Deployments

PelagicHypoxia_trawlsurveys

Website	https://www.bco-dmo.org/deployment/718647
Platform	R/V Centennial
Start Date	2012-06-11
End Date	2013-10-03
Description	trawl surveys from 2012-2013

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Project Information

Consequences of hypoxia on food web linkages in a pelagic marine ecosystem (PelagicHypoxia)

Coverage: Puget Sound, WA (47 N, 123 W)

Description from NSF award abstract:
Low dissolved oxygen (hypoxia) is one of the most pronounced, pervasive, and significant disturbances in marine ecosystems. Yet, our understanding of the ecological impacts of hypoxia on pelagic food webs is incomplete because of our limited knowledge of how organism responses to hypoxia affect critical ecosystem processes. In pelagic food webs, distribution shifts of mesozooplankton and their predators may affect predator-prey overlap and dictate energy flow up food webs. Similarly, hypoxia may induce shifts in zooplankton community composition towards species that impede energy flow to planktivorous fish. However, compensatory responses by species and communities might negate these effects, maintaining trophic coupling and sustaining productivity of upper trophic level species. The PIs propose to answer the question

"Does hypoxia affect energy flow from mesozooplankton to pelagic fish?" They approach this question with a nested framework of hypotheses that considers two sets of processes alternatively responsible for either changes or maintenance of pelagic ecosystem energy flows. They will conduct their study in the Hood Canal, WA. Unlike most hypoxia-impacted estuaries, hypoxic regions of Hood Canal are in close proximity to sites that are not affected. This makes it logistically easier to conduct a comparative study and reduces the number of potential confounding factors when comparing areas that are far apart.

Improved understanding of how hypoxia impacts marine ecosystems will benefit the practical application of ecosystem-based management (EBM) in coastal and estuarine ecosystems. Effective application of EBM requires that the impacts of human activities are well understood and that ecological effects can be tracked using indicators. This project will contribute to both of these needs. The PIs will share their findings on local and national levels with Federal, State, Tribal, and County biologists. To increase exposure of science to underrepresented groups, the PIs also will provide Native American youth with opportunities to participate in field collections and laboratory processing through summer internships. The PIs will collaborate with the NSF-funded Pacific Northwest Louis Stokes Alliance for Minority Participation and tribes from the Hood Canal region to recruit and mentor students for potential careers in marine science. This project will support several undergraduate researchers, two Ph.D. students, a post-doc, and two early-career scientists.

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Funding

Funding Source	Award
NSF Division of Ocean Sciences (NSF OCE)	OCE-1154648

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