**Data source citation**

1. **Net data**

Perry RI, Young K, Galbraith M, Chandler P, Velez-Espino A, Baillie S. (2021). Zooplankton variability in the Strait of Georgia, Canada, and relationships with the marine survivals of Chinook and Coho salmon. PLOS ONE 16(1): e0245941.

Extracted from: <https://open.canada.ca/data/en/dataset/2822c11d-6b6c-437e-ad65-85f584522adc>

1. **Physics data (CTD & Bottle)**

Curated data source: Pata, P. R., Galbraith, M., Young, K., Margolin, A. R., Perry, R. I., & Hunt, B. P. (2022). Persistent zooplankton bioregions reflect long-term consistency of community composition and oceanographic drivers in the NE Pacific. *Progress in Oceanography*, *206*, 102849.

Extracted from: https://www.cioos.ca/

1. **Satellite chlorophyll**

S. Maritorena, O. Hembise Fanton d’Andon, A. Mangin, D. A. Siegel, “Merged satellite ocean color data products using a bio-optical model: Characteristics, benefits and issues”, Remote Sensing of Environment, **114** (2010), 1791-1804.

Extracted from: https://www.globcolour.info/

1. **Climate Indices**

*Please refer to the website to cite the specific index that will be used.*

Extracted from: https://psl.noaa.gov/data/climateindices/list/

1. **NPGO Index**

Di Lorenzo E., Schneider N., Cobb K. M., Chhak, K, Franks P. J. S., Miller A. J., McWilliams J. C., Bograd S. J., Arango H., Curchister E., Powell T. M. and P. Rivere, 2008: North Pacific Gyre Oscillation links ocean climate and ecosystem change. Geophys. Res. Lett., 35, L08607, doi:10.1029/2007GL032838.

Extracted from: http://www.o3d.org/npgo/

1. **Spring bloom timing**

Allen, S.E. and M.A. Wolfe. Hindcast of the timing of the spring phytoplankton bloom in the Strait of Georgia, 1968-2010. Progress in Oceanography, 115, 6-13 (2013).

Allen S, Latornell D. (2022). Spring phytoplankton bloom timing in the Strait of Georgia. Boldt J, Joyce E, Tucker S, Gauthier S. State of the Physical, Biological and Selected Fishery Resources of Pacific Canadian Marine Ecosystems in 2021. : 165-167. Published, Canadian Technical Report of Fisheries and Aquatic Sciences**.**

1. **Atmospheric Data**

Extracted from: http:// climate.weather.gc.ca/historical\_data/search\_historic\_data\_e.html on February 15, 2023.

1. **BC Lighthouse**

Extracted from https://www.dfo-mpo.gc.ca/science/data-donnees/lightstations-phares/index-eng.html on January 27, 2023.

1. **Fraser River Flow**

Extracted from the Environment and Climate Change Canada Historical Hydrometric Data web site (https://wateroffice.ec.gc.ca/mainmenu/historical\_data\_index\_e.html) on January 27, 2023.

**Notes:**

* For accessing hourly wind data with Cygwin:
* for year in `seq 1996 2018`;do for month in `seq 1 12`;do wget --content-disposition "https://climate.weather.gc.ca/climate\_data/bulk\_data\_e.html?format=csv&stationID=6831&Year=${year}&Month=${month}&Day=14&timeframe=1&submit= Download+Data ;done;done
* Source of early marine survival data for Chinook and Coho Salmon are in [www.rmpc.org](http://www.rmpc.org). The papers which used these to calculate survival are:
  + Zimmerman, M.S., Irvine, J.R., O’Neill, M., Anderson, J.H., Greene, C.M., Weinheimer, J., Trudel, M. and Rawson, K., 2015. Spatial and temporal patterns in smolt survival of wild and hatchery coho salmon in the Salish Sea. *Marine and Coastal Fisheries*, *7*(1), pp.116-134. (<https://afspubs.onlinelibrary.wiley.com/doi/full/10.1080/19425120.2015.1012246>)
  + Ruff, C.P., Anderson, J.H., Kemp, I.M., Kendall, N.W., Mchugh, P.A., Velez‐Espino, A., Greene, C.M., Trudel, M., Holt, C.A., Ryding, K.E. and Rawson, K., 2017. Salish Sea Chinook salmon exhibit weaker coherence in early marine survival trends than coastal populations. *Fisheries Oceanography*, *26*(6), pp.625-637. (<https://onlinelibrary.wiley.com/doi/epdf/10.1111/fog.12222?saml_referrer>)
* Herring data
  + Schweigert, J.F., Hay, D.E., Therriault, T.W., Thompson, M. and Haegele, C.W., 2009. Recruitment forecasting using indices of young-of-the-year Pacific herring (Clupea pallasi) abundance in the Strait of Georgia (BC). *ICES Journal of Marine Science*, *66*(8), pp.1681-1687.
  + **(Need to encode) Table 1.1. (Page 43)** Has mean catch weight, CPUE, abundance, and abundance CPUE for age-0 Pacific Herring caught in the Strait of Gerorgia from 1992 to 2019: https://publications.gc.ca/collections/collection\_2022/mpo-dfo/Fs97-4-3202-eng.pdf