

PICES 2025, W2: **BIO/MONITOR** Workshop

Intercomparison of North Pacific Zooplankton Time Series

Duration:

1-day workshop

Convenors:

Akash Sastri (Canada), *corresponding*

Julie Keister (USA)

Kazuaki Tadokoro (Japan)

Satoshi Kitajima (Japan)

Invited Speakers:

Todd O'Brien

(USA)

North Pacific zooplankton time series provide early and rapid biological indicators of response to climate-ocean variability and extreme events (e.g. marine heatwaves) occurring with increasing frequency. This practical workshop seeks to explore zooplankton time series of biomass and/or abundance of indicator species or groupings in each PICES region. The intent is to facilitate regional inter-comparison of zooplankton time series by identifying common indicators useful at broader scales relevant to the North Pacific. We propose a one-day workshop divided into: 1) an invited talk by Todd O'Brien (NOAA) providing an introduction and overview of the time-series tools on the COPEPODITE website (<https://www.st.nmfs.noaa.gov/copepodite>); 2) contributed talks representing zooplankton time series from as many PICES regions as possible; 3) a hands-on portion inviting participants to bring and standardize their data set using the COPEPODITE website tools, for which the invited speaker will be on hand to help participants use the tools; 4) initial inter-comparisons of patterns among time-series. The goal will be to examine if similar patterns in zooplankton time-series are found across PICES regions and across climate events. Standardized data could be placed in a shared drive and analyses done by participants for a future session/workshop. This workshop will lay the foundation for formation of a North Pacific zooplankton time series expert group in the near future

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| 900 | 915 | Introduction | Convenors | Workshop goals, structure and looking forward |
| 915 | 955 | Invited Speaker | Todd O'Brien | Visualizing spatiotemporal trends and variability in plankton and their environment |
| 955 | 1005 | Discussion | All | |
| 1005 | 1020 | Oral Presentation | So Jin Ryu, Seohwi Choo | Zooplankton behavioral segregation and vertical positioning in a stratified summer Ulleung Basin: Diel variation in functional composition across ecological boundaries |
| 1020 | 1035 | Oral Presentation | Deniz Coskuner | A decade of nearshore zooplankton dynamics and oceanographic variability in the Strait of Georgia |
| 1035 | 1055 | Coffee Break | | |
| 1055 | 1110 | Oral Presentation | Hiroomi Miyamoto | Copepod responses to ocean warming in the transition region of the North Pacific: Insights from two decades of community temperature and body size changes |
| 1110 | 1125 | Oral Presentation | Kazuaki Tadokoro | The change in the mesozooplankton community structure after the mid-2010s in the Oyashio and transition waters, western North Pacific |

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| 1125 | 1140 | Oral Presentation | Kym Jacobson | Indicators of ocean variability from the Newport Hydrographic Line: High frequency multi-decadal time series of hydrographic and zooplankton observations off Newport, Oregon, USA |
| 1140 | 1155 | Oral Presentation | Julie Keister | NE Pacific zooplankton monitoring programs: From the Bering Sea to the Salish Sea |
| 1155 | 1210 | Oral Presentation | Akash Sastri | Long-term DFO monitoring of zooplankton in the Gulf of Alaska and coastal British Columbia, Canada |
| 1210 | 1225 | Discussion | All | Outline plan for the afternoon; Poster lightning |
| 1225 | 1355 | Lunch | | |
| 1355 | 1410 | Discussion | Invited/Convenors | Get Settled - Practical Workshop Agenda |
| 1410 | 1530 | Invited/Practical workshop | Todd O'Brien | COPEPODITE tools and analysis |
| 1530 | 1550 | Coffee Break | | |
| 1550 | 1700 | Practical Workshop/Wrap Up Discussion | All | Complete COPEPODITE tools/analysis - toward synthesis and presentation PICES press |