

Activity 4: Distribution, migration and connectivity

Leads: N. Rodriguez-Ezpeleta, **T. Sakamoto**

- Provide a platform for researchers to exchange knowledge, discuss emerging methodologies, and foster collaborations to enhance our understanding of small pelagic fish movements, their ecological impacts, and the implications for fishery management strategies
 - genomics, archival structures, stable isotopes, tagging, etc.

Specific tasks

- Collaboration between NOAA (USA) and AORI, The Tokyo University and Kyoto University (Japan): Identifying Japanese sardine pathway across the Pacific onto the U.S. west coast
- Collaboration between AZTI (Spain), Institut National de Recherche Halieutique (Morocco) and University of Montpellier and IFREMER (France): Studies on European sardine on recent colonization event associated to genome rearrangements.
- Review work: Summarize status of population structure studies and techniques used in each SPF habitat and identify issues to improve stock assessment.
- Review work: Assess SPF range shifts and colonization events in each SPF habitat, discover driving mechanisms and compare across regions.
- Review techniques for studying population structure and connectivity – Examining current methods used to study population structure and connectivity, their global applications, and contributions to stock assessment
- Perform comparative analysis of range shifts and colonization events – Identifying common patterns in range shifts across regions (e.g., Arctic expansions, anchovy moving north) and assessing species-specific responses