

## Session I

Tues 9:40

### **Investigating factors influencing Pacific salmon in the marine environment: the International Year of the Salmon Pan Pacific High Seas Expedition 2021**

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Pacific salmon are an important cultural, commercial, and biological resource for countries of the North Pacific rim. Salmon and the people that depend on them are faced with increasing uncertainty in the behaviour of climate and ecosystems with serious social and ecological implications. As conditions become more and more variable and returns continue to decline, the need to understand factors affecting salmon during all life history stages intensifies. Currently, very little is known about factors affecting Pacific salmon when in the high seas. Historical data in the high seas is sporadic and limited, most surveys conducted in the sixties and seventies. As part of the International Year of the Salmon, the North Pacific Anadromous Fish Commission (NPAFC) with its five member countries (Canada, Japan, the Republic of Korea, Russia and the United States) is planning a Pan-Pacific High Seas research expedition in late winter 2021 to build upon a 2019 expedition to the Gulf of Alaska. As many as five research vessels with researchers from five countries will concurrently survey the North Pacific. The overarching question is, *“How will increasingly extreme climate variability in the NPO and the associated changes in the physical environment influence the distribution, migration, and survival of Pacific salmon and the people who depend on them?”* We have been working with a group of scientists from around the Pacific Rim to develop a set of hypotheses and research protocols to be undertaken by all vessels. Work on refining the hypotheses and developing the survey plan for all vessels is on going. We will share our progress to date and discuss the information which is expected to emerge from this research. Information from the high seas will ultimately be connected with freshwater and coastal data to give a clearer picture of challenges Pacific salmon face throughout their life cycle