**Introduction:** Advancements in logistical capacity and technology have resulted in unprecedented levels of seafood trade\(^1\), which is now the world’s most traded food commodity, valued greater than coffee, cocoa, and sugar combined\(^2\). Blue economy initiatives attempt to balance sustainable use of ocean resources and economic growth\(^3\), but little discussion has occurred regarding the political economic arrangements in seafood exchange and distribution that can foster or stifle idealist aims of the blue economy.

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**Case Study Background**

The Pacific herring fishery is the 8\(^{\text{th}}\) largest fishery by volume on the Pacific Coast\(^4\). Paradoxically, Pacific herring are rarely, if ever, seen in local or regional marketplaces and are primarily harvested for export\(^5\).

**Theoretical Approaches & Methodology**

- Commodity systems analysis\(^6\)
- “Follow the fish” approach\(^7\)
- Multi-sited ethnography
- Snowball sampling
- Semi-structured interviews
  - (2016 – 2017)
  - 10 Early-chain actors: fishers, first receivers, exporters (California, Alaska, USA)
  - 12 mid-chain actors: traders, wholesalers (Hokkaido, Japan, Hong Kong, China)
  - 7 Formal and informal governance representatives (California, Alaska, USA, Hokkaido, Japan)
  - 1 Manufacturer (Hokkaido, Japan)
  - 16 Market vendors in (Hokkaido & Tokyo, Japan)

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**Research Questions**

1. Who are the key actors and what are the crucial activities in global seafood commerce?
2. How are local and global markets connected?
3. How is informal governance or authority created and exerted through seafood distribution and exchange?

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**Figure 2: Pacific herring supply chain**

![Image of Pacific herring supply chain]

**Data sources:** CDFW, NOAA, Interviews with mid-chain actors

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**Findings**

- Reliance on export markets reduces stability in “fish-as-food” systems and can create socio-ecological crises at local levels.
- Cash incentives provided by global markets facilitate local seafood production and in its absence, fishers and first receivers have little interest participating in the fishing for local markets.
- “There is no future in herring roe in Japan. We must find a new way of making and marketing the carcasses.”
  - U.S.-Japan Transnational first receivers – exporter
- “The fishery is dying. Permits are rendered worthless…”
  - U.S. Fishery Management consultant

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**Proportional value of gross earnings to average retail sales price**

**Figure 3: Proportional value of gross earnings to average retail sales price**

![Image of Proportional value of gross earnings to average retail sales price]

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**RQ2: Findings**

- Major transnational exporters and international traders influence early chain actors’ earning potential and generate power asymmetry.
- Seafood exchange relies on “quid-pro quo” relationships (or reciprocity) and often extends beyond one commodity.
- Large amounts of capital are required for innovations and upgrading. This is turn, encourages vertical integration and consolidation of middlemen roles.

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**Findings**

- “[Business B] is a newcomer in the market. They sell faster, earlier and at a fixed price. No one will get into a [sales] contract until Business B has established a price.”
  - U.S.-Japan Transnational First Receiver & Exporter
- “I’m not making any money on herring, but [by participating] I can keep my tenders working all year round, so they don’t go elsewhere during salmon season.”
  - U.S. First Receiver -Wholesaler
- “[Business B] is going to spend $17M on a fish smoking facility for herring; for salmon, but not herring.”
  - U.S. Wholesaler – Distributor

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**References**

- Owther, E., & Methodology.

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**Figure 1: Study Area and Site Visits**

![Image of Study Area and Site Visits]

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**Figure 2: Pacific herring supply chain**

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