

Compendium of resources for the social science of Local Knowledge and Traditional Knowledge related to western Alaska salmon

1. Introduction

The Salmon Bycatch Committee's [report](#) from its first meeting in November 2022 identifies nine non-prioritized information requests, and the Council's [motion](#) from its December 2022 meeting supported staff work on eight of these requests to the extent possible. This paper provides the Committee a compendium of sources for the social science of LK and TK in response to the Committee's information request (number four) related to Local Knowledge (LK) and Traditional Knowledge (TK). The following section reiterates the consensus definitions for LK and TK put forward by the Council's Local Knowledge, Traditional Knowledge, and Subsistence (collectively LKTKS) Taskforce to provide context for the Committee. Section 3 describes the approach used to prepare the compendium, while Section 4 includes the sources of social science of LK and TK related to western Alaska salmon. A compendium is provided due to staff time constraints, a qualitative analysis of these sources would be more appropriate for a Social Impact Assessment (pending future action by the Council), and it provides the Committee with a starting point.

2. Background

LK develops from the observations and experiences of people living, working, harvesting, and processing in specific places (Close & Hall 2006; Martin et al., 2007; Neis & Felt 2000; PFRCC 2011), and LK holders may or may not be Indigenous Peoples. LK can evolve over time, but it is inherently the product of knowledge formation and dissemination based on personal and/or shared experience. LK holders can be local people residing in villages with place- and community-specific insights to share. LK holders also include commercial fishermen that may live outside the Bering Sea region but work and fish there. One important distinction of LK from TK, especially in the context of commercial fishermen, is that one does not necessarily need years of experience to hold LK about an ecosystem, fishery, or species of fish. LK holders may be first time participants in a commercial fishery that make relevant observations about fish behavior in and around fishing gear, for example. On the other end of the spectrum, they may be life-long captains of fishing vessels that have valuable insights into how ecosystems have changed over several decades.

The LKTKS Taskforce agreed to use the definition for TK put forward in Raymond-Yakoubian et al. (2017) because it is the product of extensive work and dialogue with Alaska Native Elders and TK holders from the Bering Sea region. As the definition below implies, TK is a dynamic knowledge system that can change, grow, or be lost over time as it is discussed, shared, and practiced throughout communities across generations (Noongwook et al., 2007; Raymond-Yakoubian & Raymond-Yakoubian 2015). Traditional Knowledge is:

“A living body of knowledge which pertains to explaining and understanding the universe and living and acting within it. It is acquired and utilized by Indigenous communities and individuals in and through long-term sociocultural, spiritual and environmental engagement. [Traditional knowledge] is an integral part of the broader knowledge system of Indigenous communities, is transmitted intergenerationally, is practically and widely applicable, and integrates personal experience with oral traditions. It provides perspectives applicable to an array of human and nonhuman phenomena. It is deeply rooted in history, time, and place, while also being rich, adaptable, and dynamic, all of which keep it relevant and useful in contemporary life. This knowledge is part of, and used in, everyday life, and is inextricably

intertwined with peoples' identity, cosmology, values, and way of life. Tradition – and [Traditional Knowledge] – does not preclude change, nor does it equal only 'the past'; in fact, it inherently entails change.”

3. Approach

When preparing the compendium, staff used the LKTKS [search engine](#) to identify sources of social science information based on LK and TK with a focus on western Alaska salmon. The search engine contains scientific articles in peer-reviewed journals, white papers, archival references, and other sources of information related to LK, TK, the social science of LK and TK, and subsistence information. Over 100 results were returned using the ‘salmon’ species search term. To narrow down the scope, staff looked at sources of information specific to the Bering Sea, western Alaska, and interior. Some returned sources were excluded, such as those focusing on the impacts of Limited Entry Permits on the commercial salmon fisheries in Bristol Bay. Because the search engine is intended to be used as a starting point, and to widen the scope of relevant sources of information, an additional literature search was conducted. The search terms ‘local knowledge chum salmon,’ ‘traditional knowledge chum salmon,’ among others were used. A total of 54 sources are included here in this initial effort. Finally, it is important to note that the Committee’s report implies interest in ‘a synthesis of local and traditional knowledge by in river salmon users across western Alaska regions’ to better understand how conditions have changed *since 2012*. The compendium includes published social science of LK and TK prior to 2012 because these knowledge systems, and the observations held within them, extend well beyond 2012.

4. Compendium

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