

12,000+ Years of Change: Linking traditional and modern ecosystem science in the Pacific Northwest

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ABSTRACT

Recent archaeological evidence documents that people lived on the Pacific Northwest coast at least 12,000 years ago. As the ice retreated, some 10,000 stocks of salmon colonized 3,600 rivers and streams in what is now British Columbia. Over the same period, First Nations developed sophisticated political and legal systems linked to resource management and harvest technologies. This social and cultural richness has so far been ascribed to the year round availability of abundant natural resources. Recent research indicates that First Nations contributed to the spread of salmon throughout the Pacific Northwest and to increasing the complexity of habitats throughout their extensive tribal territories. This in turn, created a more stable food supply contributing to social and cultural development. This has significant implications for the ‘new’ science of ecosystem management. The interdependence of human communities and the ecosystems that sustained them for 1000s of years is central to a new ‘ecosystem philosophy’ grounded in creative and restorative justice. We explore how First Nations’ traditional knowledge and values and new ways to integrate the piecemeal knowledge accumulated over the 19th and 20th centuries can build a greater collective understanding of natural and human-induced ecological change and build support for ecosystem restoration goals based on levels of productivity enjoyed by Aboriginal peoples at the time of first contact with Europeans.

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