

Historical Ecology for Risk Management: Youth Sustainability



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HERMYS Abstract

Applied Research in Environmental Sciences Nonprofit, Inc., ARIES, the Barrow Arctic Science Consortium, BASC, the North Slope Borough of Risk Management, and Cooperative Extension of Iisigavik Collage are collaborating to develop and implement a historical ecology model for the North Slope Coastal Region of Alaska. Historical ecology is an applied research program that focuses on interactions of people and their environments in both time and space to gain a full picture of all of its accumulated effects. The research program can be applied to understanding changes among community landscapes that can assist strategies for the future. For this proposal the emphases align with the ARIES mission that combines research, education and community outreach, the Inupiaq Learning Framework, and the eco-heritage indicator of the CRIOS model (Cumulative Regional Integrated Operability Scores).



Methods

- 1) bibliographic database of relevant historical resources,
- 2) examination of the shoreline to provide a time-series baseline
- 3) simulations of socio-natural cycles of change,
- 4) interactive mapping and database as a web resource to assist academia, industry, regional government and communities about socio-natural risk management (e.g., Barrow Area Information Database, <http://www.baid.utep.edu/>)
- 5) integrated team of researchers, corporations, and NSB Risk Management to provide mitigation tools for community decisions, and provide eco-heritage opportunities that include research, educational products, age level appropriate outreaches for community service learning such as Teen CERT, the "Next Generation".



<http://www.nsbci.org/domain/44>
<http://www.rispmgmt.com/risk-culture>



Geo-Hazard	Risk Rank
Subsistence Hunting	1
Epidemic	2
Fire	3
Blizzard	4
Oil Industry	5
Flooding	6
Storm Surge	7
Sea Level Rise	8
Ice Shove	9
Tundra Fire	10



NSB Risk Management Mitigation - Beach Nourishment



<http://www.fema.gov/video-materials/teen>

<http://www.ariesnonprofit.com/ARIESprojects.php>

<http://www.polarrec.com/expeditions/historical-ecology-for-risk-management>

