

**BIOGRAPHICAL SKETCH**  
**LILIAN NA'IA ALESSA, PROFESSOR**

University of Idaho, Bioregional Planning Program  
Moscow, ID 83844 Email: [lalessa@uaa.alaska.edu](mailto:lalessa@uaa.alaska.edu)

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**PROFESSIONAL PREPARATION**

University of British Columbia	Botany	B.S., 1994
University of British Columbia	Cell Biology	Ph.D., 1998
University of British Columbia	Cognition and Learning	1998
University of Utah	Postdoctoral - Developmental Biology	1998-2000

**APPOINTMENTS**

2013 – present	Professor of Resilient Landscapes, Bioregional Planning Program, University of Idaho
2010 – 2013	Professor, Department of Biological Sciences, University of Alaska-Anchorage
2008 – present	Director, Resilience and Adaptive Management Group, UAA
2005 – 2010	Associate Professor, Department of Biological Sciences, UAA
2000 – 2005	Assistant Professor, Department of Biological Sciences, UAA
1999 – 2000	Assistant Professor, Roanoke College

**PRODUCTS**

***Five related products:***

**Alessa, L.,** Kliskey, A. 2012. The role of agent types in detecting and responding to environmental change. *Human Organization* 71(1): 1-10.

Bone, C., **Alessa, L.,** Altaweel, M., Kliskey, A., Lammers, R. 2011. Assessing the impacts of Local Knowledge and Technology on Climate Change Vulnerability in Remote Communities. *International Journal of Environmental Research and Public Health* 8: 733-761. doi:10.3390/ijerph8030733.

Altaweel, M., **Alessa, L.,** Kliskey, A. 2010. A framework to structure agent-based modeling data for social-ecological systems. *Structure & Dynamics: eJournal of Anthropological and Related Sciences* 4(1): 1-18.

Altaweel, M., **Alessa, L.,** Kliskey, A. 2010. Visualizing situational data: applying information fusion for detecting social-ecological events. *Social Science Computer Review* 28(4). doi: [10.1177/0894439309360837](https://doi.org/10.1177/0894439309360837).

**Alessa, L.,** Kliskey, A., and Altaweel, M. 2009. Toward a typology of social-ecological systems. *Sustainability: Science, Practice, & Policy* 5, 31-41. <http://ejournal.nbii.org/archives/vol5iss1/0811-034.alessa.html>.

***Five other significant products:***

**Alessa, L.,** Altaweel, M., Kliskey, A., Bone, C., Schnabel, W., Stevenson, K. 2011. Water in Alaska: the next 50 years. *Journal of the American Water Resources Association*. 47(1):143-157. DOI: 10.1111/j.1752-1688.2010.00498.x.

**Alessa, L.,** Kliskey, A., Williams, P. 2010. Forgetting freshwater: The effect of modernization on water values in remote Arctic communities. *Society and Natural Resources*.

Altaweel, M., **Alessa, L.,** Kliskey, A. 2009. Forecasting resilience in arctic societies: creating tools for assessing social-hydrological systems. *Journal of the American Water Resources Association* . 45(6): 1379-1389. DOI: 10.1111/j.1752-1688.2009.00370.x.

**Alessa, L.,** Chapin, F.S., and Kliskey, A. 2008. Anthropogenic biomes: a key contribution to earth-system science. *Trends in Ecology and Evolution* 23, 529-531.

Alessa, L., Brown, G., Kliskey, A. 2008. Social-ecological Hotspots Mapping: a spatial approach for identifying coupled social-ecological space. *Landscape & Urban Planning* 85, 27-39.

#### SYNERGISTIC ACTIVITIES

- i) Alessa is currently the Leader of the Resilience and Adaptive Management (RAM) Group as well as co-Principal Investigator on several research projects focused on resilience and change in northern latitudes focused on integrating social and biophysical data using complexity theory.
- ii) She is co-Principal Investigator for the NSF-funded Phase IV Experimental Program to Stimulate Competitive Research (EPSCoR), "Alaska Adapting to Changing Environments".
- iii) She is a member of various science planning efforts including Cyberinfrastructure in the Social Sciences and Arctic Hydrology and Complexity Communities of Practice (ARCSS).
- iv) Alessa is the co-founder of the NSF funded Community Modeling Framework for Complexity Modeling in the Social Sciences (CoMSES) which was created in March 2007.
- v) Alessa has extensive experience developing new Complexity and Resilience approaches which seek to integrate multiple and diverse types of data toward improving predictive abilities for Alaska and the circumpolar North.

#### COLLABORATORS AND OTHER AFFILIATIONS

- i) **Collaborators:** Mark Altaweel (University College London), Matthew Berman (Institute for Social and Economic Research, Anchorage), Christopher Bone (University of Oregon), Mike Brubaker (Alaska Native Tribal Health Consortium), F. Stuart (Terry) Chapin III (Resilience IGERT, University of Alaska, Fairbanks), Stephen G. Colt (Institute for Social and Economic Research, Anchorage), Larry Hamilton (Sociology, University of New Hampshire), Larry Hinzman, (Water and Environmental Research Center, University of Alaska Fairbanks), Gary Kofinas (Biology and Wildlife, University of Alaska Fairbanks), Richard Lammers (University of New Hampshire), Marybeth Murray (University of Alaska Fairbanks), William Schnabel (University of Alaska Fairbanks), Peter Schweitzer (Anthropology, University of Alaska Fairbanks), Kalb Stevenson (University of Alaska Fairbanks), Charles Vorosmarty (Complex Systems Research Center, CUNY), Daniel White (Institute for Northern Engineering, University of Alaska Fairbanks).
- ii) **Graduate and Postdoctoral advisors:** Dr. Darryl Kropf (University of Utah), Dr. Luis Oliveira (University of British Columbia), Dr. Zdenko Rengel (CSIRO, Australia),
- iii) **Graduate sponsors:** Thesis advisor for Mr. Brad Barr (Ph.D. Candidate, Marine Resilience), Mr. Christopher Hoffman (M.Sc. candidate, Chlorinated Fatty Acids as Unique Arctic Contaminants), Ms. Kim Jochum (Ph.D candidate human-wildlife interactions, Mr. William Overbaugh (Ph.D. candidate, Resilience of Urban Communities: Green Spaces), Dr. Daniel Stouffer (Postdoctoral Fellow), watershed modeling, Ms. Paula Williams (Ph.D. Candidate, Arctic Knowledge and Values Among Minority Populations in the U.S.).