

## **Workshop: Transdisciplinary Research on the Changing Arctic and Its Global Impacts - Enhancing Capacity for Convergence**

### **LIST OF RESOURCES**

*Compiled by Holly M. Hapke, Ben Leffel, Brit Myers, and Danielle Fiesta  
August 2021*

#### **Interdisciplinary Research and Education**

Augsburg, T., Chitewere, T., Gagnon, P. 2013. Starting with Worldviews: A five-step preparatory approach to integrative interdisciplinary learning. *Issues in Interdisciplinary Studies* 31: 174-191.

Bosque-Pérez, N. A., Klos, P. Z., Force, J. E., Waits, L. P., Cleary, K., Rhoades, P., Galbraith, S. M., Bentley Brymer, A. L., O'Rourke, M., Eigenbrode, S. D., Finegan, B., Wulffhorst, J. D., Sibelet, N., Holbrook, J. D. 2016. A Pedagogical Model for Team-based, Problem-focused Interdisciplinary Doctoral Education. *BioScience* 66, 6: 477-488. DOI: 10.1093/biosci/biw042

Barthel, R., and Seidi, R. 2017. Interdisciplinary Collaboration between Natural and Social Sciences – Status and Trends Exemplified in Groundwater Research. *PLoS ONE* 12(1): e0170754. DOI: 10.1371/journal.pone.0170754.

Derrick, E. G., Falk-Krzesinski, H. J., Roberts, M. R., (Eds). 2011. *Facilitating Interdisciplinary Research and Education: A Practical Guide*. American Association for the Advancement of Science. Accessible at: <https://www.aaas.org/resources/facilitating-interdisciplinary-research-and-education-practical-guide>.

Djenontin, I.N.S. and A.M. Meadow. 2018. The art of co-production of knowledge in environmental sciences and management: lessons from international practice. *Environmental Management* 61, 885–903. <https://doi.org/10.1007/s00267-018-1028-3>.

Euskirchen, E.S., K. Timm, A.L. Breen, et al. 2020. Co-producing knowledge: the Integrated Ecosystem Model for resource management in Arctic Alaska. *Frontiers in Ecology and the Environment*, 1540-9295. doi:10.1002/fee.2176.

Falardeau, M. and E.M. Bennett. 2020. Towards integrated knowledge of climate change in Arctic marine systems: a systematic literature review of multidisciplinary research. *Arctic Science* 6, no. 1, 1-23. Goring, S.J., K.C. Weathers, W.K. Dodds, P.A. Soranno, L.C. Sweet, et al. 2014. Improving the culture of interdisciplinary collaboration in ecology by expanding measures of success. *Frontiers in Ecology and the Environment* 12, 39-47. doi:[10.1890/120370](https://doi.org/10.1890/120370).

Gosselin, D.C., K. Thompson, D. Pennington and S. Vincent. 2020. Learning to be an interdisciplinary researcher: incorporating training about dispositional and epistemological differences into graduate student environmental science teams. *Journal of Environmental Studies and Sciences* 0, 1-17. DOI: 10.1007/s13412-020-00605-w

Guerrero, A. M., N. J., Bennet, N. J., Wilson, K. A., Carter, N., Gill, D., Mills, Ives, C. D., Selinske, M. J., Larrosa, C., Bekessy, S., Januchowski-Hartley, F. A., Travers, H., Wyborn, C. A., Nuno, A. 2018. Achieving

the Promise of Integration in Social-Ecological Research: A review and prospectus. *Ecology and Society*. 23. 38. DOI: 10.5751/ES-10232-230338.

Heberlein, T. A. 1988. Improving Interdisciplinary Research: Integrating the Social and Natural Sciences. *Society and Natural Resources*, 1:5-16. DOI: 10.1080/08941928809380634

Holm, P., M.E. Goodsite, S. Cloetingh, M. Agnoletti, B. Moldan, D.J. Lang, R. Leemans, J.O. Moeller, M. Pardo Buendía, W. Pohl, R.W. Scholz, A. Sors, B. Vanheusden, K. Yusoff and R. Zondervan. 2013. Collaboration between the natural and human sciences in Global Change Research, *Environmental Science and Policy* 28, 25-35.

Jones, J. H. 2013. Integrating the Social Sciences with the Environmental and Earth Sciences. *Monkey's Uncle Blog*. <http://monkeysuncle.stanford.edu>.

Keestra, M. 2017. Metacognition and Reflection by Interdisciplinary Experts: Insights from Cognitive Science and Philosophy. *Institute for Interdisciplinary Studies* 35: 121-169.

Kelly, R. 2019. 10 Tips for Next Generation Interdisciplinary Research. *Socio-Ecological Practice Research* 1, 2: 149–161. DOI: 10.1007/s42532-019-00018-2.

Kelly, R., Mackay, M., Nash, K.L., Cvitanovic, C., Allison, E.H., Armitage, D., Bonn, A., Cooke, S.J., Frusher, S., FultonE.A., Halpern, B.S., Lopes, P.F.M., Milner-Gulland, M.J., Peck, M.A., Pecl, G.T., Stephenson, R.L., Werner, F. 2019. Ten Tips for Developing Interdisciplinary Socio-Ecological Researchers. *Socio-Ecological Practice Research* 1, 2: 149–161. DOI: 10.1007/s42532-019-00018-2.

Kline, J. D., White, E. M., Fischer, A. P., Steen-Adams, M. M., Charnley, S., Olsen, C. S., Spies, T. A., Bailey, J. D. 2017. Integrating Social Science into Empirical Models of Coupled Human and Natural Systems. *Ecology and Society* 22, 3:25. DOI: 10.5751/ES-09329-220325.

Lang, D. J., Wiek, A., Bergmann, M., Stauffacher, M., Martens, P., Moll, P., ... Thomas, C. J. 2012. Transdisciplinary research in sustainability science: Practice, principles, and challenges. *Sustainability Science*, 7, 1: 25–43. <https://doi.org/10.1007/s11625-011-0149-x>

Lowe, P., Phillipson, J., Wilkinson, K. 2013. Why Social Scientists Should Engage with Natural Scientists. *Contemporary Social Science* 8, 3: 207-222. DOI: 10.1080/21582041.2013.769617.

Martin, V.Y. 2020. Four Common Problems in Environmental Social Research Undertaken by Natural Scientists. *BioScience* 70, 1:13-16.

Moon, K. and Blackman, D. 2014. A Guide to Understanding Social Science Research for Natural Scientists. *Conservation Biology* 28, 5: 1167-1177. DOI: 10.1111/cobi.12326.

Moon, K., Cvitanovic, C., Blackman, D.A., Scales, I.R. and Browne, N.K. 2021. Five Questions to Understand Epistemology and Its Influence on Integrative Marine Research. *Frontiers in Marine Science* 8:574158. <https://doi.org/10.3389/fmars.2021.574158>.

Mooney, H.A., Duraiappah, A., Larigauderie, A. 2012. Evolution of Natural and Social Science Interactions

in Global Change Research Programs. *Proceedings of the National Academy of Sciences* 110. DOI: DOI: 10.1073/pnas.1107484110.

National Academies of Sciences, Engineering, and Medicine. 2019. *Fostering the Culture of Convergence in Research: Proceedings of a Workshop*. Washington, DC: The National Academies Press. DOI: 10.17226/25271

National Academy of Sciences, National Academy of Engineering, and Institute of Medicine. 2005. *Facilitating Interdisciplinary Research*. Washington, DC: The National Academies Press. DOI:10.17226/11153

National Research Council. 2014. *Convergence: Facilitating Transdisciplinary Integration of Life Sciences, Physical Sciences, Engineering, and Beyond*. Washington, DC: The National Academies Press. DOI: 10.17226/18722

OECD. 2020. Addressing societal challenges using transdisciplinary research. *OECD Science, Technology and Industry Policy Papers*, No. 88, OECD Publishing, Paris, <https://doi.org/10.1787/0ca0ca45-en>.

Olsson, L., Jerneck, A., Thoren, H., Persson, J., O’Byrne, D. 2015. Why Resilience is Unappealing to Social Science: Theoretical and empirical investigations of the scientific use of resilience. *Science Advances* 1, 4: e1400217. DOI: 10.1126/sciadv.1400217.

O'Rourke, M., Crowley, S., Eigenbrode, S. D., Wulffhorst, J. D. (Eds.). 2013. *Enhancing Communication & Collaboration in Interdisciplinary Research*. Sage Publications. Accessible at: <https://us.sagepub.com/en-us/nam/enhancing-communication-collaboration-in-interdisciplinary-research/book239125>

O'Rourke, M., Crowley, S., Gonnerman, C. 2015. On the Nature of Cross-Disciplinary Integration: A philosophical framework. *Studies in History and Philosophy of Biological and Biomedical Sciences* 56: 62-70. DOI: 10.1016/j.shpsc.2015.10.003.

Petrov, A.N., S. BurnSilver, F.S. Chapin III, G. Fondahl, J. Graybill, K Keil, A.E. Nilsson, R. Riedlsperger and P. Schweitzer. 2016. Arctic sustainability research: toward a new agenda, *Polar Geography* 39, no. 3, 165-178, DOI: [10.1080/1088937X.2016.1217095](https://doi.org/10.1080/1088937X.2016.1217095).

Repko, A. F., Newell, W. H., Szostak, R. 2012. *Case Studies in Interdisciplinary Research*. SAGE Publications, Inc. DOI: 10.4135/9781483349541.

Repko, A. F. and Szostak, R. 2017. *Interdisciplinary Research: Process and Theory*, 3rd Ed. Sage Publications. Accessible at: <https://us.sagepub.com/en-us/nam/interdisciplinary-research/book246131>.

Skorton, D. and Bear, A. 2018. *The Integration of the Humanities and Arts with Sciences, Engineering, and Medicine in Higher Education: Branches from the Same Tree*. Washington, DC: The National Academies Press. DOI: 10.17226/24988

Sörlin, S. 2012. Environmental Humanities: Why should biologists interested in the environment take the Humanities seriously? *BioScience* 62, 9. DOI: 10.1525/bio.2012.62.9.2

Stock, P., & Burton, R. J. F. 2011. Defining Terms for Integrated (Multi-Inter-Trans-Disciplinary) Sustainability Research. *Sustainability*, 3, 8: 1090–1113. <https://doi.org/10.3390/su3081090>

Stokols, D. 2018. *Social Ecology in the Digital Age: Solving Complex Problems in a Globalized World*. Academic Press. Accessible at: <https://www.elsevier.com/books/social-ecology-in-the-digital-age/stokols/978-0-12-803113-1>.

Strang, V. 2007. Integrating the Social and Natural Sciences in Environmental Research: A discussion paper. *Environment, Development and Sustainability* 11, 1:1-18. DOI:10.1007/s10668-007-9095-2.

Turner, B.L. Et.al. 2016. Socio-Ecological Systems (SES) Research: What have we learned and how can we use this information in future research programs. *Current Opinion in Environmental Sustainability*. 19. 160-168. 10.1016/j.cosust.2016.04.001. Elsevier. DOI: 10.1016/j.cosust.2016.04.001.

Uzzi, B., Mukherjee, S., Stringer, M., and Jones, B. 2013. Atypical Combinations and Scientific Impact. *Science* 342, 6157: 468-472. DOI: 10.1126/science.1240474.

Viseu, A. 2015. Integration of Social Science into Research is Crucial. *Nature* 525: 291. DOI: 10.1038/525291a.

Vlasova, T. and S. Volkov, 2016. Towards transdisciplinarity in Arctic sustainability knowledge co-production: Socially-Oriented Observations as a participatory integrated activity. *Polar Science* 10, no. 3: 425-432.

## **Team Science**

Bennett, L. M., Gadlin, H., Marchand, C. 2018. *Collaboration and Team Science Field Guide*, 2nd ed. National Cancer Institute. Accessible at: <https://www.cancer.gov/about-nci/organization/crs/research-initiatives/team-science-field-guide>.

Cheruvellil, K. S., Soranno, P. A., Weathers, K. C., Hanson, P. C., Goring, S. J., Filstrup, C. T., Read, E.K. 2014. Creating and Maintaining High-Performing Collaborative Research Teams: The importance of diversity and interpersonal skills. *Macrosystems Ecology* 12, 1:31-38. DOI: 10.1890/130001.

Conn, V. S., McCarthy, A. M., Cohen, M. Z., Anderson, C. M., Killion, C., DeVon, H. A., Smith, C. E. 2018. Pearls and Pitfalls of Team Science. *Western Journal of Nursing Research* 41, 6: 920-940. DOI: 10.1177%2F0193945918793097.

Cooke, N. J., Hilton, M. L. 2015. *Enhancing the Effectiveness of Team Science*. Washington, DC: The National Academies Press. DOI: 10.17226/1900.7

Hall, K., Crowston, K., Vogel, A. 2014. *How to Write a Collaboration Plan*. National Cancer Institute. Accessible at: <https://www.teamsciencetoolkit.cancer.gov/Public/TSResourceBiblio.aspx?tid=3&rid=3119>

Hall, K., Vogel, A., Crowston, K. 2015. *Collaboration Plans: Planning for Success in Team Science*. Poster presentation at Science of Team Science (SciTS) 2015 Conference.

Integration & Application Network, 2018. May 31. How to improve interdisciplinary collaborations: lessons learned from scientists studying team science. <https://ian.umces.edu/blog/2018/05/31/how-to-improve-interdisciplinary-collaborations-lessons-learned-from-scientists-studying-team-science/>.

Iversen, C.M., W.R. Bolton, A. Rogers, C. Wilson and S.D. Wullschleger. 2020. Building a Culture of Safety and Trust in Team Science, EOS, April 21. <https://eos.org/opinions/building-a-culture-of-safety-and-trust-in-team-science>.

Knoedler, A. 2019. Sparking Ideas for Visualizing Innovative Research Teams. *Exaptive* (Blog). <https://www.exaptive.com/blog/sparking-ideas-for-visualizing-innovative-research-teams>.

Ledford, H. 2015. Team Science. *Nature* 525, 7569: 308.

Stokols, D., Misra, D., Moser, R. P., Hall, K. L., Taylor, B. K. 2008. The Ecology of Team Science: Understanding Contextual Influences on Transdisciplinary Collaboration. *American Journal of Preventive Medicine*, 35(2), S96-S115. DOI: 10.1016/j.amepre.2008.05.003.

Stokols, D., Hall, K. L., Taylor, B. K., Moser, R. P. 2019. Strengthening the Ecosystem for Effective Team Science: A case study from the University of California, Irvine. *American Journal of Preventive Medicine* 35, 2: S77-S89.

Tebes JK, Thai ND. 2018. Interdisciplinary team science and the public: Steps toward a participatory team science. *Am Psychol* 73, no. 4. 549-562. doi:10.1037/amp0000281

Usability.gov. 2019. *Project Management Basics*. U.S. Department of Health and Human Services. Accessible at: <https://www.usability.gov/what-and-why/project-management.html>.

Wallen, K.E., Filbee-Dexter, K., Pittman, J.B. et al. 2019. Integrating team science into interdisciplinary graduate education: an exploration of the SESYNC Graduate Pursuit. *J Environ Stud Sci* 9, 218–233. <https://doi.org/10.1007/s13412-019-00543-2>

Wiltshire, T. J., Rosch, K., Fiorella, L., Fiore, S. M. 2014. Training for Collaborative Problem Solving: Improving Team Process and Performance through Metacognitive Prompting. *Proceedings of the Human Factors and Ergonomics Society Annual Meeting*, 58, 1: 1154–1158. DOI: 10.1177/1541931214581241.

### **Interdisciplinary/Team Science Process and Community Engagement**

Gordon, W. J. J. 1974. Some Source Material in Discovery-by-Analogy. *Journal of Creative Behaviour* 8: 239-257. DOI: 10.1002/j.2162-6057.1974.tb01132.x.

Laursen, B. K. 2018. What is Collaborative, Interdisciplinary Reasoning? The heart of interdisciplinary team research. *Informing Science: the International Journal of an Emerging Transdiscipline* 21: 75-106. DOI: 10.28945/4010.

Letter to the National Science Foundation on Navigating the New Arctic. <http://kotz.org/wp-content/uploads/2021/02/2020-03-19-NNA-Letter-Final.pdf> (cross-listed with Indigenous Science and TEK below).

Mach, Katharine J., et. al. 2020. Actionable Knowledge and the Art of Engagement. *Current Opinion in Environmental Sustainability* 42: 30-37.

Morss, R. E., Lazarus, H., Demuth, J. L. 2018. The “Inter” within Interdisciplinary Research: Strategies for building integration across fields. *Risk Analysis*. DOI: 10.1111/risa.13246.

National Science Foundation webpage on Arctic Community Engagement.  
<https://www.nsf.gov/geo/opp/arctic/ace/> (cross-listed with Indigenous Science and TEK below).

Norris, P. E., O'Rourke, M., Mayer, A. S., Halvorsen, K. E. 2016. Managing the Wicked Problem of Transdisciplinary Team Formation in Socio-Ecological Systems. *Landscape and Urban Planning* 154: 115-122. DOI: 10.1016/j.landurbplan.2016.01.008.

Palmer, M. A., Kramer, J. G., Boyd, J., Hawthorne, D. 2016. *Practices for Facilitating Interdisciplinary Synthetic Research: The National Socio-Environmental Synthesis Center (SESYNC)*. National Socio-Environmental Synthesis Center. DOI: 10.1016/j.cosust.2016.01.002.

Raymond-Yakoubian, B. and Raymond-Yakoubian, J. 2017. *Research Process and Indigenous Communities in Western Alaska*. Report to the National Science Foundation. Kawerak, Inc. Social Science Program. <https://kawerak.org/wp-content/uploads/2018/04/Research-Processes-and-Indigenous-Communities-in-Western-Alaska-Workshop-Report.pdf>. (cross-listed with Indigenous Science and TEK below).

Stokols, D., Olson, J. S., Salazar, M., Olson, G.M. 2019. Idea Tree: A tool for brainstorming ideas in cross-disciplinary teams. *Integration and Implementation Insights*.

Accessible at: <https://i2insights.org/2019/03/12/idea-tree-brainstorming-tool/>.

Wicker, A. W. 1985. Getting Out of Our Conceptual Ruts: Strategies for expanding conceptual frameworks. *American Psychologist* 40, 10: 1094-1103. DOI: 10.1037/0003-066X.40.10.1094.

Wojick, D. E. 1975. *Issue Analysis. An introduction to the use of issue trees and the nature of complex reasoning*. Available at: [http://www.stemed.info/reports/Wojick\\_Issue\\_Analysis\\_txt.pdf](http://www.stemed.info/reports/Wojick_Issue_Analysis_txt.pdf).

## **Arctic Research**

Alvarez, J., Yumashev, D. and G. Whiteman. 2020. A framework for assessing the economic impacts of Arctic change. *Ambio* 49, 407-418. <https://doi.org/10.1007/s13280-019-01211-z>

Anderson, S., Strawhacker, C., Presnall, A., et al. 2018. *Arctic Horizons: Final Report*. Washington D.C.: Jefferson Institute.

*Arctic Answers*. Study of Environmental Arctic Change. Accessible at:  
<https://www.searcharcticscience.org/arctic-answers> (a series of briefs related to Arctic research).

Arruda, G.M. and S. Krutkowsky. 2017. Arctic governance, indigenous knowledge, science and technology in times of climate change: Self-realization, recognition, representativeness. *Journal of Enterprising Communities: People and Places in the Global Economy* 11, no. 4, 514-528. <https://doi.org/10.1108/JEC-08-2015-0041>.

Arruda, G.M. and S. Krutkowsky. 2017. Social impacts of climate change and resource development in the Arctic: Implications for Arctic governance. *Journal of Enterprising Communities: People and Places in the Global Economy* 11 No. 2, pp. 277-288. <https://doi.org/10.1108/JEC-08-2015-0040>.

Blair, B. and A.L. Lovecraft. 2020. Risks Without Borders: A Cultural Consensus Model of Risks to Sustainability in Rapidly Changing Social–Ecological Systems. *Sustainability* 12, 2446.

Burgass, M.J., E.J. Milner-Gulland, J.S. Stewart Lowndes, et al. 2019. A pan-Arctic assessment of the status of marine social-ecological systems. *Reg Environ Change* 19, 293–308. <https://doi.org/10.1007/s10113-018-1395-6>

Cassotta S., K. Hossain, J. Ren and M.E. Goodsite. 2016. Climate Change and Human Security in a Regulatory Multilevel and Multidisciplinary Dimension: The Case of the Arctic Environmental Ocean. In: Leal Filho, W., H. Musa, G. Cavan, P. O'Hare, J. Seixas, eds. *Climate Change Adaptation, Resilience and Hazards. Climate Change Management*. Springer, Cham. [https://doi.org/10.1007/978-3-319-39880-8\\_5](https://doi.org/10.1007/978-3-319-39880-8_5).

Conley, H. A. and Melino, M. 2019. *The Implications of U.S. Policy Stagnation toward the Arctic Region*. Center for Strategic and International Studies. Accessible at: <https://www.csis.org/analysis/implications-us-policy-stagnation-toward-arctic-region>.

Greaves, W. 2020. Cities and Human Security in a Warming Arctic. In: L. Heininen and H. Exner-Pirot, eds. *Climate Change and Arctic Security*. Palgrave Pivot, Cham. [https://doi.org/10.1007/978-3-030-20230-9\\_5](https://doi.org/10.1007/978-3-030-20230-9_5).

Institute for the Study of Diplomacy Working Group Report. 2018. *THE NEW ARCTIC: Navigating the Realities, Possibilities, and Problems*. Edmund A. Walsh School of Foreign Service. Georgetown University.

Kemeny, R. 2019. Fight for the Arctic Ocean is a Boon for Science. *Science* 364, 6446:1120-21. DOI: 10.1126/science.364.6446.1120

Khan, S.A. 2019. Rebalancing state and Indigenous sovereignties in international law: An Arctic lens on trajectories for global governance. *Leiden Journal of International Law* 32, no. 4, 675-693. doi:10.1017/S0922156519000487

Lamers, M., A. Pristupa, B. Amelung and M. Knol. 2016. The changing role of environmental information in Arctic marine governance, *Current Opinion in Environmental Sustainability* 18, 49-55. <https://doi.org/10.1016/j.cosust.2015.08.015>.

National Research Council. 2014. *The Arctic in the Anthropocene: Emerging Research Questions*. Washington, DC: The National Academies Press. DOI: 10.17226/18726.

Vörösmarty, C. V., Davidsson, P. A., Muir, M. A. K., Sandford, R. W. 2014. *Motivating Research on the Science Communications Front: Conveying the Nature and Impacts of Rapid Change in Ice-Dominated Earth Systems to Decision Makers and the Public*. A Report to the National Science Foundation. Accessible at: [https://geo-prose.com/pdfs/motivating\\_research\\_high.pdf](https://geo-prose.com/pdfs/motivating_research_high.pdf).

Williams, P., A. Kliskey, M. McCarthy, R. Lammers, L. Alessa and J. Abatzoglou, 2019. Using the Arctic water resources vulnerability index in assessing and responding to environmental change in Alaskan communities, *Climate Risk Management* 23, 19-31. <https://doi.org/10.1016/j.crm.2018.09.001>.

### **Indigenous Science and Traditional Ecological Knowledge**

Arctic Research Consortium of the U.S. (ARCUS). Resources for Conducting Research with Northern Communities. <https://www.arcus.org/resources/northern-communities>.

Centeno, S.A. 2018. Ruling nature and indigenous communities: renewed senses of community and contending politics of mitigation of climate change in the northern Sierra of Oaxaca, Mexico. *Rout Adv Climate* 129-151.

David-Chavez, D. M. and Gavin, M. C. 2018. A Global Assessment of Indigenous Community Engagement in Climate Research. *Environmental Research Letters* 13(12). DOI: 10.1088/1748-9326/aaf300.

Folke, C. 2004. Traditional knowledge in social–ecological systems. *Ecology and Society* 9, 3: 7. Accessible at: <http://www.ecologyandsociety.org/vol9/iss3/art7/>.

Gewin, V. 2019. Polar research should include Indigenous perspectives. *Nature* 573: 453. DOI: 10.1038/d41586-019-02571-y.

Green, K.M., S.S. Fletcher, A.H. Beaudreau and S.M. Whiting. 2020. Iñupiaq Values in Subsistence Harvesting: Applying the Community Voice Method in Northwest Alaska. *Society & Natural Resources* 33, 1: 122-137. DOI: [10.1080/08941920.2019.1660935](https://doi.org/10.1080/08941920.2019.1660935)

Hitomi, M.K., Loring, P.A. 2018. Hidden participants and unheard voices? A systematic review of gender, age, and other influences on local and traditional knowledge research in the North. *Facets* 3:830-848.

Huntington, H. P. 2000. Using traditional ecological knowledge in science: methods and applications. *Ecological applications* 10, 5: 1270-1274. DOI: 10.1890/1051-0761(2000)010[1270:UTEKIS]2.0.CO;2.

Lauter, O. 2020. Challenges in Combining Indigenous and Scientific Knowledge in the Arctic. *SocArXiv* <https://osf.io/preprints/socarxiv/kvn2c/>

Letter to the National Science Foundation on Navigating the New Arctic. <http://kotz.org/wp-content/uploads/2021/02/2020-03-19-NNA-Letter-Final.pdf>

Mistry, J. and Berardi, A. 2016. Bridging indigenous and scientific knowledge. *Science* 352:1274-1275.

Nadasdy, P. 1999. The politics of TEK: Power and the "Integration" of Knowledge. *Arctic Anthropology* 36, 1/2: 1-18.

National Science Foundation webpage on Arctic Community Engagement.

<https://www.nsf.gov/geo/opp/arctic/ace/>

Parsons M, Fisher K, Nalau J: Alternative approaches to co-design: insights from indigenous/academic research collaborations. *Curr Opin Environ Sustain* 2016, 20:99-105.

Prusak SY, Walker R, Innes R: Toward indigenous planning? First nation community planning in Saskatchewan, Canada. *J Plan Educ Res* 2016, 36:440-450.

Raymond-Yakoubian, B. and Raymond-Yakoubian, J. 2017. *Research Process and Indigenous Communities in Western Alaska*. Report to the National Science Foundation. Kawerak, Inc. Social Science Program. <https://kawerak.org/wp-content/uploads/2018/04/Research-Processes-and-Indigenous-Communities-in-Western-Alaska-Workshop-Report.pdf>.

Raymond-Yakoubian, J. and Daniel, R. 2018. An Indigenous approach to ocean planning and policy in the Bering Strait region of Alaska. *Marine Policy* 97: 101-108. DOI: 10.1016/j.marpol.2018.08.028.

Reo, N.J., S.M. Topkok, N. Kanayurak, J.N. Stanford, D.A. Peterson, and L.J. Whaley, 2019. Environmental Change and Sustainability of Indigenous Languages in Northern Alaska. *Arctic* 72, no. 3, 215-228.

Vincent, K., Daly, M., Scannell, C., Leathes, B. 2018. What can climate services learn from theory and practice of co-production? *Climate Services* 12:48-58

Whyte, K. 2017. What do indigenous knowledges do for indigenous peoples? In *Keepers of the Green World: Traditional Ecological Knowledge and Sustainability*. Edited by Nelson, Melissa and Klsak, Shilling.

Whyte, K. 2017. Indigenous climate change studies: indigenizing futures, decolonizing the anthropocene. *English Language Notes* 55:153-162.

## **Videos and Websites**

*Building and Sustaining Interdisciplinary Networks: Comments by Dorothy Daley, PhD* (video, 6.5 min).  
<https://www.youtube.com/watch?list=UUDyolkMW73ccg2eEndJS6Qg&v=kwDz7M6t7-k>

*Institutional Structures that Support or Impede Interdisciplinary Research: Comments by Rebecca Thurston, PhD* (video, 7 min).  
<https://www.youtube.com/watch?list=UUDyolkMW73ccg2eEndJS6Qg&v=g4vTsa9KaUo>

*Integrating Knowledge Across Disciplines, Parts 1-4*. National Socio-Environmental Synthesis Center.  
Accessible here: <https://www.youtube.com/playlist?list=PLEfEOGoePNr1l0alb1ISr0xhE1Olpc5ij>.

MethodSpace (<https://www.methodspace.com/>) – From SAGE Publishing, this is a site that offers a blog, videos, opportunities and more related to a variety of topics in social science methods. Recent offerings address use of social media, data visualization, mixed methods, “the methodology of inequality,” and more.