



# LIFE SCIENCE NEWS

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## Announcements

**Biology Grad Student Association IAB Life Science Hour Sampler Seminar video now [online](#).**

**[Faculty time off \(FTO\) guidelines.](#)** The UNAC CBA requires that 3 of the 15 days of FTO must be taken during the winter "hard closure," which are 28, 29, and 30 December. Per the UNAC collective bargaining agreement, represented faculty are provided 15 days of faculty time off (FTO) per fiscal year. The FTO associated with these dates or any other FTO taken between 12/27/15 - 1/9/16 must be reported on your R02 timesheet due January 11, 2016.

Please review the attached UNAC FTO guidelines that include instructions on how to enter your faculty time off using the UAOnline web time entry process. If you have any questions about how to report your FTO please call the IAB HR Office at ext. 2781 or ext. 6676 or email [UAF-IAB-HR@alaska.edu](mailto:UAF-IAB-HR@alaska.edu).

There is a direct benefit to your grant(s) and to IAB Fund 1 when you (faculty) report your FTO and sick leave use. When reported, these hours are charged to a leave "pool" that is funded by the leave benefit rate instead of directly to your grant(s) or IAB Fund 1. While the sick leave pool accrues from year to year, unused FTO days are lost at the end of each fiscal year on 30 June.

The IAB administrative team wishes all of you the best during this holiday season.

**Your peer-reviewed publications sought.** Please

remember to send your peer-reviewed publications [here](#) as soon as you publish.

**Former IAB professor Perry Barboza named [Boone and Crockett Chair](#)** at Texas A&M University.

**[International LTER Open Science Meeting.](#)** Oct. 2016, Kruger Nat'l Park, South Africa.

**[IAB Life Science Hour seminars](#)** will resume January 15, 2016. Previous seminar videos are online.

## Events and Seminars

### **24 December 2015**

- **Notice: UAF Holiday Closure**

### **25 December 2015**

- **Notice: UAF Holiday Closure**

## Travel

- **Badger, Janelle**, 12/27/15 - 1/31/16, Halifax, Nova Scotia, Field work
- **Breed, Greg**, 12/10/15 - 1/15/16, Monterey, CA and San Francisco, CA, Attend at Marine Mammal Conference and collaborate at Hopkins Marine Station
- **Sivy, Kelly**, 10/30/15 - 12/31/15, Delta Junction, AK, Field work at study sites in/around Delta Junction

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Life Science Hour Seminars in the Murie Auditorium, Fridays 3-4 p.m.  
No seminar scheduled this week.

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• **Vayndorf, Elena**, 12/14/15 - 12/24/15, Piscataway, NJ, Present and collaborate at Rutgers University

## Grants and Awards

Go to the IAB funding opportunities webpage, [www.iab.uaf.edu/research/funding\\_opps.php](http://www.iab.uaf.edu/research/funding_opps.php), for the latest on available grants, scholarships, fellowships, and awards.

## New IAB Publications

Legend: **f**=faculty, **r**=research scientist, **s**=staff, **e**=emeritus, **a**=affiliate, **g**=grad student, **p**=post-doc, **u**=undergrad student, **h**=high school student

**Teigen, L.E. (g)**, **Orczewska, J.I. (g)**, **McLaughlin, J. (g)**, and **O'Brien, K.M. (f)** (2015). Cold acclimation increases levels of some heat shock protein and sirtuin isoforms in threespine stickleback. *Comparative Biochemistry and Physiology. Part A, Molecular & Integrative Physiology* 188:139-147 [IAB 4011].

**Mulder, Christa P.H. (f)**, **Wardle, David A.**, **Durrett, Melody S. (g)**, and **Bellingham, Peter J.** (2015). Leaf damage by herbivores and pathogens on New Zealand islands that differ in seabird densities. *New Zealand Journal of Ecology* 39:221-230 [IAB 4095].

**Campbell, Matthew A. (g)**, **Takebayashi, Naoki (f)**, and **Lopez, Andres** (2015). Beringian sub-refugia revealed in blackfish (*Dallia*): implications for understanding the effects of Pleistocene glaciations on Beringian taxa and other Arctic aquatic fauna. *BMC Evolutionary Biology* 15: [IAB 4096].

**Hickerson, M.J.**, **Stone, G.N.**, **Lohse, K.**, **Demos, T.C.**, **Xie, X.**, **Landerer, C.**, and **Takebayashi, N. (f)** (2014). Recommendations For Using Msbayes To Incorporate Uncertainty In Selecting An Abc Model Prior: A Response To Oaks Et Al. *Evolution* 68:284-294 [IAB 4097].

**Hope, A.G.**, **Takebayashi, N. (f)**, **Galbreath, K.E.**, **Talbot, S.L.**, and **Cook, J.A.** (2013). Temporal, spatial and ecological dynamics of speciation among amphi-Beringian small mammals. *Journal of Biogeography* 40:415-429 [IAB 4098].

**Huang, Wen**, **Takebayashi, Naoki (f)**, **Qi, Yan**, and **Hickerson, Michael J.** (2011). MTML-msBayes: Approximate Bayesian comparative phylogeographic

inference from multiple taxa and multiple loci with rate heterogeneity. *BMC Evolutionary Biology* 12: [IAB 4099].

**Paredes, Rosana**, **Harding, Ann M.A.**, **Irons, David B.**, **Roby, Daniel D.**, **Suryan, Robert M.**, **Orben, Rachael A.**, **Renner, Heather**, **Young, Rebecca (g)**, and **Kitaysky, Alexander (f)** (2012). Proximity to multiple foraging habitats enhances seabirds' resilience to local food shortages. *Marine Ecology Progress Series* 471:253-269 [IAB 4101].

**Schultner, J.**, **Kitaysky, A.S. (f)**, **Welcker, J.**, and **Hatch, S.** (2013). Fat or lean: adjustment of endogenous energy stores to predictable and unpredictable changes in allostatic load. *Functional Ecology* 27:45-55 [IAB 4102].

**Welcker, J.**, **Chastel, O.**, **Gabrielsen, G.W.**, **Guillaumin, J.**, **Kitaysky, A.S. (f)**, **Speakman, J.R.**, **Tremblay, Y.**, and **Bech, C.** (2013). Thyroid Hormones Correlate with Basal Metabolic Rate but Not Field Metabolic Rate in a Wild Bird Species. *PLoS ONE* 8:e56229EP - [IAB 4103].

**Robards, Martin D.**, **Kitaysky, Alexander S. (f)**, and **Burns, John H.** (2013). Physical and sociocultural factors affecting walrus subsistence at three villages in the northern Bering Sea: 1952-2004. *Polar Geography* 36:65-85 [IAB 4104].

**Harding, A.**, **Paredes, R.**, **Suryan, R.**, **Roby, D.**, **Irons, D.**, **Orben, R.**, **Renner, H.**, **Young, R. (g)**, **Barger, C. (g)**, **Dorresteijn, I. (g)**, and **Kitaysky, A. (f)** (2013). Does location really matter? An inter-colony comparison of seabirds breeding at varying distances from productive oceanographic features in the Bering Sea. *Deep Sea Research Part II: Topical Studies in Oceanography* 94:178-191 [IAB 4105].

**Benowitz-Fredericks, Z.M.**, **Kitaysky, A.S. (f)**, **Welcker, J. (p)**, and **Hatch, S.A.** (2013). Effects of Food Availability on Yolk Androgen Deposition in the Black-Legged Kittiwake (*Rissa tridactyla*), a Seabird with Facultative Brood Reduction. *PLoS ONE* 8:e62949EP - [IAB 4106].

**Vincenzi, S.**, **Hatch, S.**, **Mangel, M.**, and **Kitaysky, A. (f)** (2013). Food availability affects onset of reproduction in a long-lived seabird. *Proceedings of the Royal Society of London B: Biological Sciences* 280: [IAB 4107].

**Will, A.P. (g)**, **Suzuki, Y.**, **Elliott, K.H.**, **Hatch, S.A.**, **Watanuki, Y.**, and **Kitaysky, A.S. (f)** (2014). Feather corticosterone reveals developmental stress

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- Paredes, R., Orben, R.A., Suryan, R.M., Irons, D.B., Roby, D.D., Harding, A.M.A., **Young, R.C. (g)**, Benoit-Bird, K., Ladd, C., Renner, H., Heppell, S., Phillips, R.A., and **Kitaysky, A. (f)** (2014). Foraging Responses of Black-Legged Kittiwakes to Prolonged Food-Shortages around Colonies on the Bering Sea Shelf. *PLoS ONE* 9:e92520EP - [IAB 4109].
- Schultner, Jannik (g)**, Moe, Borge, Chastel, Olivier, Tartu, Sabrina, Bech, Claus, and **Kitaysky, Alexander S (f)** (2014). Corticosterone mediates carry-over effects between breeding and migration in the kittiwake *Rissa tridactyla*. *Marine Ecology Progress Series* 496:125-133 [IAB 4110].
- Schultner, Jannik (g)**, Moe, Borge, Chastel, Olivier, **Bech, Claus (f)**, and **Kitaysky, Alexander S. (f)** (2015). Migration and stress during reproduction govern telomere dynamics in a seabird. *Biology Letters* 10: [IAB 4111].
- Welcker, J. (g)**, Speakman, J.R., Elliott, K.H., Hatch, S.A., and **Kitaysky, A.S. (f)** (2015). Resting and daily energy expenditures during reproduction are adjusted in opposite directions in free-living birds. *Functional Ecology* 29:250-258 [IAB 4112].
- Patterson, A.G.L., **Kitaysky, A.S. (f)**, Lyons, D.E., and Roby, D.D. (2015). Nutritional stress affects corticosterone deposition in feathers of Caspian tern chicks. *Journal of Avian Biology* 46:18-24 [IAB 4113].
- Young, R.C. (g)**, **Kitaysky, A.S. (f)**, **Barger, C.P. (g)**, **Dorresteijn, I. (g)**, Ito, M., and Watanuki, Y. (2015). Telomere length is a strong predictor of foraging behavior in a long-lived seabird. *Ecosphere* 6:art39 [IAB 4114].
- Merkling, T., **Welcker, J. (g)**, Hewison, A.J.M., Hatch, S.A., **Kitaysky, A.S. (f)**, Speakman, J.R., Danchin, E., and Blanchard, P. (2015). Identifying the selective pressures underlying offspring sex-ratio adjustments: a case study in a wild seabird. *Behavioral Ecology* [IAB 4115].
- Sato, N.N., Kokubun, N., Yamamoto, T., Watanuki, Y., **Kitaysky, A.S. (f)**, and Takahashi, A. (2015). The jellyfish buffet: jellyfish enhance seabird foraging opportunities by concentrating prey. *Biology Letters* 11: [IAB 4116].
- Paredes, Rosana, Orben, Rachael A., Roby, Daniel D., Irons, David B., **Young, Rebecca (g)**, Renner, Heather, Tremblay, Yann, Will, Alexis, **Harding, Ann M.A. (g)**, and Kitaysky, Alexander S. (2015). Foraging ecology during nesting influences body size in a pursuit-diving seabird. *Marine Ecology Progress Series* 533:261-276 [IAB 4117].
- Vincenzi, S. (g)**, Hatch, S., Merkle, T., and **Kitaysky, A.S. (f)** (2015). Carry-over effects of food supplementation on recruitment and breeding performance of long-lived seabirds. *Proceedings of the Royal Society of London B: Biological Sciences* 282: [IAB 4118].
- Kupper, C., Stocks, M., Risse, J.E., dos Remedios, N., Farrell, L.L., McRae, S.B., **Morgan, T.C. (g)**, Karlionova, N., Pinchuk, P., Verkuil, Y.I., **Kitaysky, A.S. (f)**, Wingfield, J.C., Piersma, T., Zeng, K., Slate, J., Blaxter, M., Lank, D.B., and Burke, T. (2015). A supergene determines highly divergent male reproductive morphs in the ruff. *Nature Genetics* advance online publication: [IAB 4119].
- Kokubun, N., Yamamoto, T., Kikuchi, D.M., **Kitaysky, A. (f)**, and Takahashi, A. (2015). Nocturnal Foraging by Red-Legged Kittiwakes, a Surface Feeding Seabird That Relies on Deep Water Prey During Reproduction. *PLoS ONE* 10:e0138850EP - [IAB 4120].
- Newman, J.R. (g)**, **Wagner, D. (f)**, and **Doak, P. (f)** (2015). Impact of extrafloral nectar availability and plant genotype on ant (Hymenoptera: Formicidae) visitation to quaking aspen (Salicaceae). *The Canadian Entomologist FirstView*:1-7 [IAB 4121].
- Brown, D.R.N. (g)**, Jorgenson, M.T., Douglas, T.A., Romanovsky, V.E., **Kielland, K. (f)**, Hiemstra, C., **Euskirchen, E.S. (f)**, and **Ruess, R.W. (f)** (2015). Interactive effects of wildfire and climate on permafrost degradation in Alaskan lowland forests. *Journal of Geophysical Research: Biogeosciences* 120:1619-1637 [IAB 4122].
- Christie, K.S. (g)**, **Bryant, J.P. (e)**, Gough, L., Ravolainen, V.T., **Ruess, R.W. (f)**, and Tape, K.D. (2015). The Role of Vertebrate Herbivores in Regulating Shrub Expansion in the Arctic: A Synthesis. *BioScience* [IAB 4123].
- Christie, K.S. (g)** and **Ruess, R.W. (f)** (2015). Experimental evidence that ptarmigan regulate willow bud production to their own advantage. *Oecologia* 178:773-781 [IAB 4124].
- Lovelock, C.E., Feller, I.C., Reef, R., and **Ruess, R.W. (f)** (2014). Variable effects of nutrient enrichment on soil respiration in mangrove forests.

379:135-148 [IAB 4125].

**Tape, K.D. (g)**, Hallinger, M., Welker, J.M., and **Ruess, R.W. (f)** (2012). Landscape Heterogeneity of Shrub Expansion in Arctic Alaska. 15:711-724 [IAB 4126].

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Bhatt, U.S., **Walker, D.A. (f)**, Walsh, J.E., Carmack, E.C., Frey, K.E., Meier, W.N., Moore, S.E., Parmentier, F.-J.W., Post, E., Romanovsky, V.E., and Simpson, W.R. (2014). Implications of Arctic Sea Ice Decline for the Earth System. *Annual Review of Environment and Resources* 39:57-89 [IAB 4128].

**Raynolds, M.K. (r)**, **Walker, D.A. (f)**, Ambrosius, K.J., Brown, J., Everett, K.R., Kanevskiy, M., **Kofinas, G.P. (f)**, Romanovsky, V.E., Shur, Y., and Webber, P.J. (2014). Cumulative geocological effects of 62 years of infrastructure and climate change in ice-rich permafrost landscapes, Prudhoe Bay Oilfield, Alaska. *Global Change Biology* 20:1211-1224 [IAB 4129].

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**Timling, I. (r)**, **Walker, D.A. (f)**, Nusbaum, C., Lennon, N.J., and Taylor, D.L. (2014). Rich and cold: diversity, distribution and drivers of fungal communities in patterned-ground ecosystems of the North American Arctic. *Molecular Ecology* 23:3258-3272 [IAB 4132].

**Bhatt, U. (p)**, **Walker, D. (f)**, Raynolds, M., **Bieniek, P. (r)**, Epstein, H., Comiso, J., **Pinzon, J. (O)**, **Tucker, C. (O)**, and **Polyakov, I. (O)** (2013). Recent Declines in Warming and Vegetation Greening

Trends over Pan-Arctic Tundra. *Remote Sensing* 5:4229 [IAB 4133].

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Parmentier, F.-J.W., Christensen, T.R., Sorensen, L.L., Rysgaard, S., **McGuire, A.D. (f)**, Miller, P.A., and **Walker, D.A. (f)** (2013). The impact of lower sea-ice extent on Arctic greenhouse-gas exchange. *Nature Climate Change* 3:195-202 [IAB 4136].

Michaelson, G.J., Ping, C.L., and **Walker, D.A. (f)** (2012). Soils Associated with Biotic Activity on Frost Boils in Arctic Alaska. *Soil Science Society of American Journal* [IAB 4137].

Kelley, A.M., Epstein, H.E., Ping, C.-L., and **Walker, D.A. (f)** (2012). Soil Nitrogen Transformations Associated with Small Patterned-Ground Features along a North American Arctic Transect. *Permafrost and Periglacial Processes* 23:196-206 [IAB 4138].

**Walker, D.A. (f)**, Bhatt, U.S., Epstein, H.E., Bieniek, P.A., Comiso, J.C., Frost, G.V., Pinzon, J., **Raynolds, M.K. (r)**, and Tucker, C.J. (2012). Changing Arctic tundra vegetation biomass and greenness. In *State of the Climate in 2011*. Special Supplement to the Bulletin of American Meteorological Society [IAB 4139].

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Q Yu and H E Epstein and D A Walker and G V Frost and B C Forbes (2011). Modeling dynamics of tundra plant communities on the Yamal Peninsula, Russia, in response to climate change and grazing pressure. *Environmental Research Letters* 6:045505 [IAB 4141].

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See the [UAF Cornerstone](http://uaftercornerstone.net/) for more news and events (http://uaftercornerstone.net/).

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**Quote of the Day**

The soul's joy lies in doing.

[Percy Bysshe Shelley](#)