



# Network for Arthropods of the Tundra

The neatest news....our first annual meeting ofcourse! On November 15 & 16 in Aarhus, Denmark. I would also like to acknowledge everyone from the group that went to ICE in Orlando. I am sure that the symposium was amazing and I heard that it was well attended. Looking forward to seeing many of you in Aarhus!

## NeAT Special Issue

As part of our goal to increase the profile of NeAT and share the great research of our members, we are organizing a special issue in Polar Biology. Reminder that intentions for contributions were due by **20 May 2016**. We will request advanced drafts of these submissions by **1 November 2016**, with an intended submission deadline of **1 February 2017**. We anticipate that the upcoming NeAT meeting in November 2016 will be an ideal time for feedback on these papers. Please contact Toke Høye ([tth@bios.au.dk](mailto:tth@bios.au.dk)) for more details.

## Featured arthropod: *Gonatopus brooksi*, Olmi 1984

Parasites are a world of wonders and parasitic wasps are no different. The larvae of the Dryinid wasps are known to parasitize leafhoppers (Andersen & Nielsen 1987). In this bizarre family we find the tiny wasp *Gonatopus brooksi* (Olmi, 1984; Hymenoptera: Dryinidae). The female wasp grasps leafhoppers (presumably *Psammotettix lividellus* (Andersen & Nielsen 1987)) with her front tarsi, which has been modified into a pair of pincers, and quickly paralyzes the insect for the egg laying process. The larvae grow on the outside of nymph and adult leafhoppers in a small sack, from where they eat the tissue of the leafhopper. The male of this wasp species is not yet known, which makes these little guys ever more fascinating (Böcher et al. 2015).

Thanks to Massimo Olmi we know that this species has only been recorded 20 times throughout The USA (16 records (Olmi unpublished)), Canada (2 records (Olmi, unpublished) and once (Olmi 1984) in Greenland (Andersen & Nielsen 1987)). This genus, however, will be updated next year by Olmi, partly due to this year's field work in Narsarsuaq, Greenland. During this summer 17 observations of *G. brooksi* were made through pitfall trapping by a couple of students of Aarhus University. When looking back, 3 individuals were also found in the material collected from pitfalls in 2014 in Narsarsuaq. Some of the specimens have been confirmed by Olmi through photos. Together these observations have doubled the amount of records of this species. If the males have not been found before next summer, it should be fairly possible to find it during next year's field work.

- Mathias G. Skytte

### References

- Böcher, J. et al. 2015. The Greenland Entomofauna: An identification Manual of Insects, Spiders and Their Allies. – Fauna entomologica Scandinavica; v. 44
- Andersen, M. & Nielsen, P. 1987. *Gonatopus brooksi* Olmi 1984 found in Greenland (Hymenoptera, Dryinidae). – Ent. Med. 55:21-22.
- Olmi, M. 1984. Revision of the Dryinidae – Memoirs of the American Entomological Institute 37:1-1913-
- Olmi unpublished. A new revision of the *Gonatopus* genus is coming out in 2017.



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## October 2016



### Upcoming events/opportunities

- 1<sup>st</sup> NeAT meeting, Aarhus, Denmark, Nov. 15-16, 2016.

### Summer 2016 Campaigns

Zackenbergl, Northeast Greenland – The Helsinki/Uppsala Spatial Foodweb Ecology Group (<http://www.helsinki.fi/foodwebs/>) had an enjoyable field season at Zackenbergl, with a total of nine people visiting the area for longer or shorter periods. We worked on ecological interaction networks across the valley, with projects targeted at plant-pollinator, plant-herbivore and predator-prey interactions.

\*Thanks to you all, the Panarctic Parasitoid Project is turning out a success. So far we have received samples from 18 sites. – Tomas Roslin

The 2016 field season at Narsarsuaq, South Greenland was very successful with weekly sampling of arthropod plots at low and high elevation pitfall trap plots for the third year in a row. This year we had professor Brent Sinclair and PhD student Susan Anthony visiting from Western University, Ontario, Canada to study cold tolerance of spiders and PhD student Martin Nielsen from University of Copenhagen, Denmark doing a comparative study between Arctic and tropical ecosystems. At Arctic Station, Disko, arthropod samples (from soil cores, pitfall traps and malaise traps) were collected as part of a pilot project investigating the possibility of expanding the Greenland Ecosystem Monitoring with a new site on Disko Island. At Station Nord in North Greenland, arthropod sampling was carried out in a first attempt to characterize arthropod communities at extreme northern latitudes in Greenland. – Toke Høye

### Graduate corner (for students to share their work): Shaun Turney, PhD Student, McGill University

Arthropods are pretty neat to study as individual species, but what really gets me excited is using them as a study system to ask big ecological questions. The big question of my PhD thesis is how biodiversity is distributed across trophic levels. At the upcoming NeAT meeting I'm looking forward to presenting my research from the summer of 2015. I travelled along the Dempster highway that July, sampling tundra arthropod communities from the Arctic to the Subarctic. I collected some interesting data that I'm looking forward to sharing! I was able to calculate density measures for many taxa, and I was surprised by how community structure changed with latitude.

I'm looking forward to discussing these results and more with everyone at the NeAT meeting and hearing all about your own research.



### Tundra Arthropod Publications

- **Greyson-Gaito C. J. et al.** 2016. Freedom to move: Arctic caterpillar (Lepidoptera) growth rate increases with access to new willows (Salicaceae). *The Canadian Entomologist* doi: <http://dx.doi.org/10.4039/tce.2016.22>
- **Hansen RR. et al.** 2016. Meter scale variation in shrub dominance and soil moisture structure Arctic arthropod communities. *PeerJ* doi: 10.7717/peerj.2224
- **Namayandeh, A. et al.** 2016. Chironomidae (Insecta: Diptera) from the eastern Canadian Arctic and subarctic: with description of new life stages, a possible new genus, and new geographical records. *Journal of Entomological and Acarological Research* 48: 53-200
- **Reneerkens J. et al.** 2016. Effects of food abundance and early clutch predation on reproductive timing in a high Arctic shorebird exposed to advancements in arthropod abundance. *Ecology and Evolution* doi: 10.1002/ece3.2361

Please contact me (Joe) to announce events, research opportunities, new publications etc....  
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- **Roslin T & Majaneva S.** 2016. The use of DNA barcodes in food web construction – terrestrial and aquatic ecologists unite! *Genome* 59: 603-628
- **Tiusanen M et al.** 2016. One fly to rule them all -- muscid flies are the key pollinators in the Arctic. *Proceedings of the Royal Society B* 20161271

We encourage the submission of non-peer reviewed articles/notes regarding your research or aspects of it...or just about anything you'd like to share about tundra arthropods! Please contact us if you have something you'd like to share.

As always, send along any profile details you wish to share with everyone to Tomas Roslin so they can be added to our website: <https://tundraarthropods.wordpress.com/>

**Stay tuned at <https://tundraarthropods.wordpress.com/>**