

NUTRITIONAL ECOLOGY WORKING GROUP

SPRING 2023 NEWSLETTER

VOLUME 5, ISSUE 1



Thank you all for the continued interest in the Nutritional Ecology Working Group! The Nutritional Ecology Working Group has grown considerably since our first meeting in Reno in 2019, and a large part of that has been from the determination of our first chair, Kristin Denryter. During Kristin's term as Chair, our working group not only grew to over 100 members, but we surpassed all of the benchmarks needed to become an official working group of The Wildlife Society! I would like to thank Kristin and the current and past board members for pushing this working group forward, and to our members for stepping up and volunteering on committees! I am excited to see what the next year has in store for our working group.

The Nutritional Ecology Working Group held our annual meeting and hosted our first symposium at the National TWS meeting in Spokane. We had ~40 members join us for our meeting, and we discussed a suite of topics including upcoming workshops and fundraising. The symposium, "**Gold and new methods for determining wildlife diets**", brought together a diverse set of speakers that covered a wide range of nutritional ecology methods for measuring wildlife diets. We hope to have the recorded presentations from this symposium available later this spring.

The Nutritional Ecology Working Group has some exciting opportunities coming up this year. Our second skills workshop, "**Measuring Forage Quantity and Quality for Herbivores**" will be held in Kingsville, Texas, in November. The Nutritional Ecology Working Group is also submitting proposals for a "**Stable Isotopes in Nutritional Ecology**" workshop and corresponding symposium for the National TWS meeting in Louisville, Kentucky in November.

This winter the Nutritional Ecology Working Group has facilitated our third winter webinar series "**Nutritional physiology and ecology of wildlife in a changing world**". We have had a very diverse set of speakers, from the endangered kakapo to polar bears. All of our webinars have been recorded and are available to watch on our website <https://wildlife.org/newg/webinar-series/>

We completed our elections in November 2022, I would like to formally welcome Marcus Blum as chair-elect, Katey Huggler as secretary, and Yasaman Shakeri as Communications/ Outreach Coordinator. Also, thank you Jennifer Merems for volunteering to be the Nutritional Ecology Working Group representative for the editorial advisory board of The Wildlife Professional.

This fall the Nutritional Ecology Working Group will have elections for chair elect, treasurer, and newsletter editor. If you are interested in any of these positions, please contact myself or one of the board members and we can get you more information.

Dan Thompson

Chair, Nutritional Ecology Working Group

EXCEUTIVE BOARD

Chair

Dan Thompson

Chair-elect

Marcus Blum

Past Chair

Kristin Denryter

Secretary

Katey Huggler

Treasurer

Katie Anderson

Communication/Outreach

Yasaman Shakeri

Board Members at Large

Colter Chitwood

Rachel Cook

Tom Stephenson

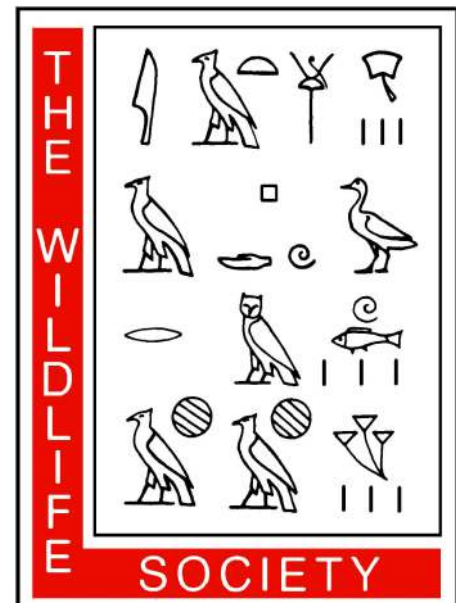


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ANNOUNCEMENTS & UPCOMING EVENTS

Tracing the fate of green and brown energy in food webs: multi-channels, mixotrophs, and microbiomes



Dr. Seth Newsome

University of New Mexico

March 8, 2023@ 12:00 Mountain Time

Zoom meeting registration link:

https://us06web.zoom.us/join/registration/tZ0od-GvpjMvHtRNgXyl_TUcOTOEvhSbjC-h

TWS Nutritional Ecology Webinar Series



NEWG Twitter Account!



NEWG officially has a twitter account! Check us out at @NEWG_TWS

SKILLS WORKSHOP

Mark Your Calendar! The Nutritional Ecology Working Group is pleased to announce they will be holding a second skills workshop on 'Measuring Forage Quality and Quantity for Herbivores' in Kingsville, TX during November 15-17th, 2023. The main workshop will be 3 full days and will have a mix of classroom lectures, lab analysis, and field sampling and will cost \$500. We will also be offering an optional half day on November 18th to explore several topics in more detail for \$85.

Scholarships Available

The Working Group is also pleased to announce we will be offering two \$500 student scholarships for this workshop. A full announcement with all the important details on the workshop, the optional half day, and scholarships will be sent out to everyone on our email distributions list in March. We expect to open registration in late April. Any questions, please reach out to Rachel Cook (rachierae@gmail.com).



INVITATION TO SUBMIT!

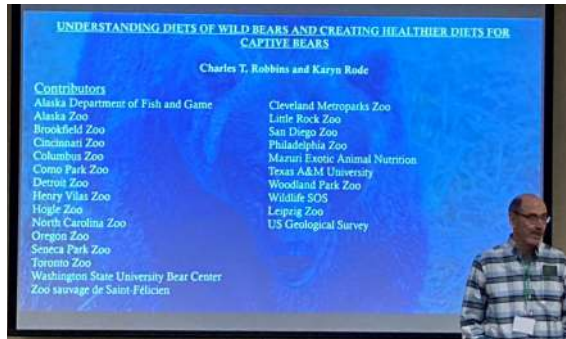
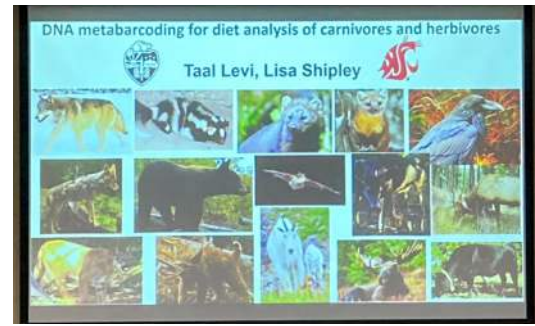
Rachel Cook and Lisa Shipley will be guest editing a special issue in the journal *Animals: Integrating Nutrition into Management of Large Ungulate Populations*

The aim of this Special Issue is to gather 12–20 articles with state-of-the-art knowledge focused on integrating nutrition into the management of large ungulate populations: successes, failures, or inherent challenges. Both original research papers or well-researched viewpoint or review papers are welcome in this Special Issue. You can find the full announcement at: https://www.mdpi.com/journal/animals/special_issues/OXBJ51O8ON The deadline for manuscript submissions is October 21, 2023. If interested in submitting a manuscript for this issue, please send a 200-300 word abstract to Rachel Cook (rachierae@gmail.com) including a few sentences on how your paper specifically integrates nutrition into management of large ungulates.



NEWG SYMPOSIUM: Gold and new methods for determining wildlife diets

The NEWG symposium at the TWS annual conference in Spokane was filled with great talks! Thank you everyone who participated! Recorded lectures from the symposium should be available this spring on the NEWG webpage.



LAB ANALYSES FOR NUTRITION WORK

We are still looking for tips and suggestions for our comprehensive list of analyses for nutrition work. We are close to finishing our preliminary list of laboratories in the USA and Canada that offer *in vitro* digestibility assays, bomb calorimetry and sequential fiber analysis, tannin precipitation, etc. and provide a key to help you determine which assays you need and which labs can perform those assays.

If you have some good tips on where you've sent forage samples, please email us at tws.nutritional.ecology@gmail.com and we'll add them to our list.

Right: Sampling forage quality at Starkey Experimental Forest and Range. Photo: Jennifer Merems.



RECENT AND RELEVANT LITERATURE

The list of recent publications provided is for informational purposes only and inclusion on the list should not be considered endorsement by NEWG

- Andersen-Ranberg, E. U., Barnes, C. J., Rasmussen, L., Salgado-Flores, A., Grøndahl, C., Mosbacher, J. B., ... & Sonne, C. (2018). A comparative study on the Faecal bacterial community and potential zoonotic Bacteria of muskoxen (*Ovibos moschatus*) in Northeast Greenland, Northwest Greenland and Norway. *Microorganisms*, 6(3), 76.
- Balluffi-Fry, J., Leroux, S. J., Champagne, E., & Vander Wal, E. (2022). In defense of elemental currencies: can ecological stoichiometry stand as a framework for terrestrial herbivore nutritional ecology?. *Oecologia*, 199(1), 27-38.
- Berg, J. E., Eacker, D. R., Hebblewhite, M., & Merrill, E. H. (2023). Summer elk calf survival in a partially migratory population. *The Journal of Wildlife Management*, 87(1), e22330.
- Blum, M. E., Stewart, K. M., Cox, M., Shoemaker, K. T., Bennett, J. R., Sullivan, B. W., ... & Bleich, V. C. (2023). Variation in diet of desert big-horn sheep around parturition: tradeoffs associated with parturition. *Frontiers in Ecology and Evolution*, 10, 1293.
- Bonin, M., Dussault, C., Taillon, J., Pisapio, J., Lecomte, N., & Côté, S. D. (2023). Diet flexibility of wolves and black bears in the range of migratory caribou. *Journal of Mammalogy*, gyad002.
- Kater, I., & Baxter, R. (2022). Abundance and accessibility of forage for reindeer in forests of Northern Sweden: Impacts of landscape and winter climate regime. *Ecology and Evolution*, 12(4), e8820.
- Koetke, L. J., Hodder, D. P., Rea, R. V., Johnson, C. J., & Marshall, S. (2023). Landscape disturbance alters the composition and diversity of the diet of moose, a generalist herbivore. *Forest Ecology and Management*, 530, 120760.
- LaSharr, T. N., Jakopak, R. P., Dwinnell, S. P., Rafferty, R. T., Thonhoff, M., Kaiser, R. C., ... & Monteith, K. L. (2022). Maternal effects and the legacy of extreme environmental events for wild mammals. *Ecology*, e3953.
- LaSharr, T. N., Dwinnell, S. P., Wagler, B. L., Sawyer, H., Jakopak, R. P., Ortega, A. C., ... & Monteith, K. L. (2023). Evaluating risks associated with capture and handling of mule deer for individual-based, long-term research. *The Journal of Wildlife Management*, e22333.
- Levine, R. L., Smiley, R. A., Jesmer, B. R., Oates, B. A., Goheen, J. R., Stephenson, T. R., ... & Monteith, K. L. (2022). Extending body condition scoring beyond measurable rump fat to estimate full range nutritional condition for moose. *Alces: A Journal Devoted to the Biology and Management of Moose*, 58, 91-99.
- Manlick, P. J., Cook, J. A., & Newsome, S. D. (2023). The coupling of green and brown food webs regulates trophic position in a montane mammal guild. *Ecology*, 104(2), e3949.
- Millán, F.M., Carranza, J., Seoane, J. M., & Pérez-González, J. (2022). Forage quality of consecutive years interact to affect body condition, reproductive rate and rut phenology in Iberian red deer. *Plos one*, 17(12), e0278367.
- Ortega, A. C., LaSharr, T. N., Kauffman, M. J., & Monteith, K. L. (2022). Energy expenditure of fat in a large herbivore is non-linear over winter. *Ecology*, e3952.
- Rode, K. D., Taras, B. D., Stricker, C. A., Atwood, T. C., Boucher, N. P., Durner, G. M., ... & Bromaghin, J. F. (2022). Diet energy density estimated from isotopes in predator hair associated with survival, habitat, and population dynamics. *Ecological Applications*, e2751.
- Shekhar Palei, H., Mohapatra, P. P., & Hussain, S. A. (2023). Habitat selection and diet of the Asian small-clawed otter in Karlapat Wildlife Sanctuary, Odisha, India. *Écoscience*, 1-10.
- Snobl, L. A., Proffitt, K. M., & Millspaugh, J. J. (2022). Wildfire extends the shelf life of elk nutritional resources regardless of fire severity. *Ecosphere*, 13(7), e4178.
- Spitzer, R., Coissac, E., Cromsigt, J. P., Felton, A. M., Fohringer, C., Landman, M., ... & Widemo, F. Macro-nutritional balancing in a circumpolar boreal ruminant under winter conditions. *Functional Ecology*.

Have you recently published on nutritional ecology? [Send us a link](#) to your article to be included in the next newsletter!