Trevor Bringloe, Ph.D Position Research Scientist

Professional Address.

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Webpages: https://arcticphyco.wordpress.com/ | https://arcticphyco.wordpress.com/ | <a href="https://www.researchgate.net/profile/Trevor-Bringloe

Aca. history: BA and BSc at University of New Brunswick (2007-2012)

MSc at University of Guelph (2012-2014)

PhD at University of New Brunswick (2014-2018; Dr. Gary Saunders) Postdoc: University of Melbourne (2019-2022; Dr. Heroen Verbruggen)

Research Interests: My research applies genomic datasets to unravel knowledge about the evolution of biodiversity, the micro- and macroevolutionary forces that drive global biogeographic patterns, and the resilience of ecosystems to climate change adaptation. My research entails a broad range of micro and macroalgae, including biodiversity, phylogenetic, and population genetic investigations, though my most recent work is strongly focused on the evolution of Arctic kelps. My research vision, however, is focused on genomic datasets and how they offer deeper ecological and evolutionary insights on biodiversity.

Synopsis of Society Service: I have been a PSA member since 2018. I am a regular reviewer for the *Journal of Phycology*, having reviewed seven articles since 2020. I was also a Norma J. Lang Fellow from 2020-2023. In 2021, my co-authors and I received the Provasoli award for our work demonstrating overlooked species and hybridizations among kelp using whole genome data. I currently sit on the Grants and Fellowships Committee.

Selected Scientific Publications:

Bringloe, T.T., Fort, A., Sulpice, R., Filbee-Dexter, Vieira, C., Kawai, H. Hanyuda, T., Krause-Jensen, D., Olesen, B., S. Starko, Verbruggen, H. 2022. Whole genome population structure of north Atlantic kelp confirms high latitude refugia. *Molecular Ecology*. 31:6473-6488.

Bringloe, T.T., Wilkinson, D.P., Goldsmit, J., Savoie, A.M., Filbee-Dexter, K., Macgregor, K.A., Howland, K., McKindsey, C.W., Verbruggen, H. 2022. Arctic marine forest distribution models showcase potentially severe habitat losses for cryophilic species under climate change. *Global Change Biology*. 28:3711-3727

Bringloe, T.T., Zaparenkov, D., Starko, S., Grant, W.S., Vieira, C., Kawai, H., Hanyuda, T., Filbee-Dexter, K., Klimova, A., Klochkova, T.A., Krause-Jensen, D., Olesen, B., Verbruggen, H. 2021. Whole genome sequencing of the kelp genus *Alaria* (Phaeophyceae) reveals forgotten lineages and widespread hybridization among species. *Journal of Phycology*. 57:1721-1738.

Bringloe, T.T., Verbruggen, H., Saunders, G.W. 2020. Unique biodiversity in Arctic marine

forests is shaped by diverse recolonisation pathways and far northern glacial refugia. *Proceedings of the National Academy of Sciences*. 117: 22590-22596.

Bringloe, T.T., Starko, S., Wade, R.M., Vieira, C., Kawai, H., Clerck, O., Cock, J. M., Coelho, S. M., Destombe, C., Valero, M., Neiva, J., Pearson, G. A., Faugeron, S., Serrão, E.A., Verbruggen, H. 2020. Phylogeny and evolution of the brown algae. *Critical Reviews in Plant Sciences*. 39: 281-321.