

Dr. Bogdan Drugă

Tematica concursului de admitere la doctorat (loc cu bursa):

Studiul adaptării fitoplanctonului la schimbările globale prin integrarea experimentelor de evoluție, a abordărilor multi-trait și a studiilor la nivel de comunitate, cu scopul de a înțelege cum modificarea principalelor trăsături ale speciilor influențează structura comunităților și se propaga către funcționarea și stabilitatea ecosistemelor acvatice. Cercetarea va contribui la dezvoltarea unui cadru predictiv capabil să anticipeze răspunsul ecosistemelor acvatice la perturbările antropice.

Bibliografie

1. Argyle PA, Walworth NG, Hinnens J, Collins S, Levine NM, Doblin MA. 2021. Multivariate trait analysis reveals diatom plasticity constrained to a reduced set of biological axes. *ISME Communications* 1:59. Doi: [10.1038/s43705-021-00062-8](https://doi.org/10.1038/s43705-021-00062-8)
2. Briddon C, Nicoară M, Hegedüs A, Thomas M, Drugă B, 2025. Quantifying evolutionary changes to temperature-CO₂ growth response surfaces in *Skeletonema marinoi* after adaptation to extreme conditions. *ISME Communications*, 5(1), ycaf069. Doi: [10.1093/ismeco/ycaf069](https://doi.org/10.1093/ismeco/ycaf069)
3. Briddon C, Miclăuș M, Hegedüs A, Nicoară M, Chiriac M-C, Drugă B, 2023. Long-term exposure to elevated temperature leads to altered gene expression in a common bloom-forming cyanobacterium. *Limnology and Oceanography*, 68 (12): 2654-2667. Doi: [10.1002/lno.12448](https://doi.org/10.1002/lno.12448)
4. Briddon C, Nicoară M, Hegedüs A, Niculea A, Bellerby R, Eikrem W, Crespo B, Dupont S, Drugă B, 2023. Acclimation to various temperature and pCO₂ levels does not impact the competitive ability of two strains of *Skeletonema marinoi* in natural communities. *Frontiers in Marine Science*, 10, 1197570. Doi: [10.3389/fmars.2023.1197570](https://doi.org/10.3389/fmars.2023.1197570)
5. Briddon C, Szekeres E, Hegedüs A, Nicoară M, Chiriac C, Stockenreiter M, Drugă B, 2022. The combined impact of low temperatures and shifting phosphorus availability on the competitive ability of cyanobacteria. *Scientific Reports*, 12 (1): 1-13. Doi: [10.1038/s41598-022-20580-2](https://doi.org/10.1038/s41598-022-20580-2)
6. Collins S, Whittaker H, Thomas MK, 2022. The need for unrealistic experiments in global change biology. *Current Opinion in Microbiology* 68:102151. Doi: [10.1016/j.mib.2022.102151](https://doi.org/10.1016/j.mib.2022.102151)
7. Drugă B, Ramm E, Szekeres E, Chiriac C, Hegedüs A, Stockenreiter M, 2022. Long-term acclimation might enhance the growth and competitive ability of *Microcystis aeruginosa* in warm environments. *Freshwater Biology*, 67 (4): 589-602. Doi: [10.1111/fwb.13865](https://doi.org/10.1111/fwb.13865)

8. Heinrichs AL, Happe A, Koussoroplis AM, Hillebrand H, Merder J, Striebel M. 2025. Temperature-dependent responses to light and nutrients in phytoplankton. *Ecology* 106:e70027. Doi: [10.1002/ecy.70027](https://doi.org/10.1002/ecy.70027)
9. Hinnners J, Argyle PA, Walworth NG, Doblin MA, Levine NM, Collins S, 2024. Multi-trait diversification in marine diatoms in constant and warmed environments. *Proceedings of the Royal Society B* 291:20232564. Doi: [10.1098/rspb.2023.2564](https://doi.org/10.1098/rspb.2023.2564)
10. Nicoară M, Niculea A, Hegedűs A, Briddon CL, Stockenreiter M, Stibor H, Banciu HL, Drugă B, 2026. Adaptation to warming alters the competition between three phytoplankton taxa: *Microcystis aeruginosa*, *Desmodesmus armatus* and *Mayamaea permitis*. *Community Ecology*. Doi: [10.1007/s42974-025-00284-z](https://doi.org/10.1007/s42974-025-00284-z).