

## Supplement 1

### Pan-Arctic ecosystem integration publications (2006-2021)

Results from the pan-arctic integration symposia organized by the UiT The Arctic University of Norway

#### Volume 1. Structure and function of contemporary food webs on Arctic shelves: a pan-Arctic comparison

*Progress in Oceanography*, 71, 2006

1. Wassmann, P. (2006). Structure and function of contemporary food webs on Arctic shelves: An introduction. Pages 123-128
2. Darby, D. (2006). Past glacial and interglacial conditions in the Arctic Ocean and marginal seas – a review, Pages 129-144
3. Carmack, E., Barber, D., Christensen, J., MacDonald, R. (2006). Climate variability and physical forcing of the food webs and the carbon budget on panarctic shelves, Pages 145-181
4. Hop, H., Falk-Petersen, S., Svendsen, H., Kwasniewski, Pavlov, V., Palvlova, O Søreide, J. (2006). Physical and biological characteristics of the pelagic system across Fram Strait to Kongsfjorden
5. Wassmann, P., M. Reigstad, T. Haug, B. Rudels, G. Wing Gabrielsen, M. L. Carroll, H. Hop, S. Falk-Petersen, D. Slagstad, S. G. Denisenko, E. Arashkevich & O. Pavlova (2006). Food webs and carbon flux in the Barents Sea, Pages 232-287
6. Hirche, H.J., Kosobokova, K.N., Gaye-Haake, B., Harms, I., Meon, B. Nöthig, E.-M. (2006). Structure and function of contemporary food webs on Arctic shelves: A panarctic comparison: The pelagic system of the Kara Sea – Communities and components of carbon flow, Pages 288-313
7. Schmid, M.K., Piepenburg, D., Golikov, A.A., Juterzenka, K.v., Petryashov, V.V., Spindler, M. (2006). Trophic pathways and carbon flux patterns in the Laptev Sea, Pages 314-330
8. Grebmeier, J.M., Cooper, L.W., Feder, H.M., Sirenko, B. I. (2006). Ecosystem dynamics of the Pacific-influenced Northern Bering and Chukchi Seas in the Amerasian Arctic, Pages 331-361
9. Dunton, K.H., Weingartner, T., Carmac, E.C. (2006). The nearshore western Beaufort Sea ecosystem: Circulation and importance of terrestrial carbon in arctic coastal food webs, Pages 362-378
10. Michel, C. Ingram, R.G., Harris, L.R. (2006). Variability in oceanographic and ecological processes in the Canadian Arctic Archipelago, Pages 379-401
11. Tremblay, J.-E., Hattori, H., Michel, C., Ringuette, M., Z.-P. Mei, Lovejoy, C., Fortier, L., Hobson, K.B., Amiel, C., Cochran, K. (2006). Trophic structure and pathways of biogenic carbon flow in the eastern North Water Polynya, Pages 402-425
12. Rysgaard, S., Gissel Nielsen, T. (2006). Carbon cycling in a high-arctic marine ecosystem – Young Sound, NE Greenland. Pages 426-445
13. Carmack, E. Wassmann, P. (2006). Food webs and physical–biological coupling on pan-Arctic shelves: Unifying concepts and comprehensive perspectives. Pages 446-477

#### Volume 2. Arctic Marine Ecosystems in an Era of Rapid Climate Change

*Progress in Oceanography* 90, 2011

14. Wassmann, P. (2011). Arctic marine ecosystems in an era of rapid climate change, Pages 1-17
15. Leu, E., Søreide, J.E., Hessen, D.O., Falk-Petersen, S., Berge, J. (2011). Consequences of changing sea-ice cover for primary and secondary producers in the European Arctic shelf seas: Timing, quantity, and quality, Pages 18-32

16. Reigstad, M., Carroll, J.L., Slagstad, D., Ellingsen, I., Wassmann, P. (2011). Intra-regional comparison of productivity, carbon flux and ecosystem composition within the northern Barents Sea, Pages 33-46
17. Drinkwater, K.F. (2011). The influence of climate variability and change on the ecosystems of the Barents Sea and adjacent waters: Review and synthesis of recent studies from the NESSAS Project, Pages 47-61
18. Mauritzen, C., Hansen, E., Andersson, M., Berx, M., et al. (2011) Closing the loop – Approaches to monitoring the state of the Arctic Mediterranean during the International Polar Year 2007–2008, Pages 62-89
19. Carmack, E., McLaughlin, F. (2011). Towards recognition of physical and geochemical change in Subarctic and Arctic Seas, Pages 90-104
20. Bouchard, C., Fortier, F. (2011). Circum-arctic comparison of the hatching season of polar cod *Boreogadus saida*: A test of the freshwater winter refuge hypothesis, Pages 105-116
21. Slagstad, D., Ellingsen, I.H., Wassmann, P. (2011). Evaluating primary and secondary production in an Arctic Ocean void of summer sea ice: An experimental simulation approach. Pages 117-131

**Volume 3. Overarching perspectives of contemporary and future ecosystems in the Arctic Ocean.**  
*Progress in Oceanography, Volume 139 (2015)*

22. Wassmann, P. (2015). Overarching perspectives of contemporary and future ecosystems in the Arctic Ocean, Pages 1-12
23. Carmack, E., Winsor, P., Williams, W. (2015). The contiguous panarctic Riverine Coastal Domain: A unifying concept, Pages 13-23
24. Williams, W., Carmack, E.C. (2015). The 'interior' shelves of the Arctic Ocean: Physical oceanographic setting, climatology and effects of sea-ice retreat on cross-shelf exchange, Pages 24-41
25. Wassmann, P., Kosobokova, K.N., Slagstad, D., Drinkwater, K.F., Hopcroft, R.R., Moore, S.E., Ellingsen, I., Nelson, R.J., Popova, E., Berge, J. (2015). The contiguous domains of Arctic Ocean advection: Trails of life and death. Pages 42-65
26. Michel, C. Hamilton, J., Hansen, E., Barber, D., Reigstad, M., Iacozza, J., Seuthe, L., Niemi, A. (2015). Arctic Ocean outflow shelves in the changing Arctic: A review and perspectives, Pages 66-88
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29. Leu, E., Mundy, C.J., Assmy, P., Campbell, K., Gabrielsen, T.M., Gosselin, M., Juul-Pedersen, T., Gradinger, R. (2015). Arctic spring awakening – Steering principles behind the phenology of vernal ice algal blooms, Pages 151-170
30. Jean-Éric Tremblay, J.-E. Anderson, L.G., Matrai, P., Coupel, P., Bélanger, S., Michel, C., Reigstad, M. (2015). Global and regional drivers of nutrient supply, primary production and CO<sub>2</sub> drawdown in the changing Arctic Ocean, Pages 171-196
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32. Maranger, R., Vaqué, D., Nguyen, D., Hébert, M.-P., Lara, E. (2015). Pan-Arctic patterns of planktonic heterotrophic microbial abundance and processes: Controlling factors and potential impacts of warming, Pages 221-232

33. Pedrós-Alió, C., Potvin, M., Lovejoy, C. (2015). Diversity of planktonic microorganisms in the Arctic Ocean, Pages 233-243
34. Renaud, P.E., Sej, M.K., Bluhm, B.A., Sirenko, B., Ellingsen, I.H. (2015). The future of Arctic benthos: Expansion, invasion, and biodiversity, Pages 244-257
35. Berge, J., Renaud, P.E., Darnis, G., Cottier, F. et al. (2015). In the dark: A review of ecosystem processes during the Arctic polar night, Pages 258-271

**Volume 4. Towards a Unifying Pan-Arctic Perspective of the Contemporary and Future Arctic Ocean**  
*Frontiers of Marine Science, Global Change and the Future Ocean (2020)*

36. Danielson, S.L., Hennon, T.D., Hedstrom, K.S., Pnyushkov, A.V., Polyakov, I.V., Carmack, E., Filchuk, K., Janout, M., Makotin, M., Willmans, W.J., Padman, L. (2020). Oceanic Routing of Wind-Sourced Energy Along the Arctic Continental Shelves. *Mar. Sci.* doi: 10.3389/fmars.2020.00509
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39. Polyakov, I.V., Alkire, M.B., Bluhm, B.A., Brown, K.A., Carmack, E.C., Chierici, M., Danielson, S.L., Ellingsen, I., Ershova, E.A., Gårfeldt, K., Ingvaldsen, R.B., Pnyushkov, A.V., Slagstad, D., Wassmann, P. (2020). Borealization of the Arctic Ocean in Response to Anomalous Advection From Sub-Arctic Seas. *Front. Mar. Sci.* doi: 10.3389/fmars.2020.00491
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48. Wiedmann, I., Ershova, E., Bluhm, B.A., Nöthig, E.-M., Gradinger, R., Kosobokova, K., Boetius, A. (2020). What feeds the benthic in the Arctic basins? Assembling a carbon budget for the deep Arctic Ocean. *Front. Mar. Sci.* doi: 10.3389/fmars.2020.00224