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Supplement of

Photosynthetic production in the central Arctic Ocean during the record sea-ice minimum in 2012

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Table S1. Datasets related to this publication stored in the Earth system science database PANGAEA.

Dataset	PANGAEA doi	Reference
Sea-ice conditions	doi:10.1594/PANGAEA.803221	(Fernández-Méndez et al., 2014)
Physical oceanography	doi:10.1594/PANGAEA.802904	(Hendricks et al., 2012)
Physical oceanography	doi:10.1594/PANGAEA.819452	(Rabe et al., 2012)
Net primary productivity	doi:10.1594/PANGAEA.834221	(Fernández-Méndez et al., 2014b)
Nutrients water column	doi:10.1594/PANGAEA.834081	(Rabe et al., 2012)
Nutrients melt ponds	doi:10.1594/PANGAEA.834082	(Bakker, 2014)
Nutrients wáter under ice	doi:10.1594/PANGAEA.834083	(Bakker, 2014)
Nutrients sea ice	doi:10.1594/PANGAEA.834084	(Bakker, 2014)

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10 **Table S2.** In situ rates of depth integrated net primary productivity in melt ponds, sea ice
 11 and water column at eight ice stations sampled during summer 2012. Sea-ice and melt
 12 pond productivity were integrated through their thickness and depth respectively, and
 13 water column was integrated for the euphotic zone (1% PAR). Ice thickness, melt pond
 14 depth and euphotic zone depth are described for each station in Table 1. Only PI curves
 15 with an $R^2 > 0.5$ were used for the NPP calculations. The average error of the carbon
 16 uptake measurements was 15%.

Integrated Net Primary Productivity <i>in situ</i>								
mg C m ⁻² d ⁻¹ (% Contribution to total)								
Station Number	1	2	3	4	5	6	7	8
Melt Pond	2 (4)	0.01 (0)	4 (24)	0.2 (2)	0.2 (0)	0.02 (0)	1 (34)	0.2 (26)
Sea Ice	13 (33)	1 (3)	0.8 (5)	0.4 (7)	0.1 (0)	0.2 (1)	1.5 (50)	0.5 (62)
Water under the ice	25 (63)	31 (97)	11 (71)	6 (91)	60 (100)	28 (99)	0.5 (16)	0.1 (12)
Total	40	32	16	7	60	29	3	0.8

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