EGU - Biogeosciences

Supplementary material for

Water table driven greenhouse gas emission estimate guides peatland restoration at national scale

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Introduction

The tables S1 and S2 present the Danish data synthesis for CO_2 and CH_4 fluxes that we utilized to derive response functions for greenhouse gas emissions in relation to water table depth at mean annual conditions.

Table S1: Overview of measurement sites included in the Danish data synthesis for CO_2 fluxes. MAE: mean annual temperature, MAP: mean annual precipitation, GWT: groundwater table, where negative values indicate a water table below terrain.

Site	Coordinates	Soil Type	Main crop	Starting Monitoring	Ending Monitoring	MAT (Celsius)	MAP (mm)	Mean GWT-cm	Soil Depth-cm	Organic C-%	C:N ratio	pH	Mean Annual CO_2 emission-NECB (Mg C ha-1 yr-1)	Reference
Skjern-W	55◦56´N, 8◦26´E	Organic soil with different agricultural management	Arable crop-Barley	2008/08	2009/09	9.3	913	-48	0–30	20.3	17	5	15.3	Elsgaard, L., et al., Net ecosystem exchange of CO2 and carbon balance for eight temperate organic soils under agricultural management. Agriculture, Ecosystems & Environment, 2012. 162: 52-67.
Skjern-W	55◦56´N, 8◦26´E	Organic soil with different agricultural management	Permanent grassland	2008/08	2009/09	9.6	913	-42	0–30	15.7	18.2	4.9	6.9	Elsgaard, L., et al., Net ecosystem exchange of CO2 and carbon balance for eight temperate organic soils under agricultural management. Agriculture, Ecosystems & Environment, 2012. 162: 52-67.
St. Vildmose-N	57◦13´N, 09◦49´E	Organic soil with different agricultural management	Arable crop-Potato	2008/08	2009/09	8.7	702	-70	0–30	47.3	30.2	4.5	7	Elsgaard, L., et al., Net ecosystem exchange of CO2 and carbon balance for eight temperate organic soils under agricultural management. Agriculture, Ecosystems & Environment, 2012. 162: 52-67.
St. Vildmose-N	57◦13´N, 09◦49´E	Organic soil with different agricultural management	Permanent grassland	2008/08	2009/09	8.6	702	-61	0–30	42.7	27.7	5.1	10.4	Elsgaard, L., et al., Net ecosystem exchange of CO2 and carbon balance for eight temperate organic soils under agricultural management. Agriculture, Ecosystems & Environment, 2012. 162: 52-67.
St. Vildmose-N	57◦13´N, 09◦49´E	Organic soil with different agricultural management	Rotational grass	2008/08	2009/09	9.1	702	-70	0–30	45.3	27.9	4.9	11.5	Elsgaard, L., et al., Net ecosystem exchange of CO2 and carbon balance for eight temperate organic soils under agricultural management. Agriculture, Ecosystems & Environment, 2012. 162: 52-67.

Mørke-E	56◦23´N, 10◦24´E	Organic soil with different agricultural management	Arable crop-Barley/Grass	2008/08	2009/09	9.2	579	-111	0–30	32.7	29.3	4.9	7.2	Elsgaard, L., et al., Net ecosystem exchange of CO2 and carbon balance for eight temperate organic soils under agricultural management. Agriculture, Ecosystems & Environment, 2012. 162: 52-67.
Mørke-E	56◦23´N, 10◦24´E	Organic soil with different agricultural management	Permanent grassland	2008/08	2009/09	9	579	-40	0–30	29.7	25.1	4.7	7.9	Elsgaard, L., et al., Net ecosystem exchange of CO2 and carbon balance for eight temperate organic soils under agricultural management. Agriculture, Ecosystems & Environment, 2012. 162: 52-67.
Mørke-E	56◦23´N, 10◦24´E	Organic soil with different agricultural management	Rotational grass	2008/08	2009/09	9.2	579	-43	0–30	30	25.6	5.8	16.7	Elsgaard, L., et al., Net ecosystem exchange of CO2 and carbon balance for eight temperate organic soils under agricultural management. Agriculture, Ecosystems & Environment, 2012. 162: 52-67.
Nørre Å	56◦44´N, 9◦68´E	Fen peatland	Reed canary grass	2012/05	2012/05	14.2	294	0	0–20	37.8	11.6		-3.6	Karki, S., et al., Carbon balance of rewetted and drained peat soils used for biomass production: a mesocosm study. GCB Bioenergy, 2016. 8(5): 969-980.
Nørre Å	56◦44´N, 9◦68´E	Fen peatland	Reed canary grass	2012/05	2012/05	14.2	294	-10	0–20	37.8	11.6		0.1	Karki, S., et al., Carbon balance of rewetted and drained peat soils used for biomass production: a mesocosm study. GCB Bioenergy, 2016. 8(5): 969-980.
Nørre Å	56◦44´N, 9◦68´E	Fen peatland	Reed canary grass	2012/05	2012/05	14.2	294	-20	0–20	37.8	11.6		4.3	Karki, S., et al., Carbon balance of rewetted and drained peat soils used for biomass production: a mesocosm study. GCB Bioenergy, 2016. 8(5): 969-980.

Nørre Å	56◦44´N, 9◦68´E	Fen peatland	Reed canary grass	2012/05	2012/05	14.2	294	-30	0–20	37.8	11.6		3.5	Karki, S., et al., Carbon balance of rewetted and drained peat soils used for biomass production: a mesocosm study. GCB Bioenergy, 2016. 8(5): 969-980.
Nørre Å	56◦44´N, 9◦68´E	Fen peatland	Reed canary grass	2012/05	2012/05	14.2	294	-40	0–20	37.8	11.6		10	Karki, S., et al., Carbon balance of rewetted and drained peat soils used for biomass production: a mesocosm study. GCB Bioenergy, 2016. 8(5): 969-980.
Odense River Basin	55◦13´N, 10◦17´E	Rewetted riparian wetland	creeping bentgrass	2015/03	2016/03	8.8	808	0	0–25	30		5.9-6.9	2.2	Kandel, T.P., et al., Complete annual CO2, CH4, and N2O balance of a temperate riparian wetland 12 years after rewetting. Ecological Engineering, 2019. 127: 527-535.
Nørre Å	56◦27´N, 9◦40´E	Fen peatland	Reed canary grass-Fertilized paludiculture	2015/03	2017/02	7.9	650	-1	0–20	36.3	12.1	6.1-7.1	0.6	Karki, S., et al., Annual CO 2 fluxes from a cultivated fen with perennial grasses during two initial years of rewetting. Mires & Peat, 2019. 25.
Nørre Å	56◦27´N, 9◦40´E	Fen peatland	Reed canary grass-Fertilized paludiculture	2015/03	2017/02	7.9	650	-9	0–20	36.3	12.1	6.1-7.1	2.4	Karki, S., et al., Annual CO 2 fluxes from a cultivated fen with perennial grasses during two initial years of rewetting. Mires & Peat, 2019. 25.
Nørre Å	56◦44´N, 9◦68´E	Fen peat	Reed canary grass	2013/05	2013/09	14.2	294	0	0–20	37.8	11.8		-3.6	Karki, S., et al., Carbon balance of rewetted and drained peat soils used for biomass production: a mesocosm study. Gcb Bioenergy, 2016. 8(5): 969-980.

Nørre Å	56◦44´N, 9◦68´E	Fen peat	Reed canary grass	2013/05	2013/09	14.2	294	-10	0–20	37.8	11.8		0.1	Karki, S., et al., Carbon balance of rewetted and drained peat soils used for biomass production: a mesocosm study. Gcb Bioenergy, 2016. 8(5): 969-980.
Nørre Å	56◦44´N, 9◦68´E	Fen peat	Reed canary grass	2013/05	2013/09	14.2	294	-20	0–20	37.8	11.8		4.3	Karki, S., et al., Carbon balance of rewetted and drained peat soils used for biomass production: a mesocosm study. Gcb Bioenergy, 2016. 8(5): 969-980.
Nørre Å	56◦44´N, 9◦68´E	Fen peat	Reed canary grass	2013/05	2013/09	14.2	294	-30	0–20	37.8	11.8		3.5	Karki, S., et al., Carbon balance of rewetted and drained peat soils used for biomass production: a mesocosm study. Gcb Bioenergy, 2016. 8(5): 969-980.
Nørre Å	56◦44´N, 9◦68´E	Fen peat	Reed canary grass	2013/05	2013/09	14.2	294	-40	0–20	37.8	11.8		10	Karki, S., et al., Carbon balance of rewetted and drained peat soils used for biomass production: a mesocosm study. Gcb Bioenergy, 2016. 8(5): 969-980.
Western Jutland	55◦56´N, 8◦26´E	Fen peat	Permanent grassland	2008/08	2009/10	9.5	913	-37	0–30	27	18	4.3	9.41	Görres, C.-M., L. Kutzbach, and L. Elsgaard, Comparative modeling of annual CO2 flux of temperate peat soils under permanent grassland management. Agriculture, Ecosystems & Environment, 2014. 186: 64-76.
Western Jutland	55◦56´N, 8◦26´E	Fen peat	Permanent grassland	2008/08	2009/10	9.5	913	-37	0–30	30		4.3	11.59	Görres, C.-M., L. Kutzbach, and L. Elsgaard, Comparative modeling of annual CO2 flux of temperate peat soils under permanent grassland management. Agriculture, Ecosystems & Environment, 2014. 186: 64-76.

Western Jutland	55◦56´N, 8◦26´E	Fen peat	Permanent grassland	2008/08	2009/10	9.5	913	-37	0–30	40		4.1	8.32	Görres, C.-M., L. Kutzbach, and L. Elsgaard, Comparative modeling of annual CO2 flux of temperate peat soils under permanent grassland management. Agriculture, Ecosystems & Environment, 2014. 186: 64-76.
Northern Jutland	57◦13´N, 09◦49´E	Fen peat	Permanent grassland	2008/08	2009/10	8.8	702	-71	0–30	82	28	4.5	11.86	Görres, C.-M., L. Kutzbach, and L. Elsgaard, Comparative modeling of annual CO2 flux of temperate peat soils under permanent grassland management. Agriculture, Ecosystems & Environment, 2014. 186: 64-76.
Northern Jutland	57◦13´N, 09◦49´E	Fen peat	Permanent grassland	2008/08	2009/10	8.8	702	-61	0–30	81		4.5	12.14	Görres, C.-M., L. Kutzbach, and L. Elsgaard, Comparative modeling of annual CO2 flux of temperate peat soils under permanent grassland management. Agriculture, Ecosystems & Environment, 2014. 186: 64-76.
Northern Jutland	57◦13´N, 09◦49´E	Fen peat	Permanent grassland	2008/08	2009/10	8.8	702	-51	0–30	85		4.4	6.82	Görres, C.-M., L. Kutzbach, and L. Elsgaard, Comparative modeling of annual CO2 flux of temperate peat soils under permanent grassland management. Agriculture, Ecosystems & Environment, 2014. 186: 64-76.
Eastern Jutland	56◦23´N, 10◦24´E	Bog peat	Permanent grassland	2008/08	2009/10	9.1	579	-73	0–30	91	25	3.2	4.50	Görres, C.-M., L. Kutzbach, and L. Elsgaard, Comparative modeling of annual CO2 flux of temperate peat soils under permanent grassland management. Agriculture, Ecosystems & Environment, 2014. 186: 64-76.
Eastern Jutland	56◦23´N, 10◦24´E	Bog peat	Permanent grassland	2008/08	2009/10	9.1	579	-20	0–30	47		5.2	11.59	Görres, C.-M., L. Kutzbach, and L. Elsgaard, Comparative modeling of annual CO2 flux of temperate peat soils under permanent grassland management. Agriculture, Ecosystems & Environment, 2014. 186: 64-76.

Eastern Jutland	56◦23´N, 10◦24´E	Bog peat	Permanent grassland	2008/08	2009/10	9.1	579	-28	0–30	26		5	14.73	Görres, C.-M., L. Kutzbach, and L. Elsgaard, Comparative modeling of annual CO2 flux of temperate peat soils under permanent grassland management. Agriculture, Ecosystems & Environment, 2014. 186: 64-76.

Table S2: Overview of the measurement sites included in the Danish data synthesis for CH_4 fluxes. MAE: mean annual temperature, MAP: mean annual precipitation, GWT: groundwater table, where negative values indicate a water table below terrain.

Site	Coordinates	Soil Type	Main crop	Starting Monitoring	Ending Monitoring	MAT (Celsius)	MAP (mm)	Mean WTD-cm	Soil Depth-cm	Organic C-%	C:N ratio	pH	Annual fluxes CH4 (g CH_4 m-2 yr-1)	Reference
Skjern-W	55◦56´N, 8◦26´E	Arable crop	Barley	2008/08	2009/09	9.3	913	-48	0–30	20.3	17	5	-0.02	Petersen, S.O., et al., Annual emissions of CH4 and N2O, and ecosystem respiration, from eight organic soils in Western Denmark managed by agriculture. Biogeosciences, 2012. 9(1): 403-422.
Skjern-W	55◦56´N, 8◦26´E	Permanent grassland	Grass	2008/08	2009/09	9.6	913	-42	0–30	15.7	18.2	4.9	-0.16	Petersen, S.O., et al., Annual emissions of CH4 and N2O, and ecosystem respiration, from eight organic soils in Western Denmark managed by agriculture. Biogeosciences, 2012. 9(1): 403-422.
St. Vildmose-N	57◦14´N, 09◦51´E	Arable crop	Potato	2008/08	2009/09	8.7	702	-70	0–30	47.3	30.2	4.5	0.03	Petersen, S.O., et al., Annual emissions of CH4 and N2O, and ecosystem respiration, from eight organic soils in Western Denmark managed by agriculture. Biogeosciences, 2012. 9(1): 403-422.
St. Vildmose-N	57◦14´N, 09◦50´E	Permanent grassland	Grass	2008/08	2009/09	8.6	702	-61	0–30	42.7	27.7	5.1	2.8	Petersen, S.O., et al., Annual emissions of CH4 and N2O, and ecosystem respiration, from eight organic soils in Western Denmark managed by agriculture. Biogeosciences, 2012. 9(1): 403-422.
St. Vildmose-N	57◦14´N, 09◦51´E	Rotational grass	Grass	2008/08	2009/09	9.1	702	-70	0–30	45.3	27.9	4.9	-0.03	Petersen, S.O., et al., Annual emissions of CH4 and N2O, and ecosystem respiration, from eight organic soils in Western Denmark managed by agriculture. Biogeosciences, 2012. 9(1): 403-422.

Mørke-E	56◦23´N, 10◦24´E	Arable crop	Barley/Grass	2008/08	2009/09	9.2	579	-111	0–30	32.7	29.3	4.9	0.38	Petersen, S.O., et al., Annual emissions of CH4 and N2O, and ecosystem respiration, from eight organic soils in Western Denmark managed by agriculture. Biogeosciences, 2012. 9(1): 403-422.
Mørke-E	56◦23´N, 10◦24´E	Permanent grassland	Grass	2008/08	2009/09	9	579	-40	0–30	29.7	25.1	4.7	4.7	Petersen, S.O., et al., Annual emissions of CH4 and N2O, and ecosystem respiration, from eight organic soils in Western Denmark managed by agriculture. Biogeosciences, 2012. 9(1): 403-422.
Mørke-E	56◦23´N, 10◦24´E	Rotational grass	Barley/Grass	2008/08	2009/09	9.2	579	-43	0–30	30	25.6	5.8	0.03	Petersen, S.O., et al., Annual emissions of CH4 and N2O, and ecosystem respiration, from eight organic soils in Western Denmark managed by agriculture. Biogeosciences, 2012. 9(1): 403-422.
Karup-P1	56°25'N, 9°0'E	riparian wetlands		2010/06	2011/06	7.6	740	2.2	0–30	21	20.4	6.6	0.13	Audet, J., et al., Methane emissions in Danish riparian wetlands: ecosystem comparison and pursuit of vegetation indexes as predictive tools. Ecological indicators, 2013. 34: 548-559.
Karup-P2	56°25'N, 9°0'E	riparian wetlands		2010/06	2011/06	7.6	740	2.5	0–30	14	20.4	6.7	51.07	Audet, J., et al., Methane emissions in Danish riparian wetlands: ecosystem comparison and pursuit of vegetation indexes as predictive tools. Ecological indicators, 2013. 34: 548-559.
Karup-P3	56°25'N, 9°0'E	riparian wetlands		2010/06	2011/06	7.6	740	-4.8	0–30	13	18.8	6.8	26.40	Audet, J., et al., Methane emissions in Danish riparian wetlands: ecosystem comparison and pursuit of vegetation indexes as predictive tools. Ecological indicators, 2013. 34: 548-559.

Haderup-P1	56°24'N, 9°0'E	riparian wetlands		2010/06	2011/06	7.6	831	-0.6	0–30	44	21.4	6.3	51.07	Audet, J., et al., Methane emissions in Danish riparian wetlands: ecosystem comparison and pursuit of vegetation indexes as predictive tools. Ecological indicators, 2013. 34: 548-559.
Haderup-P2	56°24'N, 9°0'E	riparian wetlands		2010/06	2011/06	7.6	831	-3.3	0–30	14	20.7	6.3	18.40	Audet, J., et al., Methane emissions in Danish riparian wetlands: ecosystem comparison and pursuit of vegetation indexes as predictive tools. Ecological indicators, 2013. 34: 548-559.
Haderup-P3	56°24'N, 9°0'E	riparian wetlands		2010/06	2011/06	7.6	831	-12	0–30	24	21.5	7	1.73	Audet, J., et al., Methane emissions in Danish riparian wetlands: ecosystem comparison and pursuit of vegetation indexes as predictive tools. Ecological indicators, 2013. 34: 548-559.
Simested-P1	56°41'N, 9°29'E	riparian wetlands		2010/06	2011/06	7.6	688	0.2	0–30	10	15.7	6.3	17.73	Audet, J., et al., Methane emissions in Danish riparian wetlands: ecosystem comparison and pursuit of vegetation indexes as predictive tools. Ecological indicators, 2013. 34: 548-559.
Simested-P2	56°41'N, 9°29'E	riparian wetlands		2010/06	2011/06	7.6	688	-12.6	0–30	45	22.8	6.5	16.27	Audet, J., et al., Methane emissions in Danish riparian wetlands: ecosystem comparison and pursuit of vegetation indexes as predictive tools. Ecological indicators, 2013. 34: 548-559.
Simested-P3	56°41'N, 9°29'E	riparian wetlands		2010/06	2011/06	7.6	688	-18.9	0–30	24	16.5	5.8	8.13	Audet, J., et al., Methane emissions in Danish riparian wetlands: ecosystem comparison and pursuit of vegetation indexes as predictive tools. Ecological indicators, 2013. 34: 548-559.

Villestrup-P1	56°44'N, 9°57'E	riparian wetlands		2010/06	2011/06	7.5	764	-5.4	0–30	24	18.7	5.5	34.13	Audet, J., et al., Methane emissions in Danish riparian wetlands: ecosystem comparison and pursuit of vegetation indexes as predictive tools. Ecological indicators, 2013. 34: 548-559.
Villestrup-P2	56°44'N, 9°57'E	riparian wetlands		2010/06	2011/06	7.5	764	-57.1	0–30	2	15.3	4.7	0.13	Audet, J., et al., Methane emissions in Danish riparian wetlands: ecosystem comparison and pursuit of vegetation indexes as predictive tools. Ecological indicators, 2013. 34: 548-559.
Villestrup-P3	56°44'N, 9°57'E	riparian wetlands		2010/06	2011/06	7.5	764	-39.2	0–30	4	15.8	4.8	-0.27	Audet, J., et al., Methane emissions in Danish riparian wetlands: ecosystem comparison and pursuit of vegetation indexes as predictive tools. Ecological indicators, 2013. 34: 548-559.
Store Vildmose	57°13'48"N, 9°50'24"E	Undrained natural Bog		2014/06	2015/06	7.9	740	-5	0–25	41	32	3.4	17.2	Kandel, T.P., P.E. Lærke, and L. Elsgaard, Annual emissions of CO2, CH4 and N2O from a temperate peat bog: Comparison of an undrained and four drained sites under permanent grass and arable crop rotations with cereals and potato. Agricultural and Forest Meteorology, 2018. 256: 470-481.
Store Vildmose	57°13'48"N, 9°50'24"E	Drained peat bog	permanent grassland	2014/06	2015/06	7.9	740	-60	0–25	39	21	4.3	-0.15	Kandel, T.P., P.E. Lærke, and L. Elsgaard, Annual emissions of CO2, CH4 and N2O from a temperate peat bog: Comparison of an undrained and four drained sites under permanent grass and arable crop rotations with cereals and potato. Agricultural and Forest Meteorology, 2018. 256: 470-481.
Store Vildmose	57°13'48"N, 9°50'24"E	Drained peat bog	Oat-Potato	2014/06	2015/06	7.9	740	-60	0–25	34	25	4	0.15	Kandel, T.P., P.E. Lærke, and L. Elsgaard, Annual emissions of CO2, CH4 and N2O from a temperate peat bog: Comparison of an undrained and four drained sites under permanent grass and arable crop rotations with cereals and potato. Agricultural and Forest Meteorology, 2018. 256: 470-481.

Store Vildmose	57°13'48"N, 9°50'24"E	Drained peat bog	Oat-Spring barley	2014/06	2015/06	7.9	740	-60	0–25	32	24	4.8	-0.14	Kandel, T.P., P.E. Lærke, and L. Elsgaard, Annual emissions of CO2, CH4 and N2O from a temperate peat bog: Comparison of an undrained and four drained sites under permanent grass and arable crop rotations with cereals and potato. Agricultural and Forest Meteorology, 2018. 256: 470-481.
Store Vildmose	57°13'48"N, 9°50'24"E	Drained peat bog	Potato-Spring barley	2014/06	2015/06	7.9	740	-60	0–25	33	24	4	-0.06	Kandel, T.P., P.E. Lærke, and L. Elsgaard, Annual emissions of CO2, CH4 and N2O from a temperate peat bog: Comparison of an undrained and four drained sites under permanent grass and arable crop rotations with cereals and potato. Agricultural and Forest Meteorology, 2018. 256: 470-481.
Nørre Å	56◦27´N, 9◦40´E	Fen peat	Reed canary grass-Fertilized paludiculture	2015/03	2017/03	8.6	755	-1	0–20	36	12	5.7-6.3	99 [82-116]	Kandel, T.P., et al., Methane fluxes from a rewetted agricultural fen during two initial years of paludiculture. Science of The Total Environment, 2020. 713: 136670.
Nørre Å	56◦27´N, 9◦40´E	Fen peat	Reed canary grass-Fertilized paludiculture	2015/03	2017/03	8.6	755	-3	0–20	36	12	5.7-6.3	52 [35-69]	Kandel, T.P., et al., Methane fluxes from a rewetted agricultural fen during two initial years of paludiculture. Science of The Total Environment, 2020. 713: 136670.
Nørre Å	56◦27´N, 9◦40´E	Fen peat	Reed canary grass-Fertilized paludiculture	2015/03	2017/03	8.6	755	-9	0–20	36	12	5.7-6.3	6[3-9]	Kandel, T.P., et al., Methane fluxes from a rewetted agricultural fen during two initial years of paludiculture. Science of The Total Environment, 2020. 713: 136670.
Odense River Basin	55◦13´N, 10◦17´E	Rewetted riparian wetland	creeping bentgrass	2015/03	2016/03	8.8	808	0	0–25	30		5.9-6.9	53	Kandel, T.P., et al., Complete annual CO2, CH4, and N2O balance of a temperate riparian wetland 12 years after rewetting. Ecological Engineering, 2019. 127: 527-535.

Nørre Å	56◦44´N, 9◦68´E	Fen peat	Spring barley	2010/09	2011/09	7.3	750	-40	0–30	36	12	6.1-7.1	0.01	Karki, S., et al., Full GHG balance of a drained fen peatland cropped to spring barley and reed canary grass using comparative assessment of CO 2 fluxes. Environmental monitoring and assessment, 2015. 187(3): 1-13.
Nørre Å	56◦44´N, 9◦68´E	Fen peat	Reed canary grass	2010/09	2011/09	7.3	750	-40	0–30	36	12	6.1-7.1	0.09	Karki, S., et al., Full GHG balance of a drained fen peatland cropped to spring barley and reed canary grass using comparative assessment of CO 2 fluxes. Environmental monitoring and assessment, 2015. 187(3): 1-13.
Nørre Å	56◦44´N, 9◦68´E	Fen peat	Reed canary grass	2012/07	2013/07	6.9	667	0	0–20	37.8	11.8		4.1	Karki, S., L. Elsgaard, and P.E. Lærke, Effect of reed canary grass cultivation on greenhouse gas emission from peat soil at controlled rewetting. Biogeosciences, 2015. 12(2): 595-606.
Nørre Å	56◦44´N, 9◦68´E	Fen peat	Reed canary grass	2013/05	2013/09	14.2	294	0	0–20	37.8	11.8		11.8	Karki, S., et al., Carbon balance of rewetted and drained peat soils used for biomass production: a mesocosm study. Gcb Bioenergy, 2016. 8(5): 969-980.
Nørre Å	56◦44´N, 9◦68´E	Fen peat	Reed canary grass	2013/05	2013/09	14.2	294	-10	0–20	37.8	11.8		6.2	Karki, S., et al., Carbon balance of rewetted and drained peat soils used for biomass production: a mesocosm study. Gcb Bioenergy, 2016. 8(5): 969-980.
Nørre Å	56◦44´N, 9◦68´E	Fen peat	Reed canary grass	2013/05	2013/09	14.2	294	-20	0–20	37.8	11.8		1.8	Karki, S., et al., Carbon balance of rewetted and drained peat soils used for biomass production: a mesocosm study. Gcb Bioenergy, 2016. 8(5): 969-980.

Nørre Å	56◦44´N, 9◦68´E	Fen peat	Reed canary grass	2013/05	2013/09	14.2	294	-30	0–20	37.8	11.8		0.6	Karki, S., et al., Carbon balance of rewetted and drained peat soils used for biomass production: a mesocosm study. Gcb Bioenergy, 2016. 8(5): 969-980.
Nørre Å	56◦44´N, 9◦68´E	Fen peat	Reed canary grass	2013/05	2013/09	14.2	294	-40	0–20	37.8	11.8		0	Karki, S., et al., Carbon balance of rewetted and drained peat soils used for biomass production: a mesocosm study. Gcb Bioenergy, 2016. 8(5): 969-980.
Odderbæk riparian wetland	55°55´N, 9◦17´E	riparian wetland		2010/05	2011/12			9	0–30	7	17.4		42.7	Audet, J., et al., Greenhouse gas emissions from a Danish riparian wetland before and after restoration. Ecological Engineering, 2013. 57: 170-182.
Odderbæk riparian wetland	55°55´N, 9◦17´E	riparian wetland		2010/05	2011/12			-41	0–30	33.4	24.1		-0.08	Audet, J., et al., Greenhouse gas emissions from a Danish riparian wetland before and after restoration. Ecological Engineering, 2013. 57: 170-182.
Odderbæk riparian wetland	55°55´N, 9◦17´E	riparian wetland		2010/05	2011/12			-36	0–30	27	10		-0.16	Audet, J., et al., Greenhouse gas emissions from a Danish riparian wetland before and after restoration. Ecological Engineering, 2013. 57: 170-182.