Model inter-comparison between statistical and dynamic model assessments of the long-term stability of blanket peat in Great Britain (1940–2099)

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Supplementary Information

Table S1. Detailed output for each model presented in Fig. 4, showing the number of dynamic models (DMs) predicting a net C sink and the number of bioclimatic envelope models (BCEMs) showing climate associated with blanket peat presence for raw Met Office/UKCIP gridded data. Output is in binary format, with 1 indicating a net C sink or blanket peat presence and 0 indicating a net C source or blanket peat absence

Field site	Model type	Model name	DM showing net C sink/BCEM showing climate associated with blanket peat presence			
			1940–1969	1950–1979	1960–1989	1970–1999
Auchencorth Moss	DM	MILLENNIA	1	1	1	1
		ECOSSE	1	1	1	1
		Durham	1	1	1	1
	BCEM	P50	0	0	0	0
		P65	0	0	0	0
		LM	1	0	1	1
		H-GLM	1	1	1	1
		BBOG	1	1	1	1
		BBOG-TREE	1	1	1	0
		BBOG-GLM	1	1	1	1
		BBOG-GAM	1	1	1	1
		PEATSTASH	1	1	1	1
Moor House	DM	MILLENNIA	1	1	1	1
		ECOSSE	1	1	1	1
		Durham	1	1	1	1
	BCEM	P50	1	1	1	1
		P65	1	1	1	1
		LM	1	1	1	1
		H-GLM	1	1	1	1
		BBOG	1	1	1	1
		BBOG-TREE	1	1	1	1
		BBOG-GLM	1	1	1	1
		BBOG-GAM	1	1	1	1
		PEATSTASH	1	1	1	1
Bleaklow	DM	MILLENNIA	1	1	1	1
		ECOSSE	1	1	1	1
		Durham	1	1	1	1
	BCEM	P50	0	0	0	0
		P65	0	0	0	0
		LM	1	1	1	1
		H-GLM	1	1	1	1
		BBOG	1	1	1	1
		BBOG-TREE	1	1	1	1
		BBOG-GLM	1	1	1	0
		BBOG-GAM	1	1	1	1
		PEATSTASH	0	0	1	1
Conwy	DM	MILLENNIA	0	0	0	0
		ECOSSE	1	0	0	0
		Durham	1	1	1	1
	BCEM	P50	1	1	1	1
		P65	1	1	1	1
		LM	1	1	1	1
		H-GLM	1	1	1	1
		BBOG	1	1	1	1
		BBOG-TREE	1	1	1	1
		BBOG-GLM	1	1	1	1
		BBOG-GAM	1	1	1	1
		PEATSTASH	1	1	1	1

Table S2. Detailed output for each model presented in Fig. 4, showing the number of dynamic models (DMs) predicting a net C sink and the number of bioclimatic envelope models (BCEMs) showing climate associated with blanket peat presence for bias corrected Met Office/UKCIP gridded data. Output is in binary format, with 1 indicating a net C sink or blanket peat presence and 0 indicating a net C source or blanket peat absence

Field site	Model type	Model name	DM showing net C sink/BCEM showing climate associated with blanket peat presence			
			1940–1969	1950–1979	1960–1989	1970–1999
Auchencorth Moss	DM	MILLENNIA	1	1	1	1
		ECOSSE	1	1	1	1
		Durham	1	1	1	1
	BCEM	P50	0	0	0	0
		P65	0	0	0	0
		LM	1	1	1	1
		H-GLM	1	1	1	1
		BBOG	1	1	1	1
		BBOG-TREE	1	1	1	0
		BBOG-GLM	1	1	1	1
		BBOG-GAM	1	1	1	1
		PEATSTASH	1	1	1	1
Moor House	DM	MILLENNIA	1	1	1	1
		ECOSSE	1	0	1	1
		Durham	1	1	1	1
	BCEM	P50	1	1	1	1
		P65	1	1	1	1
		LM	1	1	1	1
		H-GLM	1	1	1	1
		BBOG	1	1	1	1
		BBOG-TREE	1	1	1	1
		BBOG-GLM	1	1	1	1
		BBOG-GAM	1	1	1	1
		PEATSTASH	1	1	1	1
Bleaklow	DM	MILLENNIA	1	1	1	1
		ECOSSE	1	1	1	1
		Durham	1	1	1	1
	BCEM	P50	1	1	1	1
		P65	1	1	1	1
		LM	1	1	1	1
		H-GLM	1	1	1	1
		BBOG	1	1	1	1
		BBOG-TREE	1	1	1	1
		BBOG-GLM	1	1	1	1
		BBOG-GAM	1	1	1	1
		PEATSTASH	1	1	1	1
Conwy	DM	MILLENNIA	1	1	1	1
		ECOSSE	1	0	1	0
		Durham	1	1	1	1
	BCEM	P50	1	1	1	1
		P65	1	1	1	1
		LM	1	1	1	1
		H-GLM	1	1	1	1
		BBOG	1	1	1	1
		BBOG-TREE	1	1	1	1
		BBOG-GLM	1	1	1	1
		BBOG-GAM	1	1	1	1
		PEATSTASH	1	1	1	1

Table S3. Detailed output for each model presented in Fig. 7, showing the number of dynamic models (DMs) predicting a net C sink and the number of bioclimatic envelope models (BCEMs) predicting blanket peat presence for bias corrected 11-RCM ensemble data. Output shows the number of models predicting a net C sink or blanket peat presence from the 11 different climate projections from the 11-RCM ensemble

Field site	Model type	Model name	DM showing net C sink/BCEM showing climate associated with blanket peat presence												
			1950–1979	1960–1989	1970–1999	1980–2009	1990–2019	2000–2029	2010–2039	2020–2049	2030–2059	2040–2069	2050–2079	2060–2089	2070–2099
Auchencorth Moss	DM	MILLENNIA	11	11	11	11	11	11	11	11	11	11	11	11	11
		ECOSSE	11	11	10	11	11	8	7	9	10	10	10	4	5
		Durham	11	11	11	11	11	11	11	11	11	11	11	11	11
	BCEM	P50	0	0	0	0	0	0	0	0	0	0	0	0	0
		P65	0	0	0	0	0	0	0	0	0	0	0	0	0
		LM	5	5	5	6	6	6	6	4	3	2	0	0	0
		H-GLM	11	11	11	11	11	11	10	7	4	3	2	2	0
		BBOG	10	10	10	10	9	9	8	8	8	6	6	6	6
		BBOG-TREE	7	9	9	8	9	8	8	8	7	5	6	4	3
		BBOG-GLM	10	11	11	10	5	3	3	1	0	0	0	0	0
		BBOG-GAM	8	9	8	7	3	3	1	0	0	0	0	0	0
		PEATSTASH	10	10	10	9	8	8	6	4	3	1	1	0	0
Moor House	DM	MILLENNIA	11	11	11	11	11	11	11	11	11	11	11	11	11
		ECOSSE	11	11	11	10	9	8	4	3	3	2	0	0	0
		Durham	11	11	11	11	11	11	11	11	11	11	11	11	11
	BCEM	P50	11	11	11	11	11	11	11	11	11	11	11	11	11
		P65	11	11	11	11	11	11	11	11	11	11	11	11	11
		LM	11	11	11	11	11	11	11	11	10	9	7	4	3
		H-GLM	11	11	11	11	11	11	11	11	11	11	11	7	5
		BBOG	11	11	11	11	11	11	11	10	10	9	8	8	8
		BBOG-TREE	11	11	11	11	11	11	11	10	10	7	8	8	8
		BBOG-GLM	11	11	11	11	11	11	11	11	10	9	9	6	5
		BBOG-GAM	11	11	11	11	11	11	11	11	10	9	9	8	5
		PEATSTASH	11	11	11	11	11	11	11	11	10	7	5	2	2
Bleaklow	DM	MILLENNIA	11	11	11	11	11	11	11	11	11	11	11	11	11
		ECOSSE	11	11	11	11	11	9	11	10	10	11	8	3	4
		Durham	11	11	11	11	11	11	11	11	11	11	11	11	11
	BCEM	P50	7	7	7	8	8	8	8	8	8	8	8	8	8
		P65	6	7	7	8	6	6	5	5	2	1	1	1	1
		LM	11	11	11	11	11	11	10	7	5	2	2	0	0
		H-GLM	11	11	11	11	11	11	11	11	10	6	4	3	2

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		BBOG	9	10	10	10	8	8	8	8	8	6	6	5	3
		BBOG-TREE	10	10	10	10	10	8	7	5	6	5	5	3	2
		BBOG-GLM	11	11	11	11	11	10	7	6	3	2	1	0	0
		BBOG-GAM	11	11	11	11	11	10	9	8	6	3	2	1	1
		PEATSTASH	11	11	11	11	10	11	11	8	6	3	1	2	0
Conwy	DM	MILLENNIA	11	11	11	11	11	11	11	11	11	11	11	11	11
		ECOSSE	9	9	6	4	3	1	1	1	1	1	0	0	0
		Durham	11	11	11	11	11	11	11	11	11	10	10	10	10
	BCEM	P50	11	11	11	11	11	11	11	11	11	11	11	11	11
		P65	11	11	11	11	11	11	11	11	11	11	11	11	11
		LM	11	11	11	11	11	11	11	10	10	7	4	2	0
		H-GLM	11	11	11	11	11	11	11	11	8	4	3	2	2
		BBOG	11	11	11	11	11	11	10	10	10	8	8	8	8
		BBOG-TREE	11	11	11	11	11	8	10	8	8	8	8	8	8
		BBOG-GLM	11	11	11	11	11	11	11	11	10	9	9	6	3
		BBOG-GAM	11	11	11	11	11	11	11	11	10	9	8	7	3
		PEATSTASH	11	11	11	11	10	9	7	5	4	2	1	0	0