Simmons et al. Table S1. Stratigraphic description of sediment profiles at Palaeolake Flixton (Depths in cm.)

Fig. 2	Lake Flixton Centre (profile D)
0 - 195	Confused stratum. Dry, fully oxidized herbaceous peat.
195 - 314	Dark brown detritus mud with abundant remains of aquatic plants, monocotyledons, seeds including *Potamogeton* and insect remains.
314 - 330	Light brown detritus mud-marl with vegetative remains molluscs and insect remains.
330 - 468	Brown-olive to dark olive marl with vegetative remains, molluscs and insect remains.
468 - 499	Pale olive marl with dense vegetative remains including reed/sedge fragments and insect remains
499 - 516	Pale olive to olive silty marl with some vegetative and insect remains.
516 - 534	Grey-olive clayey marl.
534 - 538	Grey-olive silty-clayey marl with occasional gravel.
538 - 545	Grey-olive silty clay with gravel.
545 - 548	Olive silty-clayey marl with occasional gravel.
548 - 645	Pale olive silty marl.
645 - 660	Olive silty-clayey marl
660 - 670	Grey-olive silty clay.
Fig. 3	No Name Hill (profile NM)
0 - 70	Dark brown to black crumbly humified herbaceous peat with wood remains, particularly in the upper 20 cm.
70 - 116	Dark brown unhumified *Phragmites* reed peat.
116 - 118	Dark brown *Phragmites* peat with dense concentrations of mollusc and ostracod remains.
118 - 138	Olive marl with aquatic plant remains including *Phragmites* and *Potamogeton* seeds, *Chara* oospores, molluscs and insect remains.
138 - 153	Pale olive marl with less dense plant remains including *Potamogeton* and reed. Contains *Chara* oospores, molluscs and insect remains.
153 - 159	Pale olive slightly sandy marl containing banded aquatic plant remains eg *Potamogeton* and reed, *Chara* remains, molluscs and woody fragments.
159 - 161	Dark grey sand with small gravels towards the base.
161 - 165	Grey clay
Fig. 4	No Name Hill (profile NAQ)
0 - 136	Confused stratum. Oxidised peat.
136 - 172	Very dark brown crumbly reed peat.
172 - 177	Dark brown organic mud with vegetative reed remains and mollusc remains.
177 - 181	Brown organic marly mud with some mollusc remains.
181 - 184.5	Dark brown organic mud with extensive reed fibres and mollusc remains.
184.5 - 189	Grey sticky clay with abundant fragments of black slate or manganese.
189 - 204	Light olive marl with mollusc remains.
204 - 208	Grey organic sand with small angular gravels.

Fig. 5	No Name Hill (profile NAZ)
0 - 23	Very dark brown crumbly reed peat with abundant *Corylus* remains.
23 - 47	Dark brown lake detritus with macro remains of monocotyledons and *Betula* wood.
47 – 48	Sticky grey clay layer with slate/manganese fragments.
48 – 50	Dark grey sand.
Fig. 6	Flixton Island (profile AK87)
0 – 10	Crumbly completely humified organic material with modern rootlets, partly oxidized.
10 - 27	Black, partly oxidised, very well humified reedswamp peat with herbaceous roots.
27 - 62	Brown, dry, partly oxidized, very well humified herbaceous peat with *Phragmites* rhizomes.
62 - 73	Dark brown humified wet herbaceous peat with *Phragmites* rhizomes.
73 – 88	Fresh poorly humified reedswamp peat with wood fragments and some humified herbaceous material
88 - 92	Well humified herbaceous peat with *Phragmites* rhizomes.
92 - 98	Fresh reedswamp peat with many *Phragmites* rhizomes and *Carex* sedge remains
98 - 102	Poorly humified reedswamp peat and organic gyttja with *Phragmites* and *Carex* remains and seeds of *Menyanthes*.
102 - 114	Poorly humified reedswamp peat with *Phragmites* and *Carex* remains and seeds of *Menyanthes* and *Potamogeton*. Some organic gyttja and occasional fine sand grains.
114 - 127	Olive green to brown organic gyttja with herbaceous roots, *Phragmites* rhizomes and fine sand
127 - 128	Organic coarse sand with *Phragmites* rhizomes
128 - 132	Coarse sand with *Phragmites* rhizomes
132 +	Coarse sand with medium gravel
Fig. 7	Flixton Island (profile 1035)
0 - 30	Well humified amorphous peat.
30 - 49	Medium-fine sand.
49 - 51	Very fine organic mud.
51+	Stiff clay.
Fig. 8	Flixton Carr (profile VPCG)
0 - 9	Confused stratum. Crumbly completely oxidised material with modern rootlets.
9 - 18	Carbonised amorphous peat.
18 - 36	Very crumbly light coloured humified peat with herbaceous rootlets, slightly oxidized.
36 - 38	Very well humified charcoal-rich peat.
38 - 51	Mid-brown, slightly clayey, humified herbaceous peat.
51 – 54	Organic sand.
54 - 57	Coarse sand with small gravel.

Fig. 9	Flixton School Field (profile FS)
249 - 285	Dark brown organic gyttja with extensive reed macrofossils and vegetative remains.
285 - 299	Dark brown organic gyttja with fewer reed macrofossils and vegetative remains.
299 - 303	Light brown to grey silty sand.
303 - 308	Brown silty gyttja.
308 - 310	Light brown to grey sandy silt.
310 - 312	Unconsolidated grey silty sand.
312 - 335	Grey coarse sand with mixed assemblage of gravel, pebbles and chalk fragments.
Fig. 10	Church Farm Folkton (profile QAA)
20 – 60	Brown sedge and *Phragmites* peat
60 – 62	Sandy gravel.
62 – 78	Coarse sand with gravel.
78 – 109	Yellow-orange clay with pebbles.
109 – 111	Brown moss peat.
111 – 172	Clayey gyttja.
172 – 200	Brown moss peat with *Sphagnum* macrofossils.
200 – 240	Yellow silty marl.
240 – 243	Stiff brown clay.
Fig. 11	Barry's Island (profile LAL)
0 - 108	Dry, crumbly, oxidised herbaceous peat.
108 - 233	Orange-light brown organic gyttja with extensive macrofossil remains of *Alnus*.
233 - 243	Brown organic detrital herbaceous material and gyttja.
243 - 245	Light grey coarse sand.
Fig. 12	Barry's Island (profile LAP)
0 - 133	Black, dry, crumbly oxidised peat.
133 - 167	Dark brown *Phragmites* peat with *Carex* and unidentifiable vegetative remains.
167 - 182	Orange to black, coarse oxidised sand with peat inclusions.
182 - 235	Dark brown *Phragmites* peat with sedge and reed vegetative remains.
235 - 239	Orangey-brown *Sphagnum* peat including *Sphagnum* spore capsules.
239 - 254	Dark brown herbaceous detritus with gyttja and unidentifiable vegetative remains.
254 - 259	Dark grey organic silt.
259 - 261	Light grey organic silt.
261 - 269	Brown herbaceous detritus and gyttja.
269 - 270	Grey-brown organic sand.
270 - 272	Grey, slightly organic sand.

Simmons et al. Supplementary Figure S1.

The sediment sequence at No-Name Hill, profile NM, sampled with monolith tins. For stratigraphy see Supplementary Table S1. Photograph GEC 1994. The yellow and white marl deposits resting on sand and clay and underlying reed and woody peat are typical of calcareous sediment deposition in the Lateglacial and early Holocene of the eastern Vale of Pickering.