

In the format provided by the authors and unedited.

Substantial vegetation response to Early Jurassic global warming with impacts on oceanic anoxia

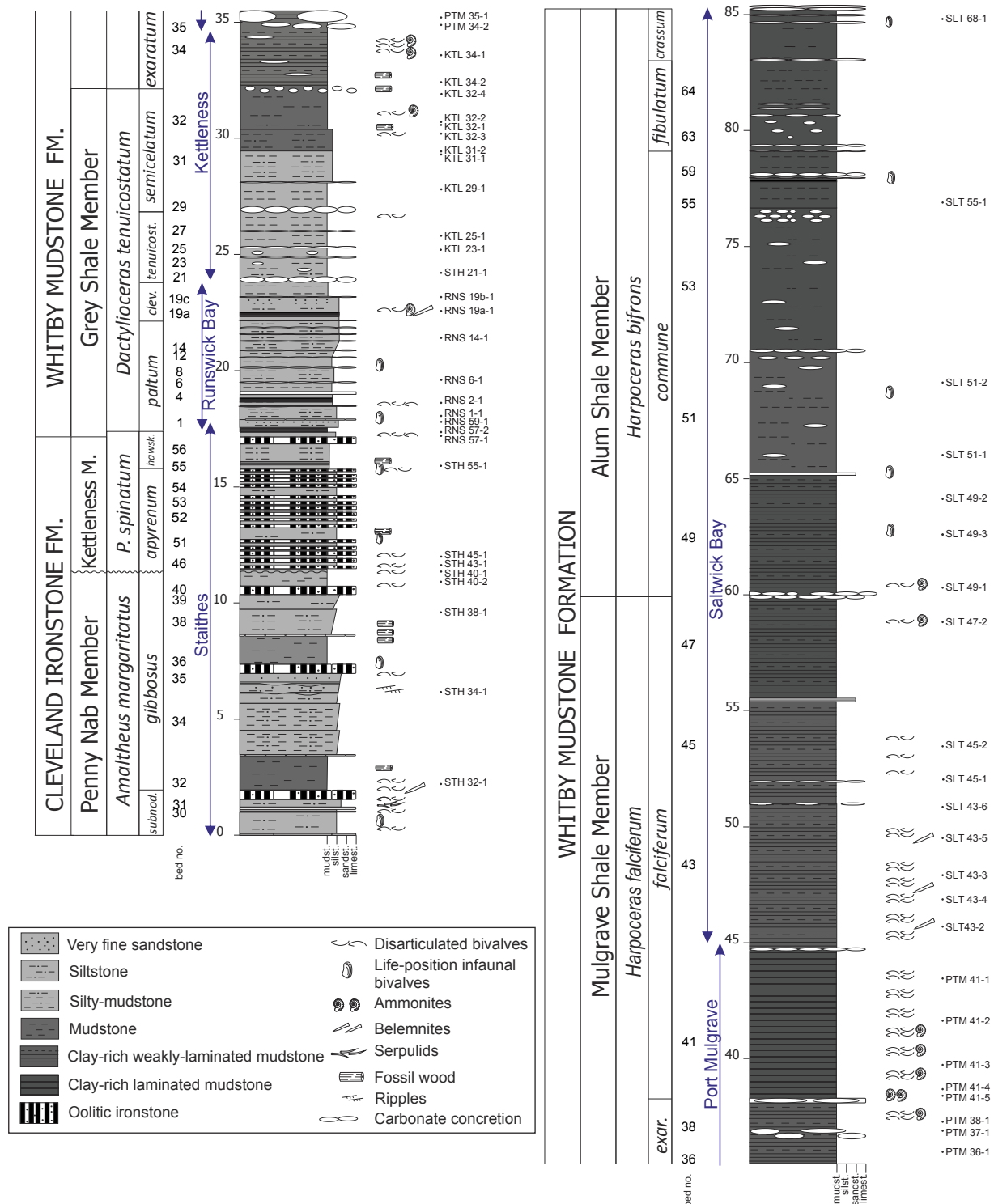
Sam M. Slater¹*, Richard J. Twitchett², Silvia Danise³ and Vivi Vajda¹

¹Department of Palaeobiology, Swedish Museum of Natural History, Stockholm, Sweden. ²Department of Earth Sciences, The Natural History Museum, London, UK. ³Dipartimento di Scienze della Terra, Università degli Studi di Firenze, Florence, Italy. *e-mail: sam.slater@nrm.se

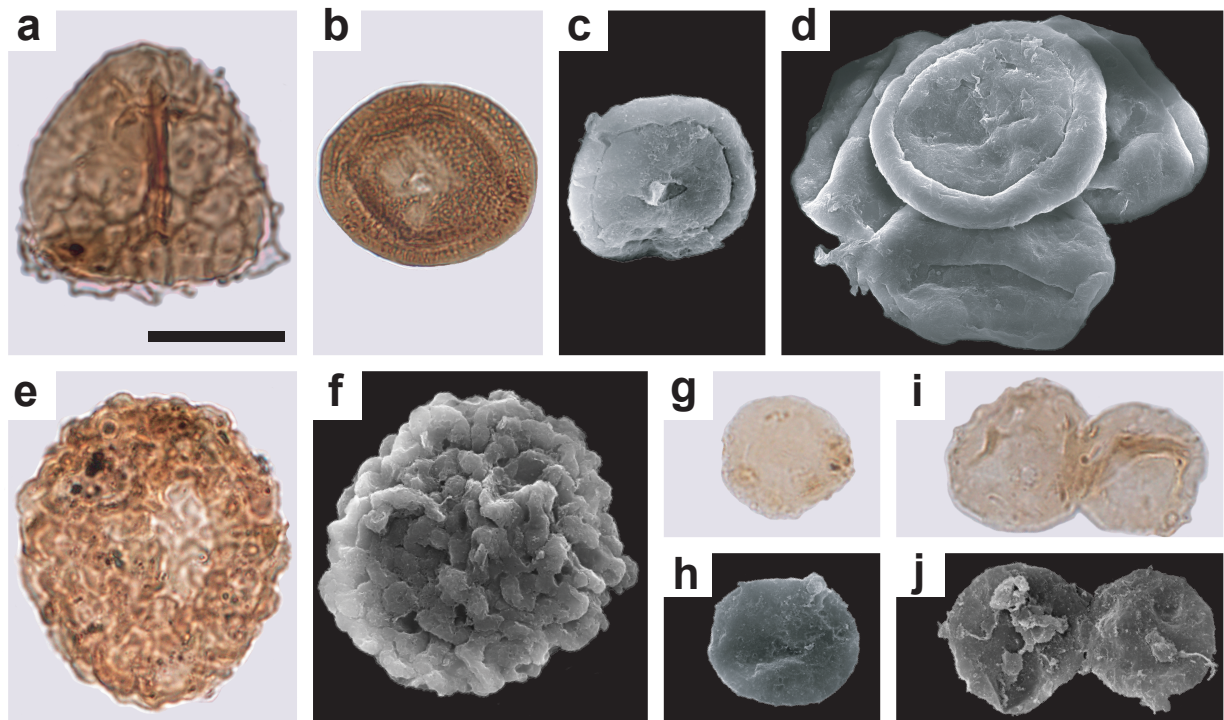
Supplementary Information: Substantial vegetation response to Early Jurassic global warming with impacts on oceanic anoxia

Sam M. Slater^{1*}, Richard J. Twitchett², Silvia Danise³ & Vivi Vajda¹

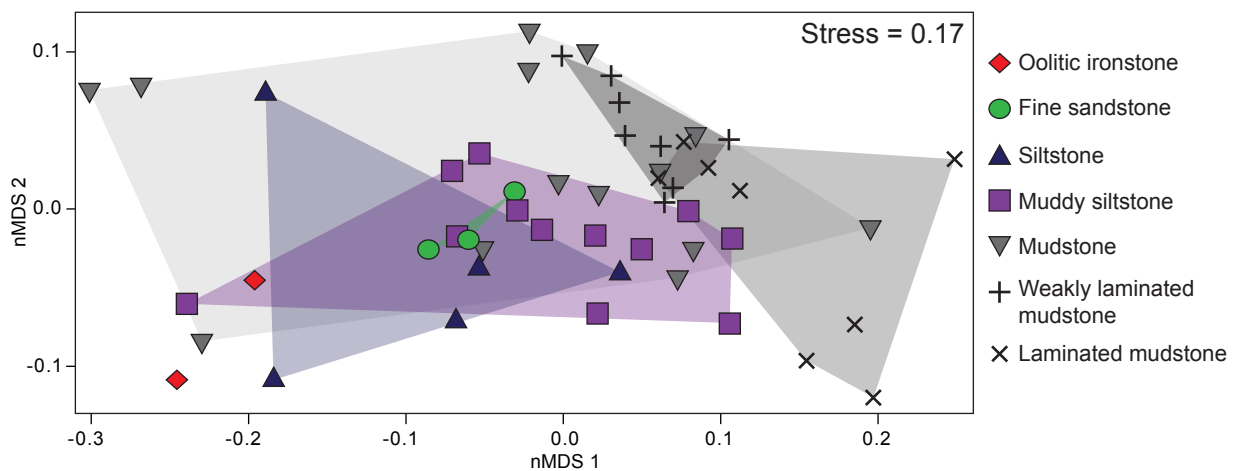
¹Department of Palaeobiology, Swedish Museum of Natural History, SE-104 05 Stockholm, Sweden. ²Department of Earth Sciences, The Natural History Museum, London, SW7 5BD, UK. ³Dipartimento di Scienze della Terra, Università degli Studi di Firenze, Via La Pira 4 50121, Firenze, Italy. *e-mail: sam.slater@nrm.se



Supplementary Figure 1. Detailed sedimentary log of study section with sampling levels. Modified from references (24,25).



Supplementary Figure 2. Light microscope (LM) and scanning electron microscope (SEM) images of key taxa from the Toarcian Ocean Anoxic Event succession of Yorkshire, UK. **a**, *Kekryphalospora distincta* (LM), sample SLT 49-2 [NHMUK PM FM 2392] (England finder co-ordinates [EFC]: S31-C). **b**, *Classopollis* spp. (LM), sample PTM 34-2 [NHMUK PM FM 2352] (EFC: S49-C). **c**, *Classopollis* spp. (SEM), sample SLT 51-1. **d**, *Classopollis* spp. tetrad (SEM), sample KTL 23-1. **e**, *Cerebropollenites macroverrucosus* (LM), sample SLT 43-6 [NHMUK PM FM 2380] (EFC: T46-3). **f**, *C. macroverrucosus* (SEM), sample PTM 35-1. **g**, Sphaeromorph (LM), sample PTM 36-1 [NHMUK PM FM 2356] (EFC: K21-3). **h**, Sphaeromorph (SEM), sample PTM 35-1. **i**, Sphaeromorph pair (LM), sample PTM 35-1 [NHMUK PM FM 2354] (EFC: O46-4). **j**, Sphaeromorph pair (SEM), sample KTL 34-2. Scale bar, 20 µm.



Supplementary Figure 3. Non-metric multidimensional scaling (nMDS) plot of spore-pollen data. Shaded coloured regions encompass samples of different lithologies. Axis scores are provided in Supplementary data 3.

Supplementary data 1. Raw palynological counts. ‘p’ refers to taxa that are present in slides but not in counts.

Supplementary data 2. Raw palynofacies counts.

Supplementary data 3. Non-metric multidimensional scaling (nMDS) axis scores of samples for Fig. 3 and Supplementary Figure 3.