**Supplementary Information for**

**A new Mississippian tetrapod from Fife, Scotland, and its environmental context.**

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**Palynology of the new tetrapod locality in Fife**

Supplementary Table 1 Species recorded from Fife 1

*Anapiculatisporites baccatus* (Hoffmeister, Staplin & Malloy) Ravn 1886

*Auroraspora solisorta* Hoffmeister, Staplin & Malloy, 1955

*Calamospora breviradiatus Kosanke 1950*

*Cingulizonates bialatus* (Waltz) Smith & Butterworth 1967

*Claytonispora* cf. *variabilis* (Clayton) Playford & Melo 2012

*Colatisporites decorus* (Bharadwaj & Venkatachala) Williams in Neves et al., 1973

*Convolutispora planimuricata* Butterworth & Spinner 1967

*Convolutispora superficialis* Felix & Burbridge 1967

*Convolutispora vermiformis* Hughes & Playford 1961

*Corbulispora cancellata* (Waltz) Bharadwaj & Venkatachala 1962

*Crassispora aculeata* Neville 1968

*Densosporites intermedius* Butterworth & Williams 1958

*Densosporites pseudoannulatus* Butterworth & Williams 1958

*Densosporites triangularis* Kosanke 1950

*Diatomozonotriletes fragilis* Clayton in Neves et al., 1973

*Dictyotriletes submarginatus* Playford 1963

*Endosporites micromanifestus* Hacquebard 1957

*Felixites playfordii* Elsik 1990

*Grandispora uncata* Playford 1971

*Granulatisporites microgranifer Ibrahim 1933*

*Knoxisporites literatus* (Waltz) Playford 1963

*Knoxisporites stephanephorus* Love 1960

*Knoxisporites triaradiatus* Hoffmeister, Staplin and Malloy 1955

*Leiotriletes sphaerotriangulatus* (Loose) Potonié & Kremp 1954

*Lophozonotriletes muricatus* Hibbert & Lacey 1969

*Lycospora noctuina* Butterworth & Williams 1958

*Lycospora pusilla* (Ibrahim) Schopf, Wilson & Bentall 1944

*Punctatisporites aerarius* Butterworth & Williams 1958

*Pustulatisporites papillosus* (Knox) Potonié & Kremp 1955

*Schulzospora camplyoptera* (Waltz) Hoffmeister, Staplin & Malloy) 1955

*Spelaeotriletes balteatus* (Playford) Higgs 1975

*Spelaeotriletes crustatus* Higgs 1975

*Tricidarisporites dumosus* (Staplin) Sullivan & Marshall 1966

*Vallatisporites ciliaris* (Luber) Sullivan 1964

*Vallatisporites communis* Sullivan 1964

*Velamisporites corporata* (Neves & Owens) Ravn 1991

*Velamisporites minutus* (Neves & Ioannides) Ravn 1991

*Velamisporites polyptychus* (Neves & Ioannides) Ravn 1991

*Velamisporites* sp A, (*Rugospora* sp A of Neves & Ioannides 1974)

*Velamisporites tesellatus* (Staplin) Ravn 1991

*Verrucosisporites baccatus* Staplin 1960

*Verrucosisporites morulatus* (Knox) Smith & Butterworth 1967

*Waltzispora polita* (Hoffmeister, Staplin & Malloy) Smith & Butterworth 1967

*Waltzispora sagittata* Playford 1962

*Botryococcus braunii* Kützing 1849

Taxonomic citations can mostly be found in Playford & Melo (2012).

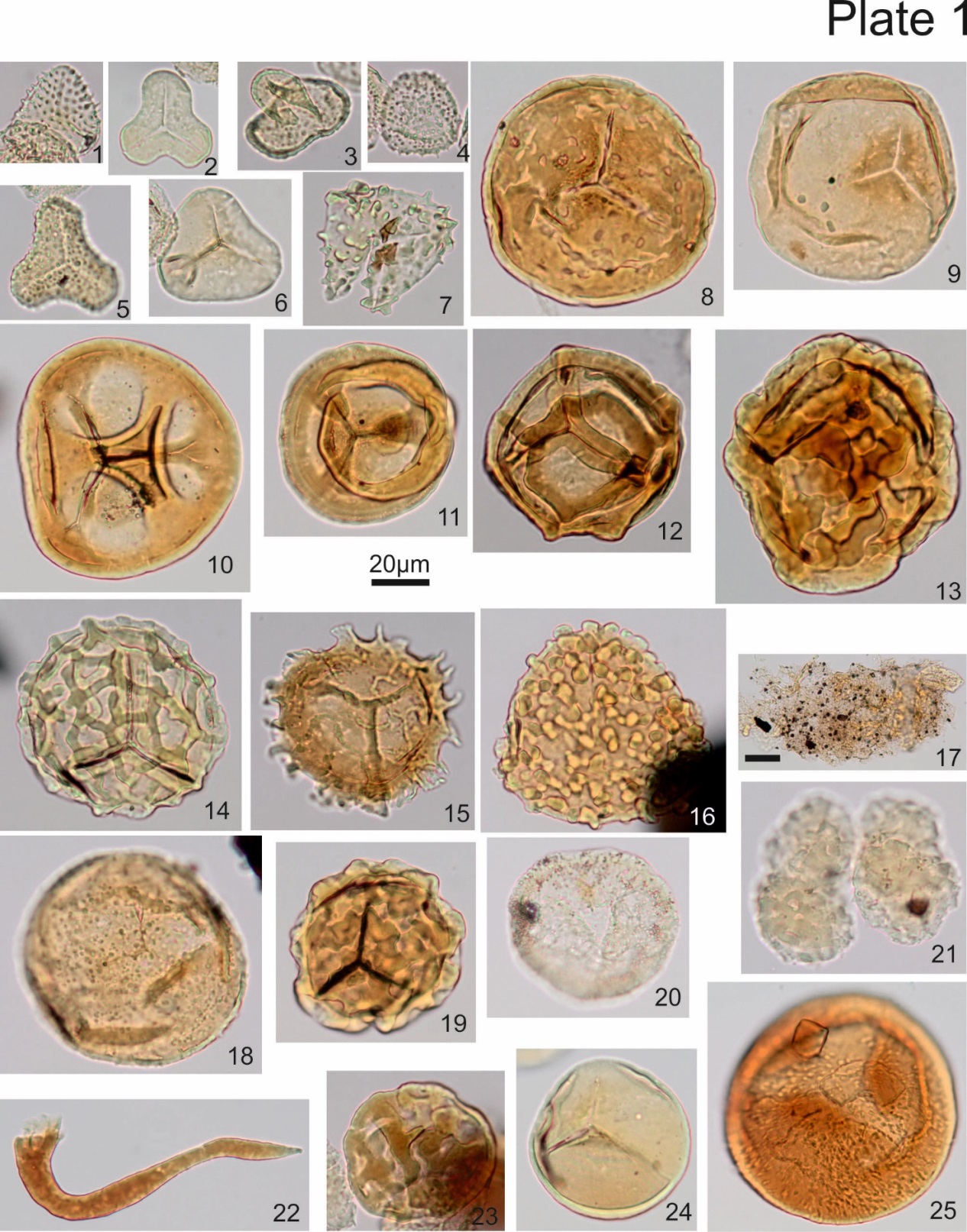


Plate 1. All x500 µm with a common 20 µm scale bar except where shown. All from sample Fife-1, with slide number in brackets, e.g. (5), microscope co-ordinates (Olympus BHS 313 No. 210685) and England Finder co-ordinates, eg., S25/2 are shown.

**1.** *Tricidarisporites dumosus*, (6), 126, 10, S25/2 **2.** *Leiotriletes politus*, (6), 131, 17.5, K30/4 **3.** *Granulatisporites granifer*, (6), 134.7, 12, Q34/2 **4.** *Anapiculatisporites baccatus*, (6), 133.9, 12.1, Q33/2 **5.** *Waltzispora planiangulata*, (6), 141, 20, G41/3. **6.** *Leiotriletes sphaerotriangulatus*, (6), 114, 7.4, V13/3. **7.** *Pustulatisporites papillosus*, (6), 137.4, 22, E37/4. **8.** *Convolutispora planimuricata*, (1), 135.9, 14, O36/1. **9.** *Calamospora breviradiatus*, (1), 112.2, 4.9, X11/4. **10.** *Knoxisporites triangulatus*, (3), 119.1 20, G18/4. **11.** *Knoxisporites stephanephorus*, (1), 130.5, 13.7, O30/1. **12**. *Knoxisporites literatus*, (4), 125.8, 13.6, O25/4. **13.** *Convolutispora vermiformis*, (3), 124, 10, S23/2. **14.** *Corbulispora cancellata*, (2), 125.1, 14.9, N24/2. **15.** *Dictyotriletes submarginatus*, (3), 134.6, 18.3, J34/4. **16.** *Verrucosisporites morulatus*, (2), 130.5, 24, C30/3. **17.** Thin and fluffy AOM, (5), 126, 14.5, N25/4. **18**. *Verrucosisporites baccatus*, (1), 136.4, 3.7, Y36/4. **19.** Lophozonotriletes muricatus, (1), 121, 13.7, O20/2. **20.** *Colatisporites decorus*, (1), 135.9, 21.4, F36/3. **21.** *Botryococcus braunii*, (1), 132.1, 17.6, K32/1. **22.** Megaspore spine, (6), 120, 17.7, K19/2. **23.** *Convolutispora superficialis*,(6), 125.5, 11.2, Q25/3. **24.** *Punctatisporites aerarius*, (6), 140.3, 12.2, P40/4. **25.** *Claytonispora* cf. *distincta*, (3), 113.5, 17.3, K12/4.

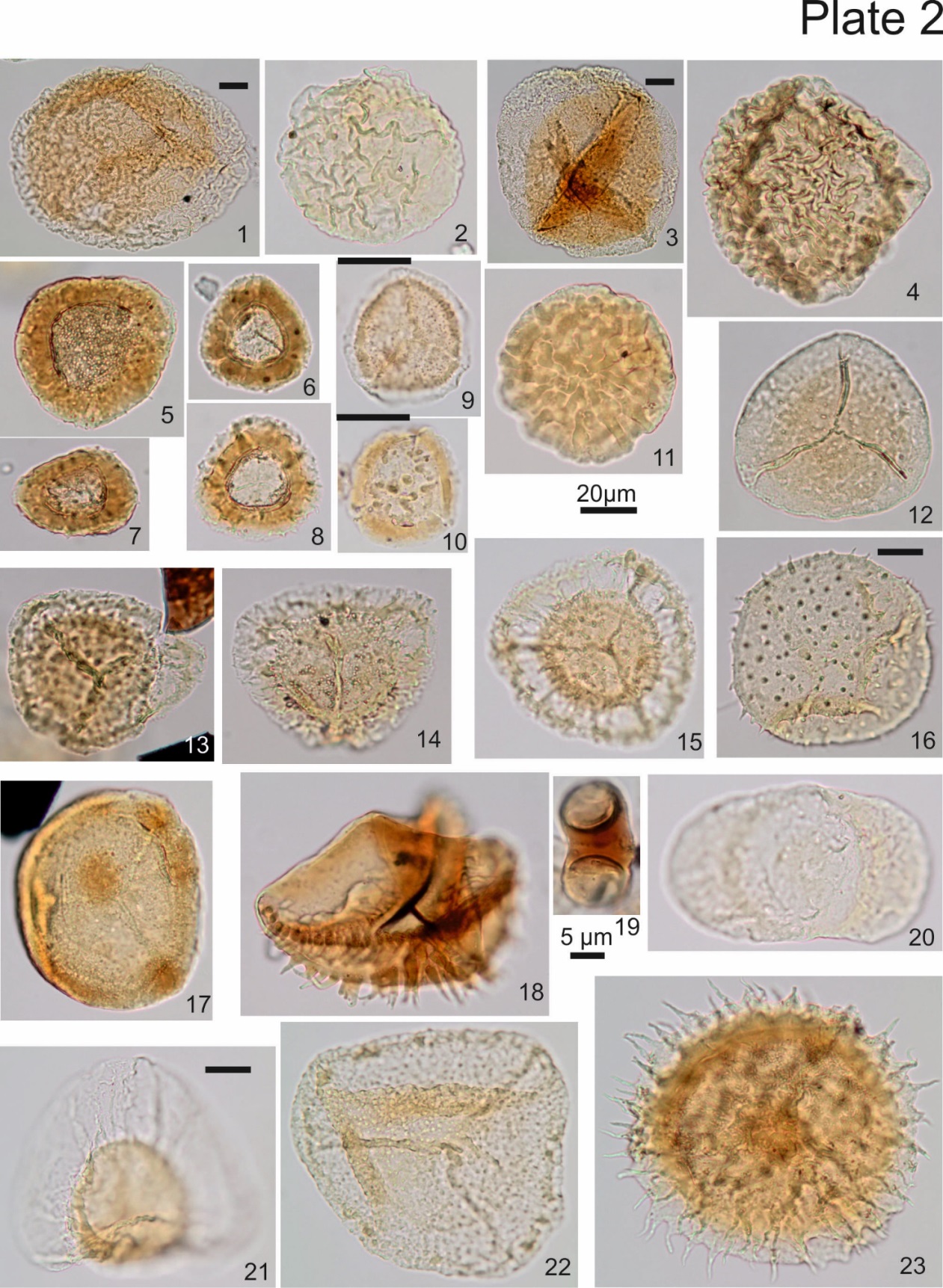


Plate 2. All x500 µm with a common 20 µm scale bar except where shown. All from sample Fife-1, with slide number in brackets, e.g. (5), microscope co-ordinates (Olympus BHS 313 No. 210685) and England Finder co-ordinates are shown.

**1.** *Velamisporites corporatus*, (2), 125.2, 21.1, F25/3. **2.** *Velamisporites tesellatus*, (6), 115.3, 19.4, H14/4. **3.** *Velamisporites* sp A, (4), 136.4, 17.4, K36/4. **4.** *Velamisporites polyptychus*, (3), 126.8, 7, V26/2. **5.** *Densosporites pseudoannulatus*, (6), 127.4, 11.3, Q27/3. **6.** *Densosporites intermedius*, (6), 120.4, 12.**7, P20/3.** *Densosporites triangularis*, (6), 130.3, 11.8, Q30/1. **8.** *Cingulizonates bialatus*, (6), 113.6, 5.7, W12/4. **9.** *Lycospora pusilla*, (5), 123.5, 5, X23/1. **10.** *Lycospora noctuina*, (5), 137.8, 8.6, T38/3. **11.** *Velamisporites minutus*, (2), 122.3, 16.2, L23/3. **12.** *Endosporites micromanifestus*, (1), 129.9, 9.2, T29/2. **13.** *Vallatisporites ciliaris*, (2), 119.3, 17.9, K18/2. **14.** *Vallatisporites communis*, (4), 126.1, 8.2, U25/2. **15.** *Vallatisporites galearis*, (2), 118.3, 19.5, H17/2. **16.** *Crassispora aculeata*, (2), 123.1, 19.4, H22/4. **17.** *Spelaeotriletes crustatus*, (1), 132.6, 14.6, N32/4. **18.** *Diatomozonotriletes fragilis*, (3), 115.3, 8.3, T14/4. **19.** *Felixites playfordii*, (5), 130.6, 14.7, N30/2. **20.** *Schulzospora camplyoptera*, (1), 134.4, 13.1, O34/1. **21.** *Auroraspora solisorta*, (3), 127.1, 16, M26/2. **22.** *Spelaeotriletes balteatus*, (1), 137, 16, M37/1. **23.** *Grandispora uncata*, (1), 131.8, 11.1, R31/2.