**Sediment Cores**

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**Figure S1.** Optical and X-ray photos of the sediment cores analysed in this study. MUC 34 and 24 are longer, darker and laminated respect to MUC 178, 180 and 170, reflecting the presence of high sedimentation rates, high content of Organic Matter and a sluggish circulation regime on the innermost part of the fjord.

**![Immagine che contiene testo, diagramma, Diagramma, linea

Il contenuto generato dall'IA potrebbe non essere corretto.]()210Pb activity**

**Figure S2.** Activity profiles from the sediment’s cores analysed in this study, going from the inner to the outermost parts. Notice the shape of 34, indicative of a non-usable profile to derive ages and sedimentation rates.

**Tubular fragment distribution**



**Figure S3.** Number of fragments per gram of dry sediment divided by site in Edisto Inlet. The maximum amount of fragment has been found at site 178, located on the entrance of the fjord, supporting the interpretation of a higher hydrodynamical regimes over this transitional location between the inner and outer fjord.

**Taxonomical species list**

**Agglutinated forms (In alphabetical order):**

*Adercotryma glomeratum,* (Brady, 1878)

*Ammodiscus incertus,* (d’Orbigny, 1839)

*Ammomarginulina ensis,* (Wiesner, 1931)

*Ammovertellina* sp*.* (Suleymanov, 1959)

*Cribrostomoides jeffreysii,* (Williamson, 1858)

*Cystammina pauciloculata,* (Brady, 1879)

*Eggerelloides* sp., (Haynes, 1973)

*Glomospira charoides*, (Jones and Parker, 1860)

*Hormosinella guttifer* (Brady, 1881)

*Hormosinella ovicula,* (Brady, 1878)

*Lagenammina difflugiformis,* (Brady, 1879)

*Lagennammina* spp*.,* (Rhumbler, 1911)

*Miliammina arenacea,* (Chapman, 1916)

*Nodulina dentaliniformis,* (Brady, 1881)

*Paratrochammina bartrami,* (Hedley, Hurdle, & Burdett, 1967)

*Paratrochammina tricamerata,* (Earland, 1934)

*Portratrochammina antarctica,* (Parr, 1950)

*Psammosphaera fusca,* (Schulze, 1875)

*Pseudobolivina antarctica,* (Wiesner, 1931)

*Pseudobulimina chapmani,* (Heron-Allen & Earland, 1922)

*Pseudotrochammina* sp.,(Frerichs, 1969)

*Recurvoides* spp., (Earland, 1934)

*Recurvoides contortus,* (Earland, 1934)

*Reophax scorpiurus,* (Montfort, 1808)

*Reophax subfusiformis,* (Earland, 1933)

*Reophax* sp. (Montfort, 1808)

*Rhabdammina* sp. (Carpenter, 1869)

*Rhumblerella* sp. (Brönniman, 1981)

*Saccamina* sp. (Carpenter, 1869)

*Spiroplectammina bifomis* (Parker & Jones, 1865)

*Trochammina* sp. (Parker & Jones, 1859)

**Calcareous forms (In alphabetical order):**

*Ioanella tumida,* (Brady, 1884)

*Astrononion anctarticus,* (Parr, 1950)

*Bolivineellina pseudopunctata* (Höglund, 1947)

*Cassidulinoides porrecta,* (Heron-Allen & Earland, 1932)

*Cibicides refulgens,* (Montfort, 1808)

*Cibicides* sp., (Montfort, 1808)

*Cornuspira planorbis,* (Schultze, 1854)

*Ehrenbergina glabra,* (Heron-Allen & Earland, 1922)

*Epistominella exigua* (Brady, 1984)

*Fissurina earlandii* (Parr, 1950)

*Fissurina laevigata,* (Reuss, 1850)

*Fursenkoina subacuta,* (d’Orbigny, 1852)

*Globocasssidulina biora,* (Crespin, 1960)

*Globocasssidulina sublogobosa,* (Brady, 1881)

*Globocassidulina* spp., (Voloshinova, 1960)

*Hyalinonetrion gracilium,* (Seguenza, 1862)

*Hopkinsina* cf. *pacifica,* (Cushman, 1933)

*Lagena substriata,* (Williamson, 1848)

*Melonis affinis,* (Reuss, 1851)

*Nonionella iridea,* (Heron-Allen & Earland, 1932)

*Oolina hexagona,* (Williamson, 1848)

*Parafissurina fusiformis,* (Wiesner, 1931)

*Pullenia quinqueloba,* (Reuss, 1851)

*Pullenia subcarinata,* (d’Orbigny, 1839)

*Pyrgo depressa,* (d’Orbigny, 1826)

*Pyrgo elongata,* (d’Orbigny, 1826)

*Pyrgo williamsoni,* (Silvestri, 1923)

*Robertina arctica,* (d’Orbigny, 1846)

*Robertinoides* spp., (Höglund, 1947)

*Rosalina globularis,* (d’ Orbigny, 1826)

*Quinqueloculina seminulum* (Linnaeus, 1758)

*Quinqueloculina* sp., (d’Orbigny, 1826)

*Stainforthia concava,* (Höglund, 1947)

*Stainforthia feylingi,* (Knudsen & Seidenkrantz, 1994)

*Subfischerina* sp., (McCulloch, 1977)

*Trifarina angulosa*, (Williamson, 1858)

*Triloculina tricarinata,* (d’Orbigny in Deshayes, 1832)

*Usbekistania* sp., (Suleymanov, 1960)