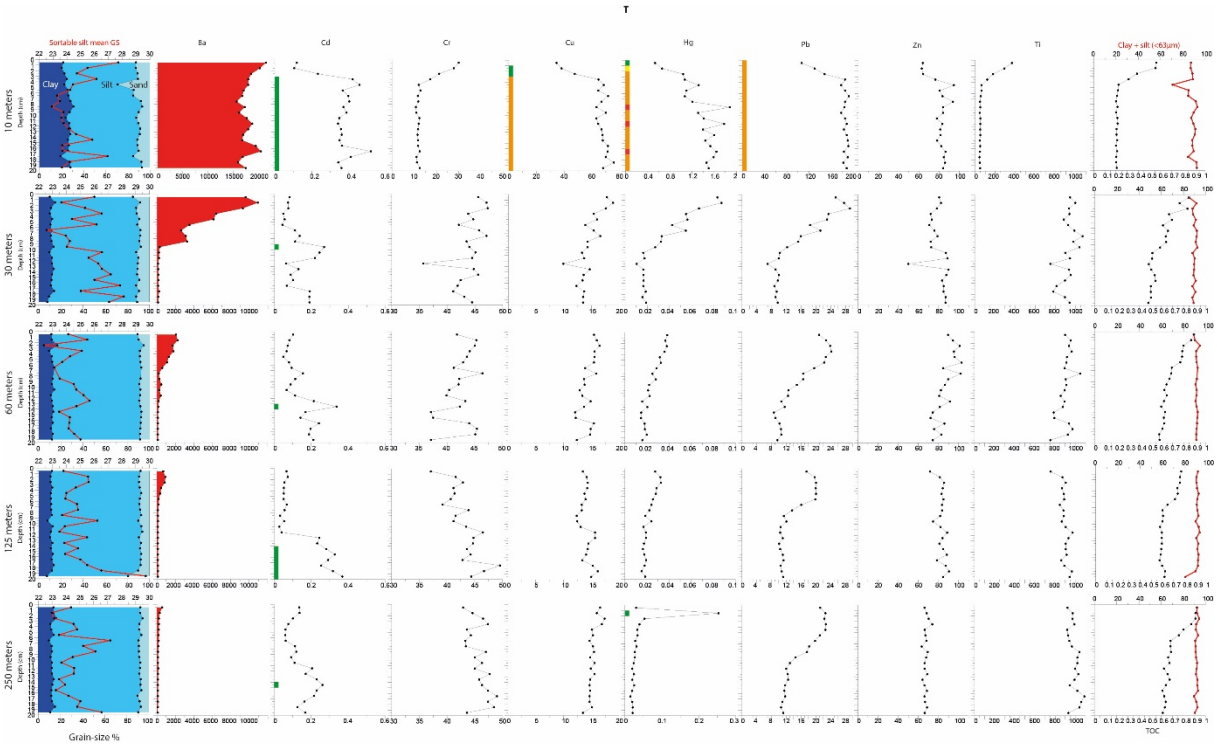
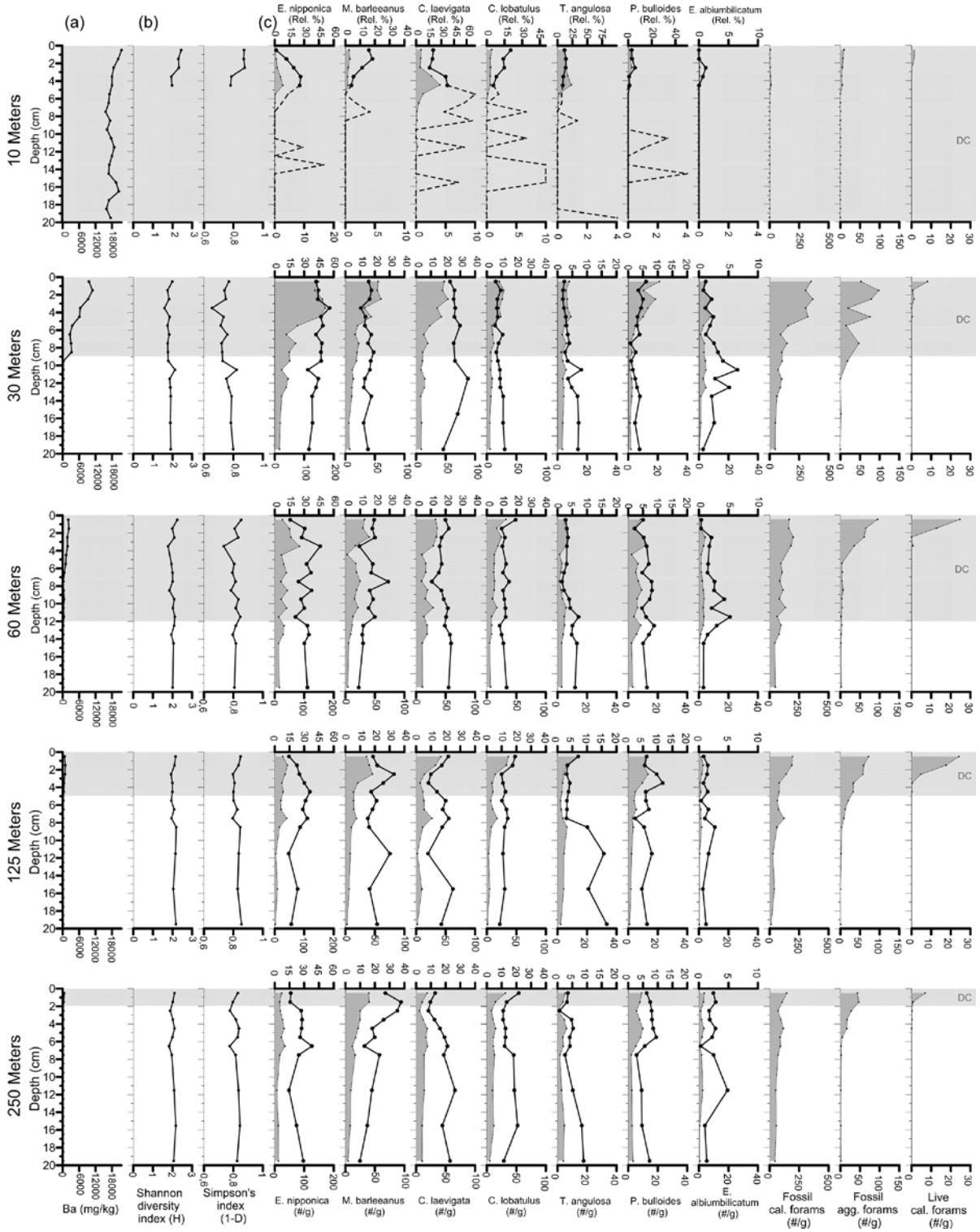
Appendix 2.

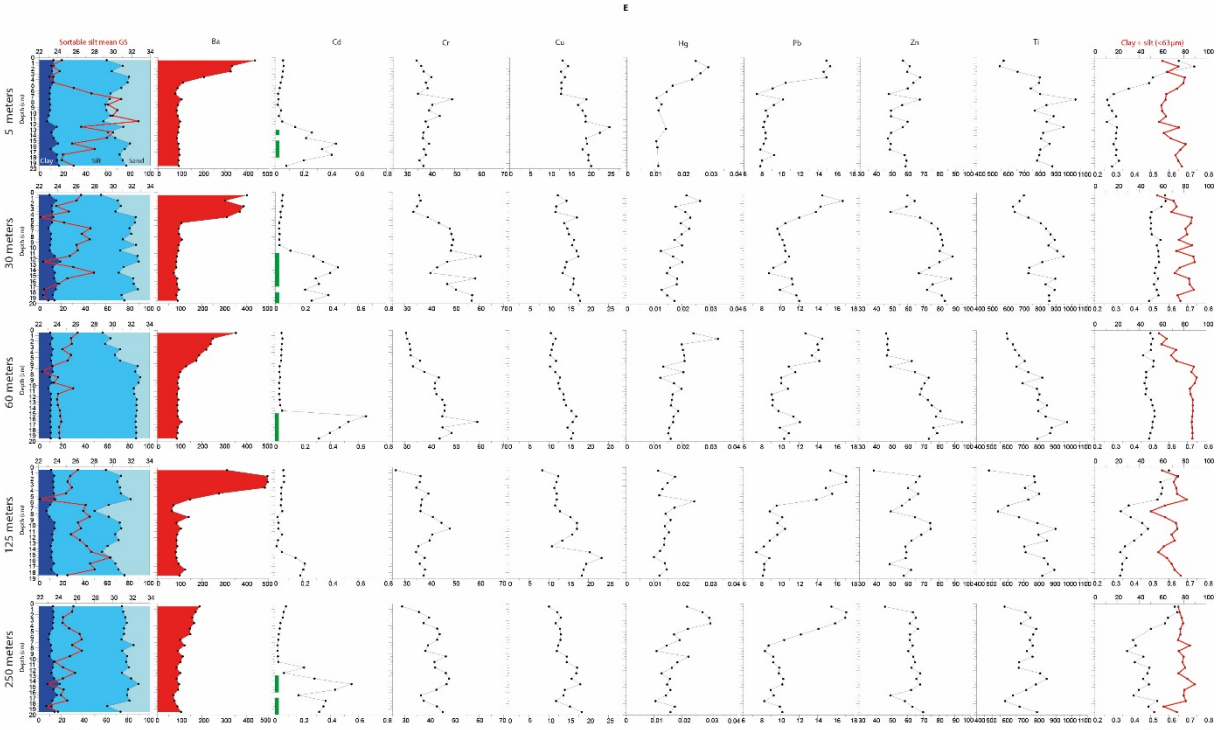
Additional figures from data presented in WP 3.



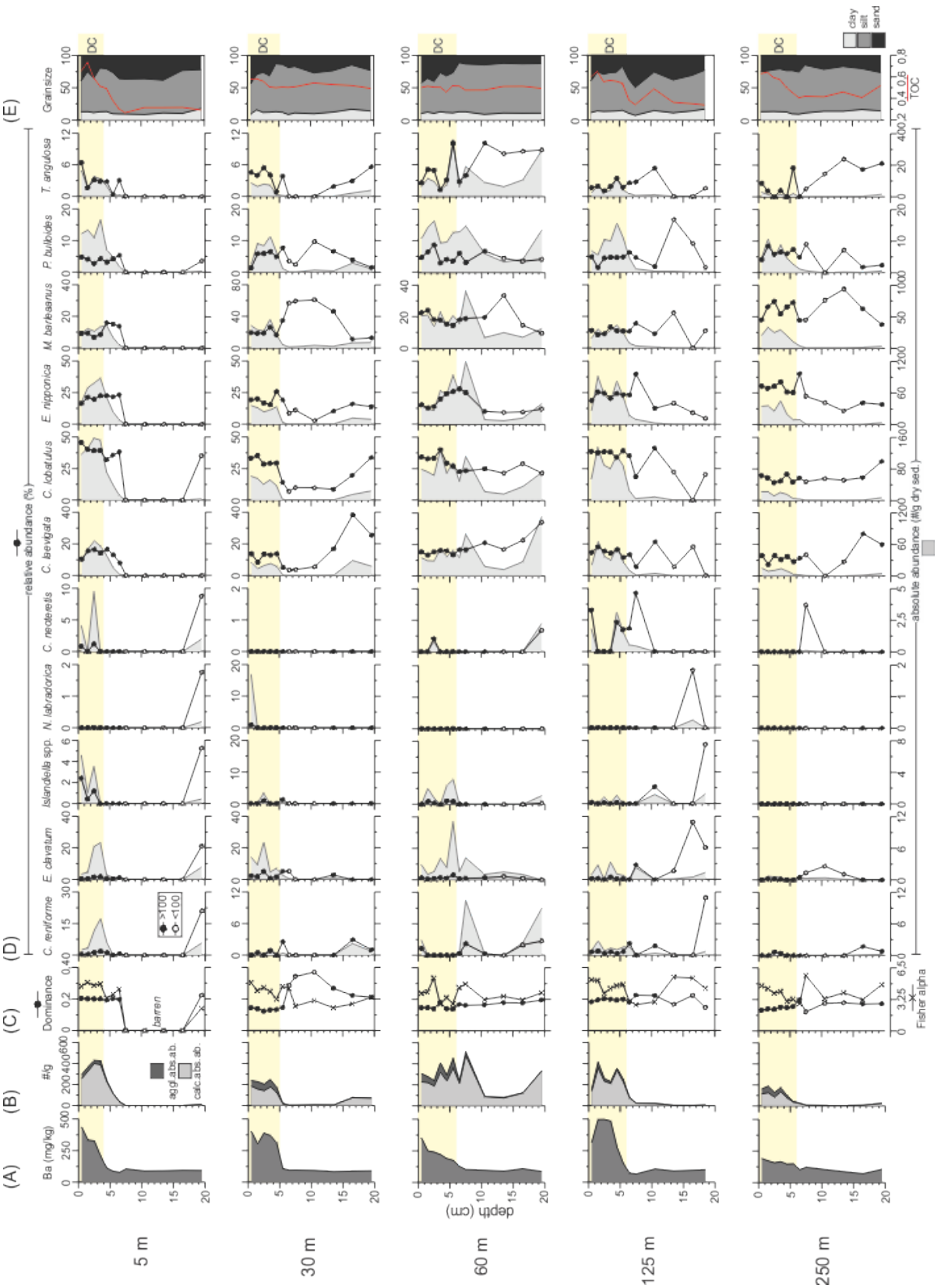
Well T 1987. Results showing cumulative grain size, sortable silt mean grain size, heavy metal concentrations, and TOC and clay+silt contents from the well T sample station transect (Junttila et al. 2018). Ba concentrations are shown in red. The color bars indicate sediment quality of the samples according to Bakke et al. (2010). Metal concentrations are in mg/kg of dry sediment and TOC contents in %. Note that the x-axis for heavy metal concentrations for T10 is different from that for the rest of the stations.



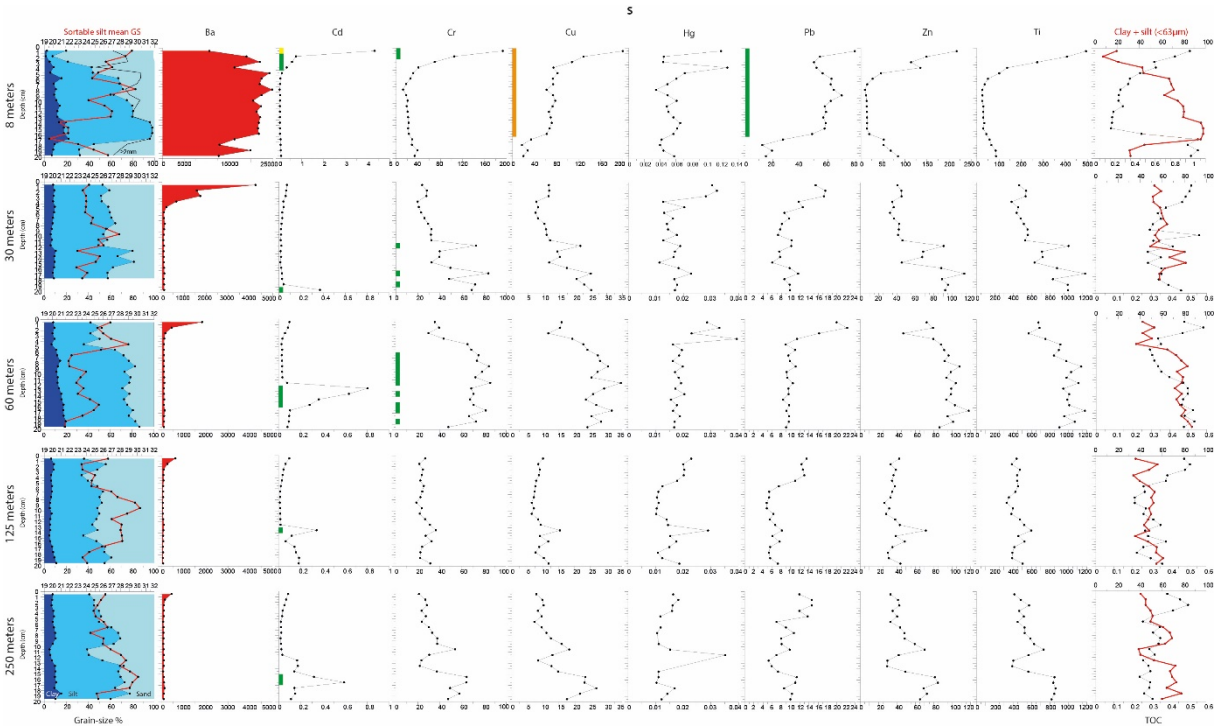
Well T 1987. Relative, total and species-specific abundance of benthic foraminifera vs sediment depth in TOTAL cores retrieved at distances of 10, 30, 60, 125 and 250 meters from well T (Aagaard-Sørensen et al., in revision). (a) Ba concentrations (mg/kg). (b) Shannon (H) and Simpson (1-D) diversity indices of the fossil assemblage. (c) Relative abundance of most common fossil calcareous benthic foraminifera (>5 % in at least one sample) (Thick black lines; upper x-axis). Samples with ≤30 specimens connected with dashed lines. Total and species-specific abundance (#/g) of live and fossil benthic calcareous and fossil agglutinated foraminifera (Thin black line and light gray filling). Drill cutting (DC) influenced layers are indicated by light gray shading (data and interpretation from Junttila et al. 2018).



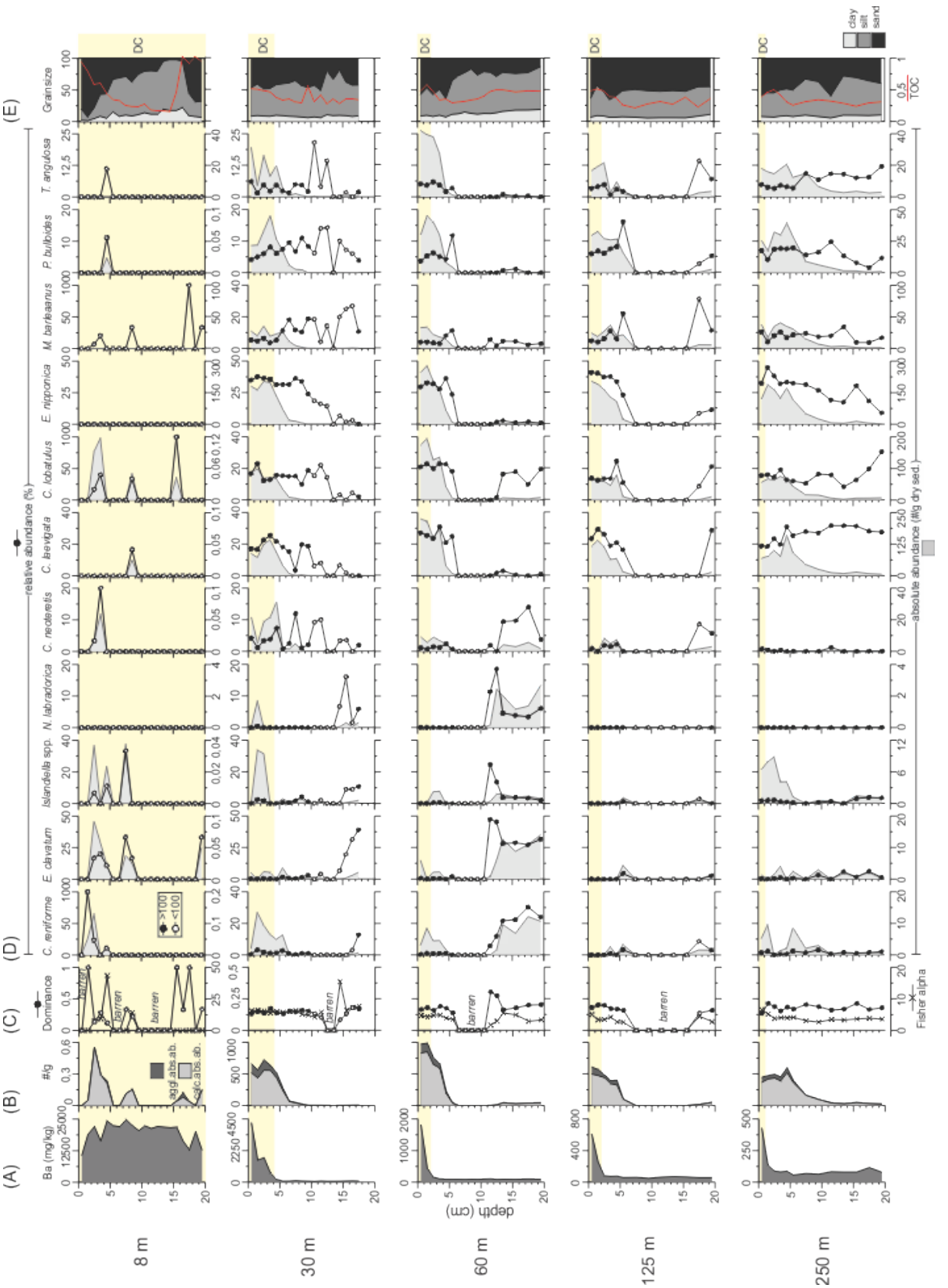
Well E 1992. Results showing cumulative grain size, sortable silt mean grain size, heavy metal concentrations, and TOC and clay+silt contents from well E (Junttila et al. 2018). Ba concentrations are shown in red. The color bars indicate sediment quality of the samples according to Bakke et al. (2010). Metal concentrations are in mg/kg and TOC contents in %.



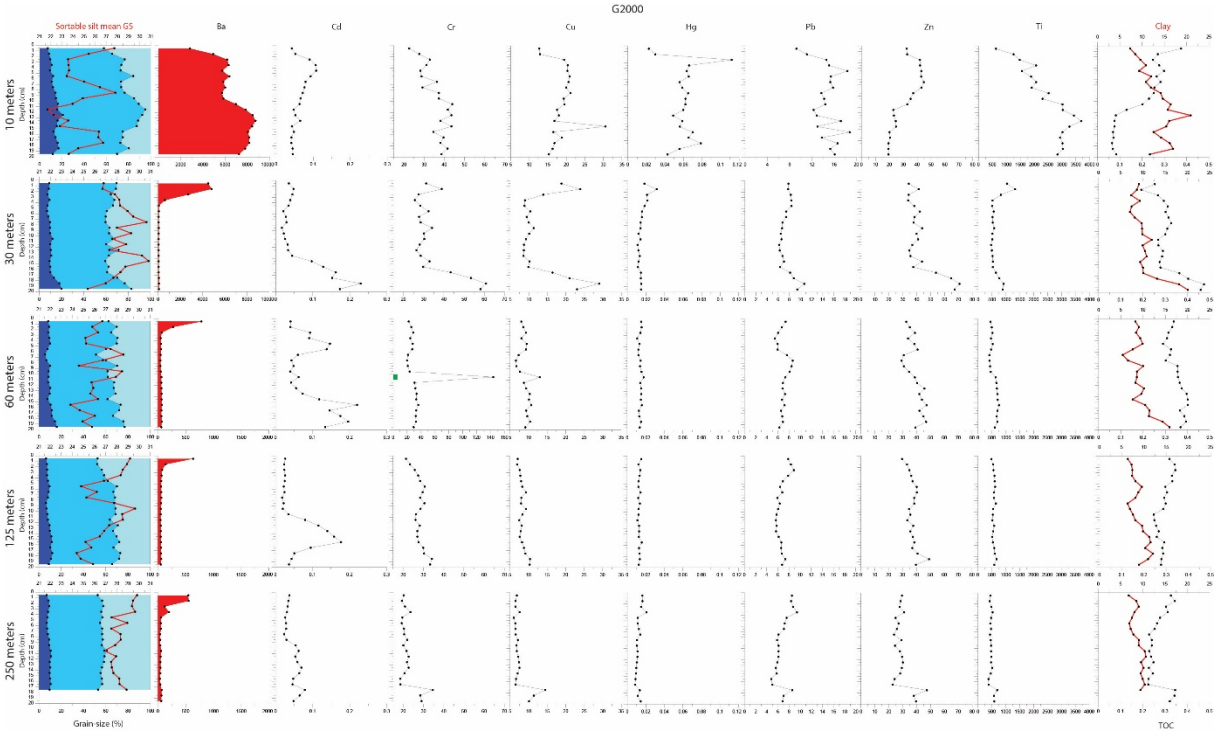
Well E 1992. (Dijkstra et al. in press Marine Pollution Bulletin November 2019) Graphs show down core distribution of each of the shown parameters along the sampling transects (A) Ba-concentrations (mg/kg). Drill cutting (DC) influenced layers are indicated by yellow shading . (B) Foraminiferal density or total absolute abundance (# specimens/g dry sed. weight) of dead assemblage, separated into total calcareous abundance (calc.; light grey) and total agglutinated abundance (aggl.; dark grey) (C) Dominance (dot; upper x-axis) and Fisher alpha diversity (cross; lower x-axis) of the dead assemblage. Black dot indicates samples in which >100 specimens were identified; white dots samples in which <100 specimens were identified. (D) Relative abundance (black line with dot; upper x-axis) and species absolute abundances (grey shading; lower x-axis) of the most common species. Black dot indicates samples in which >100 specimens were identified; white dots samples in which <100 specimens were identified. (E) Clay (light grey), silt (dark grey), sand (black) and TOC content (red line) of the cores.



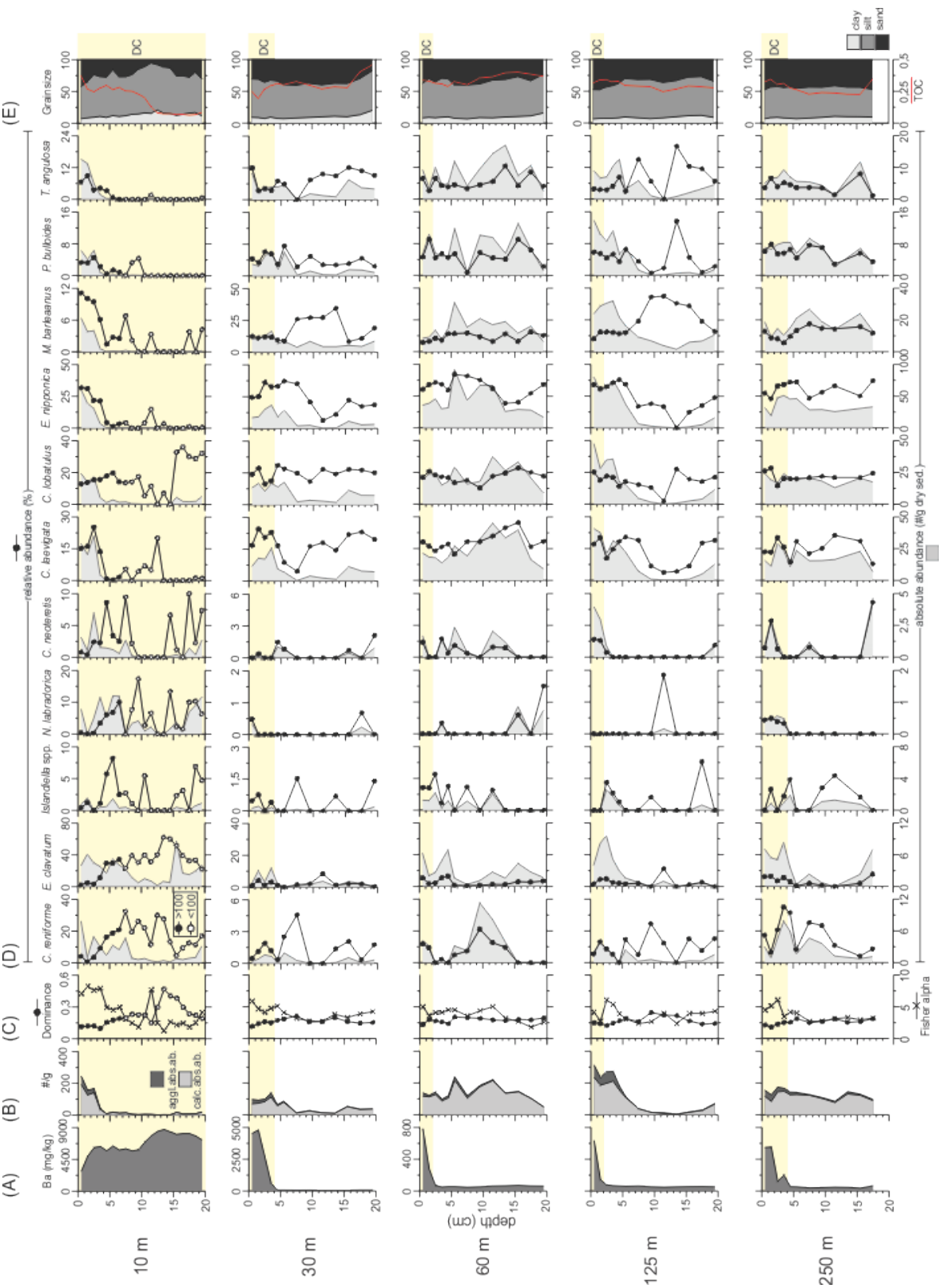
Well S 2012. Results showing cumulative grain size, sortable silt mean grain size, heavy metal concentrations, and TOC and clay+silt contents from well S (Junttila et al. 2018). Ba concentrations are shown in red. The color bars indicate sediment quality of the samples according to Bakke et al. (2010). Metal concentrations are in mg/kg and TOC contents in %. The black line in the cumulative grain size in the 8-m plot indicates the amount of >2-mm grain-size fraction in the sand fraction.



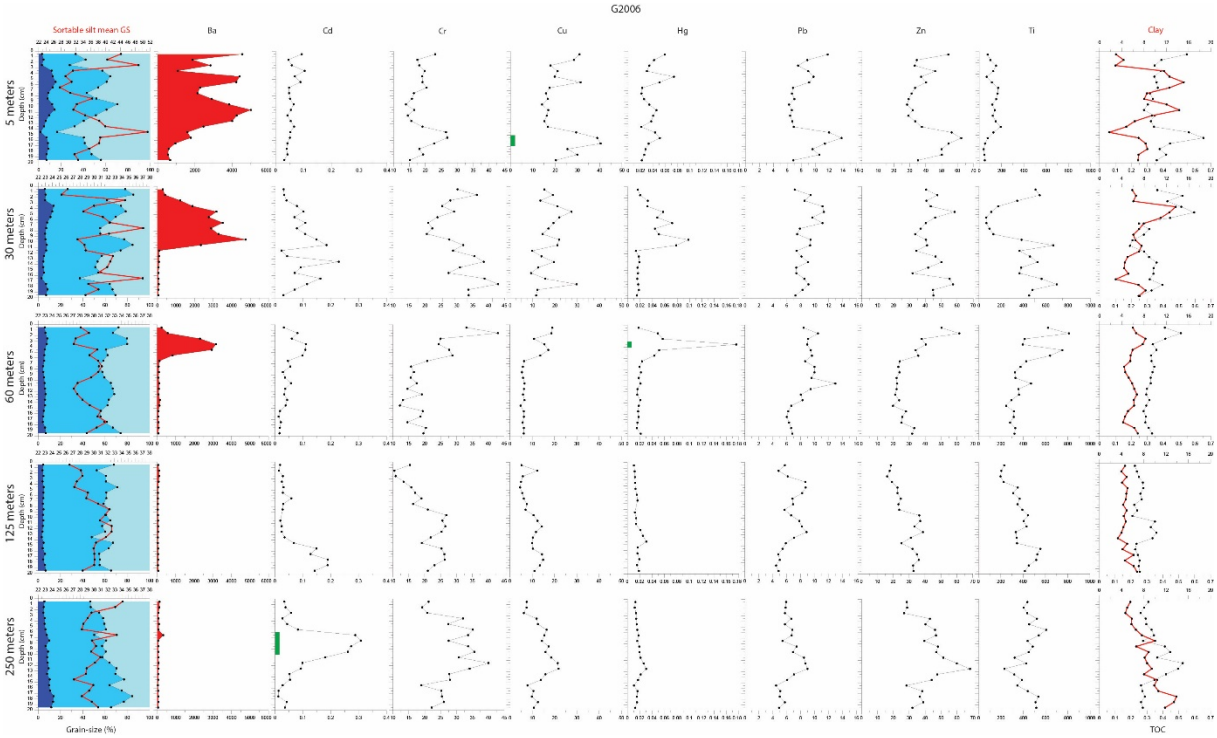
Well S-2012 (Dijkstra et al. in press Marine Pollution Bulletin November 2019) Graphs show down core distribution of each of the shown parameters along the sampling transects (A) Ba-concentrations (mg/kg). Drill cutting (DC) influenced layers are indicated by yellow shading . (B) Foraminiferal density or total absolute abundance (# specimens/g dry sed. weight) of dead assemblage, separated into total calcareous abundance (calc.; light grey) and total agglutinated abundance (aggl.; dark grey) (C) Dominance (dot; upper x-axis) and Fisher alpha diversity (cross; lower x-axis) of the dead assemblage. Black dot indicates samples in which >100 specimens were identified; white dots samples in which <100 specimens were identified. (D) Relative abundance (black line with dot; upper x-axis) and species absolute abundances (grey shading; lower x-axis) of the most common species. Black dot indicates samples in which >100 specimens were identified; white dots samples in which <100 specimens were identified. (E) Clay (light grey), silt (dark grey), sand (black) and TOC content (red line) of the cores.



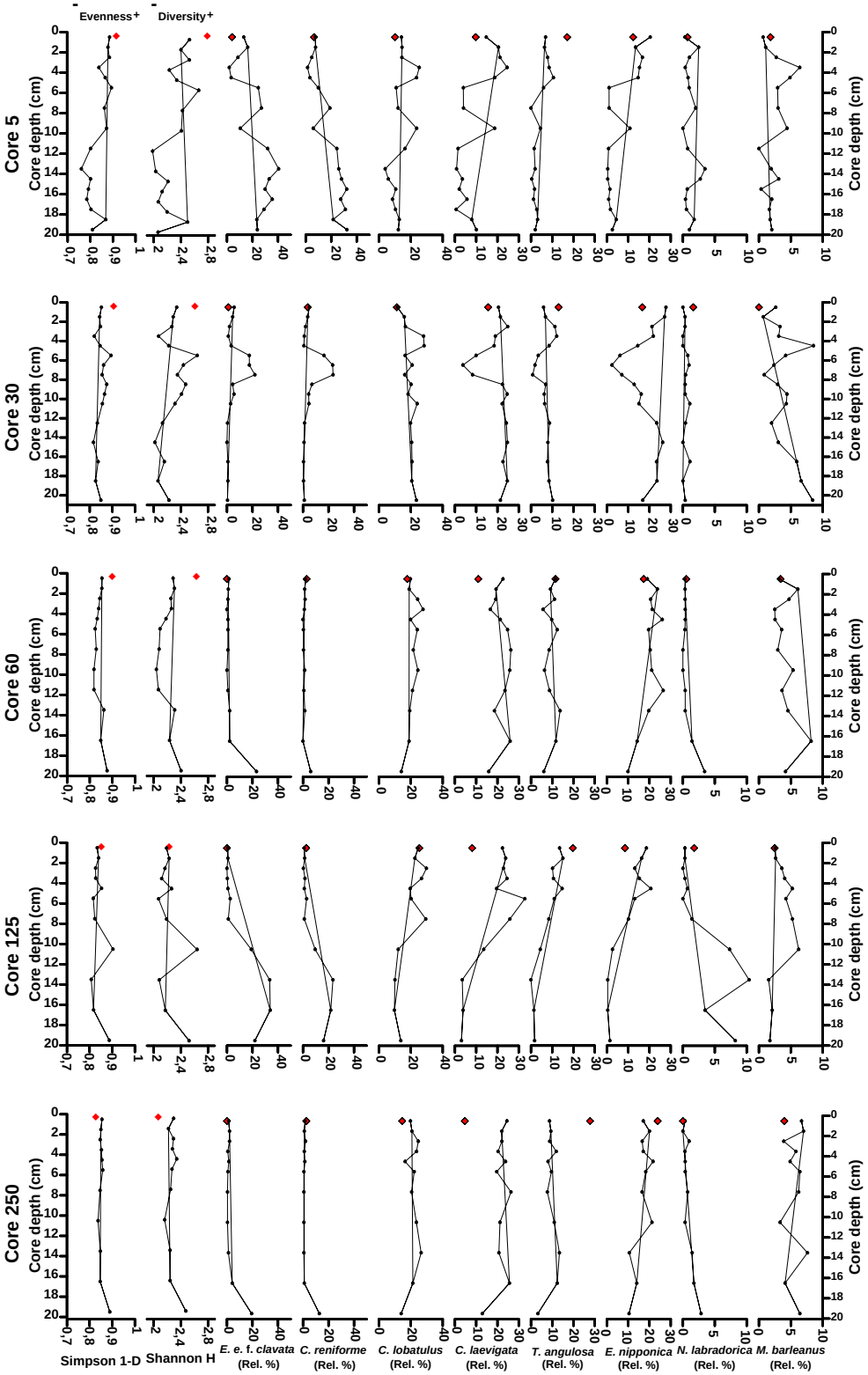
Well G2000. Results showing cumulative grain size, sortable silt mean grain size, heavy metal concentrations, and TOC and clay content from the well G2000 sample station transect (Modified after Dijkstra et al. in press Marine Pollution Bulletin November 2019). Ba concentrations are highlighted in red. The color bars indicate sediment quality of the samples according to Bakke et al. (2010). Metal concentrations are in mg/kg of dry sediment and TOC contents in %.



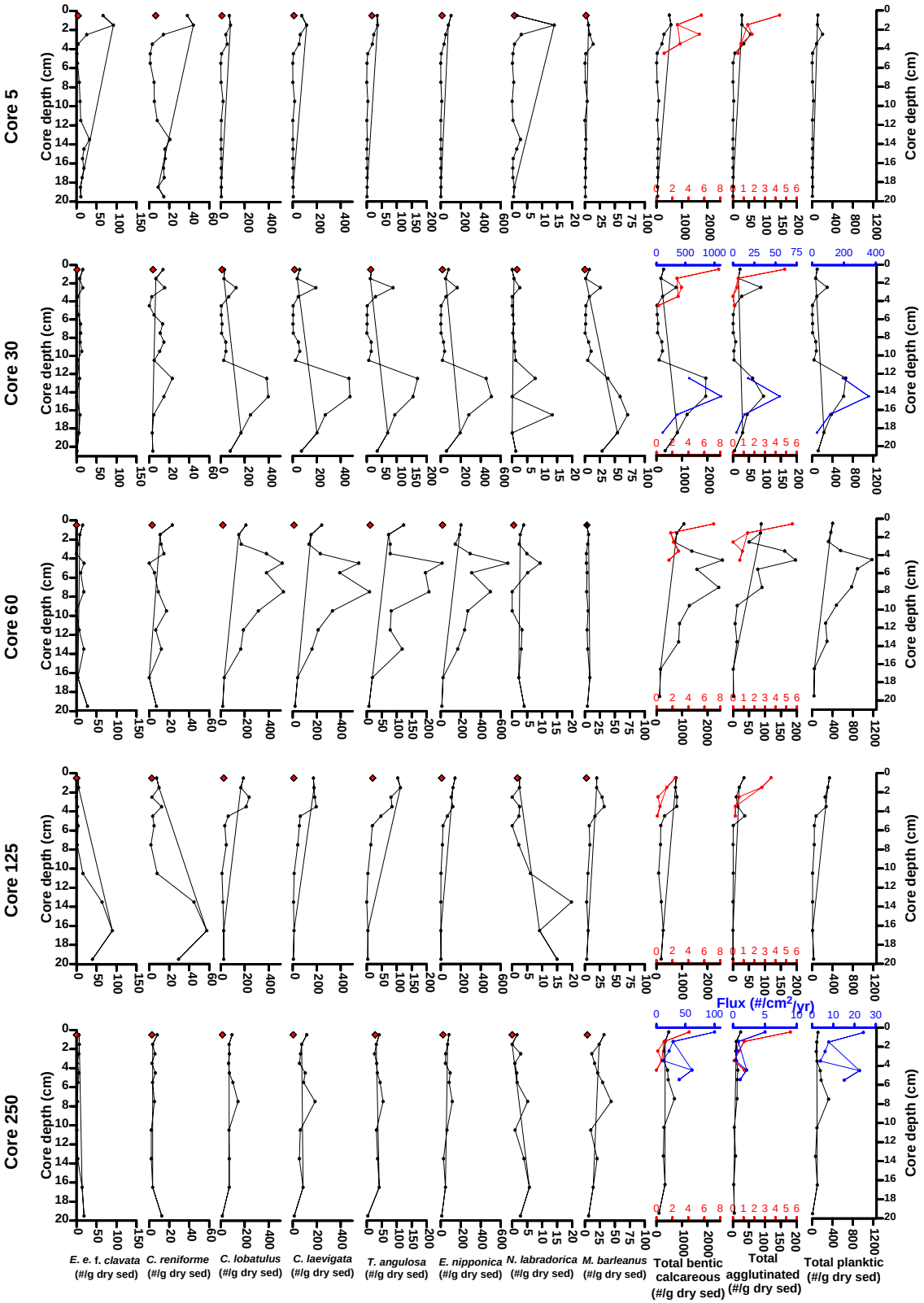
Well G-2000 (Dijkstra et al. in press Marine Pollution Bulletin November 2019) Graphs show down core distribution of each of the shown parameters along the sampling transects (A) Ba-concentrations (mg/kg). Drill cutting (DC) influenced layers are indicated by yellow shading. (B) Foraminiferal density or total absolute abundance (# specimens/g dry sed. weight) of dead assemblage, separated into total calcareous abundance (calc.; light grey) and total agglutinated abundance (aggl.; dark grey) (C) Dominance (dot; upper x-axis) and Fisher alpha diversity (cross; lower x-axis) of the dead assemblage. Black dot indicates samples in which >100 specimens were identified; white dots samples in which <100 specimens were identified. (D) Relative abundance (black line with dot; upper x-axis) and species absolute abundances (grey shading; lower x-axis) of the most common species. Black dot indicates samples in which >100 specimens were identified; white dots samples in which <100 specimens were identified. (E) Clay (light grey), silt (dark grey), sand (black) and TOC content (red line) of the cores.



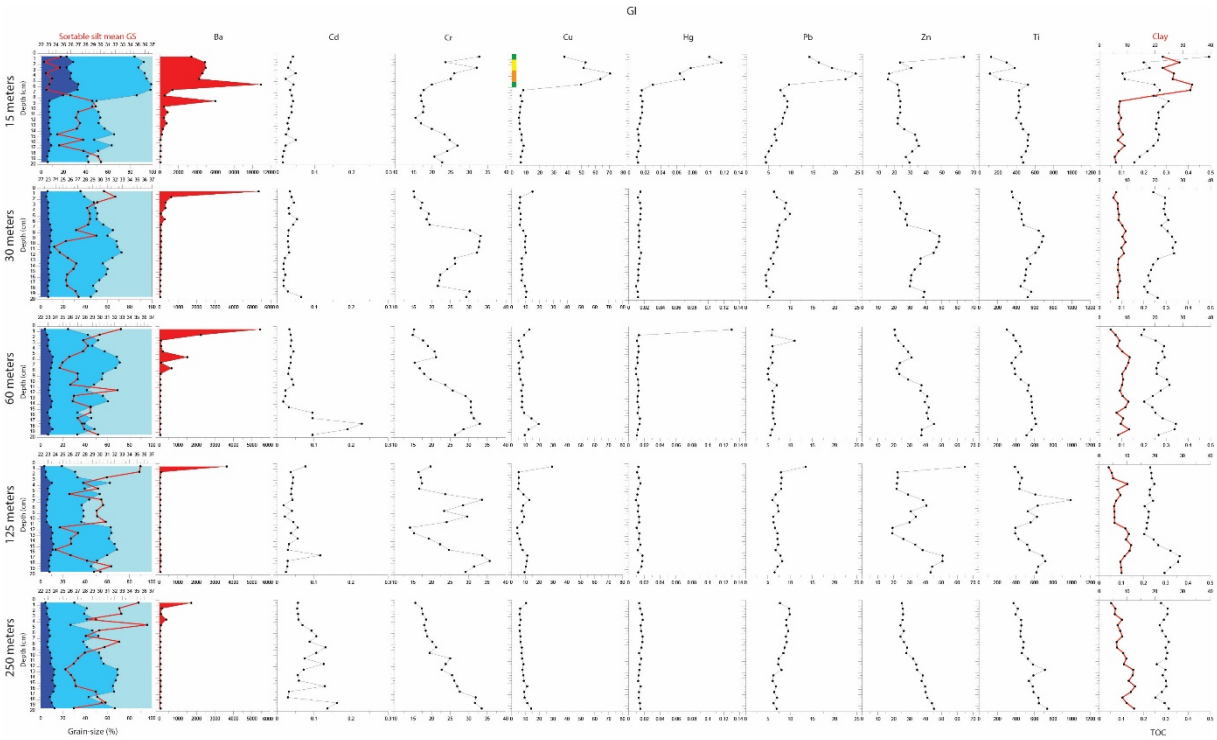
Well G2006. Results showing cumulative grain size, sortable silt mean grain size, heavy metal concentrations, and TOC and clay content from well G2006 (Modified after Aagaard-Sørensen et al. 2018). Ba concentrations are highlighted in red. The color bars indicate sediment quality of the samples according to Bakke et al. (2010). Metal concentrations are in mg/kg and TOC contents in %.



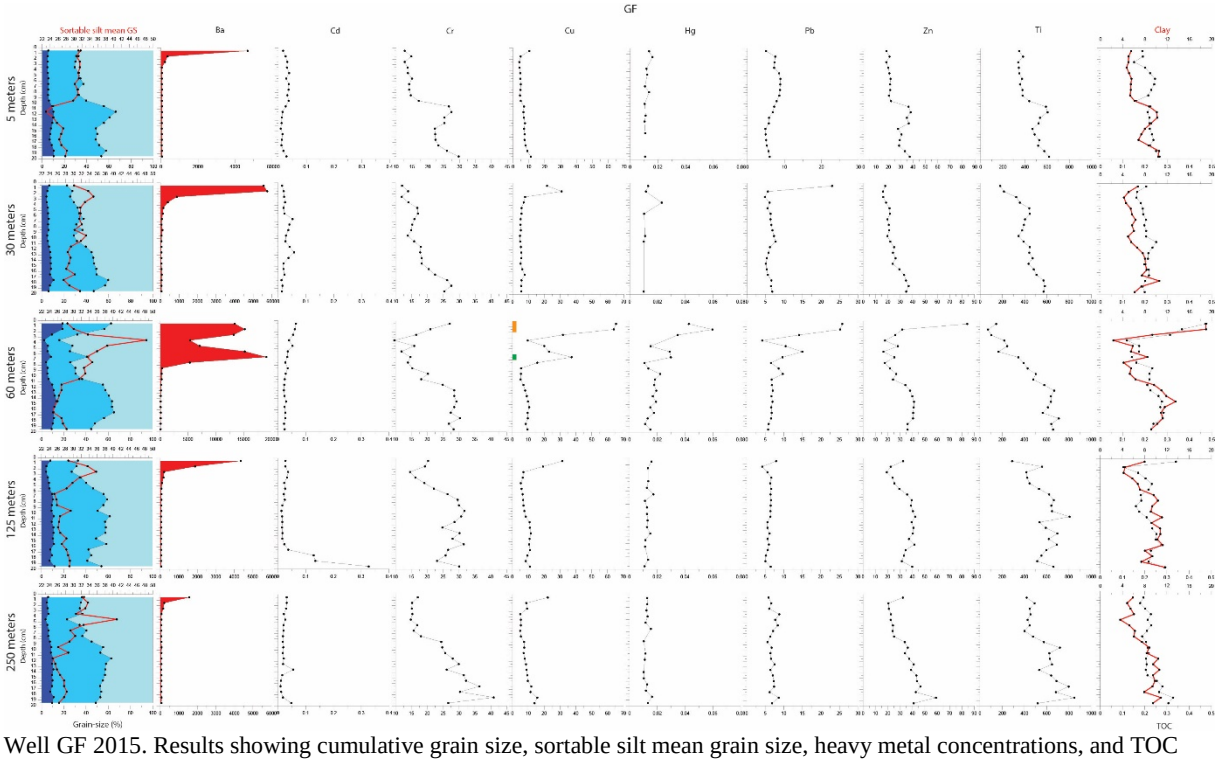
Well G2006. Relative abundance of fossil and live calcareous benthic foraminifera (Rel.%) and faunal diversity index values in GOL 2006/06 cores 5, 30, 60, 125, 250 vs depth (Aagaard-Sørensen et al., 2018). (Left) Shannon index (H) and Simpson`s index of Diversity (1-D). (Middle – Right) Relative abundance (Rel.%) of calcareous benthic foraminiferal species (>8 Rel.% in fossil assemblage in at least one sample). Red Diamonds= Relative species abundance and diversity index values for live calcareous benthic foraminifera in top sediment at 0-5 cm core depth.



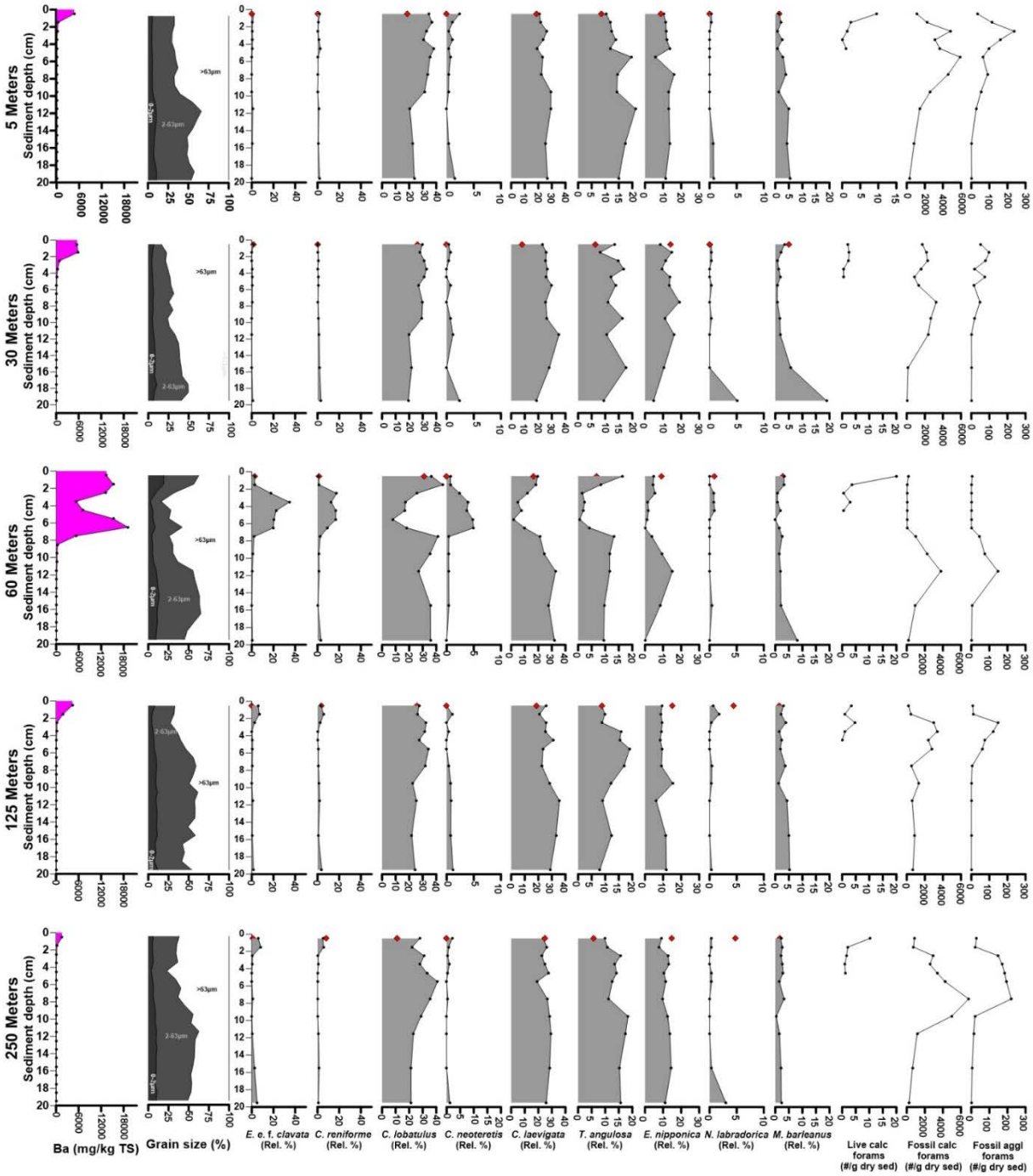
Well G2006. Foraminiferal abundance (specimens per gram dry sediment) in GOL 2006/07 cores 5, 30, 60, 125, 250 vs depth (Aagaard-Sørensen et al., 2018). (Left – Middle) Abundance of relatively most abundant (Showing data with fossil species >8 Rel.% in at least one sample) fossil and live calcareous benthic foraminiferal species. Red Diamonds= Live species abundance in top sediment at 0-5 cm core depth. (Right) Total abundance of fossil and live (red line) calcareous and agglutinated foraminifera in addition to fossil planktic foraminifera. Flux of fossil foraminifera (blue line).



Well GI 2014. Results showing cumulative grain size, sortable silt mean grain size, heavy metal concentrations, and TOC and clay content from well GI (Junttila et al. in prep). Ba concentrations are highlighted in red. The color bars indicate sediment quality of the samples according to Bakke et al. (2010). Metal concentrations are in mg/kg and TOC contents in %.



Well GF 2015. Results showing cumulative grain size, sortable silt mean grain size, heavy metal concentrations, and TOC and clay content from well GF (Junttila et al. in prep.). Ba concentrations are highlighted in red. The color bars indicate sediment quality of the samples according to Bakke et al. (2010). Metal concentrations are in mg/kg and TOC contents in %.



Well GF 2015. Relative abundance of fossil and live calcareous benthic foraminifera (Rel.%) and selected sediment proxies in GOL-F cores 5, 30, 60, 125, 250 vs depth (Aagaard-Sørensen et al., in prep).. (From left to right) Barium (Ba) concentrations (mg/kg) Accumulated sediment grain size (Clay (Black, 0-2 µm); Silt (Dark gray, 2-63 µm); Sand (No fill, 63 µm-2 mm)). Relative abundance of fossil (>5 Rel.% in at least one sample) and live calcareous benthic foraminiferal species. Red Diamonds=Live species relative abundance in top sediment (0-5 cm core depth). Total abundance (#/g dry sediment) of fossil and live calcareous and fossil agglutinated foraminifera.