

Captions for Supplementary Figures & Tables

Conversion factors for Greenland shelf benthos: Weight-to-weight and
body size-to-weight relationships
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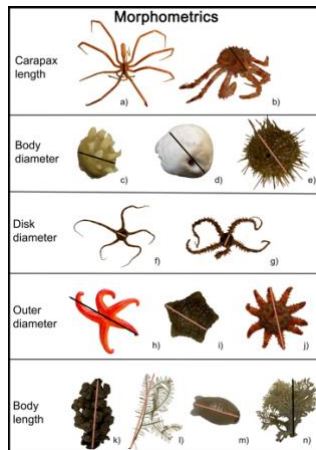
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Captions for Supplementary Figures

Figure S1

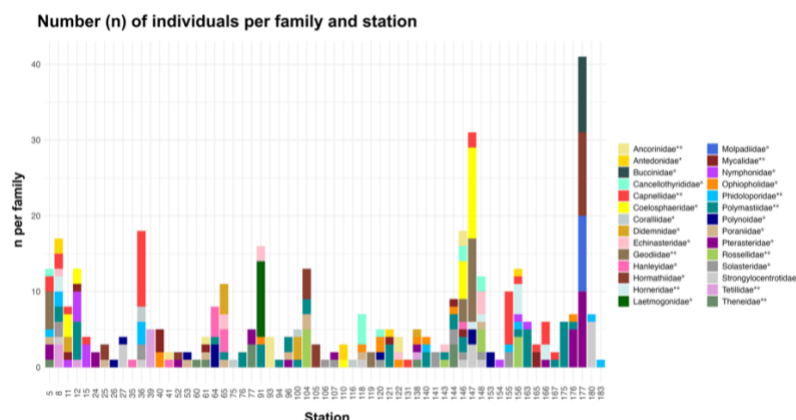
File name: fS01_Morphometrics.png



Schematic illustration of the morphometric measurements used to quantify body size (mm) across different taxa. Measurements were taken using species-specific anatomical features, as indicated by arrows: carapace length (a–b; e.g., *Colossendeis* sp., *Lithodes* sp.), body diameter (c–e; e.g., *Polymastia* sp., *Geodia* sp., *Strongylocentrotus* sp.), disk diameter (f–g; Ophiuroidea), outer diameter (h–j; e.g., *Henricia* sp., *Pteraster* sp., *Crossaster* sp.), and body length (k–n; e.g., Capnellidae, Aglaopheniidae, *Aegiochus* sp., *Hornera* sp.).

Figure S2

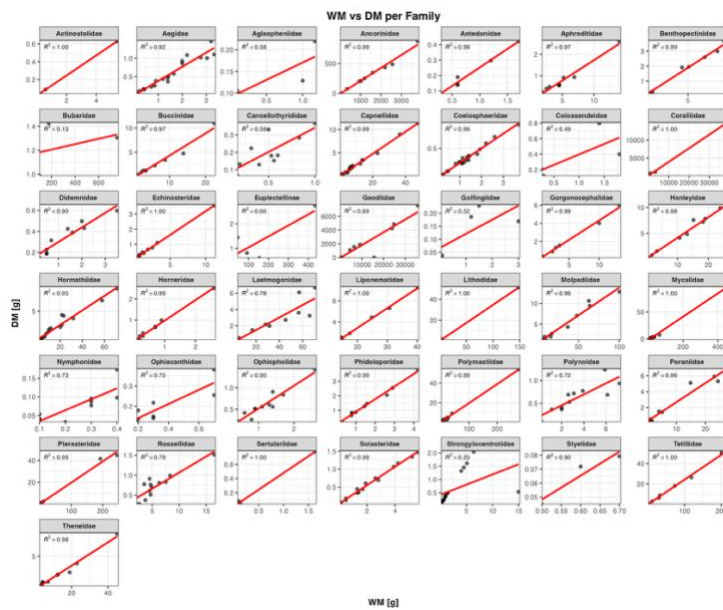
File name: fS02_samples/station.png



Abundance of individuals (n) per family across sampling stations. Only families with ≥ 10 individuals are shown (°), while vulnerable marine ecosystem (VME) taxa are included regardless of abundance and indicated by an asterisk (*).

Figure S3

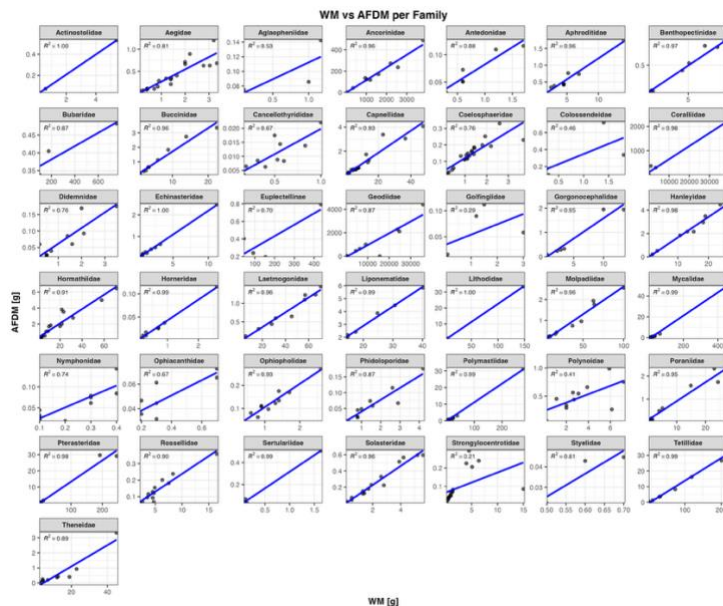
File name: fS03_WM_DM_scatter_plot.png



Scatter plot showing the correlation between wet mass (WM) [g] and dry mass (DM) [g] of the 43 families, with a R^2 value and red regression line.

Figure S4

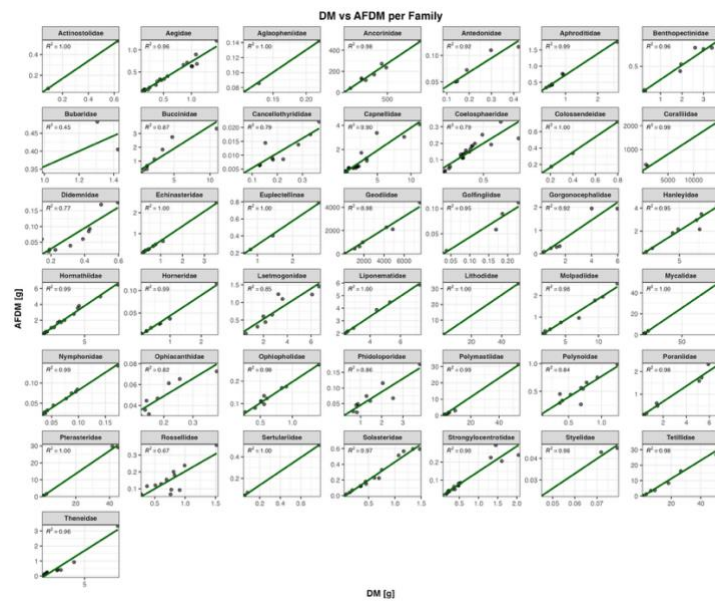
File name: fS04_WM_AFDM_scatter_plot.png



Scatter plot showing the correlation between wet mass (WM) [g] and ash-free dry mass (AFDM) [g] of the 43 families, with a R^2 value and blue regression line.

Figure S5

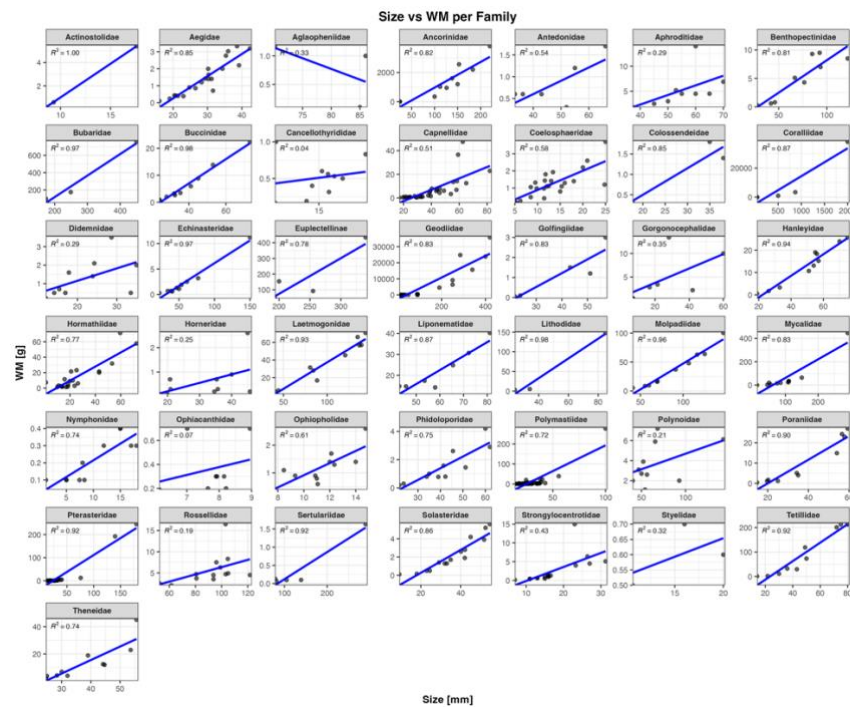
File name: fS05_DM_AFDM_scatter_plot.png



Scatter plot showing the correlation between dry mass (DM) [g] and ash-free dry mass (AFDM) [g] of the 43 families, with a R^2 value and green regression line.

Figure S6

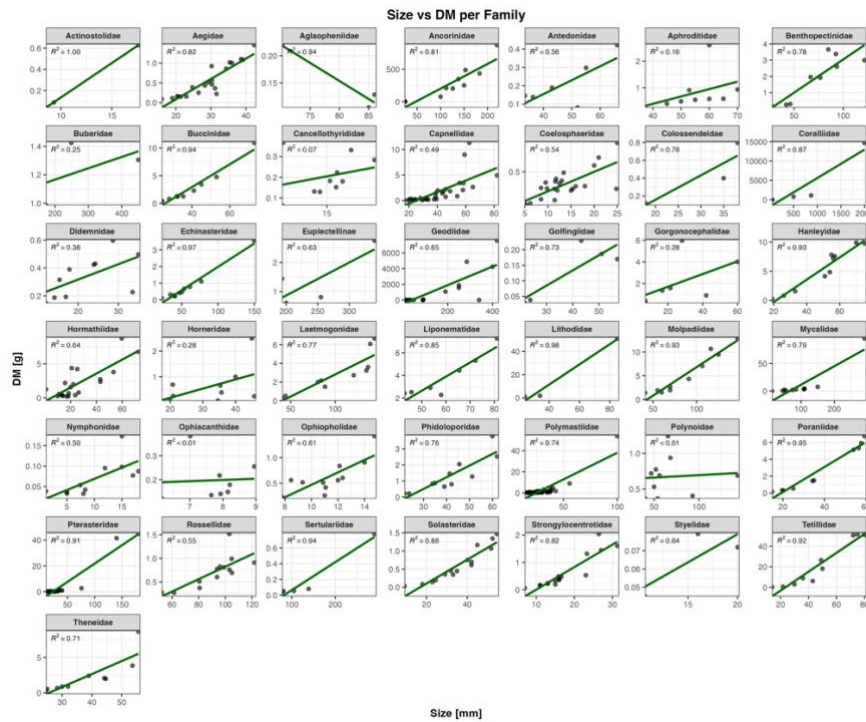
File name: fS06_Size_WM_scatter_plot.png



Scatter plot showing the correlation between body-size (Size) [mm] and wet mass (WM) [g] of the 43 families, with a R^2 value and blue regression line.

Figure S7

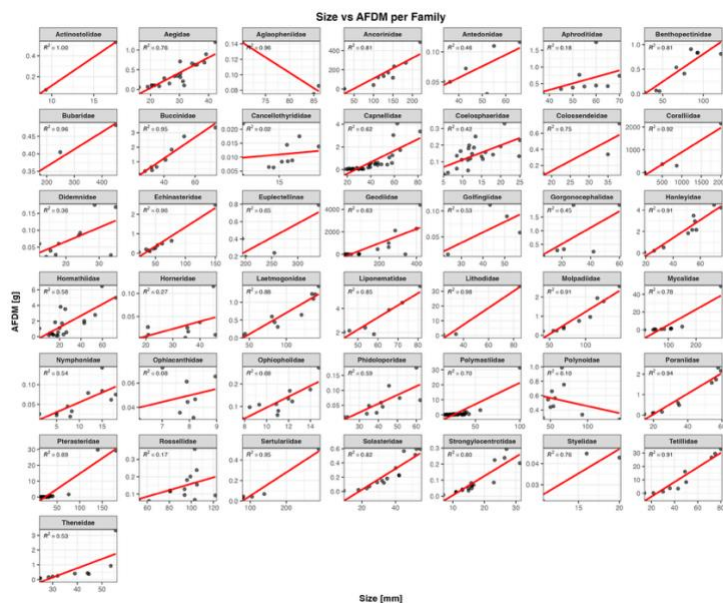
File name: fS07_Size_DM_scatter_plot.png



Scatter plot showing the correlation between body-size (Size) [mm] and dry mass (DM) [g] of the 43 families, with a R^2 value and green regression line.

Figure S8

File name: fS08_Size_AFDM_scatter_plot.png



Scatter plot showing the correlation between body-size (Size) [mm] and ash-free dry mass (AFDM) [g] of the 43 families, with a R^2 value and red regression line.

Captions for Supplementary Tables:

Table S1

File name: Table S1_Weight-to-Weight_Shapiro_Breusch_JBehrisch & NZwerschke.xlsx

Results of Shapiro-Wilk (SW) and Breusch-Pagan (BP) tests applied to residuals of linear models relating wet mass (WM), dry mass (DM), and ash-free dry mass (AFDM) [g] across families. P-values (p) < 0.05 indicate significant (*) deviation from normality (Shapiro–Wilk) or heteroscedasticity (Breusch–Pagan). “n” represents the number of samples included in the calculations.

Table S2

File name: Table S2_Size-to-Weight_Shapiro_Breusch_JBehrisch & NZwerschke.xlsx

Results of Shapiro-Wilk (SW) and Breusch-Pagan (BP) tests for residuals of linear models relating body size (mm) to biomass measures (wet mass (WM), dry mass (DM), ash-free dry mass (AFDM)) [g] across families. P-values (p) < 0.05 indicate significant (*) deviation from normality (Shapiro–Wilk) or heteroscedasticity (Breusch–Pagan). “n” represents the number of samples included in the calculations.

Table S3

File name: Table S3_Spearman_Weight-to-Weight_JBehrisch & NZwerschke.xlsx

Caption:

Results of Spearman rank correlations tests investigating the relationship between wet mass (WM), dry mass (DM), and ash-free dry mass (AFDM) [g] of 43 macro- and mega-zoobenthic families. Significant correlations are shown in bold text. “n” represents the number of samples included in the calculations. The result table contains the rho, S and p-value per biomass-body size Spearman correlations test for each family. In the results, rho indicates the nature (strength and direction) of the relationship between the variables (Dodge, 2008; Glasser and Winter, 1961; Spearman, 1904). A rho of 1 indicates a positive monotonic relationship, 0 indicates no monotonic relationship, and -1 indicates a negative monotonic relationship (Dodge, 2008; Glasser and Winter, 1961; Spearman, 1904). The value S, in the correlations results, represents the sum of squared rank differences (measure of disagreement) between the paired values (ranks) within a family (Dodge, 2008; Glasser and Winter, 1961; Spearman, 1904). A small S indicates similar ranks and a strong correlation (leads to a high rho), while a high S suggests large rank differences and a weaker or no correlation (leads to a low rho) (Dodge, 2008; Glasser and Winter, 1961; Spearman, 1904).

Table S4

File name: Table S4_Spearman_Size-to-Weight_JBehrisch & NZwerschke.xlsx

Caption:

Results of Spearman rank correlations tests investigating the relationship between wet mass (WM), dry mass (DM), and ash-free dry mass (AFDM) [g] and body size [mm] of 43 macro- and mega-zoobenthic families. Significant correlations are shown in bold text. The column “Morphometrics (size)” indicates the body part measured to evaluate organism size, which varies according to the morphology of organisms within a family. “n” represents the number of samples included in the calculations. The result table contains the rho, S and p-value per biomass-body size Spearman correlations test for each family. In the results, rho indicates the nature (strength and direction) of the relationship between the variables (Dodge, 2008; Glasser and Winter, 1961; Spearman, 1904). A rho of 1 indicates a positive monotonic relationship, 0 indicates no monotonic relationship, and -1 indicates a negative monotonic relationship (Dodge, 2008; Glasser and Winter, 1961; Spearman, 1904). The value S, in the correlations results, represents the sum of squared rank differences (measure of disagreement) between the paired values (ranks) within a family (Dodge, 2008; Glasser and Winter, 1961; Spearman, 1904). A small S indicates similar ranks and a strong correlation (leads to a high rho), while a high S suggests large rank differences and a weaker or no correlation (leads to a low rho) (Dodge, 2008; Glasser and Winter, 1961; Spearman, 1904).