

**Supporting Information from “Time for a
rethink: time sub-sampling methods in
disparity-through-time analyses”**

APPENDIX S2: ADDITIONAL FIGURES

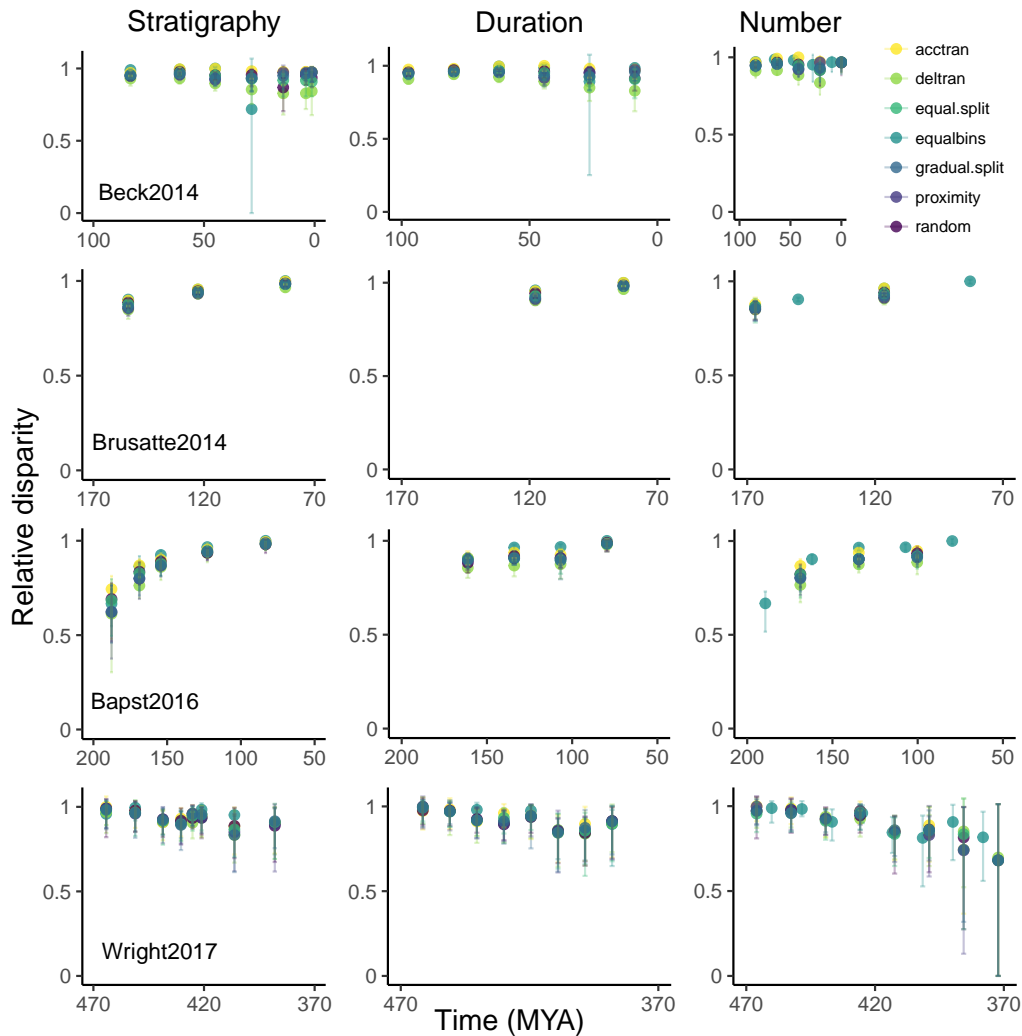


Figure A1: Relative disparity-through-time for stratigraphic epochs. Median bootstrapped disparities were calculated using time binning and time-slicing approaches. Relative disparities (median bootstrapped disparity divided by the maximum median bootstrapped disparity for a dataset and analysis method) are presented so they can be compared across datasets/methods. Stratigraphy uses unequal time bins or non-equidistant time-slices, where the width of the bin, or the interval between slices, is equivalent to stratigraphic epochs. Duration uses equal time bins or equidistant time-slices, where the width of the bin, or the interval between slices, is the average duration of stratigraphic epochs in the time frame of the dataset. Number uses equal time bins or equidistant time-slices, where the number of bins, or the number of slices, is the average number of stratigraphic epochs in the time frame of the dataset. In all cases, time bin disparities are plotted at the midpoint of the bin, and error bars represent the 95% confidence intervals around the bootstrapped median disparity. The four dataset names are on the first plot for each dataset (see Table 1 for details). Results for stratigraphic stages are shown in Figure A2.

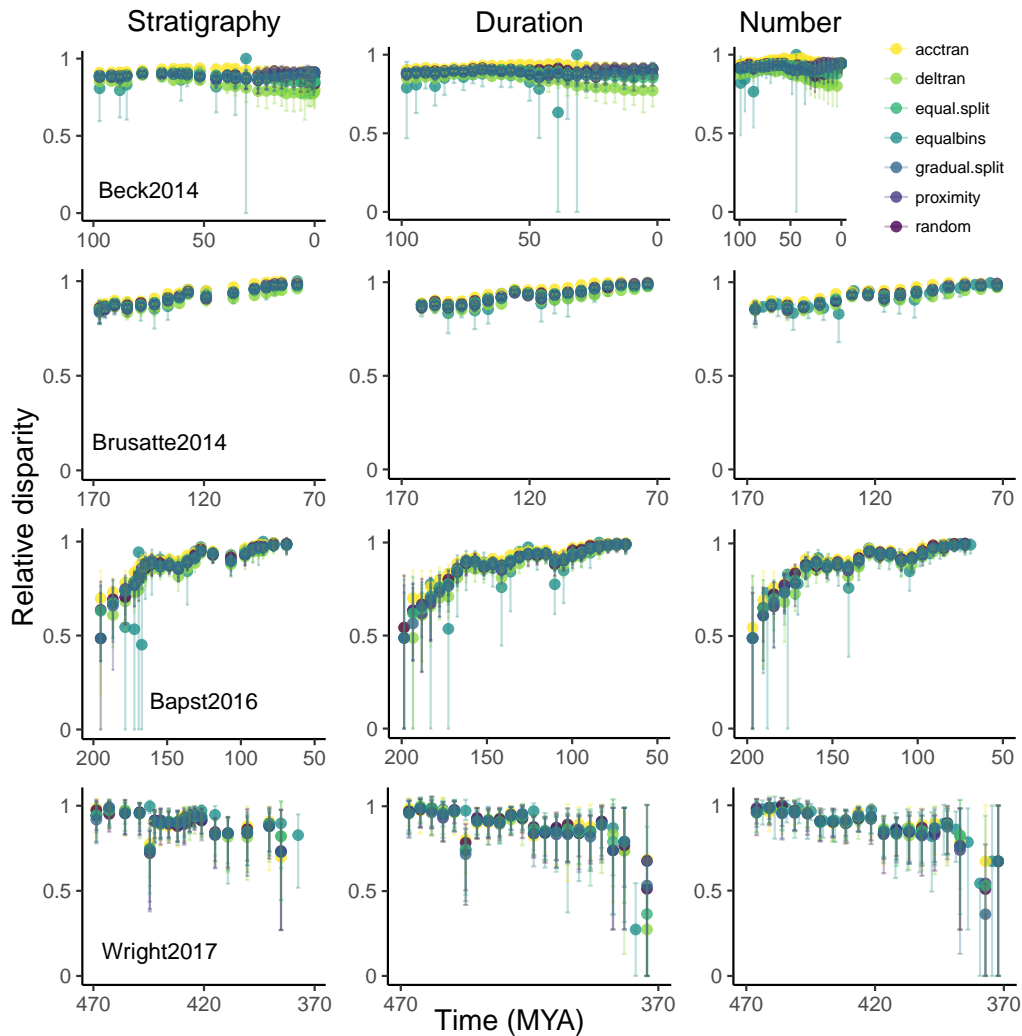


Figure A2: Relative disparity-through-time for stratigraphic stages. Median bootstrapped disparities were calculated using time binning and time-slicing approaches. Relative disparities (median bootstrapped disparity divided by the maximum median bootstrapped disparity for a dataset and analysis method) are presented so they can be compared across datasets/methods. Stratigraphy uses unequal time bins or non-equidistant time-slices, where the width of the bin, or the interval between slices, is equivalent to stratigraphic stages. Duration uses equal time bins or equidistant time-slices, where the width of the bin, or the interval between slices, is the average duration of stratigraphic stages in the time frame of the dataset. Number uses equal time bins or equidistant time-slices, where the number of bins, or the number of slices, is the average number of stratigraphic stages in the time frame of the dataset. In all cases, time bin disparities are plotted at the midpoint of the bin, and error bars represent the 95% confidence intervals around the bootstrapped median disparity. The four dataset names are on the first plot for each dataset (see Table 1 for details). Results for stratigraphic epochs are shown in Figure A1.

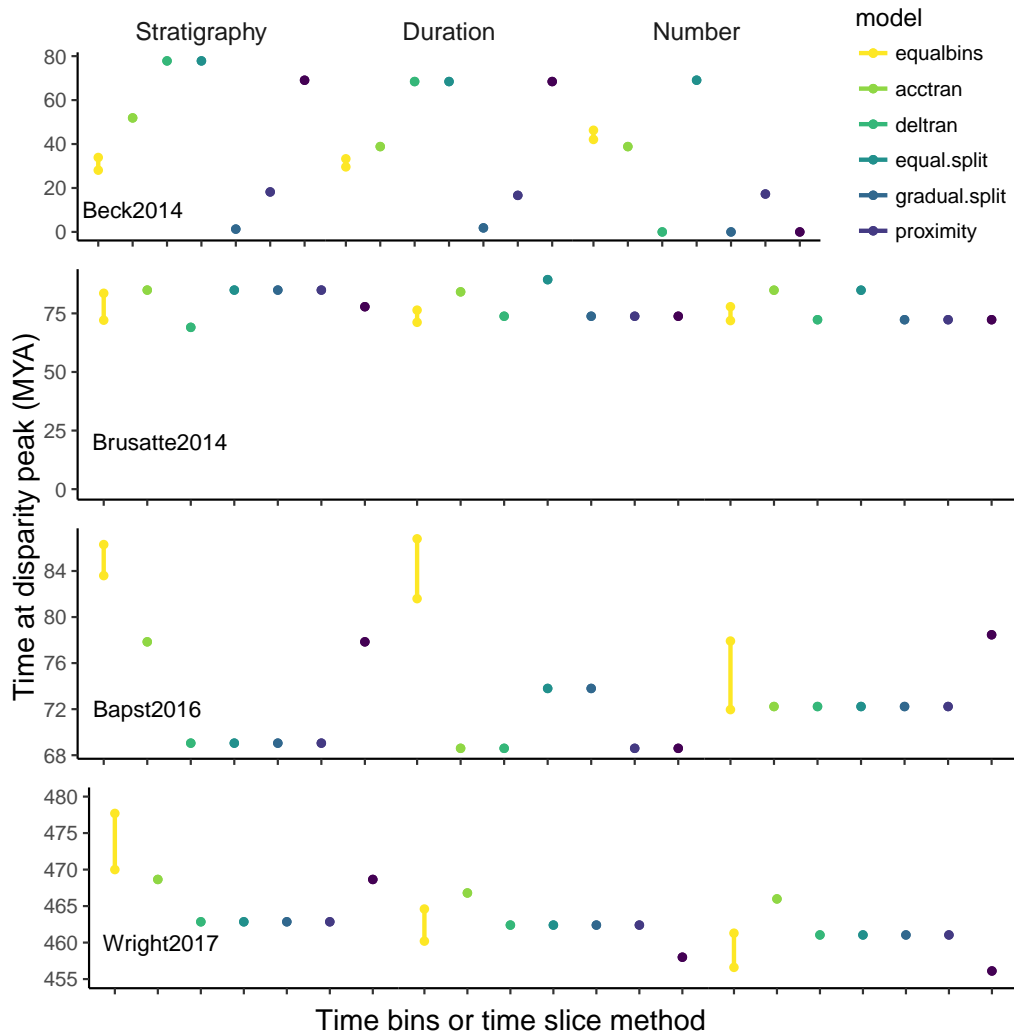


Figure A3: Timing of peak disparity for stratigraphic epochs. Median bootstrapped disparities were calculated using time binning and time-slicing approaches. Stratigraphy uses unequal time bins or non-equidistant time-slices, where the width of the bin, or the interval between slices, is equivalent to stratigraphic epochs. Duration uses equal time bins or equidistant time-slices, where the width of the bin, or the interval between slices, is the average duration of stratigraphic epochs in the time frame of the dataset. Number uses equal time bins or equidistant time-slices, where the number of bins, or the number of slices, is the average number of stratigraphic epochs in the time frame of the dataset. For time bins the points indicate the maximum and minimum ages of the time bin within which peak disparities appeared. The four dataset names are on the first plot for each dataset (see Table 1 for details). Results for stratigraphic stages are in Figure A4.

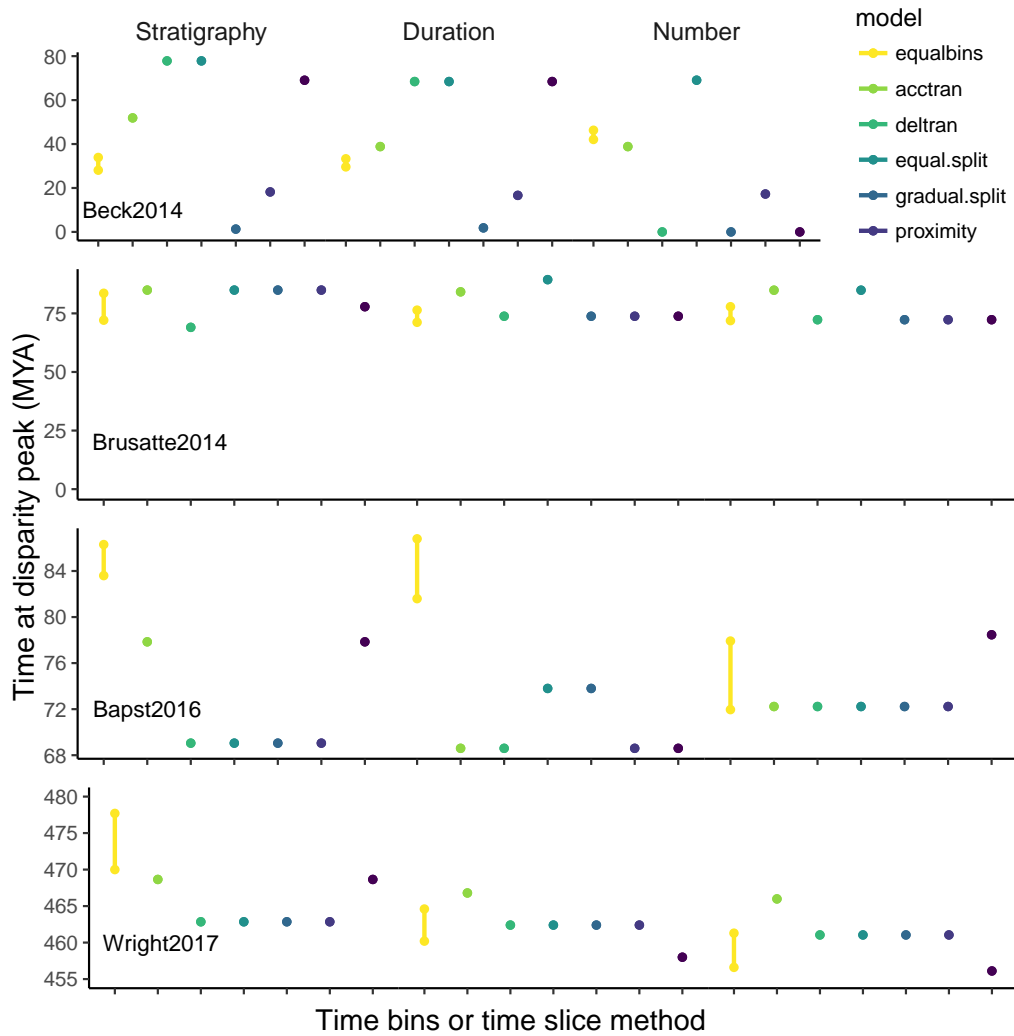


Figure A4: Timing of peak disparity for stratigraphic stages. Median bootstrapped disparities were calculated using time binning and time-slicing approaches. Stratigraphy uses unequal time bins or non-equidistant time-slices, where the width of the bin, or the interval between slices, is equivalent to stratigraphic stages. Duration uses equal time bins or equidistant time-slices, where the width of the bin, or the interval between slices, is the average duration of stratigraphic stages in the time frame of the dataset. Number uses equal time bins or equidistant time-slices, where the number of bins, or the number of slices, is the average number of stratigraphic stages in the time frame of the dataset. For time bins the points indicate the maximum and minimum ages of the time bin within which peak disparities appeared. The four dataset names are on the first plot for each dataset (see Table 1 for details). Results for stratigraphic epochs are in Figure A3.