

Supplement of Biogeosciences, 17, 2897–2922, 2020
<https://doi.org/10.5194/bg-17-2897-2020-supplement>
© Author(s) 2020. This work is distributed under
the Creative Commons Attribution 4.0 License.



Supplement of

Shell chemistry of the boreal Campanian bivalve *Rastellum diluvianum* (Linnaeus, 1767) reveals temperature seasonality, growth rates and life cycle of an extinct Cretaceous oyster

Niels J. de Winter et al.

Correspondence to: Niels J. de Winter (niels.de.winter@vub.be)

The copyright of individual parts of the supplement might differ from the CC BY 4.0 License.

Supplement files

All supplementary files are stored in the open access online database Zenodo and can be accessed using the following link: <https://doi.org/10.5281/zenodo.3699542>

- S1:** High resolution (6400 dpi) scans of cross sections through the 12 shells of *Rastellum diluvianum* used in this study.
- S2:** Compilation of μ XRF maps of cross sections through the 12 shells of *Rastellum diluvianum* used in this study.
- S3:** Compilation of XRF line scans measured through the foliated calcite of *Rastellum diluvianum* shells.
- S4:** Compilation of LA-ICP-MS data collected within the context of this study.
- S5:** Compilation of IRMS data used in this study.
- S6:** Composite figures of XRF linescan data through the shells of *Rastellum diluvianum*.
- S7:** Source code of the bivalve growth model adapted from Judd et al. (2018) including temperature equations for calcite.
- S8:** Compilation of strontium isotope data and ages used in this study.
- S9:** Compilation of the results from growth modelling on 5 *Rastellum diluvianum* shells.
- S10:** Compilation figures of proxy record data plotted on time axis for all 5 shells for which modelling was carried out.
- S11:** Plot of ontogenetic trends in $\delta^{13}\text{C}$ and Li/Ca proxies including statistics on the spread of the slopes of these trends.
- S12:** Data on trends in $\delta^{13}\text{C}$ and Li/Ca.
- S13:** Data used to create seasonality crossplots shown in **Fig. 7**.
- S14:** Data on statistics of the growth rates, seasonality and spawning season of all 5 bivalves for which modelling was done.