Supplementary Information for

Seamounts in the Pacific linked to the margins of Earth's deepest mantle structures

Clinton P. Conrad[1,*], Mathew Domeier[1]

[1] Centre for Planetary Habitability, University of Oslo, Norway

* Corresponding Author (c.p.conrad@geo.uio.no)

This PDF file includes:

- Figures S1 to S4

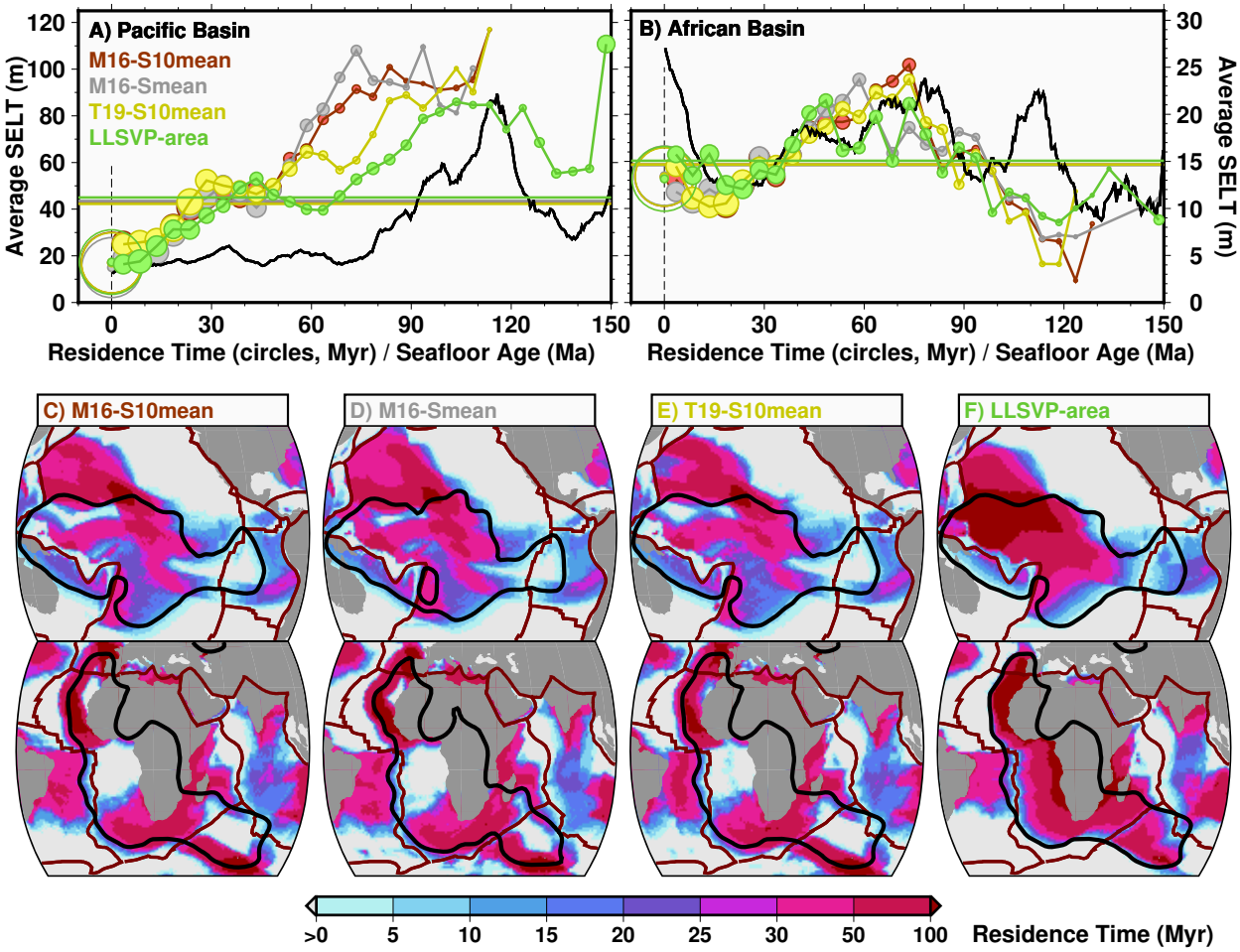

Figure S1. As for Figure 3 of the main text, but for models in which residence time above the LLSVP margins is measured for seafloor points that pass within 5 degrees of the LLSVP margin (instead of 3 degrees as for Figure 3). Note that the green "LLSVP-area" curves in (A) and (B), and the maps in (F) are the same as in Figure 3. Note that seamounts within hotspot tracks are included in this calculation.

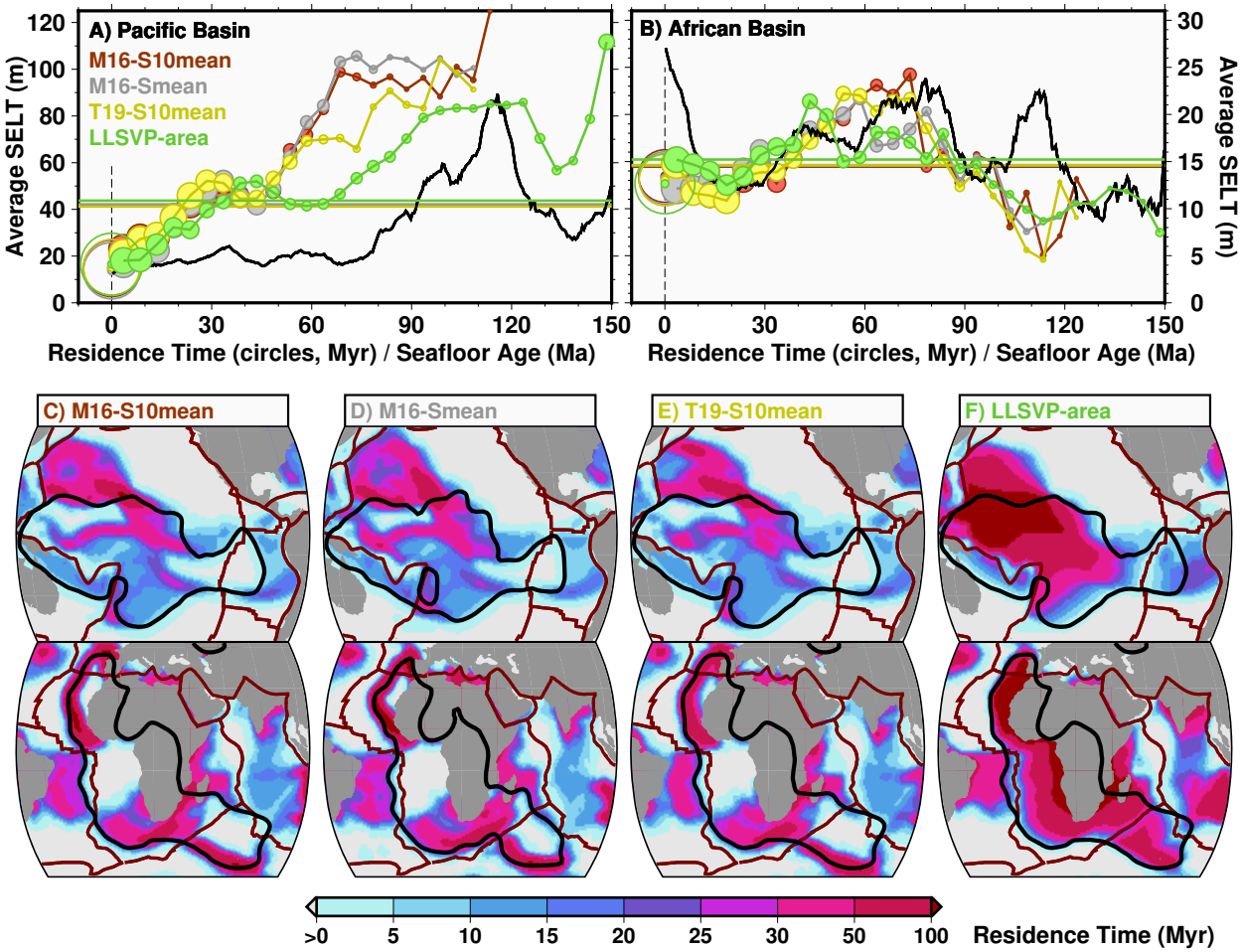

Figure S2. As for Figure 3 of the main text, but for models in which residence time above the LLSVP margins (measured as points that pass within 3 degrees of the LLSVP margin, as in Fig. 1D) is smoothed by averaging values within 500 km of each seafloor point. This is the same smoothing that was used to construct the map of SELT (Fig. 1B). Note that seamounts within hotspot tracks are included in this calculation.

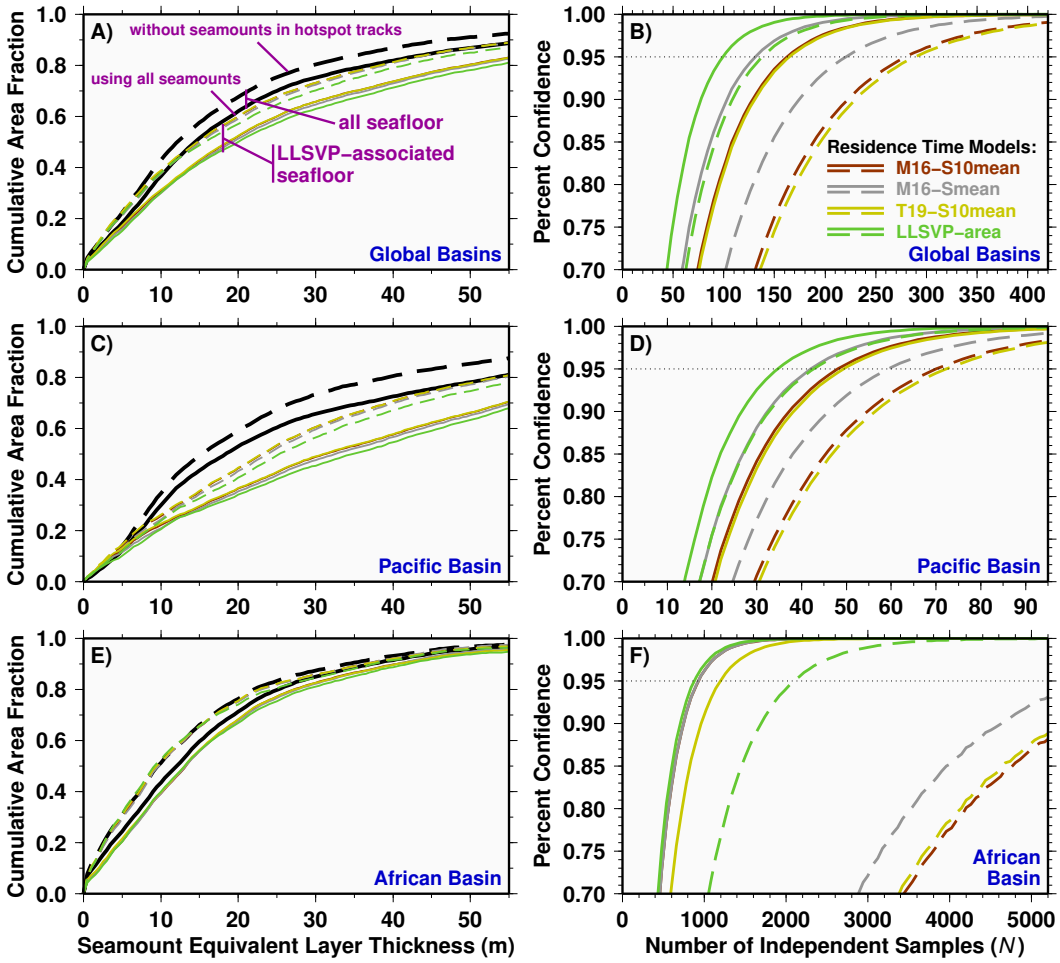

Figure S3. As for Figure 4 of the main text, but for models in which residence time above the LLSVP margins is measured for seafloor points that pass within 5 degrees of the LLSVP margin (i.e., as shown in Figure S1).

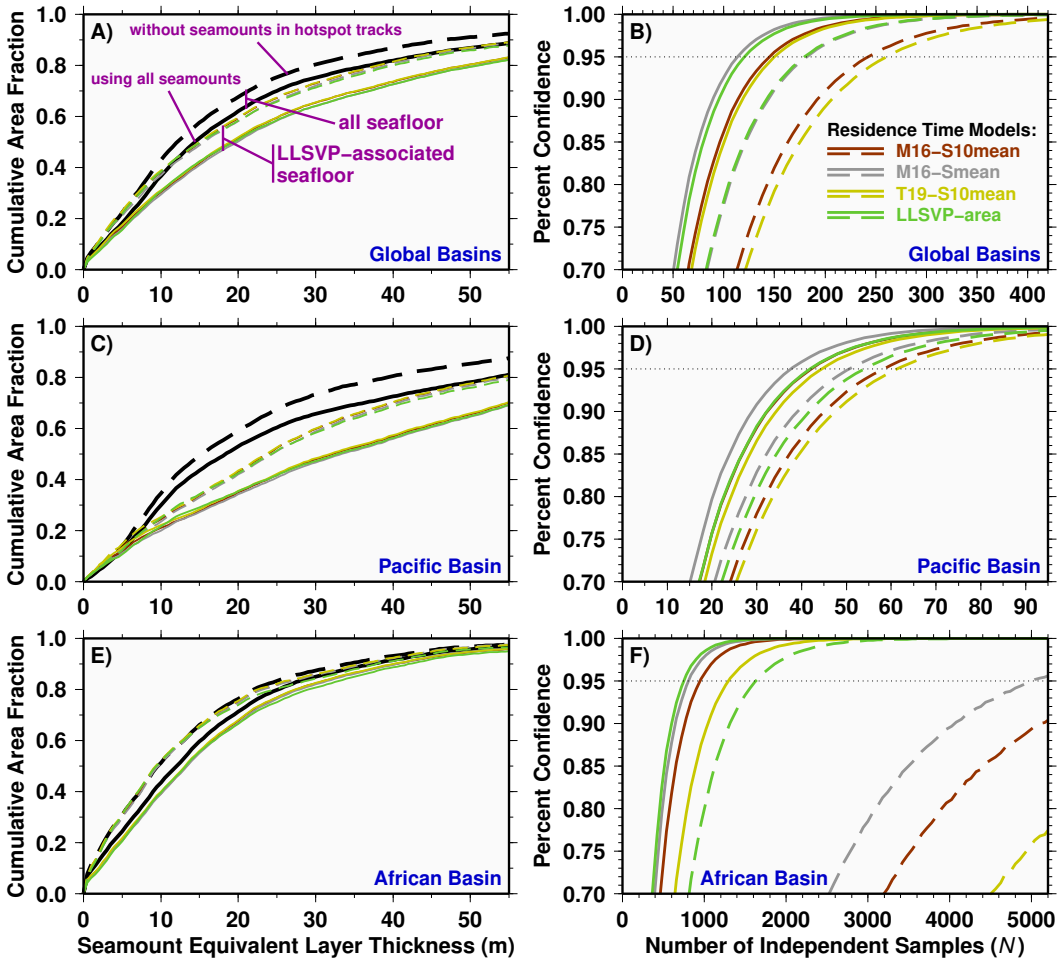

Figure S4. As for Figure 4 of the main text, but for models in which residence time above the LLSVP margins (measured as points that pass within 3 degrees of the LLSVP margin, as in Fig. 1D) is smoothed by averaging values within 500 km of each seafloor point (i.e., as shown in Figure S2).