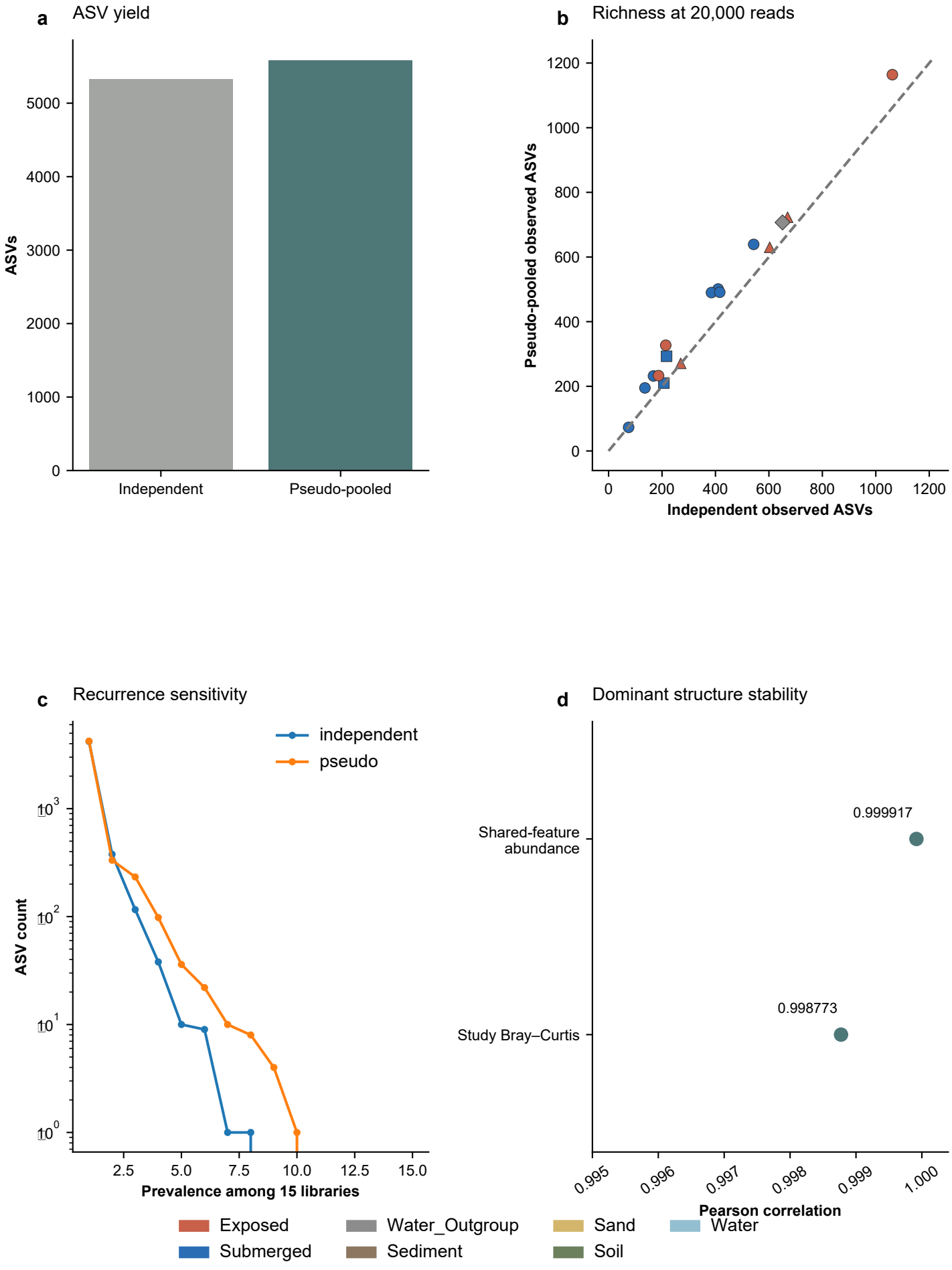
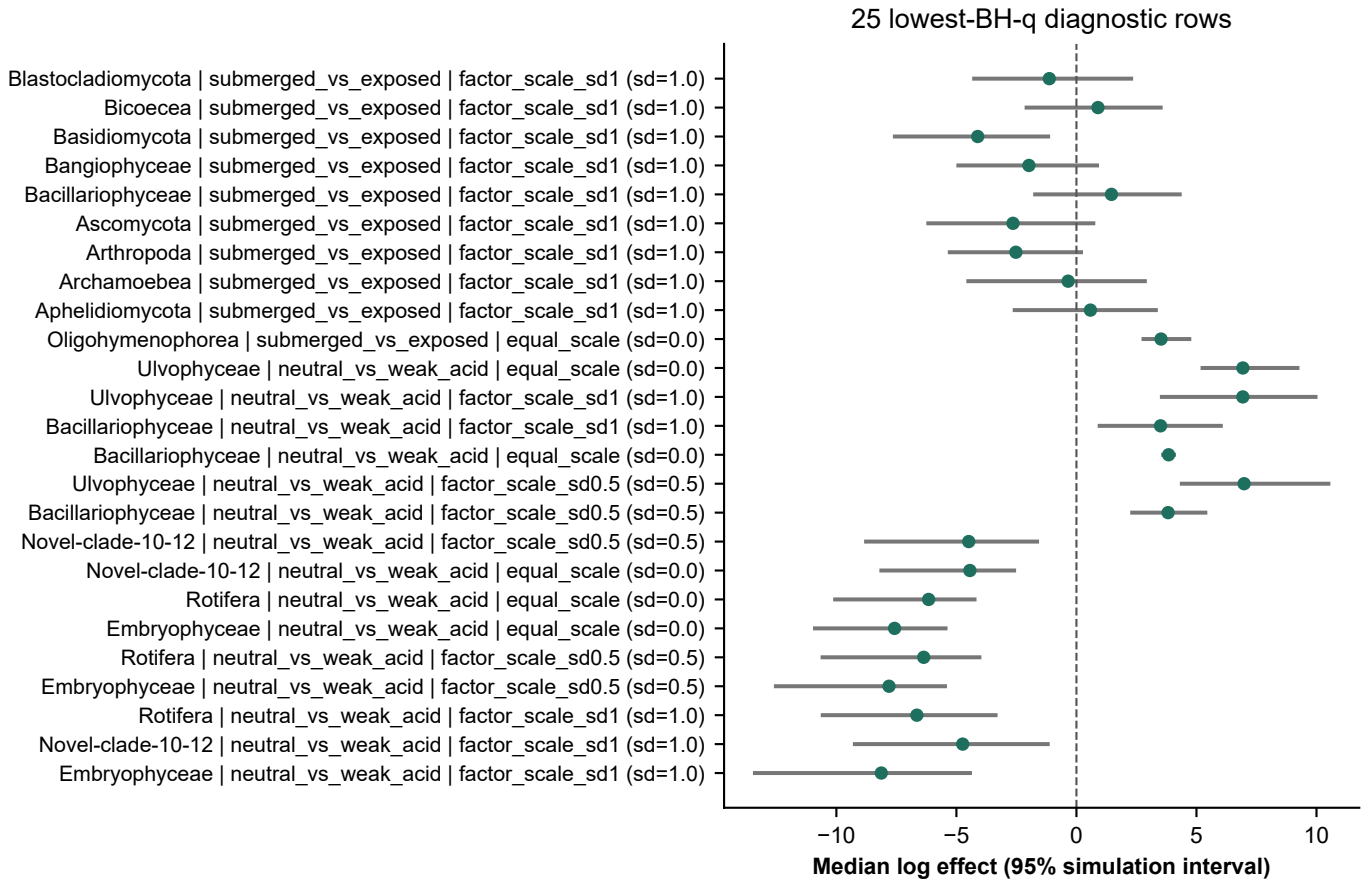
Figure AD1. Denoising sensitivity



Historical pipeline sensitivity at 20,000 reads; this does not replace the fixed Run A baseline.

Figure AD2. Breadth/null diagnostics



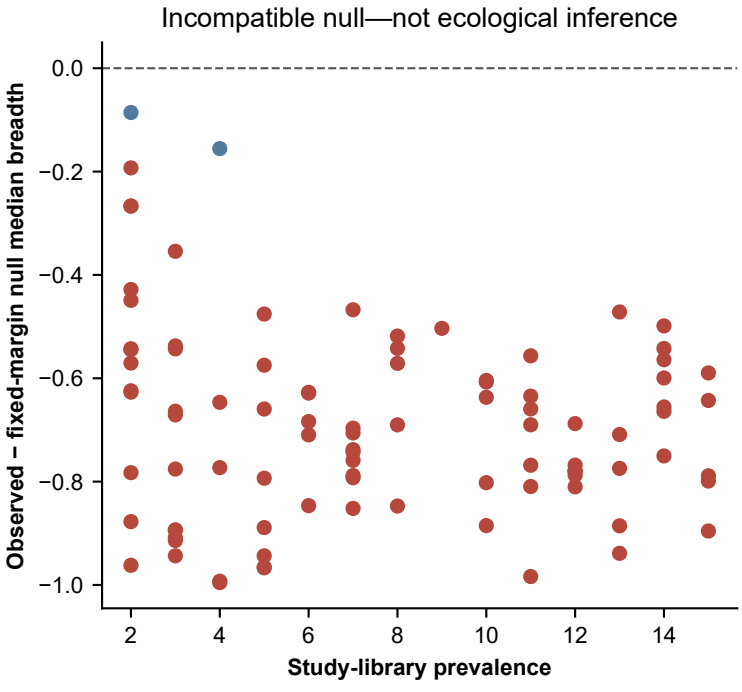
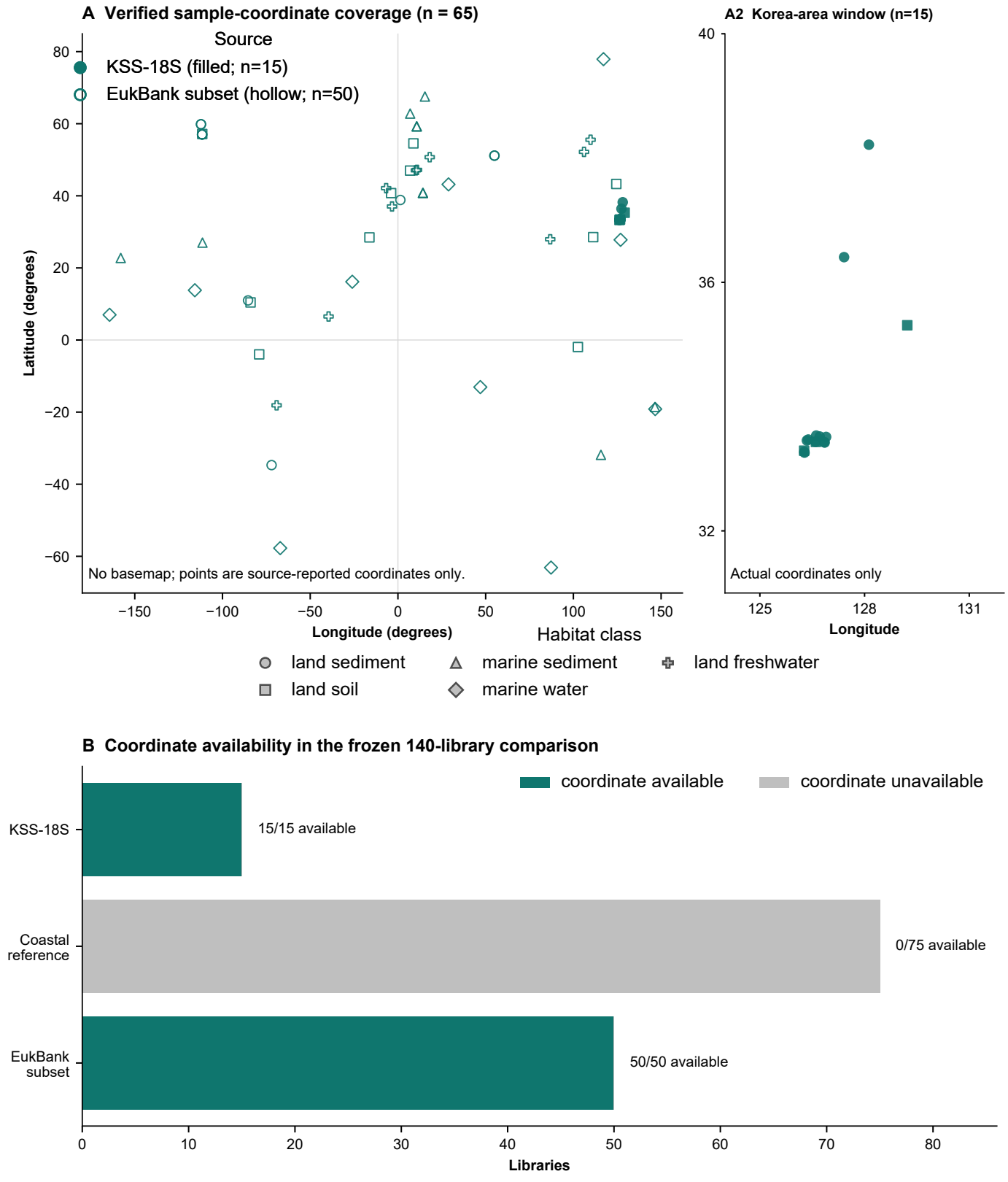


Figure AD3. Coordinate coverage



Coverage figure only: it does not test biogeographic differentiation, environmental association, or geographic RF performance.

Coastal reference (75/75) has no coordinates in the inspected local source metadata and is represented only in Panel B missingness.

Coordinates: verified `KSS-18S` source/merged-original match (15) and EukBank subset selected-manifest/current match (50).