

Assessing coastal benthic macrofauna community condition using best professional judgement – Developing consensus across North America and Europe

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ABSTRACT

Benthic indices are typically developed independently by habitat, making their incorporation into large geographic scale assessments potentially problematic because of scaling inequities. A potential solution is to establish common scaling using expert best professional judgment (BPJ). To test if experts from different geographies agree on condition assessment, sixteen experts from four regions in USA and Europe were provided species-abundance data for twelve sites per region. They ranked samples from best to worst condition and classified samples into four condition (quality) categories. Site rankings were highly correlated among experts, regardless of whether they were assessing samples from their home region. There was also good agreement on condition category, though agreement was better for samples at extremes of the disturbance gradient. The absence of regional bias suggests that expert judgment is a viable means for establishing a uniform scale to calibrate indices consistently across geographic regions.

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