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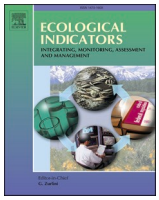

Corrigendum

Corrigendum to "Integrating physicochemical and microbial indicators to assess small-scale nutrient pollution in the Lease Islands, Indonesia" [Ecol. Indicat. 189 (2026) 115096]

Agustin Capriati [a,b,c,*], Stephanie J. Martinez [b,c], Thomas Kemenes van Uden [d], Marcel T.J. van der Meer [e], Purwanto [f], Ingrid A. van de Leemput [a,1], Leontine E. Becking [b,c,1]

[a] Aquatic Ecology and Water Quality Management, Wageningen University and Research, 6708PB, the Netherlands
[b] Aquaculture Biology and Fisheries Ecology, Wageningen University and Research, 6808WD, the Netherlands
[c] Marine Evolution and Ecology Group, Naturalis Biodiversity Center, 2333CR, the Netherlands
[d] Wageningen Marine Research, Ankerpark 27, 1781 AG, Den Helder, the Netherlands
[e] NIOZ Royal Netherlands Institute for Sea Research, Texel 1790AB, the Netherlands
[f] Coral Triangle Center, Jalan Bet Ngandang II No.88-89, Bali 80228, Indonesia

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ABSTRACT

Worldwide, coral reefs are threatened by global and local stressors. One of the key local stressors is land-based nutrient pollution that enters coastal waters. However, detecting nutrient pollution remains challenging in oligotrophic, highly dynamic coastal waters. We integrated physicochemical water-quality measurements, macroalgae stable nitrogen-isotope analysis, and high-resolution molecular profiling of benthic cyanobacterial mat (BCM) communities in the Lease Islands, Indonesia. Across twelve sites categorized as *Populated*, *Non-Populated*, and *River Mouth*, we tested three hypotheses: (1) nutrients decline along a 1–75 m land-sea gradient; (2) *Populated* and *River Mouth* sites have higher nutrients, distinct $\delta^{15}N$ and BCM communities; and (3) nutrient levels influence BCM community composition. Our results showed that while salinity and turbidity followed predictable land-sea gradients, only nitrate showed a significant, albeit weak, gradient. Phosphate, ammonium, and nitrite showed high variability in the nearshore zone (1–25 m), whereas the 50–75 m zone showed greater consistency, particularly for phosphate. When taking site levels as a whole, *Populated* sites had higher nutrient concentrations than *Non-Populated* sites. Macroalgal $\delta^{15}N$ weakly indicated anthropogenic nitrogen influences due to limited species occurrence. BCM community composition differed significantly among site types, with *River Mouth* harboring the most divergent communities. Copiotroph (e.g., *Pseudoalteromonas*) and pathogenic taxa (e.g., *Vibrio*) were prevalent across all sites. Environmental factors explained 47% of the variation in BCM microbial community composition. Our study highlights that BCM microbial communities show potential promise as indicators of nutrient pollution, complementing water sampling and isotope analysis. We recommend further evaluation of possibly integrating BCM assessments into reef monitoring.

The authors regret that the abstract was inadvertently omitted from the manuscript supplied during production. The missing abstract is provided below:

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* Corresponding author at: Department of Aquatic Ecology and Water Quality Management, Environmental Sciences, Wageningen University & Research, Droevendaalsesteeg 3a, 6700AA Wageningen, the Netherlands.
E-mail address: agustin.capriati@wur.nl (A. Capriati).
[1] Share senior authorship.

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