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Classifying ecological quality and integrity of estuaries

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ABSTRACT

There is an increasing need in assessing ecological quality and integrity of estuaries and lagoons. This chapter shows the most recent efforts in assessing individual biological elements (from phytoplankton to fishes), together with the integrative tools developed in different geographical areas worldwide. However, reducing complex information from multiple ecosystem elements to a single color or value is a substantial challenge to marine scientists, and requires the integration of different disciplines (chemists, engineers, biologists, ecologists, physics, managers, etc.), to reach agreement on the final assignment of ecological status. Hence, in the near future, emphasis needs to be directed at understanding the complexities of estuarine system functioning rather than simplifying and scaling down the system into smaller components.

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