

## Retrospective Monitoring of Ecosystem Changes Using Published Data and Lessons Learned from Egypt's Nile River Delta

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Monitoring programs for riverine and wetland ecosystems often do not begin until some substantial shift in ecosystem structure or loss of ecosystem service has taken place. Sometimes a lack of resources or interest may impede monitoring efforts. In the case of the large brackish lagoon wetlands on Egypt's Nile Delta, apparent shifts in ecosystem productivity and structure have gone unmonitored for decades. However, dozens of individual efforts by local scientists studying specific aspects of these different ecosystems have been taken together as a substitute for a cohesive, organized monitoring program. While imperfect, this dataset provides important insight into changes in the delta's wetland biology, in particular with regard to commercially important fish species, as well as abiotic factors like nutrient concentrations and dissolved oxygen. In the absence of a deliberate monitoring program, such assembled retrospective analyses can establish an important baseline to which future studies of ecosystem structure and services can be referenced.