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POND DYNAMICS/AQUACULTURE COLLABORATIVE RESEARCH SUPPORT PROGRAM



## RESEARCH REPORTS

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SUSTAINABLE AQUACULTURE FOR A SECURE FUTURE

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**Title:** Vertical gradients of organic matter concentration and respiration rate in pond bottom soils

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**Abstract:** Total carbon concentration and respiration rate were greater in the upper 0.5-cm or 1.0-cm layers of pond soil than in deeper layers. The respiration rate expressed on either a dry soil weight basis or a soil carbon basis decreased with increasing soil depth. This suggests that the ratio of labile to refractory organic matter also declines with increasing soil depth. Variation in soil properties with depth should be considered in pond bottom soil sampling programs.

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