

Ecological Restoration

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Front Cover Feature: Oyster-tecture, a proposal developed for the Rising Currents exhibition at the MoMA, proposes a living and protective soft-infrastructure for Brooklyn's waterfront. A constructed armature of fuzzy rope, shell piles, and rubble supports the growth of a living oyster reef, which breaks waves during storm events and reduces on-shore impacts. As the reef grows, a new aqueous Central Park for the harbor emerges, offering new opportunities for water-based recreation and environmental stewardship. Roger Mann as well as Raymond Grizzle and Loren Coen caution that landscape design of oyster reef restoration must include science in order to be successful. Image Credit: SCAPE LANDSCAPE ARCHITECTURE PLLC.

Back Cover Feature: Managers often mulch the woody waste generated when removing the invasive shrub European buckthorn from restoration sites and amend the soil with this mulch hoping to limit buckthorn reinvasion via soil-nitrogen immobilization. A three year experiment revealed that this practice does not reduce reinvasion and actually increases soil-nitrogen availability. The mechanical disturbance of tilling mulch into the soil (not the actual mulch), however, caused large, prolonged reductions in reinvasion by killing small buckthorn individuals (< 5 cm) that were undetected during initial buckthorn removal. These findings illustrate the importance of experimentally testing the efficacy of current and proposed restoration strategies and of formulating researcher-manager collaborations aimed at improving restoration practices. Photo credit: Lauren G. Umek.