for mitigation purposes, but their water table behavior was different from the reference sites. The current success criterion for wetland forests needs to be reevaluated.

**Electrically stimulated corals in Indonesia reef restoration projects show greatly accelerated growth rates**

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Indonesian coral reefs have experienced intense degradation in the last few decades not only from anthropogenic factors e.g. destructive fishing, overfishing, coral mining, sedimentation, anchoring, and pollution, but also due to global warming that caused many Indonesian reefs to experience serious coral bleaching. In addition to the classical approach in saving the reefs through integrated/co-management, here we present alternative methods in accelerating the recovery of degraded reef through “Biorock” system. Corals of different reef building species were grown on electrically stimulated Biorock reefs at different locations in Southwest Sulawesi and Northwest Bali, Indonesia. All species of corals were found to grow significantly faster on Biorock at all sites than nearby controls. This increase ranged from 1) 4.01 times faster growth for Biorock Acroporanobilis versus controls in Bali at 4 and 6 m depth, 2) 2 to 3 times faster growth of Acroporanobilis at Biorock sites compared to controls in southwest Sulawesi at different voltages, and 3) 2 to 4 times faster growth of Acroporaformosa on Biorock than controls at another southwest Sulawesi site at depths of 5 and 9 meters. These results show clearly that coral growth rates can be greatly increased with electrical trickle currents for habitat restoration. The method shows clear utility for restoring coral reefs and fisheries habitat in degraded reef areas. Since the specific benefits differ between species, location, and charging conditions, further work is needed to optimize the method for different species.

**Ecology and restoration of Blackbrush (Coleogyne ramosissima) in the Mojave Desert**

Jones, Lisa

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Blackbrush, Coleogyneramosissima, is an emblematic shrub community dominating mid-elevations in the Mojave Desert, USA, which is currently threatened by frequent fire due to climate change and urban encroachment. I performed a complete factorial plot-scale experiment to quantify seedling emergence and survivorship as affected by the method of seed application (inside of soil/clay “seed balls” or bare), exclusion of mammalian predators (cage or no cage) and proximity to nurse plant. The experiment was repeated at three elevations. Across all elevations and treatments, germination from bare seeds was much higher than from seed balls. Emergence was overall highest at the highest elevation, where cages had strong positive effects. At lower elevations, the effect of nurse plants was stronger than the effect of cages. For survivorship, cages had predominately positive effects and proximity to a nurse plant had either no or negative effects. Seedling density under cages after one year was highest at high elevation, but without cages, density was higher at low and mid-elevation. Our results suggest that, in its zone of dominance at high elevation, blackbrush recruitment is highly suppressed by seed and seedling predation, whereas at lower elevations, germination rates are more limiting, presumably due to hotter and drier soil conditions. Effective restoration at high elevation would therefore require high rates of seed application, whereas at lower elevation it should be conducted in high rainfall years. The use of seed balls is not recommended for this species.

**Managing landscapes for natural communities: Saving birds and a whole lot more in the Central Hardwoods Region**

Jones Farrand, Todd; Jane A. Fitzgerald, Lee E. O’Brien

Central Hardwoods Joint Venture, USA

Conservation planning at landscape and eco-regional scales requires an assessment of current conditions, restoration opportunities, and future threats. To meet this need for the Central Hardwoods Bird Conservation Region, we developed a set of decision support tools that can be linked together to assess the potential for successful conservation action. We assessed current conditions by modeling habitat suitability for priority forest-associated bird species from the 2001 National Land Cover Database and concurrent data from the Forest Inventory and Analysis program. We assessed restoration potential by modeling site suitability for 11 broadly-defined natural vegetation communities based on land-type associations, landform position, and assumed historic fire regimes. Additionally, we used expert opinion to characterize the vegetative structure of each potential community type to assess their habitat suitability. Finally, we assessed future threats by modeling future land cover change from predicted changes in housing density. Comparison of the potential landscape to current conditions suggests that glade, savanna and
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