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January 24, 2017

Regenerative Seas: Implementing regenerative design to restore marine and land-based ecosystems

Regenerative Seas' mission is to conserve marine biodiversity and support the oceans' carbon sequestration potential by implementing regenerative design models for coastal communities.



Local children swimming in Indonesia. Photo: Kerri Bingham and Hergen Spalink, certified dive instructors who have led multiple education-focused diving trips in

Indonesia.

As the international climate movement becomes increasingly aware of the potential for ecological restoration to reverse climate change, collaborative projects are forming around the globe. Beyond merely building ecological consciousness, [regenerative design](#) aspires to develop an interactive, symbiotic relationship with the surrounding environment. One organization is looking to use the concepts of regenerative design to restore marine ecosystems.



A healthy coral reef in Indonesia. Photo: Kerri Bingham and Hergen Spalink

[Regenerative Seas](#) is an international network of ecologists, terrestrial designers, divers and restoration advocates; they are working collaboratively to identify regenerative design practices that can synchronously regenerate marine and land-based ecosystems. Jessica Hardy, the founder and director, created Regenerative Seas after a diving trip in ecologically-rich Indonesia. What she saw convinced her and her terrestrial designer colleagues to implement coastal and marine environments into their work. Seeing a direct connection between land and coastal restoration, Jessica and the group "simultaneously had an Aha! moment that of course land-based design could positively impact the adjoining seas."

Oceans are often overlooked or ignored in the mainstream conversation on climate change, so Hardy highlights the importance of including the oceans in the ecological restoration movement. She notes that "Since much of the ocean's degradation is a result of human interference, Regenerative Seas is considering human-based interventions." Dedicating much of 2016 and 2017 to research and development, Hardy is attending conferences and workshops around the

Events

Landscape Heroes: Carbon, Water and Biodiversity



Featured speaker:
Courtney White

Join us at the University of Massachusetts in Amherst for an in-depth, inspiring conversation on soil carbon sequestration and learn what practical steps you can take to ensure that your gardens, lawns, campuses and even golf courses can have positive impacts on the landscape and the climate. Featured speaker is carbon expert, rancher and activist, Courtney White, with his new book [Two Percent Solutions for the Planet](#).

world to assemble a diverse network that includes dive resort owners, regenerative and permaculture designers, underwater videographers and staff at related NGOs to conduct the first of many regenerative projects. We met her at our November 2016 [Restoring Oceans, Restoring Climate](#) conference at Harvard University.

Hardy and her colleagues are currently in the process of exploring possibilities for restoring the remarkably biodiverse coastal communities of Eastern Indonesia, which are under immense pressure from overfishing and profit-driven over-extraction of resources: "Eastern Indonesia is incredibly biodiverse. Because we've overfished on a global scale, people in these coastal communities realize that suddenly their food is gone. Out of desperation, they resort to using cyanide and reef bombing to meet their economic and nutritional needs. Cyanide kills the polyps of the corals, killing the fish and the habitats they live in."



A dead coral reef after bombing in Lombok Island, Indonesia. Photo: Reuters

Regenerative Seas essentially functions as the glue between dive resorts and the Indonesian government. In partnership with 7 small dive resorts, Regenerative Seas and collaborators are working to persuade the Indonesian government to designate a Marine Protected Area (MPA) in Palau Bankta - where an illegal Chinese iron ore mining operation desecrated both the land and marine ecosystem. The gold standard for an MPA is [Misool Eco Resort](#), in West Papua, Indonesia. As Hardy explains, "they've protected an area twice the size of Singapore for the last 10 years. We need to replicate what they've done globally."

More information and tickets available on the [Ecological Landscape Alliance page, here!](#)

WHEN: Tuesday, January 31, 8 am - 5 pm EST

WHERE: UMass Amherst

COST: \$79 - \$99

Conference is co-sponsored by the Ecological Landscape Alliance, Northeast Organic Farming Association (NOFA-MA, NOFA-CT and NOFA Organic Land Care), and Biodiversity for a Livable Climate.

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Through education, policy and outreach, our mission

By working with dive resorts, village heads, and the Indonesian government, Hardy is hopeful that they'll be able to restore Bankta to a thriving ecosystem that can feed the village, build a stable economy, and sequester carbon for the long term. Indonesian resort owners have been instrumental in communicating with village heads to understand the particular restoration needs of each community, a crucial step if a regeneration project is to succeed: "It's very important to recognize the needs of the communities," says Hardy. "If they are willing and ready to work on regeneration, that's the foundation you need." Hardy believes that success from a coastal restoration project in one village will provide momentum for other villages to move forward: "For future projects, you won't need a bunch of extra elements because we'll already have the support system in place. It can then be replicated anywhere."



A local youngster climbs a tree for a better view. Photo: Kerri Bingham and Hergen Spalink.

Hardy and others working to regenerate the oceans believe that oceans can play a significant role in carbon sequestration once we've protected their ability to do so. She explains, "We live on a blue planet. Broad scale solutions to climate change rely on restoring the ocean's ability to sequester carbon. This ability ... relies on the biodiversity of species. From photosynthetic zooxanthellae and planktons to nutrient-shifting pelagics, from seagrass to mangroves, each species plays a critical role in the ocean's health and its ability to continue as a carbon sink."

is to promote the power of the natural world to stabilize the climate and to restore biodiversity to ecosystems worldwide. Collaborating with organizations around the globe, we advocate for the restoration of soil, and of grassland, forest, wetland, coastal and ocean ecosystems - along with the associated carbon, water and nutrient cycles - to draw down excess atmospheric greenhouse gases, cool the biosphere, and reverse global warming, for the benefit of all people and all life on earth.

Learn more about our ongoing projects and upcoming events and find additional information and resources at bio4climate.org.

You can learn more about Regenerative Seas by visiting www.regenerativeseas.org or contact Jessica directly at jessica@regenerativeseas.com. You can also hear her speak at the 2017 Asian Dive Expo in Singapore (ADEX), which will be focused on climate change.

US Army Corps of Engineers considers "living shorelines" for enhanced erosion control



A living shoreline. Photo: NRDC

Scientists have implemented a living shoreline at Safe Harbor, an abandoned campground near Fairhope, Alabama to create a natural buffer to filter pollution, reduce erosion and restore the intertidal ecosystem.

Adding Grazing Cattle to Improve Soil Health



Photo: no-tillfarmer.com

A heartening story: Kansas farmer, John Stigge made the transition to no-till 30 years ago and the more

recent addition of grazing animals for significant soil improvement.