

# Ecological Restoration

Volume 40, Number 3



September 2022

## Editorial

Walking the Restoration Plank: Where Will You Land?

*Steven N. Handel*

163

## RESTORATION NOTES

Compost Treatment Trials for *In Situ* Control of Japanese Knotweed (*Polygonum cuspidatum*)

*Laurence Day and Susan McIntyre*

165

The Effect of Oxbow Lake Restoration on Breeding Birds in an Agricultural Landscape

*Mary Kate Shaver, Jordan C. Giese and Lisa A. Schulte*

168

Restoring, Remaking and Greening Freshwater Ecosystems—A Review of Projects in China

*Xiwei Shen, Mengting Ge, Qifan Wang, Mary Padua and Dan Chen*

172

## RESEARCH ARTICLES

*Castanea dentata* Interactions and Ectomycorrhizal Colonization in Novel Ecosystems

*Jenise M. Bauman, Jennifer Franklin and Amy Santas*

179

Comparison of the Absolute and Relative Difference Spectral Indices to Estimate Burn Severity:  
The Case of Endangered *Nothofagus alessandrii* (ruil)

*John Gajardo, Marco Yáñez, Sergio Espinoza, Marcos Carrasco-Benavides, Yony Ormazábal, Carlos Mena, Persy Gómez and Pedro Garrido*

191

Long Term Progress in Riparian Restoration with Concurrent Avian Declines  
in the Southern San Francisco Bay Area (CA)

*Iris T. Stewart, Liam Healey, Katie LaBarbera, Hongyu Li, Josh C. Scullen, Yiwei Wang and Dan Wenny*

203

## ABSTRACTS

Climate Change	218	Propagation and Introduction	221
Coastal and Marine Communities	218	Species at Risk	221
Economics and Ecosystem Services	219	Technology and Tools	221
Grasslands	219	Traditional and Local Knowledge	222
Invasive and Pest Species	219	Urban Restoration	222
Lakes, Rivers and Streams	220	Wetlands	223
Monitoring and Adaptive Management	220	Wildlife Habitat Restoration	223
Outreach	221	Woodlands	224

## MEETINGS

225



**Front Cover Feature:**

Riparian areas are a critical landscape habitat for breeding and migrant birds in arid urban regions like the San Francisco Bay Area in Central California. Stewart et al. assess restoration success for the Coyote Creek Field Station using long-term avian mist-netting data and vegetation surveys. The study offers perspective on the interactions between vegetative restoration in these locations and the seasonal avian populations that use the riparian areas. Image credit: Katie LaBarbera.

**Back Cover Features:**

Top: In Delaware County, NY, truckloads of compost are deposited on a Japanese knotweed (*Polygonum cuspidatum*) treatment area before spreading. Day et al. examined the outcome of using compost to kill the invasive plant during the summer growing season. Image credit: Larry Day.

Middle: A restored oxbow lake in Hamilton County, Iowa. Oxbow lake restorations have increased in Iowa to help agricultural areas meet nutrient runoff reduction requirements. These lakes tend to support higher biodiversity than surrounding areas. Shaver et al. documented the breeding bird diversity around one restored oxbow lake to determine which species the habitat supports. Image credit: Dylan Osterhaus.

Bottom: In 2017 a wildfire burned nearly half a million acres in the Maule Region, Mediterranean zone of central Chile, including forests of the endemic ruiil (*Nothofagus alessandrii*). Accurate information about burn severity is needed to design strategies for ecosystem recovery following fire. Gajardo et al. compared different burn indices derived from Sentinel 2 remote sensing data to assess the accuracy of each. Image credit: Pedro Garrido.