Climate-Resilient Coastal Nature-Based Infrastructure Workshop 2022

Posters

Baker, E. Nature-based restoration techniques in cold climate regions

Bowron, T. et al. Onslow-North River managed dyke realignment and tidal wetland restoration project

Lewis, S. et al. Characterizing the evolution of a restoring salt marsh landscape with low altitude aerial imagery and photogrammetric techniques

Lohnes, R. Hybrid strategies to increase lifespan of traditional methods

Manuel, P. et al. Making Room for Movement: A framework for implementing nature-based coastal adaptation in Nova Scotia

Nelson, E. and van Proosdij, D. Assessing the suitability of nature-based adaptation techniques for coastal erosion in Prince Edward Island

Ngulube, M. and van Proosdij, D. Comparing the provision of protective (wave energy dissipation, erosion prevention) and ecosystem services (habitat, primary productivity, blue carbon) of a newly constructed marsh sill to a natural marsh

Stack Mills, A. et al. Four salt marsh restoration projects in New Brunswick

Zhao, Q. et al. Modelling cultural ecosystem services in agricultural dykelands and coastal wetlands to inform climate adaptation decisions: A social media data approach

Workshop Schedule

Saint Mary's University, Halifax, Nova Scotia

June 29–30, 2022

Coastal Zone Canada Association / Association Zone Côtière Canada

TransCoastal Adaptations
Centre for Nature-Based Solutions

Saint Mary's University

National Research Council Canada / Conseil national de recherches Canada

Wednesday, June 29

McNally Theatre

7:45–8:30: Registration (Foyer, McNally Theatre)
8:30–8:50: Land acknowledgement and welcome remarks

Session Chair: Danker Kolijn
8:50–9:20: Keynote address by Jeff King — Prioritization of nature-based infrastructure to achieve multipurpose, coastal resilience
9:20–9:40: Wong, T. et al. The Living Dyke: Innovation and collaboration to manage coastal flood risk and adapt to changing conditions in Boundary Bay
9:40–10:00: Hill, P. Paleogeomorphology of Boundary Bay, British Columbia, and implications for the Living Dyke

10:00–10:20: Break

Session Chair: Danika van Proosdij
10:20–10:40: Camarena, A. Managing natural assets to increase coastal resilience
10:40–11:00: Graham, J. et al. Development and application of a decision tool for managed realignment and tidal wetland restoration for Nova Scotia's agricultural dykelands
11:00–11:20: Murphy, E. et al. Applied research to inform Canadian design guidance for nature-based coastal infrastructure
11:20–11:40: Vouk, I. et al. Numerical investigation of storm- and tide-driven flooding on the Chignecto Isthmus to assess nature-based solutions potential
11:40–12:00: van Proosdij et al. Comparison of modelled versus measured hydrodynamics at the Onslow-North River managed realignment and tidal wetland restoration site

12:00–12:50: Lunch

Session Chair: Enda Murphy
12:50–1:10: Balke, E. Beneficial re-use of dredged sediment to support ecological resilience and coastal flood protection at Sturgeon Bank
1:10–1:30: Scott, F. et al. Mid Breton sediment diversion for delta development
1:30–1:50: Henteleff, R. et al. Numerical modelling of wave-vegetation interactions validated using experimental data
1:50–2:10: Rahman, A. et al. Experimental investigation of wave and current interactions with immature *Spartina alterniflora* salt marsh canopies
2:10–2:30: Poirier, E. et al. Comparison of protection function of a natural *Spartina alterniflora* marsh versus foreshore created through managed dyke realignment in the Bay of Fundy

2:30–2:50: Break

Session Chair: Danker Kolijn
2:50–3:10: Ficzkowski, N. Living shorelines: A strategic approach to climate adaptation for Canada
3:10–3:30: Kolijn, D. et al. Establishing regional chapters: Cold Regions Living Shorelines Community of Practice

4:00–6:00: Nature-Based Infrastructure Research Expo
(McNally Theatre)
Posters and booths, with reception and cash bar

Thursday, June 30

McNally Theatre

8:45–8:50: Welcome and recap from Danika van Proosdij

Session Chair: Danika van Proosdij
8:50–9:20: Keynote address by Kees Lokman — Living with water
9:20–9:40: Kolijn, D. et al. Synopsis of North American Workshop Series on nature-based solutions to address flooding in coastal cities
9:40–10:00: Lohnes, R. Nature-based infrastructure for steep slopes in cold climates
10:00–10:20: Lundholm, J. et al. Managed realignment in two Upper Bay of Fundy dykelands: Synthesis and lessons learned

10:20–10:40: Break

Session Chair: Enda Murphy
10:40–11:00: Large, C. Living shorelines: Popularizing nature-based infrastructure on PEI
11:00–11:20: Hanley, S. et al. Perception of flood-risk as a coastal hazard, and nature-based solutions in St. Kitts and Nevis
11:20–11:40: Ellis, K. et al. Piping plovers and sand engines: New partnerships on the Acadian Peninsula
11:40–12:00: Whitfield, P. Island restoration for enhanced coastal resilience: A case study from the Chesapeake Bay, Maryland, USA

12:00–1:00: Lunch

Session Chair: Danker Kolijn
1:00–1:20: Beck, A. Lessons learned from a hybrid living shoreline project on salt marsh restoration
1:20–1:40: Walker, D. Innovative integration of natural and nature-based approaches and traditional knowledge to increase coastal resiliency of Point Hope, Alaska
1:40–2:00: Côté, M. et al. Field monitoring in support of nature-based coastal infrastructure in partnership with First Nations communities in BC
2:00–2:20: Simon, M. et al. Project Adaptation PA: A project to build awareness to coastal restoration and climate change adaptation

2:20–2:40: Break

Session Chair: Danika van Proosdij
2:40–3:00: Hunt, A. et al. Preserving History: Engineering With Nature and the National Park Service at St. Croix Island, Calais, Maine
3:00–3:20: Fenech, A. et al. Initial evaluation of coastal protection using nature's forces at eight provincial infrastructure sites on Prince Edward Island, Canada, using drones
3:20–3:40: Haché, F. and Simon, M. Sedimentary dynamics of beach and dunes to assess a coastal restoration
3:40–4:00: Simon, M. et al. Coastal erosion control by re-vegetation of the banks from native plants and eco-friendly biological substrates
4:00–4:20: Sirianni, D. et al. Physical modelling of cobble beaches for shoreline protection: Evaluation of existing design formulae

4:20–4:40: Wrap-up panel: Where do we go from here as a community? (Enda Murphy, Danker Kolijn, Danika van Proosdij, Jeff King)