

Executive Summary — Long-term Impact Assessment



COMMISSION FOR ENVIRONMENTAL COOPERATION



Between 2015 and 2019, the Commission for Environmental Cooperation (CEC) implemented two projects under its strategic pillar of Sustainable Communities and Ecosystems, included in CEC Strategic Plan 2015–2020 (CEC 2015). The project Arctic Migratory Bird Initiative (AMBI): The Americas' Flyway Action Plan (2015–2016) (CEC 2015a, 2016 and 2017) was developed in response to the need to strengthen participation and collaboration among communities in Canada, Mexico and the United States for the conservation of shorebirds, primarily the semi-palmated sandpiper (*Calidris pusilla*) and the red knot (*Calidris canutus*, subspecies *rufa* and *roselaari*), selected for having a wide migratory and reproductive distribution and as indicators for other coexisting species.

Subsequently, the project Conserving Shorebirds through Community Engagement (2017–2019) (CEC 2017a, 2018 and 2019) built upon the results and processes of the previous initiative. Its objective was to strengthen networking among communities in order to facilitate the sharing and enhancement of sustainable practices for habitat and species conservation, while also integrating ecotourism as a potential avenue for economic development in communities along migratory flyways.

Together, the two projects delivered significant results for shorebird and habitat conservation across the three countries. Upon their completion, the CEC undertook a long-term impact assessment to critically evaluate the programmatic achievements and identify opportunities for improvement. This evaluation<sup>1</sup> assesses the extent to which actions implemented through the CEC projects have contributed to the conservation of migratory shorebirds at key stopover sites along the Atlantic and Pacific flyways.

1. The full version of the report is available in English upon request to Jose Casis - <jacasis@cec.org>.

## ASSESSMENT METHODOLOGY

This assessment focuses on five key dimensions of the two completed projects:

- 1. The implementation of conservation actions and the extent to which they successfully met their objectives.
- 2. The generation and integration of new data supporting shorebird conservation measures.
- 3. The exchange of information among sites connected along the Atlantic and Pacific migratory flyways.
- 4. The identification, sharing, and implementation of community-based outreach activities, research projects, and ecotourism development efforts across sites.
- 5. The extent to which a broader and more diverse group of community members is now actively engaged in the conservation of shorebird habitats.

The evaluation was carried out between October 2024 and January 2025, using two primary sources of information: a documentary review of project planning documents, progress reports, performance assessments, and technical reports; and perceptions gathered from ten semi-structured interviews and five online surveys, conducted with key participants.

#### Key Lessons Learned

- Community engagement is key to conservation success.
- Knowledge exchange enriches both individuals and institutions.
- Informal networks foster lasting conservation impact.
- Integration and expansion of shorebird sites yield strong results.





# MAIN FINDINGS

### Implementation of conservation actions and achievements

The strategies, implementation dynamics, and outcomes of both projects proved highly effective in meeting their respective objectives. The initiatives significantly advanced shorebird conservation efforts—particularly for *Calidris pusilla* and *Calidris canutus* (subspecies *rufa* and *roselaari*)—through the generation of critical data, active community engagement across the three North American countries, and the creation of networks for knowledge exchange. These efforts also facilitated the integration of best practices in environmental communication and outreach, while promoting the role of biodiversity in sustainable development.

Key unifying achievements of both projects included the formal recognition of sites and conservation actions within the Western Hemisphere Shorebird Reserve Network (WHSRN), the establishment of migratory flyway-based information exchange networks, and increased community participation in communication, research, and ecotourism initiatives.

#### Shorebirds conservation measures nourished with new data

As a direct outcome of the projects, new information and data were collected and applied to shorebird conservation. Notably, updated population estimates—both local and biogeographic—for the semi-palmated sandpiper (*Calidris pusilla*) and the red knot (*Calidris canutus, rufa* and *roselaari* subspecies) were recorded at newly designated and expanded WHSRN sites.

In addition, new data informed local habitat conservation efforts, leading to improved management practices aimed at reducing disturbances in shorebird roosting areas. The integration of species distribution models under climate change scenarios also helped stimulate new research initiatives focused on long-term conservation planning.

# Shared information among sites along the Atlantic and Pacific flyways

The evaluation confirmed that the projects successfully promoted and established multiple modes of information exchange among site managers along both the Pacific and Atlantic migratory flyways.

According to the key actor interviewed, the most significant outcomes include:

- the creation of two informal collaborative networks connecting key shorebird conservation sites—one for each flyway;
- the development of a dedicated website offering information and management tools;
- in-person exchanges conducted across various sites;
- joint learning experiences focused on habitat conservation and bird monitoring; and



• the documentation of best practices and other practical knowledge for sharing across communities, including a shorebird conservation planning guide and a bird-related tourism training series.

### Identified, shared, and implemented resources through site collaboration

Environmental communication and outreach activities related to shorebird conservation were documented across several communities along the Pacific and Atlantic flyways. These efforts demonstrated strong collaboration through network exchanges, with migratory bird festivals standing out as key events that raised awareness of conservation and the significance of protecting local landscapes with regional and hemispheric relevance.

The projects also contributed to positioning specialized ecotourism opportunities—particularly bird-related tourism—within broader conservation networks. Participating communities shared valuable lessons learned in this area, highlighting the potential of ecotourism as a complementary conservation strategy.

In addition, a variety of local research initiatives was documented, notably some focused on bird monitoring. Collaboration with local universities played a critical role in ensuring continuity of data collection efforts. The evaluation also identified emerging research themes related to shorebirds and their migratory patterns along the Atlantic flyway toward the Southern Hemisphere. Many of these initiatives are ongoing and have led to the formation of new collaborative alliances.



# Engagement of community members in shorebird habitat conservation

The local conservation efforts initiated by the projects demonstrated a strong multiplier effect, expanding engagement across various sectors of society—including local residents, visitors, and community organizations. Community participation was notably diverse, encompassing activities such as organizing and attending festivals, conducting environmental education and outreach, implementing site protection measures, developing local conservation strategies through civil-society organizations, and fostering collaboration between Indigenous and non-Indigenous communities.

Today, community-based conservation actions continue to thrive in the landscapes and habitats influenced by the CEC shorebird conservation projects, reflecting the lasting impact of these initiatives.

# LESSONS LEARNED

Strengthening community participation proved highly successful, significantly contributing to environmental education, training, ecotourism promotion, and community empowerment. This engagement enabled local key actor to acquire the tools needed to actively participate in and support the protection of critical habitats shared with migratory species.

The emphasis on knowledge exchange was a major success, valued not only at the institutional level but also personally by participants. This facilitated improved capacity, stronger collaboration, and the dissemination of effective practices across the trinational project.

The development and use of informal conservation networks were highly appreciated. These networks enabled continued knowledge sharing, while allowing each site to adapt lessons to its own unique context and dynamics.



The successful integration of new sites into the Western Hemisphere Shorebird Reserve Network (WHSRN) and the expansion of existing sites were widely recognized. These actions enhanced site protection and, in some cases, led to additional forms of habitat conservation.



# RECOMMENDATIONS

## Support new trinational initiatives with a landscape-level vision

Future cooperation projects should align with ongoing shorebird conservation initiatives while maintaining a broad, integrated approach. Continued investment in local communities is essential to ensuring success in conservation, environmental education, habitat restoration, and sustainable ecotourism.

## Enhance collaboration with research institutions

Building stronger links with research centers and universities is vital for incorporating critical data—such as on climate change scenarios, shifts in species distribution, and changes in migratory patterns—into conservation planning.

## Improve knowledge management across North America

Given the extensive information generated by multiple initiatives, there is a pressing need to strengthen knowledge management systems. This will support better-informed decision-making, promote strategic partnerships, and help avoid duplication of efforts.

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