

2.2.5 Closing the Pathways of Aquatic Invasive Species across North America

Project Summary

This project seeks to protect North America's marine and aquatic ecosystems from the effects of aquatic invasive species. The initiative will assist the development of a North American approach to prevention and control aimed at eliminating pathways for the introduction of invasive species among the coastal and fresh waters of Canada, Mexico and the United States.

Goals and Objectives

The goal of this project is to establish a common perspective on prevention and control of aquatic invasive species in North America, targeting trade-related pathways, and consequently steward the implementation of priorities for trilateral and multi-sectoral collaboration. Specific objectives include:

- identify aquatic invasive species and pathways of invasion that concern two or more countries and steward cooperative plans of action to address those priority species and pathways;
- develop a North American Aquatic Invasive Species' Information Network;
- create a regional directory of legal and institutional frameworks relevant to the prevention and control of aquatic invasive species;
- develop and distribute tools for raising awareness on the issue of invasives and empower policy makers; and
- identify tools to provide economic incentives to industries and other private stakeholders that voluntarily take actions to prevent the introduction and minimize the spread of aquatic invasive species.

Expected Results

- Increased collaboration between database holders on aquatic invasive species
- Common standards and protocols on information sharing and monitoring of aquatic invasive species of common concern (AISCC)
- Distributed database of identified AISCC within the Mexican Information System on Aquatic Invasive Species
- Detailed assessment of high priority⁴ pathways for invasions in North America
- First collaborative action plan to prevent introduction of aquatic invasive species based on identified priorities
- A common North American perspective to risk assessment for intentional and accidental introduction of aquatic invasive species

Rationale

The impacts of invasive species can be severe, devastating healthy ecosystems and undermining the local economies they support. Once established, invasive species can displace important native species, drive rare species to extinction, decimate the biodiversity and trophic structure of coastal ecosystems, compromise the ecological integrity of marine protected areas, destroy commercial and recreational fisheries, and impede traditional cultural uses of coastal resources. The societal costs of biological invasions can be staggering.

The recent increase in trade and migration within North America, and other human activities such as potential water engineering/diversion projects raises the risk of expanded transboundary introductions of alien species among the neighboring NAFTA countries of Canada, Mexico and the United States. Consequently, this project is specifically designed to focus on transboundary pathways within North America. A single localized invasion in one country actually represents a significant international threat across North America, as do pathways that routinely move alien species from one country to another. Invasive species require comprehensive and sustained international collaborations. A trilateral approach to the prevention and control of invasive species could enable all three countries to make the issue a significant priority, develop mutually supportive legal and policy frameworks, share information and technical capacity, and use limited resources more efficiently.

⁴ "Pathways" are the means and routes by which invasive species are introduced. From the actual and potential pathways identified during 2002, a subset of high priority pathways will be chosen, based on the level of continental threat, opportunities for cooperation and the potential for ecological and economic impact.

The most cost-effective approach to combating invasive species is to keep them from becoming established. Diverse tools, methods, and bi- and trilateral arrangements are needed to prevent invasive species from becoming established in North America. As an intergovernmental organization, the CEC is ideally positioned to foster a trilateral, risk-based approach—one that considers the likelihood of establishing new invasive species, their potential spread, as well as the degree of harm they could cause. The CEC's work on invasive species will be complementary to, and build upon, work underway in all three Parties, as well as through other international organizations.

Progress to Date

On 28–30 March 2001, in Montreal, Quebec, the CEC convened the first North American workshop to identify cooperative opportunities for preventing the introduction and spread of aquatic invasive species in North America. This workshop primarily addressed trade-related pathways such as ballast water, aquaculture, the pet industry and live bait.

The proceedings and recommendations for continental collaboration have been electronically published on http://www.cec.org/programs_projects/conserv_biodiv/project/index.cfm?projectID=20&varlan=english.

Work is underway (2002) to identify aquatic invasive species and pathways of common continental concern as follow-through on recommendations identified at the Montreal meeting. Following a similar methodology used to identify the Marine Species of Common Conservation Concern, criteria will be chosen to identify these aquatic species and pathways. Once these are identified, a report will be developed describing the threat and invasiveness of each species, major pathways of introduction as well as priorities for collaborative efforts. This document will subsequently be brought together with both the terrestrial and marine species of common conservation concern reports.

Actions

Overview

During 2003–2004, the CEC will assess high priority pathways, including sites of origin, destination and means of transportation for AISCC. The results of this assessment will facilitate the development of collaborative action plans for the prevention and control of AISCC. In support to the implementation of the action plan, emphasis will be given to information exchange, analysis, networking and capacity building.

2003	Estimated Resources Required (C\$)
Action 1: Strengthen the state of knowledge on pathways and species of common continental concern and develop the regional capacity to share and analyze information on species and pathways	90,000
<ul style="list-style-type: none"> • Activity 1: Strengthen existing North American efforts on bio-informatics and information exchange, focusing on monitoring of aquatic invasive species of common concern <ul style="list-style-type: none"> - Through a meeting with major database holders, foster agreements and support the development of compatible information standards and protocols for AISCC - Continue to support the Mexican Information System on Aquatic Invasive Species through the development of a distributed database on the identified AISCC 	40,000

<ul style="list-style-type: none"> • Activity 2: Assessment of a high priority⁵ pathway, including origin, destinations and means of transportation <ul style="list-style-type: none"> - Assessment of ecological conditions and biology of those AISCC associated with the pathway - Assessment of means of dispersal, actual frequency and volume, as well as current trends - Identification of actual and potential destinations of invasions; assessment of response capabilities (readiness) and vulnerability; development of needs analysis 	50,000
Total Resources Required	90,000

2004

Action 1: Facilitate the development of bi- or trilateral action plans to prevent further introduction of aquatic invasive species of common concern (AISCC)	
<ul style="list-style-type: none"> • Activity 1: Foster the development and implementation of the first collaborative action (species, pathway or theme to be determined by “ad hoc” task group) plan based on the identified aquatic invasive species and pathways of common concern <ul style="list-style-type: none"> - Assessment of existing legal tools appropriate to the nature of the action plan - Establishment of ad hoc task group to develop a joint action plan - Identify priorities for capacity building 	
<ul style="list-style-type: none"> • Activity 2: Edit, translate and publish the assessment of the priority pathway selected 	
Action 2: Develop a common North American approach to risk assessment for intentional and accidental introduction of aquatic invasive species	

Public Participation

The public has and will have opportunities to participate in all aspects of the Aquatic Invasive Species project, from planning and attending the workshop, to implementation (via community-based conservation efforts), to dissemination of the results (via web-based tools).

Capacity Building

During this year, the CEC will identify capacity building needs related to specific pathways and destinations that are of common North American concern. Some of the resulting recommendations from this analysis will serve to guide future cooperative actions. The CEC will continue its work to raise the capacity of its country members to gather, systematize and analyze information on aquatic invasive species, by addressing two key priorities, information exchange and increased capability to prevent and control aquatic invasive species.

Expected Partners and/or Participants

The Aquatic Invasive Species project will involve environmental government agencies—in particular, Conabio, DFO, CWS, USFWS and NOAA, as well as academics and the public in all three countries. The project complements multiple ongoing projects of the Global Invasive Species Program (GISP), the Aquatic Nuisance Species Task Force and its member agencies within the United States, and the International Joint Commission (IJC).

⁵ Ibid

Linkages to other CEC Projects

- North American Biodiversity Information Network and, in particular, NABIN's collaborative initiative with the Inter-American Biodiversity Information Network (IABIN) on invasive species;
- The economic assessment of high priority pathways will be done in collaboration with the Environment, Economy and Trade program, and
- The assessment of existing legal tools, institutions and policies will be carried out with the Law and Policy program.