

<b>Project 13</b>	<b>Conserving the Monarch Butterfly and Promoting Sustainable Livelihoods</b>	<b>Responsible Project Manager at the CEC Secretariat</b>	Hans Herrmann
<b>Planned Allocation</b>	2008: C\$120,000 Completion of 2007 outputs (information products submitted for QAPP review prior to 31 December 2007): C\$10,000 Total: C\$130,000	<b>Working Group(s) associated with this work</b>	Biodiversity Conservation Working Group (BCWG)

### Objective of Project

The purpose of this project is to support and facilitate the development and implementation of the North American Monarch Conservation Plan (NAMCP). This initiative aims to maintain healthy monarch populations and habitats throughout the migration flyway, supported by a trilateral monarch butterfly sister-protected-area network and the participation of local communities.

### Background

The monarch butterfly (*Danaus plexippus*), with its wide geographic migratory range, is emblematic of the interdependence of our linked ecosystems. Today, the migration phenomenon of the monarch butterfly is threatened by destruction, degradation, and fragmentation of breeding and migration habitat in Canada, the United States, and Mexico due to land conversion, herbicides, pesticides, and exotic plant invasion, and to deforestation of wintering habitat in Mexico. There is an urgent need for additional ecological and socio-economic information to better protect the monarch butterfly and its habitats, while supporting local socio-economic development.

In Mexico, since 2003, the *Foro Regional Mariposa Monarca* is an all-inclusive forum comprising local communities and conservation groups, the states of Michoacán and México, and federal government agencies, academia, nongovernmental organizations and, most importantly, the participation of local people in the Mexican overwintering region. This Mexican initiative is aimed at supporting conservation efforts, with emphasis upon those oriented towards stopping habitat deterioration and the promotion of sustainable livelihoods.

On the continental scale, the multi-stakeholder collaborative effort to develop the North American Monarch Conservation Plan was initiated in December 2006 at the Monarch Flyway Conservation Workshop in Mission, Texas, and further developed at the March 2007 *Foro Regional Mariposa Monarca* in Morelia, Mexico. This initiative—endorsed by the Trilateral Committee for Wildlife and Ecosystem Conservation and Management in 2007—is focused on conservation of the monarch butterfly and its migratory phenomenon throughout the trinational flyway.

Milestones of CEC engagement:

- In 1996, the three environment ministers announced the creation of the Monarch Butterfly Conservation Program. The program was aimed at supporting activities such as the monitoring of monarchs along their migratory routes, the assessment of the dynamics of the population, and the identification of key monarch butterfly sites.
- In 1997, a workshop of scientists, citizen conservation groups and nongovernmental organizations was held in Morelia to share information and to discuss alternatives for the conservation of the monarchs and of their unique migratory phenomenon.<sup>1</sup>
- In May 2007, the BCWG analyzed Mexico's proposal to develop a trinational initiative to support existing collaborative multi-stakeholder initiatives to conserve the monarch butterfly.
- In June 2007, CEC Council Resolution (07-09) instructed the Secretariat to initiate collaborative actions to conserve the monarch butterfly while promoting sustainable livelihoods.

<sup>1</sup> See <[http://www.cec.org/pubs\\_docs/documents/index.cfm?varlan=English&ID=973](http://www.cec.org/pubs_docs/documents/index.cfm?varlan=English&ID=973)>.

- In July 2007, a trinational Monarch Butterfly Task Force was established to guide the implementation of Council Resolution 07-09.
- In 2007, the Secretariat coordinated meetings to facilitate development and implementation of a draft NAMCP. The NAMCP identifies trinational conservation priority actions and targets.

## Rationale

Throughout North America, many organizations and a myriad initiatives focus attention on monarch butterfly research, conservation, and education. However, there is ample recognition of the need for an integrated, continental strategy to protect and maintain the monarch's flyway, while dealing with the underlying causes of habitat deterioration. This is why the CEC Council mandated the Secretariat to carry out this initiative in close collaboration with *Foro Regional Mariposa Monarca*. The CEC will act as a catalyst and a regional forum for sustained strategic action that will complement existing North American initiatives, and the efforts of the Mexican government and other stakeholders to protect the species and the flyway.

More generally, this project is linked to the fulfillment of the 2005–2010 Strategic Plan through:

- Supporting coordination among local, national and international agencies and NGOs involved in the conservation of monarch butterfly habitat and its migratory phenomenon;
- Filling information gaps in the understanding of North American decision-makers of the underlying pressures on the monarch and its habitat throughout the entire flyway, and of the means to address them;
- Training and developing capacities at local and regional levels to assess the status of the monarch population, its habitat, and the environmental stressors, based upon long-term trinational monitoring and assessment protocols; and
- Promoting sustainable economic activities that will reduce pressure on key monarch habitat.

## Activities and Outputs

Based on the priority actions identified in the North American Monarch Conservation Plan (NAMCP<sup>2</sup>), key activities include the following:

- Publishing and facilitating implementation of the NAMCP (publication in spring 2008).
- Developing of a socio-economic study to assess the underlying pressures on the monarch habitats throughout the flyway, and the means to address them. The scope of the socio-economic study will be defined based on results of the December 2007 NAMCP workshop.
- Supporting the exchange of information among network sister sites on matters such as: the monarch population health and status in the breeding, wintering and migrating stages; the condition of habitats throughout the flyway; and key socio-economic stressors.
- Promoting the implementation of capacity-building activities at local, national and regional levels, such as: training for “campesino-to-campesino” projects, North American Web-based school-to-school monitoring/reporting initiatives, and community training on sustainable practices.
- Training workshop to develop capacity of resource agency staff and citizen scientists in north and central Mexico to implement trinational monitoring protocols and increase public outreach.
- Promoting collaboration to improve and support regional enforcement.

Target groups this project tries to influence: local extractive and agricultural industry, local communities, local and state authorities, and Profepa.

Key partners that will participate in the implementation of this project include:

- Government agencies: *Comisión Nacional de Áreas Naturales Protegidas* (Conanp), FWS and CWS;
- local and state authorities;

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<sup>2</sup> As instructed by Council's Resolution 07-09, the Secretariat coordinated stakeholder and experts meetings in December 2007 to facilitate the development of the North American Monarch Conservation Plan in the fall of 2007.

A wide array of experts, government agencies, NGOs and local and federal authorities participated in its development.

- *Reserva de la Biosfera Mariposa Monarca*;
- Trilateral Committee for Wildlife and Ecosystem Conservation and Management;
- *Foro Regional Mariposa Monarca*;
- WWF-Mexico, and local conservation groups; and
- Local communities, scientists, schools and citizen conservation groups in all three countries.

### **Associated Outputs/Products**

- Publication of the North American Monarch Conservation Plan, (spring 2008).
- A socio-economic study to assess the underlying trade-related pressures on the monarch and its habitat and means to address them.
- Workshop pertaining to the implementation of the monitoring network in monarch sister sites.
- Training workshop on enforcement technology and intelligence.
- Training workshop on alternative sustainable economic activities.

### **Anticipated Outcomes and Performance Indicators**

#### *Direct Outcomes:*

- Increased knowledge of the socio-economic drivers and economic opportunities for the region.
- Improved understanding of underlying pressures on the overwintering habitat throughout the flyway and means to address them.
- Improved trilateral collaboration on the assessment and continuous monitoring of the species, its habitat, and its stressors, throughout the flyway.
- Increased participation of local communities on monitoring activities.
- Improved enforcement intelligence and use of appropriate technologies to support regional monitoring.

#### *Intermediate Outcomes:*

- Implementation of a monitoring network based on monarch sister sites.

- Reduced losses of monarch migration, breeding, and overwintering habitat.
- Implementation and adoption of strategies to address trade-related pressures by relevant stakeholders
- Increased awareness of the benefits of sustainable economic activities by the local communities
- Adoption of effective strategies and programs to eliminate monarch habitat destruction

#### *Final Outcomes:*

- Healthy monarch populations and habitats throughout the North American migration flyway supported by a network of monarch sister sites (Protected Areas, private landowners, ejidos) and prosperous local communities
- A long-term and sustained cooperative effort for continental monarch butterfly conservation.

#### *Performance Indicators:*

- Publication of the NAMCP
- Completion of the socio-economic study to assess the underlying trade-related pressures on the monarch and its habitat, and the means to address them.
- Number of monarch sites in North America adopting the NAMCP to guide their conservation actions.
- Adoption of a North American monitoring framework and “toolkit” by monarch sister sites, NGOs, citizen conservation groups and local communities.
- Increased effectiveness on enforcement activities, as reported by *Procuraduría Federal de Protección al Ambiente* (Profepa).
- Number of “landowners” in pilot communities participating in sustainable projects.

### **Timetable and Project Sustainability**

This monarch project calls for two time frames for the actions—short (one year) and medium (three to five years)—and recommends a cohesive trilateral approach as more effective than individual efforts by the three NAFTA countries.

## **Communications**

The main target audiences of this project are: local authorities, local communities, scientists, citizen conservation groups, and the general public.

It is intended that the CEC will reach these audiences by means of the publication of the North American Monarch Conservation Plan, both online and in hard copy.

## Implementation Plan

PROJECT 13 – Conserving the monarch butterfly and promoting sustainable livelihoods						
Objective – Implementation of the North American Monarch Conservation Plan, with the aim of maintaining healthy monarch populations and habitats throughout the migration flyway while promoting sustainable livelihoods						
2008 Tasks	Key Outputs	Timing	Expected Outcomes	Beneficiaries (Reach)	Budget (C\$)	Future Activities
1. Publication of the North American Monarch Conservation Plan	North American Monarch Conservation Plan	May 2008	A blueprint to catalyze trinational actions to conserve the monarch, stop degradation of its habitat, and promote sustainable livelihoods	The main target audiences of this project are: local authorities, local communities, citizen conservation groups, and the general public	\$15,000	T.b.c., as per the North American Monarch Conservation Plan
	Quality Assurance Summary <i>Report:</i> North American Monarch Conservation Plan (NAMCP)	Internal review: January 2008 Peer review: January 2008 Party review–Quality assurance: February 2008 Publication: May 2008				
2. Development of socio-economic assessment of the underlying pressures on the monarch and its habitat, and the means to address them	Publication: Scoping and analysis of social and economic drivers at play, in order to foster sustainable activities in the region	Mar–Oct	Improved understanding of underlying pressures on the monarch habitat, and the means to address them	The main target audiences of this project are: local authorities, decision-makers, scientists, and citizen conservation groups	\$25,000	T.b.c., as per the North American Monarch Conservation Plan
	Quality Assurance Summary <i>Report:</i> Socio-economic assessment of the underlying trade-related pressures on	Internal review: June 2008 Peer review: June 2008 Party review–Quality assurance: July 2008 Publication: October 2008				

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<b>2008 Tasks</b>	<b>Key Outputs</b>	<b>Timing</b>	<b>Expected Outcomes</b>	<b>Beneficiaries (Reach)</b>	<b>Budget (C\$)</b>	<b>Future Activities</b>
	the Monarch and its habitat and means to address them					
3. Trinational training workshop to develop capacity of resource agency staff and citizen scientists to implement trinational monitoring protocols and increase public outreach. To be hosted in north and central Mexico	Exchange of information for decision-making between scientists and managers on matters such as the monarch population health and status in the breeding, wintering and migrating stages; the condition of habitats throughout the flyway; and key socio-economic stressors  Development of a cadre of citizen scientists conducting monitoring in the flyways in Mexico	Feb–Oct	Improved trinational collaboration through the sharing of information and the monitoring of the monarch population health and status in the breeding, wintering and migrating stages; the condition of habitats throughout the flyway; and key socio-economic stressors	The appropriate government agencies, and experts/scientists of the three NAFTA countries; local conservation groups, citizen scientists, and local communities	\$35,000	T.b.c., as per the North American Monarch Conservation Plan
4. Training workshop, with “campesino-to-campesino” approach on alternative sustainable economic activities, as	Local “landowners” from pilot communities trained on the use of sustainable practices	Jun–Dec	Increased number of “land owners” from pilot communities participating in sustainable practices	Local authorities, local communities, conservation groups	\$20,000	T.b.c., as per the North American Monarch Conservation Plan

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<b>2008 Tasks</b>	<b>Key Outputs</b>	<b>Timing</b>	<b>Expected Outcomes</b>	<b>Beneficiaries (Reach)</b>	<b>Budget (C\$)</b>	<b>Future Activities</b>
identified in the NAMCP						
5. Training workshop on effective enforcement	Enforcement officials, park managers, and citizen monitoring groups trained on the use of enforcement technologies	Sep–Oct	Improved cooperation on enforcement and use of technologies to support regional monitoring  Increased participation of local communities in surveillance and monitoring	The main target audiences of this project are: local authorities, Profepa and citizen monitoring groups.	\$25,000	T.b.c., as per the North American Monarch Conservation Plan
<b>Total Cost:</b>	<b>\$120,000</b>					
<b>Completion of 2007 outputs</b> (publishing, translation, editing and layout of documents/information products submitted for QAPP review prior to 31 December 2007): <b>\$10,000</b> <ul style="list-style-type: none"> <li>North American Monarch Conservation Action Plan (related to 2007 activities under Council Resolution 07-09)</li> </ul>						

<p><b>Performance Measurement Indicators:</b></p> <ul style="list-style-type: none"> <li>▪ Publication of the monarch NAMCP</li> <li>▪ Completion of the socio-economic study to assess the underlying trade-related pressures on the monarch and its habitat, and the means to address them</li> <li>▪ Number of monarch sites in North America adopting the NAMCP to guide their conservation actions</li> <li>▪ Adoption of a North American monitoring framework and “toolkit” by monarch sister sites, NGOs, citizen conservation groups, and local communities</li> <li>▪ Increased effectiveness on enforcement activities as reported by Profepa</li> <li>▪ Number of “landowners” in pilot communities participating in sustainable projects</li> </ul>	<p><b>Key Partners:</b></p> <p>Government agencies: Conanp, FWS and CWS; local and state authorities</p> <p><i>Reserva de la Biosfera Mariposa Monarca</i></p> <p>Trilateral Committee</p> <p><i>Foro Regional Mariposa Monarca</i></p> <p>WWF-Mexico, and local conservation groups</p> <p>Local communities, scientists, schools and citizen groups</p>
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