



A PROGRAM OF
LA CRUZ HABITAT PROTECTION PROJECT

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Project Update with Monitoring Results for LCHPP and MHAIA Partnership

Prepared September 20, 2024

2024 Data & Project Information

La Cruz Habitat Protection Project (dba: Forests for Monarchs) has planted 1,600,000 trees as part of the MHAIA partnership. 200,000 trees were planted during the 2024 planting season (June-September). The trees planted include **1,134,000** *Pinus pseudostrobus* (“Pseudostrobus Pine” or “Smooth-Bark Mexican Pine”), **70,000** *Pinus Leiophylla* (“Chihuahua Pine” or “Smooth-leaf Pine”), **138,850** *Pinus Greggii* (“Gregg’s” Pine), **1,900** *Cupressus Lindleyi* (“Cedro Blanco” or “White Cedar”), **26,750** *Oyamel fir* (“Abies religiosa”), **15,000** *Lawson Cypress Trees*, **7,000** *Pinus montezumae* (“Montezuma Pine” or “Rough-branched Pine”), **5,000** *Pinus Ayachuite* (“Mexican White Pine), and **3,750** *Pinus Michoacana* (“*Pinus devoniana*”).

The 2017-2023 trees were planted in the following project areas and communities:

Monarch Butterfly Overwintering Area:

| | |
|---|---------|
| Comunidad Indígena San Cristobal | 78,000 |
| Ejido Ocampo | 21,000 |
| Ejido El Paso | 6,000 |
| Comunidad Indígena Cerro Cacique, Zitácuaro | 23,500 |
| Comunidad Indígena Carpinteros, Zitácuaro | 27,000 |
| Comunidad Indígena Zirahuato, Zitácuaro | 12,000 |
| Comunidad Indígena Senguio | 92,700 |
| Ejido Asoleadero, Ocampo | 19,000 |
| Ejido El Rosario | 1,300 |
| Comunidad Indígena Laguna Verde | 108,350 |
| Hervidero y Plancha, Ocampo | 49,150 |
| Comunidad Indígena Turicato | 5,000 |
| Ejido San Jose de Gracia | 5,000 |
| Comunidad Indígena San Juan, Zitácuaro | 30,000 |
| Municipio de Aporo | 119,000 |
| Ejido Zicata de Morelos, Benito Juarez | 10,000 |
| Ejido Jesus del Monte, Palomas, Maravatio | 25,000 |
| Ejido San Francisco Epunguio, Irimbo | 20,000 |
| Ejido Hacienda de Soto, Rancho el Sapote, Senguio | 10,000 |
| Ejido Clicerio Villafuente el Grande, Maravatío | 2,000 |



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| Ejido Chincua, Senguio | 30,000 |
| Ejido San Nicolas Tarimoro, Senguio | 20,000 |
| Comunidad Indígena San Felipe de los Alzati, Zitacuaro | 58,250 |
| Ejido San Miguel el Alto, Maravatío | 2,000 |
| Ejido Santiago Puriatzicuaro, Maravatío | 1,000 |
| | |
| Total: | 775,250 |

Highland Lakes Area (Lakes Pátzcuaro and Zirahuén watersheds):

| | |
|---|--------|
| Comunidad Chapa | 9,000 |
| Ejido Casas Blancas | 31,000 |
| Cerro Jicalan Uruapan | 27,000 |
| Ejido Tzurumutaro, Pátzcuaro | 1,000 |
| Cerro Blanco, Pátzcuaro | 10,000 |
| Comunidad Capacuaro | 2,000 |
| Campamento Zirahuen | 1,000 |
| Cerro del Aguila Quinceo | 10,000 |
| Ejido Tzintziro Erogaricuaro | 4,000 |
| Ejido de San Isidro | 14,600 |
| Comunidad Indígena Paracho | 11,000 |
| Comunidad Indígena Ihuatzio, Tzinzuntzan | 5,000 |
| Comunidad Indígena Puacuaro, Erongaricuaro | 20,000 |
| Comunidad Indígena San Andres Tzironiro | 27,000 |
| Comunidad Indígena Fontezuelas, Lagunillas | 1,000 |
| Pedernales Tacámbaro | 22,000 |
| Comunidad de Santa Cruz Tanaco | 38,400 |
| Comunidad Indígena de Turicuaro | 70,000 |
| Ejido Zirahuen | 41,200 |
| Municipio de Zinapécuaro | 15,000 |
| El Carmon Salvador Escalante, Michoacán | 3,000 |
| Sevina Municipio de Nahuatzen | 82,000 |
| La Cruz Salvador Escalante, Michoacán | 20,000 |
| La Española Salvador Escalante, Michoacán | 3,000 |
| Comunidad Indígena de Capacuaro, Uruapan | 15,000 |
| Narcisco Mendoza Primary School, Salvador Escalante | 1,000 |
| Zinapécuaro | 3,000 |
| Ejido Auga Verde | 2,500 |
| Comunidad Indígena Huecorio | 23,000 |



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| Ario de Rosales | 30,000 |
| Ejido Hervidero y Plancha | 6,300 |
| Municipio de Pátzcuaro | 40,000 |
| Ejido de Santa Cruz, Zinapecuaro | 1,000 |
| Ejido Turirán, Municipio de Salvador Escalante | 10,000 |
| Morelia, Michoacán | 2,000 |
| Comunidad Indígena San Felipe Tzintzun, Salvador Escalante | 12,000 |
| Ejido Ixtaro, Mesa Alta, Salvado Escalante | 1,000 |
| Ejido Turiran, Salvador Escalante | 14,600 |
| Comunidad Indígena Turicuaro, Nahuatzen, Michoacán | 38,400 |
| Total: | 627,000 |

**As of this report, the 2024 tree site data is not ready. An additional 200,000 trees were planted in the Monarch Butterfly Overwintering Area bringing the total to 1,600,000 trees.*

Monitoring Results Monarch Area 2023 Trees:

In 2023, 12 communities received 202,250 trees. Four of these communities broke their trees up into multiple sites. 15 sites were monitored. Monitoring results for these sites are summarized below:

| Community | Project Area | Reforestation Project Type* | Number of Trees Monitored | Number of Hectares Monitored | Survival Rate (Percentage) |
|---|----------------------------|-----------------------------|---------------------------|------------------------------|----------------------------|
| Arroyo Seco, Aporo (1)** | Monarch Overwintering Area | Farmland Conversion | 8,000 | 7 | 80% |
| Arroyo Seco, Aporo (2) ** | Monarch Overwintering Area | Forest Restoration | 8,000 | 8.5 | 70% |
| Ejido Clicerio Villafuente el Grande, Maravatio** | Monarch Overwintering Area | Farmland Conversion | 2,000 | 2 | 90% |
| Ejido Chincua, Senguio | Monarch Overwintering Area | Forest Restoration | 12,000 | 13 | 95% |
| La Peña, Aporo (1)** | Monarch Overwintering Area | Forest Restoration | 5,000 | 12 | 90% |



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|--|----------------------------|---------------------|--------------|----------------|-----|
| La Peña, Aporo (2)** | Monarch Overwintering Area | Forest Restoration | 3,000 | 3 | 75% |
| La Peña, Aporo (3)** | Monarch Overwintering Area | Forest Restoration | 7,000 | 7 | 85% |
| La Peña, Aporo (4)** | Monarch Overwintering Area | Farmland Conversion | 2,000 | 2 | 85% |
| El Oyamel, Aporo** | Monarch Overwintering Area | Forest Restoration | 4,000 | 4 | 70% |
| Comunidad Indígena San Felipe de los Alzati, Zitacuaro (1)** | Monarch Overwintering Area | Forest Restoration | 3,000 | 5 | 95% |
| Comunidad Indígena San Felipe de los Alzati, Zitacuaro (2)** | Monarch Overwintering Area | Forest Restoration | 3,000 | 3 | 90% |
| Comunidad Indígena San Felipe de los Alzati, Zitacuaro (3)** | Monarch Overwintering Area | Forest Restoration | 2,000 | 2 | 90% |
| Comunidad Indígena San Felipe de los Alzati, Zitacuaro (4)** | Monarch Overwintering Area | Forest Restoration | 10,000 | 10 | 90% |
| Comunidad Indígena San Felipe de los Alzati, Zitacuaro (5) | Monarch Overwintering Area | Farmland Conversion | 20,000 | 20 | 95% |
| Ejido San Miguel el Alto, Maravatío** | Monarch Overwintering Area | Farmland Conversion | 2,000 | 2 | 50% |
| | | TOTAL: | 91,000 trees | 100.5 hectares | 87% |



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- * **Farmland Conversion:** trees planted to convert agricultural land back to forestland;
- Forest Restoration:** trees planted to restore degraded or thinned forestland.
- ** **Planting site is on privately owned land**

State of the Monarch Butterfly:

The International Union for Conservation of Nature (IUCN) reversed its July 2022 decision regarding the classification of the monarch butterfly. The monarch butterfly has been reclassified from "endangered" to "vulnerable." However, this classification might change again to "near threatened" pending the results of an upcoming census.

The change in the monarch butterfly's status came about due to the challenge posed by researcher Andrew Davis from the University of Georgia. Davis questioned the population models used by the IUCN, shedding new light on the monarch butterfly's conservation status.

Monarch butterflies have faced a significant decline since the 1990s, with their population decreasing by an alarming 80-90%. However, since 2014, their population has stabilized at approximately 55 million individuals. Andrew Davis argues that large-scale land clearing in the 1800s for farming influenced the monarch population's historical abundance. This clearing created favorable conditions for milkweed, nectar-producing plants, and monarch butterflies.

Despite the change in classification, the monarch butterflies are still under significant threat. The ongoing climate crisis, loss of winter habitat, and loss of milkweed and nectar-producing plants are not just challenges but urgent risks that demand immediate attention and action.

In 2020, the U.S. Fish & Wildlife Service determined the monarch butterfly did not meet the threshold to classify it as endangered, though they recognized that such a designation was likely necessary. They plan to review this decision with an announcement expected in December 2024, which could lead to stronger conservation measures.

According to the most recent survey released by the World Wildlife Fund Mexico, the number of monarch butterflies at their overwintering sites dropped by 59%, covering an area of just 2.2 acres or 0.9 hectares. This count is down from 5.4 acres (2.21 hectares) last year.

In 2013, the lowest reported population level was 1.65 acres (0.67 hectares).

During the 2023 summer, Mexico was experiencing an extreme drought. The conditions and the lack of rain delayed the start of our planting season, which started in mid-July. Drought and heat are blamed for the drop this year, but climate change and habitat loss in Mexico, the United States, and Canada remain the primary sources.



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Partnership Accomplishments to Date:

Since 2017, the MHAIA and LCHPP partnership has positively impacted communities and forestland in the following ways:

- 1,600,000 native trees have been planted in high-need areas around the Monarch Biosphere Reserve and the Highland Lakes Watershed areas.
- 6,474 volunteers have supported our nursery efforts by transporting the seedlings to planting sites and planting trees. *
- Our forest restoration efforts have directly impacted 78 communities. *
- 1,468 hectares of land has been reforested (3,555 acres).
- We've had an overall survival rate of 80%. Monitoring for the 2023 planting season showed an 87% survival rate.

**Volunteer and site data collection for the 2024 planting season was not complete at the time of this report. The number of volunteers and communities impacted will increase.*

Planting Priority for the 2025 Season:

Through this partnership, LCHPP will prioritize restoring sites in and around the monarch winter habitat for the 2025 season. All 200,000 trees will be planted in this area as the need to conserve the habitat is great. This shift will also help balance APEAM forest restoration efforts in and around the greater Uruapan area.