



PRESS RELEASE

30 January 2019

Monarch butterfly's presence in Mexican hibernation forests increased by 144%

- Experts of the National Commission for Protected Natural Areas (*Comisión Nacional de Áreas Naturales Protegidas*—Conanp) and the WWF-Fundación Telmex Telcel Alliance conducted studies in the states of Michoacán and Mexico in December 2018 and January 2019.
- In the current overwintering period, monarchs occupy 6.05 hectares of forest, compared to the 2.48 hectares reported for the same period in 2017-2018.
- For the first time, a monarch butterfly colony was recorded in the Ojo de Agua communal land, located on the Nevado de Toluca.

Mexico City, 30 January 2019. In the current overwintering period, monarch butterflies established 14 colonies in forests in the states of Michoacán and Mexico, occupying a total of 6.05 hectares (ha), a 144% increase in comparison to the results from the 2017-2018 monitoring efforts, reported the National Commission for Protected Natural Areas (*Comisión Nacional de Áreas Naturales Protegidas*—Conanp) and the WWF-Fundación Telmex Telcel Alliance, who noted that one of these colonies is a new one, located on the Nevado de Toluca.

During the second half of last December, when the monarch had already arrived from the United States and Canada to central Mexico, and through the third week of January of this year, researchers from both organizations, in coordination with local community members, detected eight colonies (4.98 ha) in the Monarch Butterfly Biosphere Reserve (MBBR), and six colonies (1.07 ha) outside the Reserve.

In the MBBR, the largest colony, with 2.46 ha (which represents 40% of the total occupied area), was recorded at the El Rosario communal land (Sierra Campanario sanctuary), while the smallest (0.01 ha) was found at the Contepec communal land (Cerro Altamirano sanctuary), both in the state of Michoacán. In the state of Mexico, a colony occupying over one hectare was found at El Capulín communal land (Cerro Pelón sanctuary). Outside this region, near the Popocatepetl volcano, a colony was recorded at Atlautla, in the state of Mexico, occupying a forest area of 0.01 hectares. Also, on January 24, 2019, a colony (0.07 ha) was first detected at the Ojo de Agua communal land on Nevado de Toluca.

Andrew Rhodes, National Commissioner for the National Commission for Protected Natural Areas (Conanp), explained that the results of this year's monitoring bring very positive news, as they represent the highest area occupied by the monarch (*Danaus plexippus*) since 2006-2007, when the forest area used to overwinter by this lepidopteran was 6.87 hectares. He noted that in 2013-2014, the lowest occupation (0.67 ha) in Mexican forests during the overwintering season since the monitoring began in 1993-1994 were reported.

Rhodes highlighted the efforts carried out by Canada, the United States and Mexico since February 2014, when the North American Leaders' Summit agreed to establish the High Level Working Group for the Conservation of the Monarch butterfly Migratory Phenomenon, given the alarming decline of the population recorded in the overwintering season of 2013-2014. The Trilateral Scientific Committee, created a year later, determined in 2015 that the appropriate area to have a viable monarch butterfly population in North America was six hectares. It should be noted, however, that the butterfly's population fluctuates, and we cannot let down our guard: we have to continue to address threats such as climate change, land-use change and forest degradation.

“This higher density of butterflies is because during last spring's remigration [2018], the monarchs that returned to Texas laid their eggs mainly in the center of the state, where pupae and larvae developed favorably, giving rise to the first generation of US butterflies, which in turn found favorable climate conditions to repopulate all North American mating sites. This is also partly thanks to civil society, scientists and governments working together in

recent years. For example, in the United States, society answered a call to plant milkweed, the plant on which monarch larvae feed, and in Mexico, WWF and other organizations are working to build flower gardens to feed the butterflies with nectar during their trip,” explained Jorge Rickards, General Director of the World Wide Fund for Nature (WWF) in Mexico.

In addition, it is important to highlight that monarch butterflies have an important forest mass to overwinter in Mexico, as the degradation of pine and fir trees has been halted in the core zone of the MBBR. According to the 2017-2018 forest monitoring report, the area degraded was 6.7 hectares, representing a 57.6% reduction with respect to the 15.8 hectares degraded in the 2016-2017 period. “We have been able to preserve healthy forests for the monarch, which has also certainly contributed to strengthening their population,” added Rickards, who thanked the communities, government and private sector for their support of forest conservation.

“The WWF-Fundación Telmex Telcel Alliance has been working for 15 years on the conservation of the monarch butterfly and its overwintering forests, supporting communities with reforestation programs, production projects and tourism training,” said Marcos Linares, Deputy Director of Cross Media & Content for Telcel.

Since 2003, the WWF alliance with Fundación Telmex Telcel and their national and international partners have planted 14.9 million trees across 13,501 hectares, from 13 community nurseries which have created 300 jobs and established a network of 32 mushroom production modules. Sustainable tourism is also being developed in three agrarian properties, with the promotion of architectural infrastructure and the development, training and equipment of 39 forest brigades and tens of service providers, who welcome 100,000 visitors on average during the overwintering months. These efforts are carried out in close collaboration with Conanp.

Since 1996, the Commission for Environmental Cooperation (CEC) has been engaged in promoting North American initiatives to foster the conservation of the monarch butterfly. Since then, the CEC has worked with the governments of Canada, Mexico and the United States to promote trinational actions focusing on the monarch butterfly, and in 2016 established the Trinational Monarch Conservation Science Partnership, a group of researchers from the three countries specializing in monarch conservation. The CEC has joined efforts with leading agencies in each country: Environment and Climate Change Canada, the United States Fish and Wildlife Service and Mexico’s Commission for Protected Natural Areas (*Comisión Nacional de Áreas Naturales Protegidas*—Conanp) , as well as other key collaborators, to focus trinational research priorities, promote citizen science and foster community initiatives for monarch butterfly conservation along its migratory routes.

Monarchs travel more than 4,000 kilometers from Canada and the United States to spend the winter in Mexican forests. The Monarch Reserve is also home to 132 bird species, 56 mammal species, 432 vascular plant species and 211 fungi species. These forests also drain water into the Cutzamala system, benefiting more than 4.1 million people in Mexico and its metropolitan area.

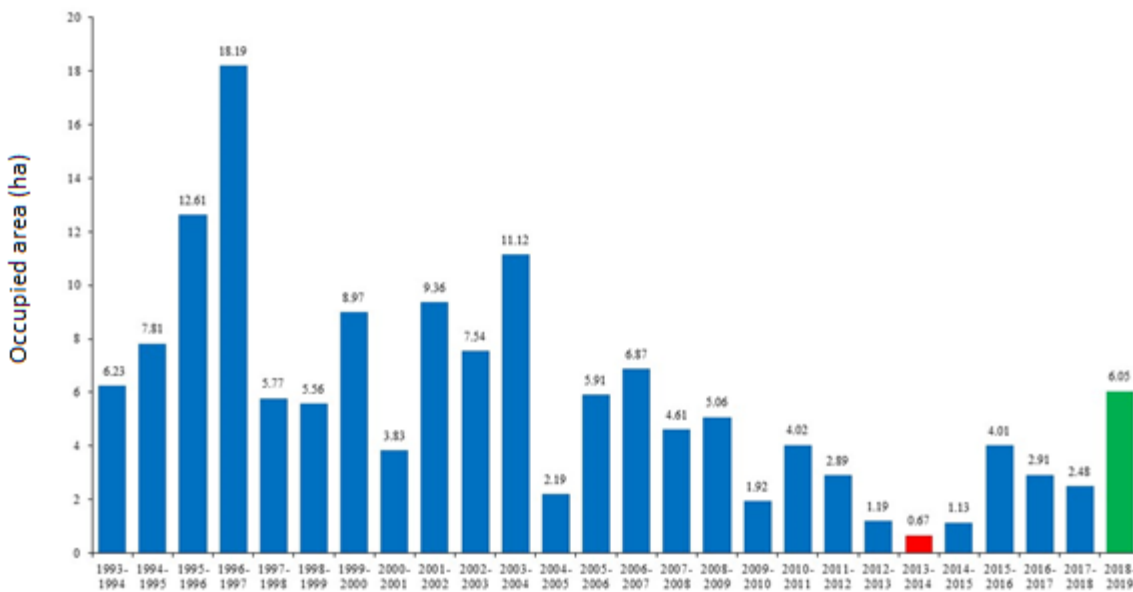
Table 1. Wintering colonies and forest occupied area recorded in December 2018 and January 2019

<i>Location</i>	<i>State</i>	<i>Sanctuary</i>	<i>Colonies (agrarian properties)</i>	<i>Area (ha)</i>
Within the MBBR	Mexico State	Cerro Pelón	C.L. El Capulín	1.37
			C.L. Mesas Altas de Xoconusco	*
			I.C. San Juan Xoconusco	*
			C.P. San Pablo Malacatepec	0.07
	Sierra Campanario	C.L. La Mesa	0.12	
	Michoacán	Cerro Altamirano	C.L. Contepec	0.01
C.L. Nicolás Romero			0.30	

		Chivatí-Huacal	I.C. Carpinteros	0.07
		Sierra Campanario	C.L. El Rosario	2.46
		Sierra Chincua	Federal Property	*
			C.L. Cerro Prieto	0.58
			C.L. El Calabozo Fracción 1	*
		Lomas de Aparicio	C.L. Cresencio Morales	*
<i>Occupied area in the Reserve</i>				4.98
Outside the MBBR	Mexico State	Peña Ahumada	C.L. Ojo de Agua	0.07
		Cerro del Amparo	C.L. San Francisco Oxtotilpan	0.20
		Palomas	C.L. San Antonio Albarranes	0.48
		Piedra Herrada	C.L. San Mateo Almomoloa	0.25
	Michoacán	Los Azufres	S.P. San Andrés	0.04
		Mil Cumbres	C.L. Río de Parras	0.03
<i>Occupied area outside the Reserve</i>				1.07
<i>Total occupied area</i>				6.05

C.F.= Communal Land, I.C.= Indigenous Community, S.P.= Small Property, C.P.= Communal Property, * No colony

Forest area occupied by monarch butterfly colonies in Mexico, 1993-1994 to 2018-2019



About Conanp

The National Commission for Protected Natural Areas (*Comisión Nacional de Áreas Naturales Protegidas*—Conanp) works to conserve Mexico's natural heritage and ecological processes in protected natural areas, matching conservation goals with the well-being of local residents and users.

For more than 18 years, Conanp has fostered and supported multiple initiatives for the conservation and sustainable management of our biodiversity. Based on this learning, we have sought to structure a long-term strategy, which will be the framework of the institutional planning guiding our actions in the short and medium terms, to strengthen and consolidate the institution and its important role for the benefit of Mexico.

About Fundación Telmex-Telcel

With a high sense of social responsibility, efficiency and opportunity, and the mission to help to address the structural problems of society, Fundación Telmex-Telcel operates priority programs across Mexico, in the areas of education, health, environment, justice, nutrition, sports, natural disasters and road safety. Its objective is to contribute to the quality of life of people of all ages and promote the integral development of people and communities, particularly the most vulnerable.

About WWF

The World Wide Fund for Nature (WWF) is one of the world's largest and most experienced independent conservation organization. The WWF began in 1961 and is known for its panda symbol. It has a worldwide network working in more than 100 countries. For further information, visit www.wwf.org.mx and www.panda.org

About the Commission for Environmental Cooperation (CEC)

Through cooperation and citizen engagement, the CEC contributes to the conservation, protection and improvement of the environment in North America. In the context of the growing economic, commercial and social linkages among Canada, Mexico and the United States, it works to benefit present and future generations. For further information, visit www.cec.org

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