



PRESS RELEASE

JANUARY 30, 2019

144% rise of monarch butterflies hibernating in Mexican forests

- The studies took place in Michoacán and the State of México in December 2018 and January 2019 and were conducted by experts from the CONANP and the WWF-TELMEX-TELCEL Foundation.
- Butterflies occupy 6.05 hectares (14.94 acres) of forest in the current hibernation period in contrast to the 2.48 hectares (6.12 acres) reported in the same period during 2017-2018.
- A colony of monarchs was registered for the first time in the Ejido Ojo de Agua, located in the Nevado de Toluca.

MEXICO City.- Monarch butterflies established 14 colonies in the current hibernation period in the forests in Michoacan and the State of Mexico. The survey by Mexico's National Commission of Natural Protected Areas (CONANP) and the WWF-TELMEX TELCEL Foundation Alliance indicates that these colonies occupy a total of 6.05 hectares (ha) (14.94 acres), which represent a rise of 144% from the 2017-2018 occupancy. They emphasized that one of these is a new colony located in the Nevado de Toluca, Estado de Mexico.

During the second half of December 2018 – when the butterflies had already arrived in central Mexico from the United States and Canada – and the third week of January of this year, researchers from both institutions, in a coordinated effort with local communities, detected 8 colonies (4.98 ha) (12.30 acres) within the Monarch Butterfly Biosphere Reserve and 6 colonies (1.07 ha) (2.64 acres) outside of it.

The largest colony, which occupies 2.46 ha (6.07 acres) (40% of the total), was observed in El Rosario ejido (Sierra Campanario Sanctuary), and the smallest (0.01 ha) (0.02 acres), in the Contepec ejido (Cerro Altamirano Sanctuary), both within the Monarch Butterfly Biosphere Reserve in Michoacan. In the State of México, a colony occupying more than one hectare was spotted in El Ejido el Capulín (Cerro Pelon Sanctuary). Outside of this region, near the Popocatepetl volcano, a colony was detected in Atlautla, State of México, occupying 0.01 hectares (0.02 acres) of forest area. In addition, on January 24, 2019, a colony (0.07 ha) (0.17 acres) was detected for the first time in the Ejido Ojo de Agua, in the Nevado de Toluca.

Andrew Rhodes, National Commissioner of Natural Protected Areas, explained that this year's surveys provided very positive news, namely, that the area now occupied by monarch butterflies (*Danaus plexippus*) is by far the largest since 2006-2007. For its hibernation, this Lipidopteran used an extension of 6.87 ha (16.97 acres) of forest. Rhodes also noted that, since monitoring began in 1993-1994, the lowest occupation (0.67 ha) (1.65 acres) in the Mexican hibernation forests was recorded in 2013-2014.

He highlighted the shared efforts that Canada, the United States and Mexico have undertaken since February 2014, when the North American Leaders Summit decided to establish a High-level

Taskforce for conserving the monarch's migration in light of its decline in population during the 2013-2014 season. In 2015, the Trilateral Scientific Committee defined 6 hectares (14.82 acres) as the appropriate area to assure a viable population of monarchs in North America. However, given that butterfly populations fluctuate, it is necessary to remain vigilant and maintain the efforts to address such threats as climate change, land use reform and forest degradation.

"This greater density of butterflies is because during last spring the monarchs that migrated back to Texas concentrated on laying their eggs in the central part of the state, where the pupae and the larvae developed favorably, giving rise to the first generation of butterflies of the United States, which in turn found favorable climatic conditions to repopulate all breeding sites in North America. In part, this is also the product of work done by the civil society, scientists and governments in recent years. For example, in the United States, society has responded to a call to plant milkweed, the plant from which monarch larvae feed; and in Mexico, we, WWF and other organizations, are working to establish gardens with flowers to feed them with nectar during their trip," explained Jorge Rickards, General Director of the World Wildlife Fund (WWF) in Mexico.

"It is also worth noting that monarch butterflies have a considerable mass of hibernation forest, thanks to the halting of pine and fir degradation in the Monarch Butterfly Biosphere Reserve's core area. According to the 2017-2018 forest report, forest loss declined by 57.6%, from 15.8 ha (39.04 acres) in 2017, to 6.7 ha (16.55 acres) in 2018. We are complying with the preservation of healthy forests for the monarch. Surely, this preservation has also contributed to strengthening the population," added Rickards as he thanked the communities for their support in conserving the forests, as well as the government and private companies for their backing.

"The Alliance WWF-TELMEX-TELCEL Foundation has been working on conserving the monarch butterfly its hibernation forests for 15 years, as well as supporting communities through reforestation programs, productive projects and training to serve tourism," said Marcos Linares, deputy director of Cross Media & Content of Telcel.

Since 2013, the Alliance WWF-TELMEX TELCEL Foundation and its national and international partners have planted 14.9 million trees in 13,501 ha (3,3361.69 acres). These trees were grown in 13 community nurseries, creating 300 jobs and establishing a network of 32 mushroom production modules. Sustainable tourism is another development axis in three agrarian properties through the promotion of architectural infrastructure, as well as the education, training and equipping of 39 forest brigades and dozens of service providers, which on average receive 100,000 persons during the hibernation months. All of this is done in close collaboration with the CONANP.

Since 1996, the Commission for Environmental Cooperation (CEC) has pledged to expand cooperation initiatives in North America to enhance the conservation of monarchs. Since then, it has been collaborating with the Canada, Mexico and the United States governments to promote joint actions. In 2016, the CEC established the Trinational Monarch Butterfly Alliance aiming at conserving this butterfly. The CEC has brought together efforts from the leading agencies in each country, i.e., the CONANP of Mexico, the Ministry of Environment and Climate Change of Canada and the United States Fish and Wildlife Service and other key collaborators, to focus

research priorities, as well as to promote citizen's science and community initiatives for the conservation of the monarch butterfly along its migratory routes.

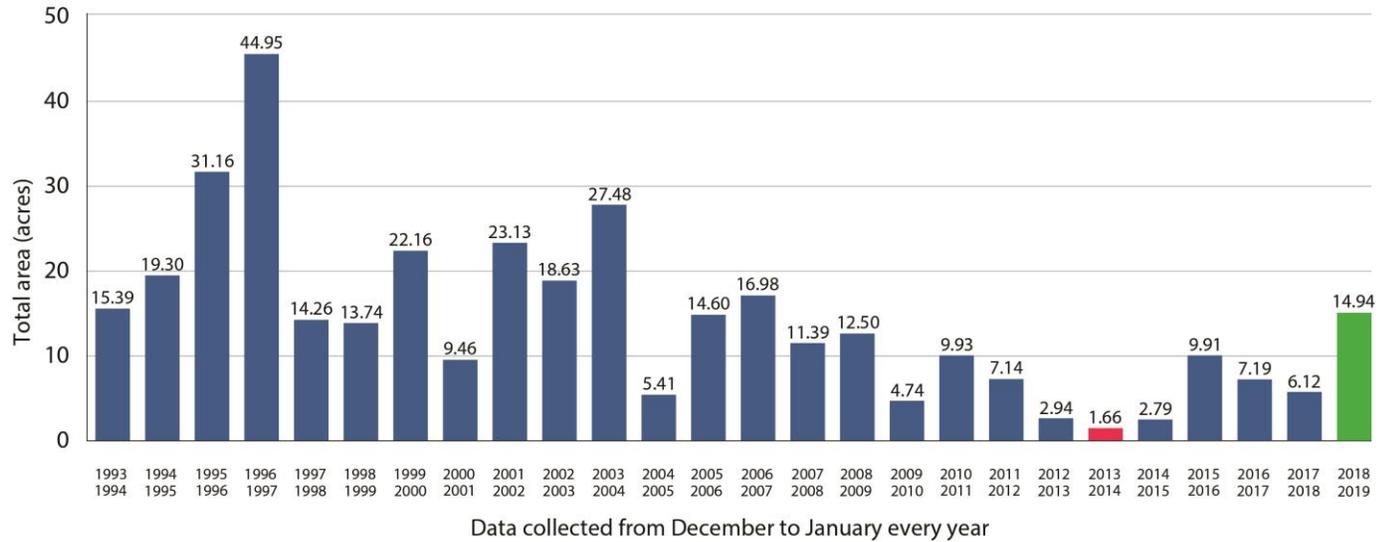
Monarchs travel more than 4,000 kilometers (2,485 miles) from Canada and the United States to spend the winter in Mexican forests. The Monarch Butterfly Reserve also houses 132 species of birds, 56 of mammals, 432 of vascular plants and 211 of mushrooms. These forests infiltrate water as well into the Cutzamala system that serves more than 4.1 million people in Mexico City and its metropolitan area.

Table 1. Hibernation colonies and forest area registered on December 2018 and January 2019

<i>Location</i>	<i>State</i>	<i>Sanctuary</i>	<i>Colonies (agricultural properties)</i>	<i>Area (ha)</i>
Within the Monarch Butterfly Biosphere Reserve (MBBR)	State of México	Cerro Pelón	E. El Capulín	1.37
			E. Mesas Altas de Xoconusco	*
			C.I. San Juan Xoconusco	*
			B.C. San Pablo Malacatepec	0.07
		Sierra Campanario	E. La Mesa	0.12
	Michoacán	Cerro Altamirano	E. Contepec	0.01
		Cerro Pelón	E. Nicolás Romero	0.30
		Chivatí-Huacal	C.I. Carpinteros	0.07
		Sierra Campanario	E. El Rosario	2.46
		Sierra Chincua	Propiedad Federal	*
			E. Cerro Prieto	0.58
			E. El Calabozo Fracción 1	*
	Lomas de Aparicio	E. Cresencio Morales	*	
	<i>Occupied area within the Reserve</i>			
Outside the MBBR	State of México	Peña Ahumada	E. Ojo de Agua	0.07
		Cerro del Amparo	E. San Francisco Oxtotilpan	0.20
		Palomas	E. San Antonio Albarranes	0.48
		Piedra Herrada	E. San Mateo Almomoloa	0.25
	Michoacán	Los Azufres	P.P. San Andrés	0.04
		Mil Cumbres	E. Río de Parras	0.03
<i>Occupied area outside the Reserve</i>				1.07
<i>Total occupied area</i>				6.05

E= Ejido, C. I.= Indigenous people community, P. P.= Small property, B. C.= Comunal Goods, * Colony did not happen

Area of forest occupied by monarch butterflies hibernating in Mexico



About CONANP

The National Commission of Natural Protected Areas (CONANP), works to preserve the natural heritage of Mexico and ecological processes in Natural Protected Areas (NPA), combining the goals of conservation and the welfare of residents and users of such areas. For over 18 years we have promoted and strengthened several initiatives to foster the conservation and sustainable management of biodiversity. It is from this learning that we have undertaken the task of developing a long-term strategy, which will be the guiding institutional planning framework for our short- and medium-term actions aimed at strengthening and consolidating the institution and its important task for the benefit of Mexico.

About the Telmex-Telcel Foundation

With its high sense of social responsibility, efficiency and opportunity, and the mission to contribute to address structural problems of society, Fundación TELMEX-TELCEL operates in national priority programs in education, health, environment, justice, nutrition, sport, natural disasters and road safety. Its objective is to contribute to enhance the quality of life of the population of all ages and to promote the integral development of people, as well as of their communities, particularly of the most vulnerable.

About the CEC

Through collaboration and participation, the Commission for Environmental Cooperation (CEC) contributes to foster conservation, protection and enhancement of North American environment for the benefit of present and future generations, in the context of increasing economic, trade and social links among Canada, United States and Mexico. For more information: www.cec.org

About WWF

World Wildlife Fund is one of the world's leading conservation organizations, working in 100 countries for over half a century. With the support of almost 5 million members worldwide, WWF is dedicated to delivering science-based solutions to preserve the diversity and abundance of life on Earth, halt the degradation of the environment and combat climate change. Visit www.worldwildlife.org to learn more.