At the end of the Pleistocene, 12,000–13,000 years ago, the Bolson Tortoise, North America’s largest terrestrial reptile, ranged throughout the Chihuahuan Desert from central Mexico to southern Texas, New Mexico, and Arizona. As early Americans moved into the area and as the climate changed, this tortoise retreated to a tiny fraction of its previous range. It now lives only in the Bolsón de Mapimí, an interior basin in central Mexico where the states of Durango, Chihuahua, and Coahuila meet. Humans moved into this area in numbers during the last 100 years because of deep wells. As with the early peoples, they found the tortoise a tasty food item, and a pattern of exploitation emerged that reduced, and sometimes eliminated, populations throughout the reptiles’ remaining range. Settlers also brought in cattle, which compete with the tortoise and trample their burrows.

This tortoise usually grows to about 34 centimeters in shell length but can reach 40 centimeters. The scutes of its shell are often dark with a contrasting yellow border, giving rise to its scientific name. It has massive claws on its feet for digging large burrows that it uses to retreat from predators and to wait out droughts or cold weather. It shares these burrows with a host of other animals, making it a keystone species for the Chihuahuan Desert. Like most other tortoises, it takes well over ten years to reach sexual maturity. This fact, combined with a clutch size of only around five eggs, means that its populations are slow to recover from depredations.

Despite its impressive size, this species remained unknown

Hacia finales del Pleistoceno, hace unos 12,000–13,000 años, el territorio de la Tortuga de Mapimí, el reptil más grande de América del Norte, ocupaba el Desierto de Chihuahua que iba desde el centro de México hasta el Sur de Texas, Nuevo México y Arizona. Cuando llegaron los primeros pobladores a la región y con el cambio de clima, su distribución se restringió a tan solo una pequeña fracción de su extensión. Actualmente sólo ocupa el Bolsón de Mapimí, una cuenca central en donde se unen los estados mexicanos de Durango, Chihuahua y Coahuila. La presencia humana significativa llegó a esta zona tan solo hace unos cien años, atraída por el agua de pozos profundos. Al igual que los primeros pobladores, ellos también encontraron en la tortuga un alimento sabroso, dando inicio a un modelo de explotación, hasta eliminarla de su territorio. El ganado que introdujeron también compitió con la tortuga destruyendo sus nidos con las pesas.

El caparazón de la tortuga suele crecer hasta 34 centímetros, aunque puede alcanzar los 40 centímetros de longitud. Las escamas del caparazón son obscuras con bordes amarillos contrastantes, lo que da origen a su nombre científico. Cuenta con grandes patas que utiliza para cavar las madrigueras en donde se refugia de los depredadores, del frío y de las sequías. Comparte sus guaridas con muchos huéspedes, lo que la convierte en una especie ecológicamente crucial para el Desierto de Chihuahua. Como muchas otras tortugas, la madurez sexual la alcanza después de los diez años y este hecho, combinado con puestas de apenas cinco huevos, hace que la población se recupere de la depredación muy lentamente.

A pesar de su gran tamaño, esta especie permaneció ignota para la ciencia hasta 1958, cuando John Legler la identificó, constituyéndose en...
to science until 1958 when John Legler described it, creating a sensation in herpetology. Conservationists immediately recognized that it was in peril, and it quickly became the flagship species for the entire Chihuahuan Desert ecosystem in Mexico, itself in great peril. Recognizing its status as a Mexican icon, in 1979 the Mexican government created Latin America's first biosphere reserve in Mapimí to protect the tortoise and its habitat. Mexico's Institute of Ecology created the Desert Laboratory in the biosphere reserve that has produced over the years a detailed understanding of the tortoise and its environment, as well as the large number of the other species that live there.

Unfortunately, the biosphere reserve has been a fragile success. Because of the constraints of Mexican law, it is difficult for the government to own land itself. It must manage the land through the cooperation of landowners. The plan for the biosphere reserve has only two areas designated for strict biodiversity protection, but they comprise only 5 percent of the reserve and are not located in the tortoise habitat. The areas where the tortoises live were designated for sustainable development that can include both cattle grazing and agriculture, activities that have increased in the reserve in recent years.

Significant progress to secure the Bolson Tortoise was made in 2016, when the Turtle Conservancy and its Mexican counterpart HABIO, A.C., purchased Rancho San Ignacio in the heart of the biosphere reserve. These organizations are converting this 17,540-hectare parcel to the category of strict protection and are undertaking a program of active management to ensure that the tortoise population and its habitat thrive. All cattle have been taken off the rancho, and it is being fenced to keep them out. Access to the rancho will be controlled to prevent the creation of new off-road tracks and to allow old ones to be reclaimed by natural vegetation. There is a good population of tortoises already present, and the rancho is large enough to remain a secure, self-sustaining population, as long as it is protected.

Since 2006, the Turner Endangered Species Fund has been successfully breeding this species in New Mexico, in order to reintroduce it there and in Texas, and eventually in Mexico. Over 500 offspring have been produced, and the oldest are now large enough that supervised releases into the wild in New Mexico are planned for 2017. The tortoises have already demonstrated that they can survive and reproduce in large outdoor enclosures, indicating that they can be
reintroduced successfully into the wild. The combination of protecting the core habitat in Mexico and raising a population for reintroductions across its former range gives the Bolson Tortoise an auspicious future.

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que indica que pueden ser exitosamente reintroducidas en el medio natural. La combinación de protección de su hábitat núcleo en México y la crianza para su reintroducción le auguran a la Tortuga de Mapimi un futuro prometedor.

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