
South Texas and the Great American Interchange

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ABSTRACT

South Texas has a rich late Cenozoic fossil record. At least 18 extinct genera and 27 extinct species of fossil mammals are known from the late Pleistocene alone. Many of these were participants in a major evolutionary event known as the Great American Biotic Interchange, which resulted from the formation of the Panamanian land bridge between North and South America. South American genera that traveled north and are present in the late Pleistocene of South Texas are the giant ground sloths *Eremotherium*, *Paramylodon*, and *Megalonyx*, the large relatives of armadillos *Holmesina* and *Glyptotherium*, and the capybara *Neochoerus*. North American genera that traveled south include the wolf *Canis*, the bears *Tremarctos* and *Arctodus*, the saber cat *Smilodon*, the gomphothere elephant *Cuvieronius*, the tapir *Tapirus*, the horse *Equus*, the peccary *Platygonus*, and the llamas *Palaeolama* and *Hemiauchenia*.

The 6.5 ft (2 m) tall, flightless, predatory, ‘terror bird’ *Titanis* is another South American immigrant. It had previously been thought that it entered North America about 2 Ma and survived in South Texas until the end of the Pleistocene. However, rare earth element dating of the South Texas *Titanis* shows that it arrived in North America in the early Pliocene (about 5 Ma), shortly before the completion of the Panamanian land bridge.