

The pampas: the temperate grasslands of argentina

[Science](#), [Geography](#)



The temperate grasslands of South America are the vast, grassy plain that stretch across Argentina and wander through Brazil and Peru. Being an illustrious part of the South American landscape, the plains are often referred to as “ The Pampas”, meaning “ flat, unbounded land” in Quechua (Britannica.)

The temperate, regulated climate of Argentina makes this region ideal for agriculture. Some regions tend to be more humid, while others are dryer and more arid (Smith), which makes the Pampas as a whole the perfect environment to host a large variety of different plants and animals native to the grasslands, including foxes, giant ant-eaters and Pampas deer.

For centuries, native Argentinian horsemen, called Gauchos have been using the natural abundance of the Pampas to their advantage, introducing cattle farming to the land. Once Europeans discovered the potential the Pampas had to offer in the 16th century, they exported large amount of cattle to Argentina in hopes of making a monopoly of the situation (Smith) to economically benefit their home countries. This began to threaten the ecological integrity of the biome as the agriculture became more and more aggressive.

Figure 2 A Gaucho herding a group of cattle in the Pampas. (5)

According to S. E Smith, overgrazing has caused the rivers to become muddy and murky, “ causing problem downstream”. Intense agriculture of the region has “ stripped the soil of nutrients”, slowly crippling the once plentiful abundance of the land. On top of this, farmers are now experimenting with

extralocal plants and herbs, which call for suppression by fire to protect the land. The process not only places “ heavy demands on water supplies”, but has also begun a chain of disastrous wildfires in the region, which cause the build-up of dead organic material and brush in the Pampas. (Smith)

Cattle farming, despite the disturbances it has caused, remained as staple apart of the Argentinian agricultural scene as it was in the 16th century until recently. In a continued effort to bring in a profit, this time to the Argentinian economy, beef exportation rates from the Pampas began climbing increasingly (Sheinin).

This is what eventually led to the manifestation of the Foot-and-Mouth virus that flew through the Argentinian countryside and slaughterhouses. This evidently had a negative impact on the economical productivity of one of Argentina’s largest agricultural sector, as a ban against any frozen or chilled meat from the Argentines was put in place in 1926, only to be lifted in 1993. This epidemic also caused a major change in the natural environment of the biome, as Foot and Mouth disease renders cattle, pigs, sheep, goats, deer and all camelids susceptible (Sheinin).

Another issue in the biome is that of habitat loss due to excessive rainfall. With global climate levels rising, rainfall levels have also increased worldwide. In Argentina, however, the ecosystem is especially impacted. In flat lands with sufficient water supply, flooding and it’s by product, loss of habitual territory, negatively impact the top predators of the biome directly (Canepuccia 407).

Canepuccia, who conducted an experiment on the pampas fox in the matter, says that the Pampas have “ been subjected to the greatest in annual precipitation increase ever recorded” and has also suffered the most modifications of the native grasslands through agricultural work (407). The results of the study concluded that the excessive rainfall caused a large decrease in the number of prey available, and in turn, the number of Pampas foxes, however, the relative abundance of water birds in the Pampas increased. Above all this, the rainfall rates in Argentina are estimated to increase the next decade and the future of the local communities of species “ will depend on their ability to cope with the reduction in habitat”, says Canepuccia (407).

A healthy biome is one that’s natural balance has not been tampered with. The Pampas have been increasingly exploited for over a century now and, while some changes are irreversible in our lifetimes, others can be fixed with global input.

The largest overall issue regarding the ecological state of the Pampas is the loss of habitat and species, mostly due to exploitation and pollution.

Cutting down the exploitation of cattle farming in the grasslands will lessen the hygienic issues that could lead to any other viral outbreaks, threatening many species of the Pampas that much less. This would also restore a small amount of the natural order of the biome which, no matter how little, benefits the ecosystem.

The issue of the excessive rainfall, however, is a much more difficult issue to solve. The global climate is changing due to the increasing Greenhouse effect, which is essentially the emission of gases such as carbon dioxide, methane and nitrous oxide into the atmosphere that leads to global warming. According to Richard Monasterky, “ Satellite measurements reveal that over the last 15 years, the extent of polar sea ice has shrunk by 6 percent.” (230). This increase in sea levels is what causes the increasing levels of rainfall that threaten the species and terrestrial habitat of the Pampas.

To combat this, the world must make an effort to reduce greenhouse gas emission in their everyday lives by cutting down on energy, water and automobile use. Only then will we be able to heal the world, and all the ecosystems that have been disrupted by the sudden changes in the environment.