

The plight of the huemul

Already an *endangered species*, the huemul, a small deer native to the Patagonia region, could disappear unless more vigorous action is taken to protect it. **By JONATHAN SPENCER JONES**

Photographs by J. SMITH-FLUECK & W. FLUECK

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IN THE CLEARINGS OF THE FRONTIER WOODS, where a small stream runs quietly hidden between the thick green cress, lives the huemul, the mysterious deer of the Patagonian forests. During the warm sunny hours ... he descends with his mate to the crystal clear fount and looks curiously and in surprise at the hunter who, rifle in hand, awaits him resting up against a tree trunk. Moreover, he approaches to inspect him, and is treacherously downed with one shot. The female keeps stock still, she has no idea why her mate has fallen dead on the ground, and with another shot she collapses on the body of her loved one ... Not knowing man they lived and loved. He appeared, but was not cruel. He did not give them time to know his evil. They no longer suffer and besides, the leg of the Patagonian huemul is most delicious.”

So wrote explorer and naturalist Clemente Onelli in his 1904 book *Ranging the Andes*, giving a picture of the huemul at a time when its chief value seemed to lie in providing meat for explorers in the southern regions of the continent and meat and hides for clothing for the various groups of indigenous Indians there. A century on, interest in the huemul is once again growing,

although for a different reason, as it is now an endangered species, little known – indeed unknown to many Argentines – and little understood, but standing on the brink of extinction.

“The facts are revealing a harsh reality: the huemul is vanishing from large regions of its historical range,” say researchers Norma Inés Díaz and Jo Anne Smith-Flueck, who have recently written what is the first book, *The Patagonian Huemul*, on this animal, providing a historical summary and compilation of the existing information on the huemul and recommendations for its conservation.

The huemul is a species of deer found only in Argentina and Chile. Indeed, it is the only large native herbivore residing in the sub-Antarctic false beech (*lenga*) forest habitat, which occurs only in those two countries. Over the years, it has formed the stuff of myths and legends, in part due to its secretive nature, but also to the varying descriptions it has been given. In the first, in 1782, the Jesuit clergyman Giovanni Ignazio Molina described it as a kind of wild ass, and later it was compared with a camel as well as a horse and even a llama, forming the basis for the zoological name by which it is known today, *Hippocamelus bisulcus* (*Hippocamelus* = camel similar to a horse, *bisulcus* = two-hoofed).

Similarly the huemul has been given many popular names, most originating from native Indians, of which the most common, huemul, is thought to be of Araucanian origin. Today however, it is generally known as the Chilean huemul (the name arose when it was thought all Argentine populations were extinct), the South Andean huemul or more correctly the Patagonian huemul, to distinguish it from its closest relative, the taruca or Peruvian huemul, which is found in the Andean highlands, stretching from southern Peru into western Bolivia, north-western Argentina and northern Chile.





(LEFT): An adult huemul buck ruminating in a lenga forest during winter (note the thick winter coat).

(ABOVE): The typical huemul habitat of mountainous lenga forest.

In shape, the huemul has a fairly stocky build and relatively short legs compared with other deer species. The adult male averages 900 mm at the shoulders and 1,630 mm in total body length, while the average adult female is about 100 mm shorter in both height and length. Its weight ranges from 40 to 100 kilograms.

The coat is dark brown, paler in winter than in summer, when it can also take on a gray or yellow cast. Other characteristics are large ears and, in the males, a pair of antlers. Its preferred habitat is steep mountainous forest terrain, for which its hooves have adapted, but it can swim with ease and readily enters the water if being pursued.

The huemul also has a keen sense of sight, smell and hearing, and it is known for its curiosity and confidence as well as for adapting its behavioural pattern – either mistrustful and careful, or tame and trustful – according to the extent of prior contact with people. Socially, groups of as many as one hundred animals have been recorded, but small groups of up to five animals, and somewhat more during the breeding season, are more common.

The huemul appears to have been widespread and abundant in the past. Based on the accounts of early travellers and assumed habitat conditions, Díaz suggests it might have ranged throughout Chile south of the Atacama desert and the adjacent Andean region of Argentina (with the possible exception of Tierra del Fuego where it is absent in the archaeological record), elsewhere on the Patagonian steppe, and even as far as the Atlantic coast in certain areas.

Now, however, principally due to human encroachment and activity – particularly since the introduction of sheep and cattle farming in the late 19th century – the huemul's range is much reduced and it survives only in a number of fragmented and generally isolated sub-populations: one in Chile at the north-

ernmost limit of its natural habitat and the other in Argentina, principally in national parks in the Andean region. In total, there are, perhaps, no more than between 1,000 to 2,000 animals – only a hundredth of the number before the arrival of Europeans on the continent during the 16th century, says Smith-Flueck.

Recognising the precarious state of the huemul, the International Union for the Conservation of Nature has placed it on its endangered species list since 1973. More recently in Chile, where it has long been regarded as a national symbol, being represented on the country's national coat-of-arms since 1833, legislation has been passed to improve its protection, while here in Argentina it has been classified as a National Monument and declared as endangered by law, which grants it protection. In addition, since 1993 when a first binational meeting was held, and out of which the current movement to protect the huemul has largely grown, the authorities in Argentina and Chile have been involved in developing a common strategy for the conservation of this animal.

Yet the huemul continues to be threatened for several reasons, says Smith-Flueck. Among these are hunting by illegal trophy hunters and poachers; habitat modification including farming, mining and other constructions such as roads; other human activities, like tourism and recreation; predators such as dogs; inbreeding and consequent loss of genetic diversity; and natural disasters such as heavy winter snowfall, volcanos and fire. Another factor is the presence of introduced species, like the European Red Deer, which, because of both their impact on the habitat and the diseases they carry, pose a grave ecological threat not only to the huemul but to other native fauna and flora.

"A major concern has been the inadequacy of conservation efforts, thus far, to protect the huemul," says Smith-Flueck. ©



[LEFT ABOVE]: An adult huemul buck performing flehmen, a behaviour to test a female's readiness for mating.

[RIGHT]: Male and female fawns of 5 to 6-months-old feeding.

[BELOW]: The red deer, here a male with harem of females and one calf during the rut, poses a major threat to the huemul as well as to other native fauna and flora.



☞ "Existing laws in Argentina and Chile do not work in concert to provide it with the legal protection it desperately needs as they fail to reduce environmental impacts and to mitigate degradation of huemul habitat."

Nor is it just the huemul that is at stake, she continues, explaining that, in ecological terms, the huemul has been identified as an "umbrella species," which means efforts to protect it will result in many other species, both fauna and flora, in turn being protected. In other words, the loss of a unique species, like the huemul, from the community in which it fills a special niche, can have a strong impact on the food web, "essentially meaning that many other plant and animal species of this beech foresty community would be affected."

What then can be done to ensure the survival of the huemul? In short, the remaining populations must be protected and managed more effectively, says Smith-Flueck, who adds that there are a number of viable actions which, together, can achieve this. These include research to identify all existing populations and to improve knowledge of the biology and social behaviour of the huemul and its interaction with the environment; educa-

tion to improve awareness of the huemul and its plight, particularly among people living close to huemul populations; better legislation for supporting maximum, enforceable protection, including on private lands, for the huemul; and programmes, such as captive breeding and reintroductions, to maintain viable population sizes and retain the existing genetic variation.

These efforts must also be underpinned by stable financial support, and, until the necessary programmes can be put in place, no commercial, industrial or other human activity should be permitted in any region inhabited with huemul until that activity is proven to be harmless.

Surprisingly perhaps, there are no huemul to be seen in zoos, principally it would seem because there is not a tradition of this as early attempts at keeping the animal in captivity were unsuccessful. Moreover, Smith-Flueck says that recent proposal to keep a huemul in captivity met with opposition, in particular from the wildlife and flora directorate, from whom a permit is required, and for what she regards as flawed reasons. Contrary to authorities' concerns, capture and transport methods and knowledge on deer-raising have improved substantially since early attempts and a huemul in a zoo could serve as a "flagship species," in the same way that pandas have, Smith-Flueck argues. However, Victoria Lichtstein, director of the Dirección Nacional de Fauna y Flora Silvestres, says the official viewpoint is that captive breeding is a drastic strategy and efforts need to be put into the many important issues to be addressed in the field. In addition, she says, the animal is extremely difficult to keep in captivity.

The huemul conservation movement in Argentina is very young and its development during the last few years has been very positive, says Smith-Flueck. "But still a long hard road remains ahead. If this momentum can be sustained, there is an optimistic chance the huemul will remain a component of Patagonia." ●

Jonathan Spencer Jones is the editor of the Herald's On Sunday supplement.

