



## Pampas Deer in Uruguay

*John Jackson, Pete Landa and Alfredo Langguth*

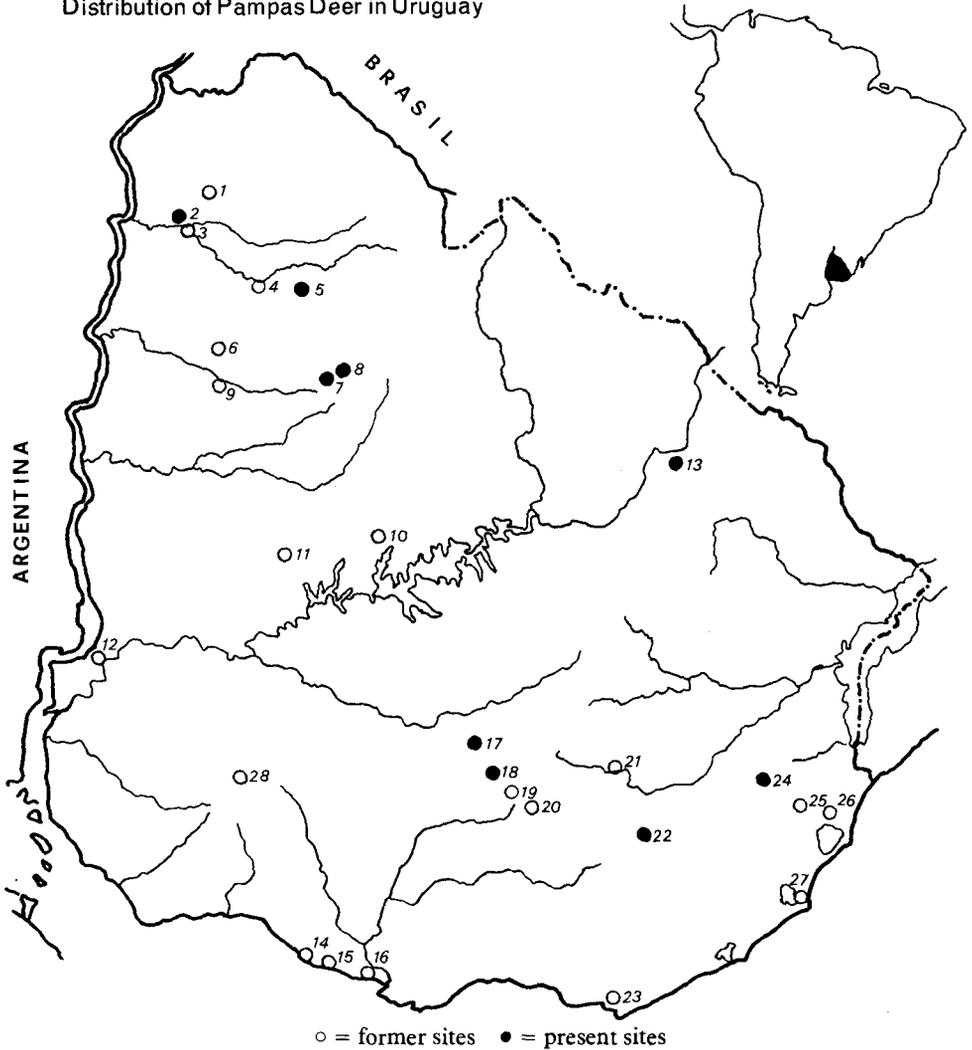
**Pampas deer, which are on the verge of extinction in Argentina, have declined in Uruguay to an estimated 1000 animals. Mostly they occur in small scattered herds, which have survived because of their remoteness and the absence of sheep, and because a small number of landowners have protected them. Sheep, however, are likely to spread because rising oil prices have made synthetic fibres more expensive and wool more competitive. The authors recommend the measures that should be taken quickly, including action against poaching, a study to find out the deer's needs, and steps to set up both reserves and captive breeding units.**

Once found throughout the vast natural grasslands of South America, the pampas deer or venado *Ozotoceros bezoarticus*, have been seriously reduced in numbers thanks to man's activities. In Brazil, Paraguay and Bolivia they are not regarded as being in immediate danger, but the Argentinian subspecies *O. b. celer* has been decimated to the point of extinction.<sup>4,5</sup> In Uruguay, where within living memory this graceful ungulate was found throughout much of the country, recent data is scanty.<sup>3,5</sup> This account brings together the information that is available and should alert attention to their plight.

### **Distribution**

Before the arrival of the first European settlers in the 18th century, Uruguayan

Distribution of Pampas Deer in Uruguay



1. Vicinity of Baltasar Brun, Artigas; 2. Santa Ana Station, on the railroad to Artigas, Salto; 3. Rio Arapey, 5km upstream from the Termas, Salto; 4. Rio Arapey, 85km E of Salto, Salto; 5. Arroyo Sopas, vicinity of Paso Muñoz, Salto; 6. Arroyo Laureles, vicinity of Bayucúa, Salto; 7. Vicinity of Arroyo El Tapado, Salto; 8. Vicinity of Arerunguá, Salto; 9. Rio Daymán, Paso Perito Moreno, Paysandu; 10. Vicinity of Peralta, Tacuarembó; 11. Arroyo Averias Grande, Rio Negro; 12. Arroyo Maletas, Rio Negro; 13. Arroyo Zapallar, Cerro Largo; 14. Barrancas de San Gregorio, San José; 15. Arroyo Mauricio, San José; 16. Arroyo del Tigre, San José; 17. Arroyo Timote, Florida; 18. Arroyo Santa Rosa, Florida; 19. Cerro Colorado, Florida; 20. Arroyo Milano, Florida; 21. Arroyo Molles de Godoy, Lavalleja; 22. Mariscal, Lavalleja; 23. Vicinity of Maldonado, Maldonado; 24. Sierra de los Ajos, Rocha; 25. 40km N of Castillos, Rocha; 26. Bañado Santa Teresa, Rocha; 27. Laguna de Castillos, Rocha; 28. Confluence of Arroyo Monzón and Arroyo Grande, Soriano.

Indians hunted the deer on foot, with arrows, spears and boleadoras and without adverse effect on the herds. Since then, the increasing impact of western man through hunting, habitat change and the effects of livestock rearing has eroded the populations. Their decline over the last 200 years can be appreciated from the map, which is based on documentary information, first-hand records from hunters and reliable local residents, and visits to various localities. Most reports date from the late 19th century, and indicate that the deer's disappearance is a recent phenomenon. In 1715, the English explorer William Toller found not only pampas deer in sites 15, 16 and 27 on the map, but also their natural predator, the jaguar *Felis onca*, now extinct in Uruguay.<sup>4</sup> In 1886-7, Admiral William Kennedy described herds from sites 17, where today only a few individuals survive, and 19, where they are now extinct.<sup>6</sup> Also gone are those from the hills north of Maldonado where Darwin hunted them.<sup>3</sup> In 1892-3, Aplin noted that the pampas deer was declining in Uruguay,<sup>1</sup> and the trend has continued to the present day.

The groups centred on sites 7 and 8 we estimated at 500 head, but the other populations are considerably smaller, varying between 10 and 200 individuals, the largest herds being in localities 2, 5, 13 and 24. A recent visit by biologists to Sierra de los Ajos (H. San Martín, pers. comm.) put the number there now at under 100; in 1965 it was 300. From all the information gathered we put the total number of pampas deer surviving in Uruguay at only 1000.

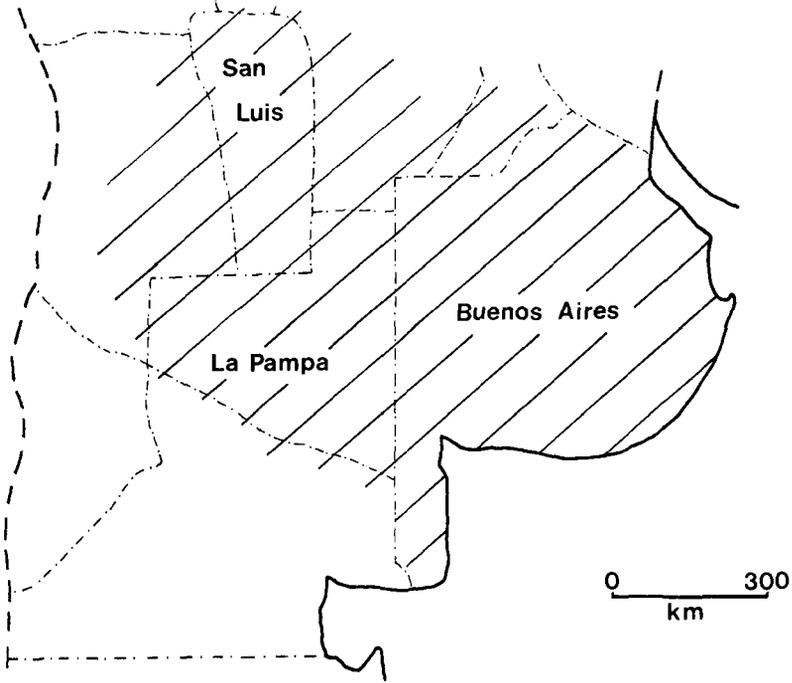
### **Herd at 'El Tapado'**

We visited the El Tapado estancia on the Arroyo El Tapado, about 12km south-west of Arerunga, Depto. Salto, on September 15 1976 and on May 19 and 20 1978. It is a rolling hilly area, dominated by natural temperate grasslands, dissected by streams and small valleys, and interrupted by rocky outcrops and ridges, or chuchillas. Apart from occasional plantations, *Eucalyptus* windbreaks, or small riverside copses, the zone is treeless and the land largely devoted to rearing sheep and cattle.

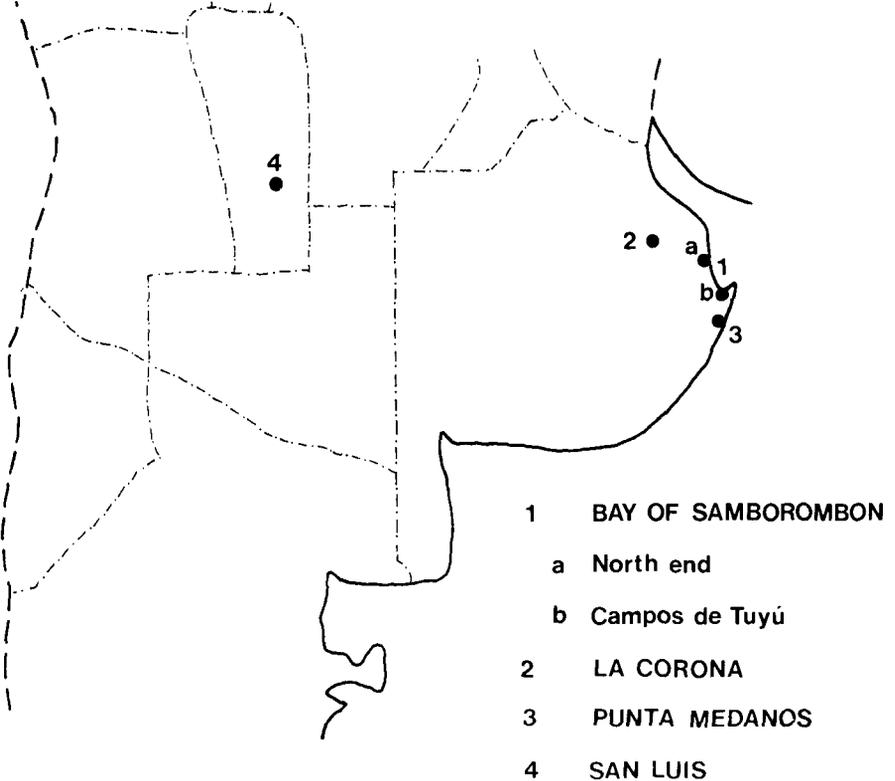
At El Tapado, in September 1976, a total of 300 deer were seen; in May 1978, the count was 238, but this excluded a fraction of the first census area and included the adjoining property, Los Venados. The total population was estimated at 500, grouped in small herds. Sixteen units recorded on the first occasion ranged in size from one to 10 individuals (mean 5.6), and 49 groups observed in 1978 varied from one to 14 animals (mean 4.8). As the prime intention of the short exploratory visit was to review the status of the whole population, there was not the time to sex and age all individuals, but in 1976, out of 41 classified, 22 were males and 19 females; and in 1978, out of 91, 36 were bucks, 36 does and 19 fawns. The equal sex ratio suggests that there is no trophy hunting, and the proportion of does with young is also encouraging. All fawns seen in May were nearly two-thirds adult size, except two smaller ones, thus bearing out local information that the vast majority of young are dropped in late spring (October-December) but that occasional late births occur. No new-born animals were seen in September but adult females were heavily gravid. In the small captive-breeding group at the Durazno Zoo births are registered in November and December.

All bucks were in velvet in September. In May all except four were in hard-antler; two had one antler, having cast the other, one had just cast, and a single male had new antlers just starting to regrow. Normal adult heads

Distribution of *O.b.celer* in the 1800s in Argentina



Known distribution 1977



showed six points, although accessory spikes were not uncommon, and a dead nine-pointer was found.

The venado in this locality showed little fear of human beings, since they are not harassed by local gauchos, and poaching is not the scourge that it is elsewhere in Uruguay and Argentina. However, as in Darwin's and Sanborn's times, they were less confident of men on horseback, the best way to approach them being in a vehicle to within 30-50m.

### Conservation Status

Poaching continues to take its toll of some venado populations, despite legal protection, for the law is not consistently enforced. The remnant herds have survived because of their remoteness, the protection afforded them against hunting by a handful of conscientious landowners and the absence of competition with livestock, especially sheep. In the past, on many estancias, venado were slaughtered along with the *mandu* or rhea *Rhea americana*, on the grounds that they competed for grazing with domestic animals.

First impressions are often misleading, but in the neighbourhood of El Tapado ranch the sheep appear to have an adverse effect on the deer; whether this is attributable to competition for food and space, or to disease and parasite transference, or a combination of the two, is uncertain. Farmers and stockmen widely reported that, as the sheep stocking density rises, deer numbers invariably fall. It was certainly true that the venado stronghold in El Tapado is an *invernada*, an expanse dedicated, until now, to winter fattening of cattle, from which sheep are always excluded. The deer in this 700-ha field were visibly in superior physical condition to those in adjacent paddocks cohobated by sheep. Similarly, the large remnant group near Sierra de los Ajos is also centred on an *invernada*. One modern agricultural practice that has reportedly favoured the venado is the campaign to eradicate foot-and-mouth disease by vaccinating cattle, which is said to have reduced it in the deer.

Attempts have been made to establish captive breeding units in the zoological collections at Salto and Durazno, starting with local wild-caught animals. The Salto attempt failed, but Durazno, from a nucleus in 1974 of one buck and two does, has now successfully bred six deer. The few remaining wild herds could easily be wiped out by changes of ownership or land management practices, and the creation of further breeding units in natural or semi-natural areas would provide an insurance against total eradication. Several landowners have expressed interest in dedicating small sectors of their estancias to re-establishing venado breeding groups, initially in controlled semi-captive conditions, to see if they can be rehabilitated into their old haunts, and plans are being discussed to hand-raise a few wild-born fawns on an experimental scale, ensuring that numbers taken do not jeopardise the existing groups. Local people often try to rear 'orphaned' or 'abandoned' fawns – with mixed success.

Strange though it may sound, the short-term future of the wild venado in Uruguay may depend on world oil prices. Costs of manufacturing synthetic fibres have soared with the cost of oil, making wool a competitive material again, and farmers are filling their fields with sheep, often to the point of overgrazing. Sheep numbers in Uruguay today are some 20 million, and the sheep-venado clash is increasingly common. It also means that the previously sacrosanct *invernadas*, which were refuges for the venados, may be opened to

the sheep to the detriment of the already critically low deer numbers. Uruguay's agricultural regime continues to evolve, the trend being away from the old vast estancias towards smaller more intensively exploited units which must become economically viable to survive, even if this implies high stocking rates and the disappearance of the native deer.

If the venado is to survive in Uruguay, effective conservation measures need to be implemented at once to stop any further diminution in numbers, coupled with a full investigation of the deer's ecological requirements, particularly its interaction with sheep; stringent measures must also be taken to stop poaching. The feasibility and means of gazetted reserves, both to conserve the surviving herds and to protect their last strongholds against further deterioration, need to be studied, and more semi-captive breeding groups established under carefully controlled conditions, making full use of the existing local expertise in hand-raising fawns, with a view to rehabilitating the offspring into adjacent suitable habitats.

If conservation action is not taken, the pampas deer or venado could become extinct in Uruguay within the next decade.

### Acknowledgments

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Dr John Jackson, INTA, Villa Mercedes, Province of San Luis, Argentina.

Pete Landa, Avda Libertador Lavalleja 1513, Montevideo, Uruguay.

Afredo Langguth, Departamento de Biologia, Centro de Ciências Exatas e da Matureza da UFPB, Campus Universitário, 58000 João Pessoa/Pb, Brasil.

### Giant Otters in Guyana

In her studies of the giant otter in Guyana, which FPS is helping from the Oryx 100% Fund, Elizabeth Laidler reports that the otters are more widespread and, as Nicola Duplaix found, more tolerant of man than might be expected. In remote parts of Guyana giant otters live quite unmolested in creeks and in floodplains along the coast. A notable exception is an area in the south where the Amerindians shoot otters for the Brazilian pelt trade.