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Case Report

Wild Deer Interactions with Livestock Fencing: A Case Series

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Abstract:

Livestock fencing are prevalent human infrastructures affecting wild ungulate movements. Patagonian ranches may average 70 km of fencing just for their periphery, with complicated maintenance. Whereas livestock rarely challenge such fencing, wild ungulates try to pass fencing that cross their home range. Three cases of red deer (*Cervus elaphus*) entangled in Patagonian ranch fencing include a male with his head enrolled in wire before escaping the situation. He survived long enough such that the wires caused bone lesion and tooth loss. Another male was found soon after his death and entangled in fencing. Being the rutting season, another male approached the dead one and "fought" strongly, moving the cadaver. The third male was found dead and hanging in fencing. He likely tried to jump through the top wires, which caused entanglement, and the body hanging vertically.

For deer, livestock fences are only another challenge regarding the possibility to transit through it, just as occurs with natural barriers like dense brush. Moreover, before the rut, males trash small trees and bushes, but also fences, causing death if a male gets entangled. They use fencing as the border between rutting territories, which can result in physical fights with fencing between the males, and entanglement might result in being killed. Reducing the impact of livestock fences requires constant maintenance like wire tensions. Alternatively, wildlife-friendly sectors can be created, particularly where deer crossings are concentrated.

Key words: fence ecology; fence design; ranching; cervids; impacts

1.Introduction

Wild ungulate movements are increasingly impeded by human infrastructures, with livestock fencing being among the most prevalent and influential infrastructure, given its impact [1-3]. Regarding livestock fences in the western United States, mule deer (*Odocoileus hemionus*) for example are considered better at navigating such fences than pronghorn (*Antilocapra americana*) because of their greater ability to jump over fences [4]. In Patagonia, livestock ranches are large and averaging some 30'000 ha [5], such that the peripheral fencing alone would be about 70 km. The maintenance of such fencing is thus quite challenging. Wild ungulates in densely fenced areas are prone to be entangled in wires, which can also lead to death [6,7]. Yet, whereas much discussions of fencing regarding cervids focuses on specific fence types with the purpose of preventing cervids to enter certain spaces (gardens, agriculture, recovering forests, etc) or crossing roads [8], the effects of common livestock fencing on cervids has not been mentioned much.

Whereas livestock like cattle, horses and sheep rarely challenge such livestock fencing, wild ungulates like guanaco (*Lama guanicoe*) or red deer (*Cervus elaphus*) tend to try to pass the fence in order to maintain their geographical usage of the habitat. Previous studies show that juveniles were several times more likely to entangle and die in fences than adults [6]. These occasional accidents are possibly aggravated in winter when there is a bit of snow covering the soils [7]. Here we present cases of red deer entangled in fences on Patagonian ranches, which provide evidence how resulting injuries and the way of dying can result in aggravated situations. As we have not found literature describing such cases, their presentation here should increase the awareness of such instances causing prolonged pain, and thus encourage the improvement of fencing arrangements.

2. Case Presentation

2.1. Case 1

The skull of a male deer found in the province of Neuquen (Argentina) was collected and reviewed. Some bones were clean and had turned white, but there was still dried skin and velvet attached to the skull. The actual cause of death of this medium-aged male could not be determined, but the head enrolled with fence wire indicates that the animal lived a long time

under this condition. Antlered males may entangle with fencing wire while trying to cross the livestock fence, and then try forcefully to get out of the situation. In the present instance he ended up with wires being strapped around the antler bottoms, as well as around the nostrils and lower jaws. As the male was able to eventually break the wires, he remained alive and kept feeding and ruminating. This resulted in the jaws repeatedly being forced against the wire which resulted in a long-lasting and continuous injury of the tissues. The reaction of the jaw bones clearly indicate osteomyelitis, a retrogression of bone tissue in line of the path of the wire, and growth stimulation next to this area (Figure 1a,b). It also resulted in the loss of several molars on the left maxillary (Figure 1a). These tissue reactions indicate that the male lived for a considerable amount of time suffering with these wires around the head.

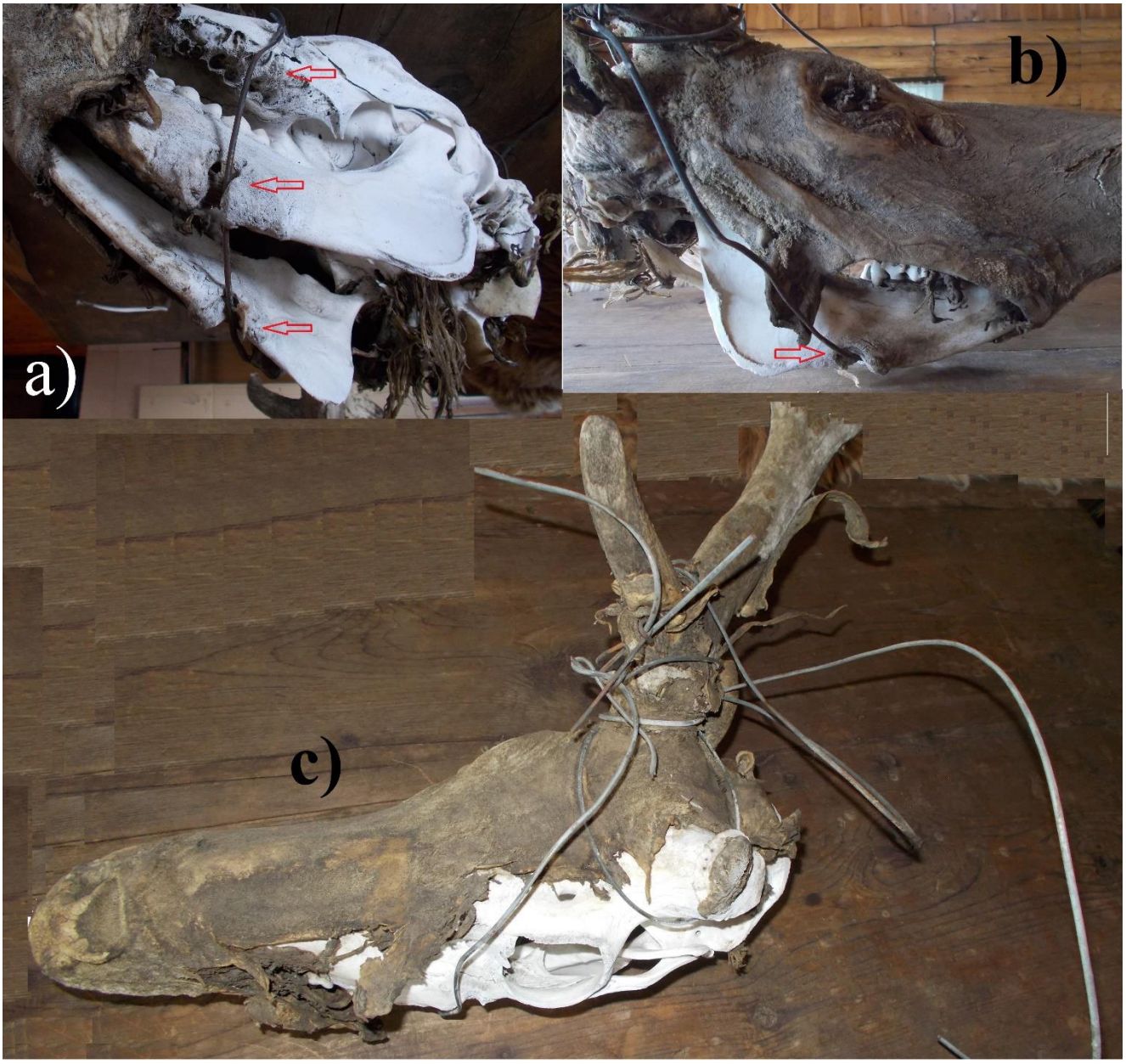


Figure 1: Images of the red deer (*Cervus elaphus*) in Case 1. (**a**) a wire is wrapped around the pedicels on the head, and circumvents below the jaws. Two arrows indicate the lesions on the lower jaw, causing bone resorption (osteomyelitis), and the other arrow shows that on the left maxillary, the animal also had lost several molar teeth. (**b**) the arrow indicates bone resorption on the right lower jaw. (**c**) the picture show the intense wrapping of wires around the pedicel, indicating that the animal strongly tried to remove the wires.

2.2. Case 2

A male was found entangled in a livestock fence, having died recently, in the province of Neuquen, Argentina. Being the rutting season, we observed another male approaching several times and still "fighting" strongly with the cadaver (Figure 2). The entanglement might have resulted from either trying to cross the fence, or fighting another male through the fence, or simply fighting the fence, behaviors which all had been observed in other occasions



Figure 2: Image of the red deer (*Cervus elaphus*) in Case 2. The dead male was found well wrapped in wires. Several times another male came to the body and attacked it such that the whole body was moved.

2.3. Case 3

A dead male was found hanging in a livestock fence in the province of Neuquen, Argentina. He must have tried to jump through the two uppermost wires, which caused the neck to become entangled in the twisted wires, and the rest of the body to hang vertically. Such entanglement will frequently prevent escaping the situation, yet might take much time until causing death. The skin was still present, but all the soft tissues had been removed by scavengers (Figure 3). As the antlers were fully grown but still in velvet, the death occurred during summer to early autumn.



Figure 3: Images of the red deer (*Cervus elaphus*) in Case 3. (**a**) the arrow indicates the direction of intending to jump over the fence, showing the left side of the body and a front leg underneath a wire. (**b**) show the right side of the body and completeness of the skeleton.

3. Discussion

Wild deer will use environmental indicators to select their home range. Although livestock fences have been recognized as one of the most prominent linear infrastructures on earth [3,9], such fences apparently are just another physical obstacle regarding the possibility for a deer to pass through it and move within its home range. Similarly, deer face many other occurrences of challenging barriers, like the presence of a dense brushy sector, and they select a passage. Livestock fencing certainly does not result in being recognized as an impassable barrier and therefore, the deer will seek a way to overcome the fence line, either by going through between horizontal wires, or by jumping over the fence. Moreover, for males during the rut, a livestock fence may also be used to help mark the border between the rutting territories claimed be each male [10]. This can result in physical interactive behavior aimed at determining which male is stronger, but with the fence between the males. Sometimes this fighting will result in a male getting his antlers caught in the wires, which allows the other male to become more aggressive and even kill the entrapped male. In addition, males commonly use their antlers as if training and improving their fighting efficiency, by trashing small trees and bushes [11], but also by engaging their antlers with the wires of a livestock fence, and fighting against that resistance [12]. This behavior occurs in absence of any other male nearby, but also can result in entrapping the male. Such a situation can result in a male finally achieving to break the wires, but having the wires wound around the head until later death (Case 1). Without having achieved the breakage of the wires, it might eventually result in another male approaching and easily killing the entrapped male (Case 2).

Realizing that livestock fencing frequently results in substantial impact by entangling wildlife, this may encourage future actions to reduce such impacts. This can be achieved by assuring a good condition of the fencing, especially by maintaining appropriate wire tensions. An additional alternative is the creation of wildlife-friendly sectors, particularly where deer crossings are concentrated [13, 14]. Also, as deer frequently walk along a fence to look for an easy spot, they will find these friendly sectors. The suggested key adjustments are to elevate the bottom wire to encourage crawling through, and to lower the top wire to encourage jumping over, and discourage passing through between the top two wires [15]. A reduction of entanglements also reduced the substantial costs of fixing the thereby affected fencing.

4. Conclusion

As livestock fencing does not present a blockade for wild ungulates, they try to pass such fencing. It may result in entanglement which can cause severe lesions and even death, as reinforced by these findings presented here. Reducing livestock fencing impacts requires its maintenance, or alternatively, the creation of wildlife-friendly sectors where deer are crossing frequently.

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References

1. Jakes AF, Jones PF, Paige LC, Seidler RG, Huijser MP. (2018). A fence runs through it: A call for greater attention to the influence of fences on wildlife and ecosystems. *Biol Conserv*; 227: 310-318.
2. McInturff A, Xu W, Wilkinson CE, Dejid N, Brashares JS. (2020). Fence ecology: Frameworks for understanding the ecological effects of fences. *Bioscience*; 70(11): 971-985.
3. Eacker DR, Jakes AF, Jones PF. (2023). Spatiotemporal risk factors predict landscape-scale survivorship for a northern ungulate. *Ecosphere*; 14(2): e4341.
4. Jones PF. (2014). Scarred for life: The other side of the fence debate. *Human-Wildlife Interactions*; 8(1): 16.
5. Matteucci SD. (2012). Chapter 15, Ecorregión Estepa Patagónica. In: Morello J, Matteucci SD, Rodriguez A, Silva M (Editors). Ecorregiones y Complejos Ecosistémicos Argentinos. Orientación Gráfica Editora SRL, Buenos Aires, Argentina, pp. 549-654.
6. Harrington JL, Conover MR. (2006). Characteristics of ungulate behavior and mortality associated with wire fences. *Wildl Soc Bull*; 34(5): 1295-1305.
7. Rey A, Novaro AJ, Guichón ML. (2012). Guanaco (Lama guanicoe) mortality by entanglement in wire fences. *J Nat Conserv*; 20(5): 280-283.
8. Forsyth DM. (2023). Using exclusion fencing to manage feral deer impacts in Australia. Centre for Invasive Species Solutions, Canberra, Australia, pp. 1-37.
9. Xu W, Gigliotti LC, Royauté R, Sawyer H, Middleton AD. (2023). Fencing amplifies individual differences in movement with implications on survival for two migratory ungulates. *J Anim Ecol*; 92(3): 677-689.
10. Carranza J, Alvarez F, Redondo T. (1990). Territoriality as a mating strategy in red deer. *Anim Behav*; 40: 79-88.
11. De Vos A, Brokx P, Geist V. (1967). A review of social behavior of the North American cervids during the reproductive period. *Amer Midland Nat*; 77: 390-417.
12. Bamberg F. (1985). Lack of attention to a special requirement as the cause of mortality in adult male fallow deer (Cervus dama Linne, 1758) in an enclosure. Z Jagdwiss; 31: 237-241.
13. Visscher DR, Macleod I, Janzen M, Visser K, Lekas S, Vujnovic K, Vujnovic D. (2023). Wildlife-friendly fence designs and elk fence crossing behavior. *Wildl Soc Bull*; 47: e1400.
14. Burkholder EN, Jakes AF, Jones PF, Hebblewhite M, Bishop CJ. (2018). To jump or not to jump: Mule deer and white-tailed deer fence crossing decisions. *Wildl Soc Bull*; 42: 420-429.
15. Segar J, Keane A. (2020). Species and demographic responses to wildlife-friendly fencing on ungulate crossing success and behavior. *Conserv Sci Practice*; 2: e285.

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