Sir,

Having studied the connection between deer hunting and the healthy state of the easily visible West Country herd of wild red deer for more than 30 years, I should like to comment on the paper *Welfare Implications of Culling Red Deer* in your February issue.

The statement that a second shot was necessary at 50 per cent of the kills for which the authors had visual evidence (p 12) gives a very false impression of how often it is necessary. Evidence submitted to Lord Burns' inquiry shows it to be 5 per cent or less. Similarly, hounds only attack deer on very rare occasions and the figure of 25 per cent that is quoted on the same page also bears no resemblance to what actually happens.

These statistics were based on the fact (stated elsewhere in the paper) that two kills were actually observed. The other two occasions on which the authors had 'visual evidence' were two videotapes provided by an anti-hunting organization. The latter are known to have filmed a large number of satisfactory kills during the past 10 years but these were not apparently considered; those provided by the hunts themselves were ignored because they were not electronically dated and so as Professor Bateson claimed in his report to the National Trust (Bateson 1997) 'could not be verified'.

With regards to shooting, many of your readers may be unaware that most deer are shot in the body, as recommended by the stalking societies, rather than the head or upper neck as was the case in this study, and many by land holders rather than expert marksmen. The wounding rate of 2 per cent came as stated from the stalkers themselves but two methods were used to support these. I would suggest that the figures from game dealers are optimistic since carcases with multiple bullet wounds are not normally sent to them but are butchered at home. If the figures of casualties found by Quantock Staghounds had been included in the calculations as surely they should have been, then the percentage would have been at least doubled.

D H S White
Taunton, UK

Reference

Bateson P P G 1997 *The Behavioural and Physiological Effects of Culling Red Deer. Report to the Council of the National Trust.* The National Trust: London, UK

Dr Bradshaw and Professor Bateson reply:

Mr White may have misunderstood the purpose of the video evidence, which was to supplement the visual observations we made of hunts during the 1995–1996 and early 1996–1997 hunting season. Hence, only videos of hunts that took place over this time period were used. To avoid claims and counterclaims as to the provenance of the videos, we decided to use as evidence only those that were electronically dated. This policy was made clear from the outset.

One purpose of observing hunts over a specified time period was to obtain data on the frequency with which certain alleged events occurred. At two of the four kills we witnessed the hunted deer were not killed cleanly, and at one kill the deer was attacked by hounds before being shot. No one would claim that such a small sample size is representative of what happens as a whole. This is why, in the *Discussion*, we concluded that: '...[these] events [ie non-instantaneous death, and attacks by hounds]...definitely do occur, but we cannot say with what frequency'.

We used three disparate methods to assess wounding rates by stalkers (including the analysis of carcase diagrams from game dealers). In Bradshaw and Bateson (2000a) we discussed the varied reasons why estimates generated using such methods may well be underestimates (Mr

White provides another example). Nonetheless, it is significant that the different approaches gave very consistent results.

Our wounding rate figures are only optimistic in the sense that they represent a best-case scenario – we were dealing with competent stalkers, or amateurs accompanied by such. The point that careful management of stalking is essential if wounding rates are to be minimized is indisputable, and has been made by us on several occasions (Bateson 1997; Bradshaw and Bateson 2000a,b). Organizations such as the British Deer Society already run schemes along the lines of those described by Ruth Harrison. At present, however, such schemes are voluntary.

Elizabeth Bradshaw, Oxford, UK
Patrick Bateson, Cambridge, UK

References

Bateson P P G 1997 *The Behavioural and Physiological Effects of Culling Red Deer. Report to the Council of the National Trust.* The National Trust: London, UK

Bradshaw E L and Bateson P 2000a Welfare implications of culling red deer. *Animal Welfare 9:* 2-24

Bradshaw E L and Bateson P 2000b Animal welfare and wildlife conservation. In: Gosling L M and Sutherland W J (eds) *Behaviour and Conservation* pp 330-348. Cambridge University Press: Cambridge, UK