



HUMANE SOCIETY
INTERNATIONAL
UNITED KINGDOM

Badger Culling Humaneness Assessments and Information Released by DEFRA

On 30th October 2012 Humane Society International/UK requested information from DEFRA on how 'humaneness' would be assessed during the proposed 'pilot badger culls' now due to begin in summer 2013, the assessment of humaneness being one of the three stated purposes of the pilot cullsⁱ. DEFRA refused to release this information, both initially and following an appeal by HSI UK lodged on 29th November 2012, citing the Environmental Information Regulations. As a result, HSI UK approached the Information Commissioner's Office on 31st January 2013 to ask that DEFRA be instructed to release the information, on the basis that independent scrutiny of the criteria and methodology to be adopted in order to assess 'humaneness' is in the public interest.

As a result of this approach and the ICO's subsequent communication with DEFRA, HSI UK received a heavily redacted documentⁱⁱ on 16th May 2013.

After reviewing the document it is the firm opinion of HSI UK that the document fails to provide the information that was requested in most respects.

In HSI UK's original request for information, the following information was requested:

- 1. What proportion of badger carcasses will be collected for examination;**
- 2. How the carcasses are going to be selected for examination;**
- 3. Who will be examining them;**
- 4. What examination protocols will be used to determine humaneness; and**
- 5. How shot and wounded badgers that retreat underground to die will be factored into any assessment of humaneness.**

In subsequent correspondence with DEFRA, clarification was given that Question 3 related to the credentials required of the examiners, not their actual identity.

The document provided by DEFRA fails to answer most aspects of all of the above questions, for the following reasons:

- There is no reference in the document to the proportion of badger carcasses that will be collected for examination;

- There is no reference in the document to how the carcasses are to be selected for examination;
- No information is given on the credentials that will be required of those people who will be examining carcasses and/or observing controlled shooting;
- While the document does suggest that badgers will be observed and carcasses will be subjected to radiographic and post-mortem examination in order to try and determine the ‘time period between the moment of impact of the ammunition until death or irreversible unconsciousness’, the ‘behaviour of badgers after being shot at with a firearm’, the ‘location of cutaneous wounds in the badger carcasses recovered after being shot at’, and the ‘extent of internal firearms injuries observed in recovered badger carcasses’, it does not give any indication of how this information will be used to determine ‘humaneness’;
- As regards badgers that are shot and wounded, the document only describes how attempts will be made to ‘determine the proportion of badgers that escape with possible injuries after being shot at with a firearm’. It does not give any indication as to how this will be done, or how the information will be used to assess ‘humaneness’.

DEFRA humaneness assessment methodology - critique

While the information provided by DEFRA explains the rationale for humaneness assessment and outlines some of the methodologies that will be employed, it gives no explanation of how the information and data obtained will be used to assess how humane or otherwise ‘controlled shooting’ will prove to be.

Acceptability

DEFRA begins with the assumption that ‘controlled shooting is an acceptable method for culling badgers’, but admits that there is no scientific data to confirm or negate this hypothesis. Its assumption appears to be based on the fact that ‘controlled shooting is a method already used to control other species such as fox, deer and rabbit’. However, anatomy and behaviour of these species is very different than for badgers, the shooting of all of these species is carried out under very different circumstances, and the target area for shooting varies. It is therefore not valid to base the assumption that controlled shooting will be acceptable on these examples, and DEFRA has no basis for making this assumption.

Duration of suffering

DEFRA also proposes to measure both the duration and intensity of suffering, but to ‘prioritise recording the maximum possible duration’. It then gives four possible outcomes of shooting, which include ‘death caused indirectly... due to non-lethal shooting associated with secondary infection and starvation...’, and ‘non-fatal wounding and recovery’. Both of these outcomes have the potential to result in prolonged suffering, but unless the animal can be observed throughout the time period to death/irreversible unconsciousness, or full recovery, it is not clear how the ‘maximum possible duration’ of suffering that DEFRA aims to prioritise will be determined.

In terms of animals that can be observed throughout the time to death (presumably only those that cannot crawl away and which die fairly quickly following shooting and whose behaviour is clearly identifiable in the dark, in undergrowth and amid much noise and action), DEFRA cites five examples of wild animals in which time to unconsciousness or death have been measured. However, only in

moose was the target area the chest (identified as the target area for badger shooters to aim at in DEFRA's 'best practice guidelines'ⁱⁱⁱ). While clearly aiming at the chest of a moose in broad daylight will be very different from aiming at that of a low-slung badger in darkness, even so the data from moose showed that 'no more than 21% of 105 animals died either instantaneously or 'very quickly''; hardly a figure that gives confidence in the 'humaneness' of the method.

DEFRA proposes to measure the TIU (Time to Irreversible Unconsciousness) and states that 'the shorter the TIU, the more humane the killing technique is assumed to be'. However, it gives no indication of the target TIU which will be considered acceptable in badgers, nor does it suggest the proportion of badgers in which this target should be achieved in order that controlled shooting can be considered humane.

The document also cites information on behavioural assessments made in whales that were targeted with harpoons, in order to determine time to death (TTD). However, these assessments are considered extremely controversial and are not accepted as appropriate measures of 'humaneness' by many cetacean scientists. Also, whales are marine mammals with extremely different anatomies and behavioural characteristics than badgers, and the target areas and methodologies used to kill them are completely different from those being proposed for badgers, so the use of this comparison should be considered invalid. Nevertheless, DEFRA proposes in the document to adopt the principles used in whales for the badger humaneness assessments, and suggests that a workshop be convened where 'relevant experts' would determine the 'appropriate indicators of death for chest-shot badgers'. The information provided gives no indication of whether the workshop took place or its outcomes, or whether these behavioural indicators are likely to be visible to observers in the field, during hours of darkness, limited visibility and hearing, and without the ability to inspect the animal or move from the observation point because of safety reasons.

DEFRA goes on to indicate that no shooter will have experience at shooting badgers, but that over time experience will accrue, but gives no indication how this likely change will be assessed or factored into its considerations. It also indicates that shooters 'may attempt shots under less than ideal conditions and outside the recommended range' under certain conditions. However, it goes on to say that 'all shooters will have been trained and assessed and should all meet the minimum skill level' and that, as a result, 'we will not investigate individual operator differences'. Clearly these statements are contradictory. What matters is the humaneness of the methodology – if shooters vary in the speed with which they gain experience with the method, and vary in their preponderance to take shots in non-ideal conditions or outside the recommended range, then the ability of different shooters to achieve whatever is deemed to be acceptable in terms of humaneness will vary. This must surely be investigated, and those shooters that are unable to achieve very high levels of humaneness should be removed from the process at an early stage to prevent unnecessary suffering of badgers.

Other data affecting performance will apparently be collected, although the details have been redacted.

Proportion of badgers escaping

No information is given on how it will be determined whether a badger that has been shot at and escaped has been hit, or how the proportion of badgers that are shot, wounded and subsequently escape, will be assessed. So it seems that three of the four possible outcomes following the taking of a shot that DEFRA identified, two of which will arguably result in the longest period of suffering, will not be assessed. The data collection section of this part of the document has been redacted.

Intensity of suffering

The document states that observation of behaviour and vocalisation are the only way to assess the degree of pain experienced while a shot badger is dying. No indication is given as to how this information will be collected, or how it will be used to assess humaneness. The data collection section of this part of the document has been redacted.

Radiography and post-mortem analysis

The document states that radiography and post mortem examination can be used to determine whether the shot has complied with best practice guidance, by determining the location and extent of tissue damage. However, the document gives no indication of how this information will be used to determine humaneness, beyond suggesting that it is 'fair to assume' that extensive damage to certain vital organs or tissue will have resulted in a 'relatively short' time to death. No explanation of what is meant by 'extensive damage', or 'relatively short', is given.

Impact of observers

The document rightly identifies the possibility that the presence of observers may change the behaviour of shooters, and that the data obtained from the proportion of shots to be observed may not be representative for all badgers shot. However, no indication is given on the proportion of shooting that will be observed during the pilots, nor how any potential differences between observed and unobserved shooting will be assessed.

Communication

While the document does state that 'immediate communication with DEFRA will take place if any concerns regarding... animal welfare are identified', and that 'a decision could be taken on the acceptability of the technique at this point that either the cull in its entirety or the use of certain methods be suspended', there is no indication as to what criteria would constitute 'concerns' or what would be required in terms of level of suffering in order to trigger a suspension, beyond that the decision would be based on a 'robust sample size'.

Statistical significance and bias

For any study of this kind to be credible, statistically significant sample sizes must be taken, and biases or confounding factors must be eliminated or accounted for.

The lack of information on the number or proportion of badger shoots that will be observed, the number or proportion of carcasses that will be examined, the way differences between shooters (recognised as a potential issue) will be factored in, or the way shooter accuracy may change as the culling period progresses will be accounted for, poses serious questions relating to the likely significance of the data that will be obtained from the observations and carcass examinations.

Since the decision as to whether this policy and method of shooting will be rolled out on a much wider scale will depend, among other things, on the assessment of humaneness, the lives of many tens of thousands of badgers depend on it. The information provided by DEFRA does not provide information on which any serious attempt to evaluate the credibility of the criteria and methodology can be made.

Therefore, on the basis of the data provided, it can only be concluded that the assessment of humaneness during the pilot culls will not be credible, rendering the pilot culls redundant.

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ⁱ The Government's policy on Bovine TB and badger control in England. December 2011.

https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/69463/pb13691-bovinetb-policy-statement.pdf

ⁱⁱ Monitoring the Humaneness of Badger Population Reduction by Controlled Shooting. Proposal presented to Independent Experts panel on 19th June 2012.

ⁱⁱⁱ Controlled shooting of badgers in the field under licence to prevent the spread of bovine TB in cattle: Best Practice Guidance. May 2013

https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/69586/pb13716-shooting-guidance.pdf