

Legal issues associated with the use of animals in biotelemetry studies

This document was produced by the BVA(AWF)/FRAME/RSPCA/UF^{AW}* Joint Working Group on Refinement, to accompany its reports on refinements in telemetry procedures (Part A, Morton et al. 2003) and husbandry (Part B, Hawkins et al. 2004).

Note that it addresses the legal issues associated with biotelemetry only – guidance on the ethical and welfare issues, including how to refine procedures and husbandry to reduce suffering and improve welfare, can be found in Morton et al. (2003) and Hawkins et al. (2004). There are also online [guidance notes](#) for ethics or animal care and use committees responsible for assessing biotelemetry projects.

There are three main categories of law that must be complied with when planning telemetry studies using animals: (1) laws regulating the use of animals in scientific procedures; (2) laws regulating field studies on animals, including releasing them; and (3) regulations applying to the use of electronic equipment and radio frequency emissions. All of the relevant legal implications must be researched and considered in full when planning projects involving telemetry.

1 Regulations on the use of animals in scientific procedures

Many applications of telemetry have the potential to cause pain, suffering, distress or lasting harm and will therefore require regulation under national laws on the use of animals in research and testing. Some procedures, such as the implantation of a telemetry device subcutaneously, intramuscularly or into the body cavity of an animal for scientific purposes, will clearly require regulation. For externally attached devices, it is more difficult to judge what may cause suffering to the extent that licensing from a regulatory authority would be required.

In the UK, the Animals (Scientific Procedures) Act 1986 defines a regulated procedure as anything done to an animal for a scientific purpose that causes ‘pain, suffering, distress and lasting harm’. This includes any material disturbance to normal physical, mental and social wellbeing, as well as disease, injury and physiological or psychological discomfort either immediately or in the long term. Externally fitted transmitters can cause pain and distress if the method of attachment leads to abrasion of the skin, or if because of its size, shape, mass or other characteristics a device compromises an animal’s wellbeing in some other way. Some external devices may impose an excessive energetic burden and make animals more visible to predators or prey, in which case licensing may be required. Where there is any doubt whatsoever whether a procedure falls within the scope of the relevant national legislation, it is essential to contact the regulatory authority (e.g. the UK Home Office, the US Department of Agriculture) for advice.

Recommendation:

- **Think about the impact of your project on the animals you want to use – if they could potentially experience *any* level of discomfort, distress and pain, or if any handling is required, consult the relevant licensing authority.**

2 Regulation of telemetry in the field

There are a number of conservation, legal and welfare issues that must be addressed when planning telemetry projects. Many species are protected by international conventions on threatened and endangered species, and the taking of all vertebrates for scientific procedures in the field is subject to additional considerations in many countries.

2.1 The IUCN and CITES

The conservation status of the study species must be checked against the World Conservation Union (IUCN) Red List of Threatened Species (<http://www.redlist.org/>) and rare or threatened species should not be used unless there is special justification, e.g. a direct conservation application.

Some species are protected by the Convention on International Trade in Endangered Species of Wild Flora and Fauna (CITES). CITES Appendices I, II and III stipulate that national Government permits are required for trade in certain species and provide three levels of protection for those species in international commercial trade. The UK A(SP)A does not permit research on any species listed in CITES Appendix I (the most endangered species), unless the purpose of the project is to preserve that species or the project is essential biomedical research and no other species is suitable (Home Office 2000). Current listings of species in CITES Appendices I to III can be searched at <http://www.CITES.org/>. For guidance on the implementation of CITES in the UK, see <http://www.ukcites.gov.uk/>.

2.2 Regulations on taking wild animals in the field

Taking animals from the wild is regulated by national and international laws, which need to be thoroughly researched so that all necessary permits and licences can be applied for before planning studies that require wild animals. It is the responsibility of the individual investigator to ensure that they comply with all relevant laws on taking wild animals for scientific purposes.

Recommendations:

- **Address all the relevant conservation, legal and welfare issues in full at the project planning stage.**
- **Check the IUCN and CITES databases to ascertain whether your proposed study species is threatened or endangered.**
- **Do not use threatened or endangered species unless the project is directly applicable to the conservation or welfare of that species.**
- **Research thoroughly all international, national, federal and/or provincial laws relating to the taking of wild animals for scientific purposes and make sure that all the necessary permits have been obtained.**

3 Biotelemetry regulatory standards

There are a number of regulations to protect humans and the environment that apply to any electronic equipment that is to be placed on the open market, and there are specific requirements for equipment designed to be used for medical and biological applications. In the European Community, the 'CE' mark demonstrates that these standards are met. The use of this mark is regulated by various organisations, and compliance is policed by local trading standards officers. In the United States of America, control is by the Federal Communications Commission (FCC; <http://www.fcc.gov/>). It is the responsibility of the investigator to research relevant legislation on electrical safety, electromagnetic compatibility with other equipment and emission standards.

Recommendation:

- **Ensure that all equipment is fully compliant with relevant regulations.**

References

Hawkins P, Morton DB, Bevan R, Heath K, Kirkwood J, Pearce P, Scott E, Whelan G, Webb, A. (2003) Husbandry refinements for rodents, dogs and non-human primates used in telemetry procedures. *Laboratory Animals* **37**, 261-299

Morton DB, Hawkins P, Bevan R, Heath K, Kirkwood J, Pearce P, Scott E, Whelan G, Webb A (2004): Refinements in telemetry procedures. *Laboratory Animals* **38**, 1-10

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