# The Ethical Use of Animals in Research Policy Statement

The Marine Biological Association (MBA) is dedicated to conducting research that advances our understanding of marine species and ecosystems whilst ensuring the welfare and respect of all animals involved in our studies. Animal research is conducted only when it is expected to advance knowledge that could improve the health and welfare of animals or humans; or enhance our understanding of animals, ecosystems or the environment. The MBA is committed to promoting non-animal alternatives and fostering a culture of care for the animals that are essential to our research.

We are dedicated to the commitments of the Concordat on Openness in Animal Research and will actively engage the public on our use of animals in research, including the aims, methods and results of our research.

Anyone undertaking research at the MBA that involves the use of protected animals is responsible for ensuring compliance with the following UK regulations:

- Animals (Scientific Procedures) Act 1986 (ASPA)
- Animal Welfare Act 2006
- Welfare of Animals in Transport Order

The MBA supports research using animals if:

- The 3R's (replacement, reduction and refinement) have been actively considered and applied, and no viable non-animal alternatives exist
- It has been approved by the MBA Animal Welfare and Ethical Review Body (AWERB)
- It is fully compliant with Home Office Regulations
- All local mechanisms and procedures for animal welfare have been applied.

The Ethical Use of Animals in Research Policy applies to anyone undertaking research and training within the MBA (in our aquatic and laboratory facilities, in the field or overseas) including those funded from external sources and/or with visiting worker status, students and any workers provided by a third party agency.

### **Our Principles**

We believe that **good welfare leads to good science**. We abide by the following principles:

- 1. All animals should be given respect and care by all who look after, handle or use them, for experimental or educational purposes.
- 2. All animals should be cared for in a way that maintains the highest standards of animal welfare, regardless of their protected status under UK law.
- 3. All work must receive the necessary local and regulatory approvals and must cease immediately if any of these authorisations are revoked.



- 4. All those working with animals must give appropriate consideration of and apply the 3Rs.
- 5. Researchers, along with veterinary and animal care staff, are responsible for designing and conducting research involving animals, ensuring that appropriate consideration is given to the animals' welfare (including avoiding surplus supply) and the animals fate after the research concludes. When working collaboratively with other laboratories, researchers must ensure that welfare standards align with the principles set out in UK legislation and this policy.
- 6. Researchers using animals are strongly encouraged to foster understanding of the necessity of animal use in research. Additionally, wherever possible, they should include information in their published papers that could assist others in the field in applying the principles of the 3Rs to similar experiments.
- 7. All staff are required to follow local health, safety, wellbeing and security standards and report any breaches to their manager.
- 8. Anyone who believes these principles are not being fully followed, or has concerns regarding the health and welfare of animals, should raise the issue promptly. In the first instance, this should be done with their line manager, a Named Person (ASPA), a senior member of the research facility, the Establishment Licence Holder, or through the MBA's Whistleblowing policy.

#### Our commitments include:

- Adhering to all UK regulations and ethical standards.
- Following the principles of the 3Rs.
- Following the ARRIVE guidelines to ensure transparency in reporting research involving animals.
- Following the NORECOPA PREPARE guidelines for planning experiments.
- Implementing recommendations from LASA and other expert bodies.
- Abiding by the Concordat on Openness in Animal Research, promoting transparency and public engagement.
- Extending our welfare principles to non-protected species, treating them with the same care as protected species.



# The Use of Animals in Research

At the Marine Biological Association (MBA), we are dedicated to conducting research that advances our understanding of marine species and ecosystems while ensuring the welfare and respect of all animals involved in our studies.

#### Animal Welfare - an introduction

Animals play a crucial role in advancing scientific knowledge and helping us address critical challenges in marine biology including animal physiology, cognition and behaviour. At the MBA, we use animals in research when alternative methods are not feasible, always striving to ensure that their use is ethical, justifiable, and in compliance with strict welfare standards.

#### Why We Use Animals

Research involving animals provides insights into complex biological processes that cannot at present be replicated using models, simulations, or cell cultures. By studying marine species, we can better understand marine life and develop solutions to protect our oceans and the species that inhabit them as well as developing new therapies for people and animals.

#### Which animals we use

Our research primarily involves marine species, including: fish, cephalopods, cnidarians, echinoderms and crustaceans. We apply the same principles of care and ethical consideration to all species, whether they are protected under UK legislation or not.

## Our Stance on Using Animals in Research

We are committed to conducting our research responsibly, transparently, and with the utmost care for animal welfare. We rigorously adhere to national and international guidelines and are guided by the principles of the 3Rs (Replacement, Reduction, Refinement). We abide by the guiding principle that good welfare underpins good science.

#### Learn more about:

- UK Legislation on Animal Research
- PREPARE guidelines
- LASA Guidance Documents
- ARRIVE Guidelines

# Regulation and oversight

Research involving animals in the UK is subject to strict legal and ethical oversight to ensure the highest standards of welfare.

### **UK Laws and Licensing**

Animal research in the UK is governed by the Animals (Scientific Procedures) Act 1986 (ASPA), which requires researchers to obtain:

• Establishment Licences for the facility.



- Project Licences for specific research programs.
- Personal Licences for individual researchers conducting procedures.

The application process involves thorough reviews to ensure that proposed studies are scientifically valid, ethically sound, and incorporate the 3Rs principles. These reviews are conducted internally by our Animal Welfare and Ethical Review Body and externally by the Home Office.

Home Office inspectors visit facilities on a routine basis to ensure full compliance with ASPA and good practice.

### Staff Training and Competency

All staff working with animals undergo rigorous training to ensure competency and understanding of animal care, welfare, and experimental techniques. Staff must complete a combination of Home Office training courses in addition to significant 'on-the-job' training on techniques spanning both experimental and husbandry skills. Staff are supported at the MBA by both the Named Training and Competency Officer, Named Information Officer and Named Animal Care and Welfare Officer in addition to husbandry staff, senior researchers and colleagues.

Staff are expected to undergo a minimum training period which is specified for each species and skill they are learning, and their competency is assessed on a regular basis using meticulous standards. Staff are expected to maintain high standards through a process of supervision, self-reflection, assessments, and continual professional development.

### Named Persons and Their Roles

Those working with animals are supported by a number of Named Persons including:

Named Animal Care and Welfare Officer (NACWO)

NACWOs oversee animal care and ensure welfare standards are upheld. They make sure animals are transported, housed and cared for by dedicated and appropriately trained staff under professional supervision in a manner designed to maximize health and wellbeing of the animals, with provisions for environmental enrichment. The MBA's NACWO is a core member of the AWERB and oversees all animal welfare on site.

Named Veterinary Surgeon (NVS)

NVSs provide veterinary expertise and support. The Marine Biological Association employs a fish-specialist NVS who is available to be contacted at any time to provide care and advice.

Named Training and Competency Officer (NTCO)

NTCOs ensure all staff are adequately trained and competent. The Marine Biological Association employs a NTCO to ensure that all those working with animals have appropriate training and supervision in both experimental skills and general animal husbandry for the species they work with. The NTCO also works with supervisors to check staff remain competent.



# Named Information Officer (NIO)

NIOs actively seek out and share 3Rs information with all staff at the establishment, fostering collaboration and enabling the exchange of relevant skills and expertise.

#### Animal Welfare and Ethical Review Body (AWERB)

The AWERB is central to ensuring good animal welfare at the MBA. It reviews all proposed research involving animals, advises on welfare improvements, promotes a culture of care and ensures compliance with ethical and legal standards.

A critical responsibility of the AWERB is to review proposed project licences. To ensure fair and critical assessment, our membership includes lay members, veterinary surgeons, animal care staff and academic staff. Only where a program of animal research meets the principles of the 3Rs and the benefits are deemed to outweigh the costs will the AWERB consider approving for submission to the Home Office.

# The 3Rs – A Framework for Ethical Research

The Marine Biological Association (MBA) is deeply committed to the principles of the 3Rs (Replacement, Reduction, and Refinement) to ensure ethical and responsible use of animals in research.

#### Replacement

Replacement involves substituting animals in research with non-animal alternatives wherever possible. At the MBA, we actively pursue innovative techniques that eliminate the need for animal use. For example, we use computational modeling to study the movement patterns of elasmobranchs, offering valuable insights without involving live animals.

# Reduction.

Reduction focuses on minimizing the number of animals used in research while maintaining scientific integrity. The MBA has robust measures to ensure the efficient use of animals: careful planning avoids the collection or breeding of surplus animals that cannot be rehomed or released. Sharing animals or tissues among projects is encouraged to maximize the data collected from each animal. When feasible, we support and plan for the release or rehoming of animals involved in research, incorporating this into project designs whenever possible.

#### Refinement

Refinement involves enhancing animal welfare by minimizing harm, stress, and distress. At the MBA, we continuously review and improve practices to prioritize the well-being of the animals in our care. For instance, we use non-invasive methods like photographic identification instead of physical identification tags. By adhering to the 3Rs, the MBA ensures that our research is both scientifically robust and conducted with the highest ethical standards.



# The Animal Welfare and Ethical Review Body

The MBA maintains an Animal Welfare and Ethic Review Body whose main objectives are:

- 1. To ensure that all use of animals by the MBA is carefully considered and justified;
- 2. That proper account is taken of all possibilities for reduction, refinement and replacement (3Rs);
- 3. That high standards of accommodation and care are achieved.

## The AWERB will:

- 1. Provide independent ethical advice to the Establishment Licence holder, particularly with respect to project license applications and standards of animal care and welfare;
- 2. Provide support to named people and advice to licensees regarding animal welfare and ethical issues arising from their work;
- 3. Promote the application of the 3Rs and foster a culture of care at the MBA.

