

## ANIMAL WELFARE BILL 1999

### EXPLANATORY MEMORANDUM

The purpose of the Bill is to repeal the current *Prevention of Cruelty to Animals Act 1920* and provide for a new modern Act to ensure that animals are properly cared for and protected.

The key matters included in the Bill are as follows:-

- increased penalties for cruelty offences – a maximum penalty of \$20,000 and imprisonment for one year and a minimum penalty of \$1000;
- new cruelty offences with appropriate defences for special circumstances. The key defences include:-
  - i. normal animal husbandry;
  - ii. stock fending for itself;
  - iii. killing pests;
  - iv. the use of devices prescribed in regulations;
  - v. self defence;
  - vi. veterinary care;
  - vii. releasing animals into the wild; and
  - viii. other practices authorized by law.
- other new offences dealing with the possession of devices for inflicting cruelty and releasing animals for the sport of hunting, shooting or fighting animals;
- new arrangements for infringement notices for minor offences;
- new requirements for the licensing of scientific establishments which conduct experiments on animals and businesses which supply such establishments with animals;
- new requirements for animal ethics committees at scientific establishments;
- new powers for the appointment of general inspectors and scientific inspectors;
- increased powers for inspectors to investigate cruelty offences;
- the Crown to be generally bound although it will be exempt from prosecution and the requirements for obtaining licences under the Act;
- provisions to enable regulations to be made under the *Fish Resources Management Act 1994* to deal with cruelty offences against fish.

A draft of the Bill was tabled in the Parliament in October 1998 and released for public comment. After receiving over 200 submissions various improvements have been made which are now incorporated in the Bill.

The Bill is divided into seven parts and the key provisions in each Part are briefly explained as follows.

## **PART 1 – PRELIMINARY**

This Part principally deals with:

- the binding of the Crown;
- the content and intent of the Act; and
- various definitions for the purposes of the Act.

### **Definition of an “Animal”**

Under the proposed legislation, an “animal” means a live vertebrate, other than a human or fish or any live invertebrate of a prescribed kind.

Under the current *Prevention of Cruelty to Animals Act 1920*, the expression “animal” is far more restrictive and only means any domestic or captive animal. Therefore, more animals will be covered by the new legislation.

Fish related cruelty offences will be controlled under the *Fish Resources Management Act 1994*. This will provide for Fisheries inspectors to police fish related cruelty offences which may be set out in regulations under that Act.

## **PART 2 – THE USE OF ANIMALS FOR SCIENTIFIC PURPOSES**

This Part deals with:

- the prohibition on the unlicensed use of animals for scientific purposes and requirements for businesses which supply animals for such purposes to be licensed;
- the conditions and procedures for obtaining a licence to use animals for scientific purposes;
- the revocation of licences;
- offences associated with not complying with the conditions of a licence; and
- a register of licences for scientific establishments.

### **Use of animals for scientific purposes**

It is intended that new legislative requirements will be placed on establishments using animals for scientific purposes. The provisions for the licensing of these establishments will require compliance with the *Australian Code of Practice for the Care and Use of Animals for Scientific Purposes* which will be specified in Regulations. Compliance with this Code is currently necessary for establishments to receive grant funding under the National Health and Medical Research Council arrangements.

In addition, a scientific establishment will be obliged to have an animal ethics committee or have made arrangements for the animal ethics committee of another scientific establishment to act as its animal ethics committee. These committees will have considerable powers to review, approve and monitor the conduct of animal experiments. These committees operate

now and are a requirement of the Code. This legislation reflects current practices in relation to the approval of experiments using animals.

### **Penalties for not conforming with the conditions of a licence**

The proposed legislation will contain severe penalties for conducting experiments involving animals without a licence or contravening the conditions associated with a licence. For instance, allowing animals to be used for scientific purposes in contravention of the conditions of the licence would carry a maximum penalty of \$20,000 and imprisonment for one year.

### **Register of licences for scientific establishments**

The public accountability of scientific establishments will be enhanced by the creation of a register of all licences for scientific establishments. This register will be available for public inspection, free of charge, at any time during office hours and people will also be able to purchase a copy of, or an extract from, the register.

Members of the public will have access to the wide range of information within the register including:

- the name of the licensee;
- whether it is a licence to use animals for scientific purposes (and the scientific purposes for which the animals are or may be used), or to supply animals for use for scientific purposes;
- details of the places where the animals are or may be used or kept;
- any conditions to which the licence is subject; and
- details of any suspension or revocation of the licence or disqualification of the licensee.

## **PART 3 – OFFENCES AGAINST ANIMALS**

This Part deals with:

- offences for acts of cruelty to animals;
- legal defences against a charge of cruelty; and
- other activities involving animals that are prohibited under the Act.

### **Cruelty to animals**

The legislation expands the range of cruelty offences contained in the current *Prevention of Cruelty to Animals Act 1920* and also provides for more specific cruelty offences to be included in regulations.

Under the Bill, a person will be cruel to an animal if that person:

- tortures, mutilates, maliciously beats or wounds, abuses, torments, or otherwise ill-treats, the animal;
- transports the animal in a way that causes, or is likely to cause, the animal unnecessary harm;
- confines, restrains or catches the animal in a manner that is prescribed; or causes, or is likely to cause, the animal unnecessary pain, suffering or distress;

- works, drives, rides or otherwise uses the animal when it is not fit to be so used or has been over used; or in a manner that causes, or is likely to cause, the animal unnecessary harm;
- fails to provide proper and sufficient food or water for the animal;
- fails to provide such shelter, shade or other protection from the elements as is reasonably necessary to ensure the welfare, safety and health of the animal;
- abandons an animal;
- uses a prescribed inhumane device on the animal;
- intentionally or recklessly poisons the animal;
- carries out a prescribed surgical or similar operation, practice or activity on the animal;
- does any prescribed act to, or in relation to, the animal that causes harm; or
- in any other way causes the animal unnecessary harm.

In addition, the penalty imposed on individuals for cruelty has been greatly increased to a minimum of \$1,000 and a maximum of \$20,000 and imprisonment for one year.

### **Defences against cruelty**

The legislation sets out a number of circumstances under which there is a defence against cruelty. For example, it is a defence for a person to prove that he or she acted in accordance with a generally accepted animal husbandry practice used in a farming or grazing activity; or in the management of zoos, wildlife parks, similar places or animal breeding establishments; and in a humane manner. Similarly, it is a defence for a person to prove that the person was a veterinary surgeon, or was acting on the instructions of a veterinary surgeon, and using generally accepted veterinary practices.

Other important defences are:

- the person was protecting a person or another animal from attack (unless the animal was being used for law enforcement purposes);
- the person's actions were authorised by law;
- the person was killing pests;
- the person was acting according to a relevant code of practice;
- the person allowed stock to roam on a pastoral property and to fend for itself where the property was reasonably capable of sustaining the animals;
- the person was releasing fauna back into the wild;
- the person did not actually have responsibility towards an animal in certain cases;
- the person was authorised to use a restricted device or was using the device in an authorised manner; and
- the person performed an authorised surgical operation in an authorised manner.

### **Possession of things intended to inflict cruelty**

The legislation forbids the possession of devices capable of being used to inflict cruelty, except under prescribed circumstances. Regulations prescribing these circumstances will be developed to support the Act.

### **Shooting, hunting or fighting captive animals**

It will be an offence to release captive animals for the sport of hunting, chasing or killing them. Also, allowing captive animals to fight with each other will be included in the offence.

Any person who takes part in, spectates at, organises, promotes or keeps animals for such purposes will commit an offence.

## **PART 4 - INSPECTORS**

This Part deals with:

- the appointment of both general and scientific inspectors; and
- the functions and powers of inspectors.

### **Appointment of inspectors**

The Bill creates two types of inspectors to enforce the legislation. Inspectors in the first category will enforce the majority of the legislation and will be called general inspectors. The second category of inspector, called scientific inspector, will be responsible for enforcing that part of the legislation dealing with the care and use of animals for research and other scientific purposes. However, general inspectors will also have the capacity to enforce the laws relating to scientific establishments where it involves activities in schools. The Bill will widen the range of sources from which general inspectors can be appointed to include officers from various State agencies such as the Department of Conservation and Land Management (CALM), local governments and other people nominated by the Executive Director of the Department of Local Government.

The Executive Director is responsible for appointing both general inspectors and scientific inspectors. In terms of general inspectors, the Executive Director is to appoint people nominated by the RSPCA and may appoint others. The Executive Director may limit the powers of particular inspectors when the appointments are made.

### **Functions and powers of inspectors**

The proposed legislation gives inspectors the following powers:

- to give various orders;
- to enter and search places and premises, including vehicles;
- to care for animals;
- to destroy animals if they are suffering;
- to seize animals and property; and
- numerous other related powers.

Other parts of the legislation contain penalties of \$10,000 and imprisonment for 6 months for impersonating or obstructing an inspector.

## **PART 5 – ENFORCEMENT**

This Part deals with enforcement of the legislation.

### **Orders additional to fines and imprisonment**

A court may impose additional orders to protect the welfare, safety and health of an animal or group of animals. For example, this may be done by forbidding a convicted person from owning a particular animal, or ordering an animal to be seized. Also, further costs and orders for seizing property may be imposed on offenders.

### **The issuing of warrants**

The legislation allows for search and seizure warrants to be issued to offenders. In addition, provisions are made for urgent warrants to be issued through electronic means such as telephone, fax, or electronic mail etc, to enable inspectors to investigate complaints without delay.

### **Infringement notices**

Unlike the current *Prevention of Cruelty to Animals Act 1920*, the Bill enables infringement notices to be issued. This would allow minor offences, which are easily proved, to be dealt with by the payment of a fine without going to Court.

### **Appeals**

The Bill provides for objections and appeals to be made against a decision of the Minister to refuse to issue or renew a licence, or to suspend or revoke a licence. It also allows for appeals to be made against a number of different orders made by inspectors, in respect of such matters as the care of animals or the seizure of animals and property.

### **Commencement of proceedings for offences**

Proceedings for an offence may be brought by an inspector, the Executive Director of the Department of Local Government or an officer of the Department authorised by the Executive Director, within two years of the alleged offence being committed. Also, there are various evidentiary provisions to assist with prosecutions through the courts.

### **Penalties for bodies corporate**

A body corporate that is found guilty of an offence under the proposed legislation is liable to both minimum and maximum penalties of five times the respective penalty specified in relation to that offence.

## **PART 6 – MISCELLANEOUS**

This Part deals with a number of miscellaneous provisions required to implement the provisions of the proposed legislation.

For example:

- it allows the Minister and Executive Director of the Department of Local Government to delegate some of their functions under the legislation;
- it provides some protection from liability for people performing a function under the legislation; and
- it allows for comprehensive regulations to be made.

## **PART 7 – REPEAL, CONSEQUENTIAL AMENDMENTS AND TRANSITIONAL PROVISIONS**

This Part deals with a number of repeal and transitional provisions which are required. It also makes consequential amendments to other legislation.

These include:

- amending the *Fish Resources Management Act 1994*, to allow a Fisheries officer to exercise powers under the Animal Welfare Act in relation to cruelty offences identified in regulations under the *Fish Resources Management Act 1994*; and
- amending the *Wildlife Conservation Act 1950* to enable the Minister under that Act to cancel a licence where a person is convicted of an offence under the Animal Welfare Act. It also provides for an inspector, or a person assisting an inspector, to seize or humanely destroy fauna if required under the Animal Welfare Act.

Outlined below is an examination of the contents of the Bill on a clause by clause basis:

## **PART 1 --- PRELIMINARY**

Clause 1: Short title.

Clause 2: This clause sets out the commencement provision which provides for the Bill to come into operation on such day as is set by proclamation.

Clause 3: This clause contains an explanation of the content and intent of the Bill.

Clause 4: This clause binds the Crown, however the Crown cannot be prosecuted for an offence and it is not required to hold a licence or obtain an approval under the Act.

Clause 5: This clause defines certain words and expressions used in the Bill.

## **Part 2 --- Use of animals for scientific purposes**

Clause 6: This clause provides that a person must not use animals for scientific purposes unless the person is a scientific establishment that holds, or is a student or staff member of a scientific establishment that holds, a licence.

Clause 7: This clause provides that a person must not carry on a business supplying animals for use for scientific purposes except in accordance with a licence.

Clause 8: This clause provides for the manner in which an application for the issue or renewal of a licence is to be made.

Clause 9: This clause provides that the Minister must be satisfied with certain matters before issuing or renewing a licence. These matters include:

- access to an animal ethics committee;
- compliance with the scientific use code;
- experienced and competent staff;
- any conviction under the Act within the previous three years;
- any previous suspensions or revocations of licences;
- whether the welfare, safety and health of the animals is adequately protected;
- any prescribed matters; and

- appropriateness of the applicant to hold a licence.

Clause 10: This clause provides that after considering the application for a licence the Minister is to issue or renew, or decline to issue a licence and that where it is declined the Minister is to give reasons in writing.

Clause 11: This clause provides that licences are subject to conditions prescribed for the welfare, safety and health of animals and compliance with the scientific use code.

Clause 12: This clause provides for further conditions to be applied or for existing conditions to be amended or removed.

Clause 13: This clause provides that the licensee must ensure that staff and students comply with the conditions of the licence.

Clause 14: This clause provides that a copy of the licence must be publicly displayed as must any code of practice with which compliance is a condition of the licence. There are special arrangements where this relates to field work.

Clause 15: This clause provides for the licence to remain in force for three years or such shorter period as specified.

Clause 16: This clause provides that the licence is not transferable.

Clause 17: This clause provides that the Minister may suspend a license for up to 3 months in a range of circumstances. It also provides for the revoking of a licence.

Clause 18: This clause provides for the Executive Director to keep a register of all licences. The register includes key details about the license and the purpose of the licence.

### **PART 3 --- OFFENCES AGAINST ANIMALS**

Clause 19: This clause provides that a person must not be cruel to an animal. The clause contains specific references to particular types of cruelty offences. Sub-clause (2) deals with particular offences that a person in charge of an animal, or any other person, may be guilty of. Sub-clause (3) covers a range of offences which relate to persons in charge of an animal.

Clause 20: This clause sets out a number of circumstances under which there is a defence against cruelty. It protects people who are defending themselves or another animal from attack. However, it does not protect people acting unlawfully or acting against law enforcement animals.

Clause 21: This clause provides that it is a defence against cruelty for a person to prove that the person was a veterinarian, or was acting on the instructions of a veterinarian, and using generally accepted veterinary practices.



- Clause 22: This clause provides that it is a defence against cruelty for a person to prove that the person was authorised by law to do the act.
- Clause 23: This clause provides that it is a defence against cruelty for a person to prove that they were carrying out generally accepted animal husbandry practices in a humane manner.
- Clause 24: This clause provides that it is a defence against cruelty for a person to prove that they were attempting to kill pests.
- Clause 25: This clause provides that it is a defence against cruelty for a person to prove that the person was acting in accordance with a relevant code of practice.
- Clause 26: This clause provides that it is a defence against cruelty for a person to prove that the animals involved were of a kind that are ordinarily left to roam on a pastoral property that was reasonably capable of sustaining them.
- Clause 27: This clause provides that it is a defence against cruelty for a person to prove that the animal was fauna which was being released into the wild.
- Clause 28: This clause provides that it is a defence against cruelty for a person to prove in certain circumstances that they were not the person who had actual physical custody or control of the animal at the time.
- Clause 29: This clause provides that it is a defence against cruelty under section 19 (2) (b) for a person to prove that he or she was a prescribed person, or was in a prescribed class of persons, using a device in a prescribed manner. (Regulations may specify such persons and devices.)
- Clause 30: This clause provides that it is a defence against cruelty under section 19 (3) (g) for a person to prove that he or she was a prescribed person, or was in a prescribed class of persons, carrying out an operation, practice or activity in a prescribed manner. (Regulations may specify such practices).
- Clause 31: This clause provides that it is an offence to be in possession of any thing with the intention of using it to inflict cruelty on an animal unless the person using it could prove that it was a prescribed thing and that he or she was a prescribed person.
- Clause 32: This clause provides that it is an offence to engage in a prohibited activity that involves releasing or putting an animal somewhere so that it can be shot at, hunted, fought or chased. It is a defence to such a charge for a person to prove that the activity was a prescribed activity or that it was necessary to sustain a captive predatory animal.

## **PART 4 --- INSPECTORS**

### **Division 1 --- Appointment of Inspectors**

Clause 33: This clause provides for the appointment of general inspectors for a 5 year term by the Executive Director. Such appointments would include those nominated by the RSPCA and as many as are considered necessary from the Department of Local Government, Agriculture WA, CALM, Fisheries Western Australian, local governments or such other persons as the Executive Director may appoint.

Clause 34: This clause provides for the appointment of scientific inspectors for a 5 year term by the Executive Director.

Clause 35: This clause provides that a general inspector who is an employee of a local government may only exercise the powers of an inspector inside the district of the local government or outside in an emergency situation.

This clause also provides that the Executive Director may restrict the powers of an inspector, other than that of a police officer.

Clause 36: This clause provides for identification cards to be issued to inspectors. Inspectors shall be required to show their identification cards.

### **Division 2 --- Functions and powers of inspectors**

Clause 37: This clause provides for the principal functions and powers of both general inspectors and scientific inspectors.

Clause 38: This clause provides the power for an inspector to enter any places and premises. It sets out procedures for entering property.

Clause 39: This clause provides the power for an inspector to enter a vehicle. Vehicles may include a train, vessel, aircraft or any other thing used as a means of transport.

Clause 40: This clause provides inspectors with the power to care for an animal or direct a person in control of an animal to provide appropriate care.

Clause 41: This clause provides inspectors with the power to humanely destroy an animal where it is in severe suffering.

Clause 42: This clause provides inspectors with the power to seize an animal.

Clause 43: This clause provides inspectors with the power to seize other property which is believed to have been used in committing an offence under the Act.

- Clause 44: This clause provides the manner in which seized property will be dealt with. It provides for the keeping of the property, its eventual return or its forfeiture to the Crown.
- Clause 45: This clause provides the manner in which seized fauna will be dealt with.
- Clause 46: This clause provides inspectors with the power to demand that an offender shall give their name, address and date of birth.
- Clause 47: This clause provides inspectors with other extensive powers. They include, searching, taking samples, removing animals, taking photographs, collecting evidence and various other powers.
- Clause 48: This clause provides for an inspector to be accompanied or assisted by a person who may exercise the function of the inspector. It provides for actions which would be regarded as veterinary surgery to be carried out by a veterinary surgeon unless a matter is urgent.

### **Division 3 --- Additional powers of scientific inspectors**

- Clause 49: This clause provides scientific inspectors with the power to refer a matter involving the use of animals for scientific purposes to a relevant animal ethics committee for reconsideration.
- Clause 50: This clause provides scientific inspectors with the power to give any directions considered necessary to remedy a problem with scientific experiments involving a licensed scientific establishment.
- Clause 51: This clause provides scientific inspectors with the power to require certain information.
- Clause 52: This clause provides scientific inspectors with the power to provide the Minister with written advice on whether or not a scientific establishment is complying with relevant codes of practice etc. The Minister may act on such information without the need for further investigation.
- Clause 53: This clause provides scientific inspectors with the power to attend meetings of animal ethics committees as observers.

## **PART 5 --- ENFORCEMENT**

### **Division 1 - Additional Court Orders**

- Clause 54: This clause provides that a court may order a post mortem on an animal by a veterinary surgeon.
- Clause 55: This clause provides that a court may, in addition to imposing a penalty, make any other appropriate order against an offender for the welfare, safety and

health of an animal. This includes ordering that an offender is prohibited from dealing with animals, seizing property, prohibit the holding of a licence, etc.

Clause 56: This clause provides that a Local Court may order that a person who has incurred certain costs be reimbursed by the person in charge of an animal immediately prior to it being destroyed or seized, or care being provided.

Clause 57: This clause provides that a court may order that seized property remain under seizure until the fine or costs are paid.

Clause 58: This clause provides that a court may make such orders as to costs as it thinks fit.

### **Division 2 - Warrants**

Clause 59: This clause provides that a justice may issue a warrant authorizing an inspector to enter a place or vehicle.

Clause 60: This clause provides that a justice may issue a warrant authorizing an inspector to seize an animal.

Clause 61: This clause provides for a warrant to be in the prescribed form.

Clause 62: This clause provides that where an inspector urgently wishes to obtain a warrant the inspector may apply to a justice by electronic means.

### **Division 3 - Infringement Notices**

Clause 63: This clause defines “authorized person” as a person appointed under clause 64(1) for the purpose of withdrawing infringement notices under clause 68 or for other specified functions.

Clause 64: This clause provides that the RSPCA, the Commissioner of Police and the chief executive officers of the Department of Local Government, Agriculture WA, CALM, Fisheries Western Australia and all local governments shall appoint as many such authorized persons from their staff as are required. This only applies where appointments of inspectors have occurred.

Clause 65: This clause provides for an inspector to issue an infringement notice within 28 days of the offence allegedly happening.

Clause 66: This clause provides for an infringement notice to be in the prescribed form.

Clause 67: This clause provides for an authorized person to extend the period available to an alleged offender has to pay the modified penalty.

Clause 68: This clause provides for an authorized person to withdraw an infringement notice.

Clause 69: This clause provides that where a modified penalty is paid within the required time, court proceedings cannot be implemented.

Clause 70: This clause provides that where a modified penalty is paid, it is to be credited to the RSPCA, a local government or the Consolidated Fund as applicable in accordance with clause 86.

#### **Division 4 - Review of decision and appeals**

Clause 71: This clause defines “appealable decision”. It covers decisions by the Minister to refuse, renew, set conditions or suspend or revoke a licence. It also covers certain decisions of inspectors.

Clause 72: This clause provides that a person aggrieved by a decision may lodge an objection with the Minister in the prescribed form if that person has not lodged an appeal.

Clause 73: This clause provides the manner in which the Minister is to deal with an objection.

Clause 74: This clause provides that a person aggrieved by an appealable decision may lodge in the prescribed form an appeal with a Local Court if that person has not already lodged an objection.

Clause 75: This clause provides the manner in which a Local Court is to deal with an appeal.

#### **Division 5 - Offences**

Clause 76: This clause provides that a person must not give information that the person knows to be false or misleading to the Minister, an animal ethics committee or an inspector.

Clause 77: This clause provides that a person must not hinder, obstruct, abuse or threaten an inspector or a person assisting an inspector.

Clause 78: This clause provides that a person must not pretend to be an inspector.

Clause 79: This clause provides that where an offence continues the offender commits an additional offence each day it continues.

Clause 80: This clause provides that where a body corporate or a scientific establishment commits an offence then every person who was an officer of the body or establishment at the time also commits the offence.

Clause 81: This clause provides that where a licence is issued to a partnership then each partner has the same rights and duties as a licensee.

### **Division 6 - General**

Clause 82: This clause provides that proceedings may be commenced by inspectors, etc, for an offence which is not less than two years old.

Clause 83: This clause provides for various evidentiary provisions for proceedings and other matters.

Clause 84: This clause provides that a breach of a code is not sufficient in itself to prove that a person committed a cruelty offence.

Clause 85: This clause provides that where a person kills an animal that is not sufficient in itself to prove that the person committed an offence.

Clause 86: This clause specifies where court fines are to be credited.

Clause 87: This clause provides for the disposal of forfeited property. Where it is sold the proceeds may be used for paying fines etc.

Clause 88: This clause provides for a higher level of minimum and maximum penalties for corporations. These are set at 5 times that applying to other offences.

### **PART 6 --- MISCELLANEOUS**

Clause 89: This clause provides that the Executive Director may take such action as is necessary to protect and promote the welfare, safety and health of animals.

Clause 90: This clause deals with the powers of delegation for the Minister and the Executive Director.

Clause 91: This clause provides that a person performing a function under the Act must not improperly use information obtained in the course of performing that function.

Clause 92: This clause protects from liability any person performing a statutory function in good faith under the Act.

Clause 93: This clause provides that an owner may claim compensation where a scientific inspector has maliciously or negligently performed a function under the Act.

Clause 94: This clause provides the purposes for which various regulations may be made.

**PART 7 --- REPEAL, CONSEQUENTIAL AMANDMENTS AND TRANSITIONAL PROVISIONS**

Clause 95: This clause repeals the existing Act.

Clause 96: This clause provides an amendment to the *Fish Resources Management Act 1994* thereby giving fisheries officers additional powers in relation to cruelty.

Clause 97: This clause provides for amendments to the *Wildlife Conservation Act 1950*. It enables the Minister under that Act to cancel or suspend a licence where a holder is convicted of an offence under the Animal Welfare Act. It also provides for an inspector, or person assisting an inspector, to seize or humanely destroy fauna if required under this Act.

Clause 98: This clause provides for a transitional provision. It enables the issue of whether a person has been prosecuted under the *Prevention of Cruelty to Animals Act 1920* to be considered when determining whether or not to issue a license for the use of animals for scientific purposes.