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Use of Invertebrate Animals in Research

1 Introduction

- 1.1 Definition of an Invertebrate Animal
 - a) An animal lacking a backbone, such as an arthropod, mollusc, annelid, coelenterate, etc. The invertebrates constitute an artificial division of the animal kingdom, comprising 95 per cent of animal species and about thirty different phyla. Invertebrates have small nervous systems, consisting of many small brains (ganglia).
 <u>Oxford Dictionary</u>
 - b) This policy applies to all invertebrate animals except Cephalopods
- 1.2 All aspects of a project involving biological experimentation with animals must be within the comprehension and capabilities of the student undertaking the study.

2 Definitions of Student Researcher and Adult Supervisor

- 2.1 A *Student Researcher* is the person primarily responsible for the project. This student makes observations, takes appropriate data, and analyses it to draw conclusions.
- 2.2 The *Adult Supervisor*, a parent, teacher, professor or scientist, is responsible for ensuring that the student is aware of the ethical issues involved in the project and provides guidance and advice to ensure that Youth Science Canada policy is followed. The Adult Supervisor is responsible for ensuring that the student's research is eligible for entry into the CWSF and related or other events sponsored by Youth Science Canada. Every project involving the participation of humans or the use of animals requires an Adult Supervisor.

3 Invertebrate Animals

- 3.1 Lower orders of life bacteria, fungi, protozoa, insects, plants and invertebrate animals with elementary nervous systems can be used in experimentation to reveal valuable basic biological information. Except for the Cephalopods, e.g. squid, octopus or cuttlefish, invertebrates have small nervous systems, consisting of many small brains (ganglia). Students may do experiments on such invertebrate animals, and exhibit their work in science fairs. Cephalopods have a large, vertebrate-like central nervous system and are treated according to the rules for Vertebrate Animals.
- 3.2 Youth Science Canada reserves the right to disallow a project involving experimentation on invertebrates that is of questionable scientific or educational value, or is judged to be unethical.

4 Principles and Guidelines for the Use of Animals in Elementary or Secondary School Education

4.1 The Institute for Laboratory Animal Research (USA) has published a pamphlet which outlines ten Principles that define the ethical use of animals in a school or science fair setting. (Ref. 1) Youth Science Canada endorses these ten principles, and all students doing a science fair project involving animals must be familiar with them.

5 References

1. ILAR Animals in Pre College Education