***Animal Welfare***

The term "animal welfare" is widely used to refer to an animal's quality of life. Ethical concerns regarding animal welfare can be grouped into three main types:

* **Basic health and functioning** - animals should be well fed and housed, free from injury and disease, and relatively free from the adverse consequences of stress.
* **Affective states of animals** - animals should be relatively free from negative states, including pain, fear, discomfort and distress, and capable of experiencing normal pleasures and comforts.
* **Ability to perform important types of natural behaviour** - animals should be able to carry out normal patterns of behaviour, including normal affiliation with other animals and those behaviours that they are highly motivated to undertake, in an environment that is well suited to the species.

Another approach to understanding and evaluating animal welfare is to use the Five Freedoms of the UK Farm Animal Welfare Council. These freedoms were originally defined to give guidance to farmers on the goals of husbandry; however, the freedoms are also applicable to animals used in science.

**The Five Freedoms Are:**

1. Freedom from hunger and thirst (by ready access to fresh water and a diet to maintain full health and vigour).
2. Freedom from discomfort (by providing an appropriate environment including shelter and a comfortable resting area).
3. Freedom from pain, injury and disease (by prevention or rapid diagnosis and treatment).
4. Freedom to express normal behaviour (by providing sufficient space, proper facilities and company of the animal's own kind).
5. Freedom from fear and distress (by ensuring conditions and treatment which avoid mental suffering).

To more accurately describe negative animal welfare states, the following definitions of distress, discomfort and pain are used by the CCAC:

* **Distress** is a state associated with invasive procedures conducted on an animal, or with restrictive or other conditions which significantly compromise the welfare of an animal; it may or may not be associated with pain, and is present when the animal must devote substantial effort or resources to the adaptive response to challenges emanating from the environmental situation.
* **Discomfort** is viewed as a mild form of distress.
* **Pain** is an unpleasant sensory and emotional experience associated with actual or potential damage or described in terms of such damage.

The CCAC uses the term "distress" rather than "suffering", (often expressed as "pain and suffering") in relation to animal experiences. This is because for some animals (the lower vertebrates) that capacity may not be present in the way that humans perceive it.

There is some disagreement in the scientific literature regarding the capacity of fish to experience pain. However, it is established that fish respond to noxious stimuli with changes in behaviour and or physiology, and the same noxious stimulus would be painful to humans. Therefore, the CCAC requires that fish used in research, teaching and testing be treated with the respect accorded to other vertebrate species.