



P.O. Box 630
NARRABEEN
NSW 2101

The Editor,
Sydney's Child,
Copeland Publishing Pty. Ltd.,
PO Box 171
Beecroft, NSW, 2119

Dear Editor,

The article in your April Issue entitled "What are we really teaching our children when we teach them to fish?" is typical of the arguments used by the anti-fishing lobby to denigrate fishing as a past-time, but in this case the contributor has added the emotional twist of the effects it has on our children. There are two basic arguments used in this article, firstly that fishing is cruel and that fish are capable of feeling pain. The second is the repugnant notion of gaining enjoyment at the expense of another animal with catch and release fishing, and that this type of fishing has a high mortality rate.

The concept of fish and pain has been hotly debated amongst scientists, biologists and neurologists for years with a general consensus that fish are not aware of pain. A paper by James D Rose, a professor in zoology and physiology at the University of Wyoming and who has been studying neurology for over 30 years, called "The Neurobehavioural Nature of Fishes and the Question of Awareness and Pain" in *Reviews in Fisheries Science*, 2002, 10(1) pp1-38, is a review of the literature on the neurology of fish. This review concludes that an awareness of pain depends on functions of specific regions of the cerebral cortex, a part of the brain which fish simply do not possess. If they are not aware of pain then they are not feeling pain. Also, the presence of nociceptors and associated response to stimuli does not equate with a feeling or awareness of pain, but are related to reflex actions. This is supported by another paper called "An Argument in Defence of Fishing" by Michael LaChat, a Professor of Christian Ethics at the Methodist Theological School in Ohio where it is argued of the fallacy of equating escape behaviour with pain perception and gives as one of many examples brain dead humans showing avoidance behaviour to painful stimuli, but this is a reflex behaviour that is not related to pain avoidance.

In his book "Fish Tales", Australia's most respected marine biologist Julian Pepperell discusses the philosophical realm on the use of animals by humans, agreeing with LaChat's philosophy that the "benefits of fishing may well outweigh the cost to individual fish, even if we give them the benefit of sentience and, therefore, pain

perception as we know it. Such well known and well documented human benefits can be psychological, spiritual, nutritional and economic”.

Pepperell goes on to mention that man is an integral part of the environment, and in fact are predators at the top of the food web. We are not bystanders nor observers with a look-but-do-not-touch attitude that the anti-fishing lobby would prefer. He also argues that being an integral part of the environment will mean that fisheries management and fisheries sciences will ensure sustainable resources for future generations.

Your correspondent is also misrepresenting known data when she quotes a mortality rate of 62% from studies in catch and release tournaments in the USA. Perhaps the most concise review of catch and release mortality comes from a review of 132 studies in the USA by Muonoke and Childress entitled “Hooking mortality: a review for recreational fisheries” in *Reviews in Fisheries Science* Volume 2, plus a paper by Rudy Lukacovic of the Fisheries Division of the Maryland Department of Natural Resources called “Recreational Catch and Release Mortality Research in Maryland”. There are two main factors that influence the survival rate of fish when released, physical injury and stress. For physical injury the most important aspect is the location of the hook wound, and if located in a vital organ the mortality rate can be high, but this figure can be reduced greatly by varying hook type and size. Overall mortality rates for all species from physical injury is of the order of 3%, and 5-6% of hookups are deepset and of these the mortality rate was about 35-60% depending on the species. Stress related mortality is dependent on factors such as the length of the fight, water temperature, oxygen content and salinity levels of the water. Stress related mortality rates are of the order 1.5-3.5% depending on the species, but can increase to 15% with increased water temperatures.

By stating that fish don't like getting caught, like stating that fish feel pain, is assigning thought processes, behavioural patterns or emotions to animals that are incapable of having, or performing them. In a similar vain it can be argued that fish do like being caught as they wag their tails when reeled in, and of course this is a nonsensical argument as this behaviour is a reflex behaviour, as is all behaviour exhibited by fish. They are not capable of conscious thought processes and have no concept of what 'being caught' is. Their struggle to escape is merely a reflex response and not a desire to not be caught, and this is how they have survived for over 450 million years.

Your correspondent asks what are we really teaching our children when we teach them to fish? I would answer the first thing is honesty and not to misrepresent and misconstrue the known facts for other agendas. The second is that we are part of the environment and not mere observers as your correspondent would want us, and our place in the natural order of things is as high order predators. As such the individual animals may be sacrificed, but conversely we have a duty of ensuring for the proper sustainability of the resource through fisheries and environmental management.

Yours sincerely

Phillip Ingram
President
Anglers Action Group (Sydney Northside) Inc.,
PO Box 630,
Narrabeen, NSW, 2101