

Fish Sentience – Recognition by the Scientific Community

For centuries, a common belief has been the Cartesian claim that nonhuman animal species were incapable of suffering pain. Thankfully, that fallacy is now rejected nearly universally in regard to mammalian and avian species. Tragically, the ignorance largely continues in regard to fish. While many people intuitively and/or intellectually realize that fish can suffer pain, society at large still views and treats fish as insentient beings. However, **the scientific evidence is in:** fish can, in fact, feel terror, panic and pain, and suffer immensely from it.

“[T]he results of many studies lead to believe that **fish have the structures necessary and the capacity to experience fear and pain and can thus suffer...**” – The Scientific Panel for Animal Health and Welfare of the European Food Safety Authority (p. 156), June 2004:

http://www.efsa.europa.eu/en/efsajournal/doc/opinion_ahaw_02_ej45_stunning_report_v2_en1.1.pdf?ssbinary=true

“Anatomical, pharmacological and behavioral data suggest that **effective states of pain, fear and stress are likely to be experienced by fish in similar ways as in tetrapods** [e.g., amphibians, reptiles, birds and mammals] – Can Fish Suffer? K.P Chandroo, I.J.H Duncan, R.D Moccia; Applied Animal Behavior Science, 2004:

<http://www.sciencedirect.com/science/article/pii/S0168159104000498>

"A powerful portfolio of physiological and behavioural evidence now exists to support the case that **fish feel pain and that this feeling matters**. In the face of such evidence, any argument to the contrary based on the claim that fish 'do not have the right sort of brain' can no longer be called scientific. It is just obstinate." - John Webster, emeritus professor at the University of Bristol, Does she have feelings, too? The Telegraph, March 2, 2005:

<http://www.telegraph.co.uk/technology/3339777/Does-she-have-feelings-too.html>

“**Evidence that the term pain is applicable to fish comes from anatomical, physiological and behavioural studies** whose results are very similar to those of studies on birds and mammals. The fact that fish are cold blooded does not prevent them from having a pain system and, indeed, such a system is valuable in preserving life and maximising the biological fitness of individuals. The receptor cells, neuronal pathways and specialised transmitter substances in the pain system are very similar in fish to those in mammals.” - Farm Animal Welfare Council Report on the Welfare of Farmed Fish, September 1996: <http://www.fawc.org.uk/reports/fish/fishr004.htm>

“The scientific literature is quite clear. **Anatomically, physiologically and biologically, the pain system in fish is virtually the same as in birds and mammals...**in animal welfare terms, you have to put fishing in the same category as hunting.” - Dr Donald Broom, Professor of Animal Welfare at Cambridge University, Daily Telegraph, October 19, 1995: <http://www.animalaid.org.uk/h/n/CAMPAIGNS/vegetarianism/ALL/539/>

The Royal Society, the United Kingdom's independent academy of science, published "**conclusive evidence indicating pain perception in fish**," concluding that pain produced "profound behavioural and physiological changes in fish over a prolonged period of time, **comparable to those in higher mammals**," - Do fishes have nociceptors? Proceedings of the Royal Society B: Biological Sciences, June 7, 2003: <http://www.ncbi.nlm.nih.gov/pmc/articles/PMC1691351/>

"In the light of evidence reviewed ... it is recommended that, **where considerations of welfare are involved, all vertebrate animals** (i.e., mammals birds, reptiles, amphibians and fish) **should be regarded as equally capable of suffering** to some degree or another, without distinction between 'warm-blooded' and 'cold blooded' members." - The Medway Report, an independent report, written by a panel of experts, commissioned by the RSPCA, 1980: <http://fishcount.org.uk/fish-welfare-in-commercial-fishing/fish-sentience>

"We now know that fish actually are cognitively more competent than we thought before -- some species of fish have **very sophisticated forms of cognition**... In our experiments we showed that **if we hurt fish, they react, and then if we give them pain relief, they change their behavior, strongly indicating that they feel pain.**" - Victoria Braithwaite, Penn State professor of fisheries and biology, November 16, 2010: <http://news.psu.edu/story/162820/2010/11/16/researcher-explores-whether-fish-feel-pain>

"I have argued that **there is as much evidence that fish feel pain and suffer as there is for birds and mammals -- and more than there is for human neonates and preterm babies.**" - Victoria Braithwaite, do fish feel pain? (p.153), 2010: <http://tinyurl.com/n84phg3>

"**In many areas, such as memory, their cognitive powers match or exceed those of 'higher' vertebrates**, including non-human primates. Best of all, given the central place memory plays in intelligence and social structures, **fish not only recognize individuals but can also keep track of complex social relationships.**" – Culum Brown (Associate Professor, Macquarie University), Not Just a Pretty Face, New Scientist, June 12, 2004: <http://www.newscientist.com/article/mg18224515.200-not-just-a-pretty-face.html>

"They have **fantastic learning and memory capabilities**. A lot of people think that fish behaviour is totally inflexible, like little swimming robots, but that's absolutely not the case. **They can learn all sorts of things and adjust their behaviour, if only we give them the chance to do it.**" - Culum Brown
(<http://bio.mq.edu.au/dept/centres/beef/beef.html>), Catalyst, December 4, 2007: <http://www.abc.net.au/catalyst/stories/s1895106.htm>

Fish Feel is the sole organization devoted exclusively to promoting the recognition of fish as sentient beings deserving of respect and protection: <http://www.FishFeel.org>