Researcher explores whether fish feel pain

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(PhysOrg.com) -- Do fish feel pain? Victoria Braithwaite, Penn State professor of fisheries and biology, has spent decades studying that question. In her recently published book, "Do Fish Feel Pain?" she examines whether fish are capable of experiencing pain, whether humans cause them to suffer and whether it even matters.

Braithwaite recalled that she initially was drawn to the question by fish-farming concerns rather than angling-ethics considerations.

"By 2030, half of all fish that humans eat will come from fish farms," she said. "It seemed logical to me to care about fish, because agriculture in general is confronting animal-welfare issues. If we are concerned about animal welfare, we should be concerned about fish welfare."

Through exhaustive experiments with fish, explained in her book, Braithwaite found that fish have the same kinds of specialized nerve fibers that mammals and birds use to detect noxious stimuli, tissue damage and pain. She also explored whether fish are sentient beings and whether an organism must possess "awareness" to experience pain.

"We now know that fish actually are cognitively more competent than we thought before -- some species of fish have very sophisticated forms of cognition," she said. "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."

Braithwaite, who points out that she eats fish, emphasizes that she is not

against sport fishing. "I recognize how valuable the efforts of anglers have been historically for conservation -- many fishermen are staunch stewards of the aquatic environment, guarding our waterways against pollution and degradation. We would not want to be without them or their efforts.

"Perhaps my book will influence people to be more humane when sport fishing," she said, "persuading them to make quicker kills and use barbless hooks and not keep fish out of the water long if they are practicing catch and release"

The United States, Braithwaite estimates, is ten years behind Europe right now in its thinking about the way it keeps and kills animals in agriculture. Those concerns are just now starting to be extended to aquaculture. In fish farming, she pointed out, producers are searching for more humane ways to kill fish

"Electrical stunning may change the way we harvest fish at sea," she said. "We have a responsibility, I think, to make clean and quick kills of fish we eat. Certainly, most of us are not comfortable with piles of fish slowly suffocating on the decks of fishing trawlers at sea and in port. People are rightly asking, 'Isn't there a better way?'"

According to Braithwaite, the latest scientific evidence suggests that the protections currently given to birds and mammals should be widened to include fish.

"There is a perception that fish have simple brains and are incapable of feelings, and this has somehow made them different from birds and mammals when it comes to our concerns for their welfare," she said. "But we now have strong evidence that suggests fish are more intelligent than previously thought and their behavior more complex."

"Do Fish Feel Pain?" is published by Oxford University Press.

Provided by Pennsylvania State University

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