ALLIANCE
of Marine Mammal Parks & Aquariums

An international organization dedicated to conservation through public display, education, and research

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Mr. Chris Johns
Chief Content Officer
National Geographic Society
P.O. Box 98199
Washington, D.C. 20090-8199

Dear Mr. Johns;

Recently, National Geographic News ran a profile on animal rights activist Lori Marino (May 2014, "Lori Marino: Leader of a Revolution on How We Perceive Animals"). This article portrayed Marino, who calls herself a "scientist-advocate," as someone who uses "scientific objectivity" and the "power" provided by having the title of Ph.D. to argue animal rights issues in court, movies, and the world of public opinion. However, while there is nothing inherently wrong with a scientist -- like any other person -- advocating for a cause, the rest of us need to be extremely cautious about automatically assuming that because an advocate *is* a scientist, he or she is necessarily employing scientific objectivity when advocating. In fact, there are at least three major areas discussed in this article where it is clear that scientific objectivity has been compromised or abandoned in the name of such advocacy.

First, the article notes that the producers of the movie Blackfish turned to Marino for an explanation of why killer whales "sometimes go mad in captivity." However, the producers of this movie were clearly not interested in any sort of scientific objectivity. An objective scientist would have pointed out that an instance of a top predator killing something, whether intentional or not, can hardly be characterized as evidence of mental illness. Marino went the opposite direction, baldly stating without hesitation or qualification that killer whales in oceanariums are "all emotionally destroyed [and] all psychologically traumatized." These are the words of an advocate, and not of science. Indeed, I would challenge Dr. Marino to cite any scientific evidence that even one whale fits this diagnosis, much less all of them.

Second, the article states that Marino turned to activism when two dolphins she had worked with died from infection when they were each "about 20 years old--half the normal life span in the wild" (a factoid that must have been supplied by Marino, as it also appears in other articles describing this event.[1]) However, while it is certainly understandable how emotionally heart wrenching it can be when an animal you've grown close to dies, the information about expected lifespans that she uses to frame this event is simply not true. Moreover, it contradicts one of Marino's own papers from 2011, in which she notes that the best estimate of average lifespan for dolphins both in the wild and in oceanariums is "about 25" years.[2]

Finally, Marino states that, "There is abundant, unquestionable evidence for personhood for animals." As the article mentions, the goal of Marino's work with the Nonhuman Rights Project (NhRP) is to get at

least some types of nonhuman animals legally recognized as persons, in order to grant them the legal right not to be "imprisoned" (i.e., owned).[3] To do this, however, the NhRP simply invented criteria for what they think should count as a "person." There is no scientific category of "person" to which they are appealing. And even within this invented definition, the evidence is not nearly as strong as Marino makes it out to be. For example, one of the strongest benchmarks the NhRP uses is whether the animal can recognize itself in the mirror -- the same test the article says led Marino to the conclusion that dolphins should be classified as persons. Note, however, that two of the three studies that have attempted to assess mirror self-recognition in dolphins were inconclusive, and the one described in this article that claimed conclusive results has been criticized for biased design and incomplete reporting of data.[4] Of course, that's not to say that dolphins definitely cannot recognize themselves in a mirror; only that it hasn't been clearly shown that they can. And that is a far cry from "abundant, unquestionable evidence."

With that all said, some readers might be tempted to jump to the very wrong conclusion that I'm trying to claim that dolphins are not smart. As a scientist who has spent the last twelve years researching how dolphins think, let me assure you that this is not the case. The truth is that there are areas in which dolphins' thought processes seem to be highly sophisticated (i.e., "they're smart"), *and* there are areas in which dolphins' thought processes are not as sophisticated as you might think (i.e., "they're not so smart").[5] But that's the difference between scientific objectivity and advocating. Where an advocate will use his/her knowledge "like a cudgel" to argue for a position, scientific objectivity requires using knowledge like a scalpel -- to be clear about what we know and what we don't know, and which conclusions are actually supported by the data.

Sincerely,

Kelly Jaakkola

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[1] e.g., Grimm, D. (2011). Are dolphins too smart for captivity? *Science,* 332, 526-529.

[2] Marino, L., & Frohoff, T. (2011). Towards a new paradigm of non-captive research on cetacean cognition. *PLoS ONE,* 6, e24121.

[3] http://www.nonhumanrightsproject.org/qa-about-the-nonhuman-rights-project/

[4] see, e.g., Harley, H.E. (2013). Consciousness in dolphins? A review of recent evidence. *Journal of Comparative Physiology A, 199*, 565–582; Güntürkün, O. (2014). Is dolphin cognition special? *Brain, Behavior, & Evolution, 83*, 177-180.

[5] For an analysis of what we do and don't yet know about dolphin cognition, see: Jaakkola, K. (2012). Cetacean cognitive specializations. In J. Vonk & T. Shackleford (Eds.), *The Oxford Handbook of Comparative Evolutionary Psychology* (pp. 671-688). New York: Oxford University Press.