In the western United States, environmental groups like the Glen Canyon Institute have worked tirelessly to save several species of endangered fish along the Colorado River, including the humpback chub (*Gila cypha*). Partly on the basis of wanting to save these endangered fish species, the Institute has advocated that the Glen Canyon Dam in the Colorado River Basin be decommissioned. Without the dam, the Colorado River will warm up and become muddy again in Glen Canyon, which is good for the endangered fish species. However, removal of the dam is bad for the introduced fish species of the river, such as the striped bass, largemouth bass, smallmouth bass, and walleye which prefer cool, clear waters that the dam has been able to provide.

If the Institute is successful in having the dam decommissioned, then Lake Powell (which Glen Canyon dam created) and the associated tail waters of Lees Ferry, with their burgeoning introduced fisheries, will cease to be fisheries any longer. This is an economic disadvantage to decommissioning the dam – others include a severe reduction in tourism in the area, as the main source of tourism in the area is Lake Powell, and the obvious loss of a massive water storage area in the form of Lake Powell.

Critics of the humpback chub’s preservation point to these kinds of economic disadvantages to saving the chub via decommissioning the dam. They are also concerned that current efforts to save the chub are wasted, and so point to further economic costs of trying to
save the chub. The Native Fish Work Group (NFWG), a group founded by the U.S. Bureau of Reclamation, is charged with saving the humpback and other endemic endangered species of the Colorado River from extinction. Their methodology is as follows: mature fish are bred at a hatchery, and the resulting hatchlings are transferred to various ponds in the Las Vegas area. Once these fish reach maturity, they are transferred back to the Colorado where they attempt to reproduce. Unfortunately, the transferred fish are hardly ever able to produce offspring that themselves survive to reach maturity and then reproduce on their own. This is because the offspring are eaten by introduced fish such as trout, bass, and walleye. Consequently, the NFWG as it currently exists does not work to satisfy its stated aim of saving the humpback chub (Chessa, 2005). And so whatever money it takes to run the program is wasted. In fact, it is hard to see how the chub will do well in the future without the removal of the introduced species in question.

Continuing with their criticism, critics ask, “What good is it, anyway?” These critics are asking the environmentalists who wish to save the humpback chub what *instrumental* value the humpback chub has, that is, what value it has as a means to an end of some other entity. Canvassing instrumental reasons for why we might preserve the humpback chub, we seem to find none, the critic may argue. The kinds of instrumental value that the critic may consider are aesthetic value, ecosystemic value, and economic value.

Considering aesthetic value first, a critic may say that the humpback chub probably does not strike us as ‘cute’, or magnificent, or in possession of any other pleasing aesthetic characteristic, so a claim that it had any aesthetic value would be met with immediate skepticism (see Fig. 1). Or, in the parlance of biologists, the humpback chub is not one of the charismatic megafauna, like species of bear, whale, and cheetah that seem to have obvious aesthetic value.
A critic may also point out that the chub does not seem to have ecosystemic value. One way of broadly defining ecosystemic value is that it is the contribution a species makes to the functioning of the trophic structure (food web) of which the species is a part. One clear way that a species could have value in this way is if some other species within the ecosystem in question would be adversely affected if it became extinct. When posed with the question of whether the humpback chub has value in this sense, an expert on the recovery of the chub, Dr. Robert Muth, Director of the Upper Colorado River Endangered Fish Recovery Program of the Fish and Wildlife Service, said that the chub has no such value. His assessment was that the current trophic structure that the chub is a part has not been significantly changed as a result of its being in the process of becoming extinct, and is not expected to be significantly changed once it does become extinct, and so no other species have been or are expected to be significantly affected in an adverse way.

Additionally, the critic may point out that the humpback chub has no clear economic value. One clear way that the chub could have instrumental economic value is if it is used as a food source. Though it was true that the humpback chub and other endangered minnow species in the Colorado River Basin were once used as food by both Native Americans and early
pioneers, the introduction of more desired species such as the trout have eliminated any interest in eating these minnow species.

In response to the claim that the humpback chub has no clear instrumental value, the proponent of its preservation could shift the terms of the debate. When asked the question “What good is it, anyway?” the preservationist could turn the question around on the critic and ask, “What good are you, anyway?” The critic would regard this question as missing something. People see themselves as being valuable not only in an instrumental way, but also in an intrinsic (or inherent) way. That is, even though people see themselves as being valuable in various ways to family, friends, and colleagues, they view themselves as having value that exceeds and is distinct from their instrumental value. People, in short, see themselves as possessing value as ends-in-themselves, value that is not for the sake of anyone or anything else.

With the question “What good are you, anyway?” preservationists could try to show that asking whether something has just instrumental value misses something, namely that the thing in question might also have intrinsic value. If the humpback chub has intrinsic value, then having this value could help to show that the chub should be preserved.

Several environmental ethicists have developed accounts of species’ intrinsic value. Beginning with an overview of Lawrence Johnson’s account, Johnson generates an argument for the intrinsic value of species by starting with the claim that individual human beings have intrinsic value, and then investigates whether the reasons offered for that claim apply to species (Johnson 1991, 1992). Johnson answers the question of what makes a human being have intrinsic value by saying that it is the possession of well-being interests that makes an entity have such value. Well-being interests are those that conduce to the effective integrated functioning of
an entity. Johnson argues that species have such well-being interests, and thus have intrinsic value.

J. Baird Callicott saw in David Hume, Charles Darwin, and Aldo Leopold a sociobiological account of why we humans intrinsically value others, or, alternatively, how others have intrinsic value (Callicott 1989, 1999). This story is about how our other-regarding sentiments like sympathy evolved to care first about our kin, then to care about nonkin, and then to care about whole nations. Callicott saw that this story of intrinsically valuing ourselves, others, and whole nations could be extended to intrinsically valuing other individual organisms, species, biological communities, and even the land that helps sustain those communities, for he believes that our other-regarding sentiments can be focused onto aspects of nature as well.

Giving a final overview of an account of species’ intrinsic value, Callicott (1992, p. 133-34) gives a concise outline of one offered by the father of environmental ethics, Holmes Rolston:

…organisms defend their “own kind as a good kind.” By this he [Rolston] means that all organisms…actively defend their lives, and strive to propagate their own species. Each organism has a telos, a built-in end…. Thus, each is an end in itself. Each, therefore, has a good of its own. This claim, that all organisms are ends in themselves with goods of their own, may be what we choose to mean by saying that they are intrinsically valuable…. Species and ecosystems also…possess Rolstonian intrinsic value. Each organism “re-presents” its species. Each is a token of its type. Its type is indeed its telos, just as Aristotle would have it. Each strives to be a good of its kind, and some succeed better than others. Remember Rolston’s key formula…. all organisms defend their “own kind as a good kind.” Hence, kinds – species – also have intrinsic value.

References


