

## Summary of Public Comments

The following is a summary of the issues and responses raised by the public related to the draft economic analysis accompanying the black carp proposed rulemaking. In all, there were 130 comments with a direct or indirect reference to the draft economic analysis.

Comment: Some respondents noted that triploid fish can survive more than five years. There was an expressed concern about breeding pairs needed for the production of triploid black carp escaping and causing environmental harm. One respondent commented that broodstock of diploid black carp used to produce triploid black carp are not secured in a manner that guarantees absolute containment and that native mussels would be at risk.

Response: The freshwater mussel section in the economic analysis assumes that black carp may live 10 years. The economic analysis does not predict the probability of escapement due to limited available data. The Service has no method to require escape-proof holding facilities.

Comment: Many respondents expressed concern about the fate of native freshwater mussels if black carp were to get into river systems. Some States have mussel restoration programs and valuable commercial and recreational fisheries that would be at risk if black carp were to become established in river systems.

Response: The potential impacts to freshwater mussels should black carp escape into the wild are quantified in the freshwater mussel section of the Economic Analysis. The Economic Analysis also notes the various State mussel restoration programs.

Comment: Many respondents expressed concern about the lack of hard data on the uses of black carp.

Response: Data on the uses of black carp is limited to available sources, including published papers, public comments, and personal communication with industry.

Comment: Many respondents have indicated their State prohibits the possession of black carp or uses permits to control the possession of black carp.

Response: These comments have been incorporated into the State Regulations section of the Economic Analysis.

Comment: One respondent recommended allowing triploid black carp to be used in aquaculture through the year 2006 and prohibiting their use beginning in 2009.

Response: Missouri's proposed prohibition of black carp in 2009 is addressed in the catfish industry impacts section.

Comment: A number of respondents noted that once an aquatic species is established, controlling it is virtually impossible and control efforts to prevent spread would have high costs.

Response: The Service agrees with this comment, however, data necessary to estimate the probability of an established black carp population occurring and the potential

impacts are unavailable. Therefore, the Economic Analysis discusses the possibility of an established population but does not quantify the potential impact.

Comment: One respondent felt the U.S. Fish and Wildlife Service (Service) was not using information from the past five years including public comments in their rulemaking process.

Response: The Service reads and considers every public comment received. Public comments with information pertaining to the potential economic effects of the rulemaking are used throughout the Economic Analysis.

Comment: One respondent wrote that chemical control methods are not popular with the general public in Mississippi.

Response: Chemical controls (hydrated lime and copper sulfate) are approved by the Environmental Protection Agency, and are widely used in the Mississippi Delta area.

Comment: One respondent was concerned for local sport fisheries along Lake Ontario and the St. Lawrence Seaway.

Response: While the Economic Analysis estimates the impacts of listing black carp, it is beyond the scope of this analysis to determine the potential impacts to the local sport fisheries along these waterbodies.

Comment: One respondent stated that black carp produce significant benefits for the aquaculture industry and that an additional public comment period is required to gather sufficient data to promulgate this rule. Significant economic impacts are not based on credible economic and environmental data.

Response: We understand that black carp are efficient at mitigating the impacts of trematodes in the aquaculture industry. The Economic Analysis applies the assumption that black carp are 100 percent effective at eliminating trematode outbreaks in aquaculture ponds. Economic impacts are based on available data, including published data, communication with industry, and data gathered during the public comment periods.

Comment: One respondent noted that catfish farming cannot remain profitable without black carp. Chemical treatments of ponds cannot be used everywhere. If black carp are inadvertently loaded onto a truck for an out-of-state processing plant it would be a Lacey Act violation even if the black carp are killed at the processing plant.

Response: The economic analysis recognizes that not all pond conditions are conducive to the application of chemical treatments. Therefore, a range of potential trematode impacts are applied to determine the potential costs of listing black carp. The economic analysis also discusses the potential risk of inadvertently transporting black carp across State lines.

Comment: One respondent noted the high cost of invasive species and that angling is a multi-billion dollar industry that is at risk.

Response: The economic analysis quantifies the potential impacts to freshwater mussels if one black carp escapes into the wild. While the economic analysis estimates the

impacts of listing black carp, it is beyond the scope of this analysis to determine the potential impacts to angling.

Comment: A number of respondents state the number of producers and surface water acreage using black carp.

Response: The economic analysis discusses the various information sources available regarding the prevalence of black carp being used to control snail populations in aquaculture ponds.

Comment: One respondent noted that public comment is not adequate for gathering data since all affected companies are small businesses.

Response: In addition to public comments, a variety of published sources and industry contacts were used to determine the potential economic impact.

Comment: One respondent noted that economic analysis should consider the losses to farms that have already gone out of business. The 10-year average price calculated in the draft report is incorrect. It should be \$0.70/lb.

Response: The baseline for the economic analysis is the current status of trematode outbreaks in the industry. Therefore, businesses impacted in the past are not included in this analysis. The average price per pound for catfish has been changed to \$0.70/lb.

Comment: One respondent noted the benefits of no black carp are underestimated.

Response: The benefits section of the Economic Analysis has been revised to quantify the potential impacts to freshwater mussels if black carp escape into the wild.

Comment: One respondent stated that the Service needs to make a valid attempt to gather production data and to show impacts on rural America.

Response: The economic analysis uses public comments, published data, and industry contacts to determine the potential impacts of listing black carp.

Comment: A number of respondents noted that the baitfish and hybrid striped bass industries use black carp.

Response: The analysis includes the baitfish and hybrid striped bass industries as potentially impacted industries.

Comment: A number of respondents noted the value of the catfish industry and that it would be at risk if black carp are listed.

Response: The economic analysis states the value of the catfish industry and estimates the impact to the industry if black carp are listed.

Comment: One commenter noted that black carp are no longer imported.

Response: The Economic Analysis recognizes that black carp are no longer imported into the United States.

Comment: One respondent stated that black carp is the only effective biological tool to control snail populations.

Response: The Economic Analysis assumes that black carp are 100 percent effective. The analysis shows a range of potential trematode impacts to the aquaculture industry if black carp are no longer available to control snail populations.

Comment: One respondent suggested higher fines for black carp escapement.

Response: The penalties set by Congress for a Lacey Act violation is not more than 6 months in prison and not more than a \$5,000 fine for an individual and not more than a \$10,000 fine for an organization. The Service cannot regulate escapement; that is the responsibility of each individual State.

Comment: A number of respondents stated that 32 percent of catfish ponds are infected with trematodes.

Response: The authors of the referenced study (Terhune et al. 2002) noted that the rate of trematode infestation does not represent an unbiased sample. Therefore, it cannot be extrapolated to the industry nationwide.

Comment: One respondent noted that the financial impact of trematodes is \$27 million annually.

Response: A large amount of catfish sales are dependent upon the use of black carp. If aquaculture farms cannot use black carp, then those farms would experience a range of potential impacts due to trematode infestations. The Economic Analysis employs a variety of assumptions to account for the potential outcomes.

Comment: One respondent stated that an Economic Analysis has modeled the effects of alternative snail treatments on hybrid striped bass farms.

Response: The Economic Analysis uses the results from Wui and Engle (2005) to analyze the potential impacts to the hybrid striped bass industry.

Comment: One commenter noted that triploidy has never been demonstrated to be 100 percent effective.

Response: The various rates of triploidy are noted in the Economic Analysis.

Comment: A number of respondents noted that black carp is not produced in Mississippi.

Response: The Economic Analysis recognizes that black carp are not currently produced in Mississippi which would cause Mississippi to be impacted by a listing of diploid and triploid black carp. However, one farm in Mississippi has diploid black carp and may be able to produce black carp in the future for use in Mississippi. Therefore, the Economic Analysis estimates the impacts of the rule for both potential scenarios.