

APPENDIX D
Rational for concurrence with
no effect or not likely to adversely affect determinations.

June 23, 2005

Memo

To: Files
From: Theresa Davidson, Fish and Wildlife Biologist
Re: Concurrence with determinations of effects for the Mark Twain National Forest
2005 Forest Plan

This documents the Service's rationale for its concurrence with the no effect and not likely to adversely affect determinations by the Mark Twain National Forest (MTNF) in the June 14, 2005 biological assessment for the Forest Plan Revision. It is noteworthy to mention that the MTNF's Biological Assessment (BA) contains an excellent ~~an~~ analysis of effects and description of the status of all species on the Forest.

Running Buffalo Clover (*Trifolium stoloniferum*) – The MTNF made a no effect determination for this species. This determination is valid because there are no known natural or introduced populations of the species on the National Forest. While there is some suitable habitat available, the MTNF has surveyed approximately 150,000 acres of NF lands and no running buffalo clover has been found. The Forest has also proposed a standard that no mechanical disturbance would be allowed at any future site (if the running buffalo clover was ever found). Other Forest Plan guidance provides for managing natural communities on appropriate sites for Missouri native species (see Appendix D in the BA). Therefore, the Service concurs with the MTNF's determination the 2005 Forest Plan will have no effect on the running buffalo clover.

Virginia Sneezeweed (*Helenium virginicum*) – The MTNF ~~also~~ made a no effect determination for the Virginia sneezeweed. There are presently 45 populations of Virginia sneezeweed in Missouri. Currently there are no known occurrences of Virginia sneezeweed on the MTNF, despite survey efforts and habitat suitability. The same standard that applies to the running buffalo clover applies to the Virginia sneezeweed. Other standards have been developed to protect suitable habitat (see Appendix D in the BA). Therefore, the Service concurs with the MTNF's determination the 2005 Forest Plan will have no effect on the Virginia sneezeweed.

Hine's Emerald Dragonfly (*Somatochlora hineana*) – The MTNF made a may affect, is not likely to adversely affect determination for this species. There are currently nine known sites for this species on the MTNF. Most vegetative management activities are prohibited in suitable fen habitat. The implementation of management activities will benefit this species and/or its habitat. Controlling invading woody species or non-native species through various methods (e.g., hand cutting, appropriate herbicides, and/or

prescribed fire) and restoring hydrologic functioning of the fens will benefit the Hine's emerald dragonfly. There are 32 standards and guidelines in the 2005 Forest Plan designed to minimize or eliminate adverse effects to the Hine's emerald dragonfly and its habitat (See Appendix D in the BA). The implementation of these standards and guidelines when implementing a site specific action (and programmatically) will result in effects that are insignificant and discountable, therefore it is appropriate to concur with the MTNF's may affect, is not likely to adversely affect determination for this species. We also expect beneficial effects to occur as noted above.

Tumbling Creek Cavesnail (*Antrobia culveri*) – The MTNF determined that the 2005 Forest Plan “may affect, is not likely to adversely affect” the Tumbling Creek Cavesnail. There is only one population of this species known in the world – the population in Tumbling Creek Cave. The cave itself is in private ownership. The MTNF owns about 23% of the recharge area for that cave. There are nine standards and guidelines to protect the water quality in the recharge area. The 2005 Forest Plan includes activities that will contribute to Priority 2 actions in the Tumbling Creek Cavesnail Recovery Plan (USFWS 2003). Actions that have the potential to move soil in the recharge area will be minimized to an insignificant and discountable effect with the implementation of the standards and guidelines in the 2005 Forest Plan. The Service concurs with the MTNF's determination of effects.

Pink Mucket Pearlymussel (*Lampsilis orbiculata*) – The 2005 Forest Plan BA states that the proposed project “May affect, but is not likely to adversely affect” the pink mucket. There are five sites for this species within the proclamation boundaries of the MTNF, however only one site actually on National Forest lands. The most recent record at this site is from 1982. Surveys in 2003 did not result in the finding of any pink mucket on the National Forest. There are sites downstream of the MTNF however. There are 20 standards and guidelines in the 2005 Forest Plan that will protect water quality in the Black River, therefore I concur with the MTNF's determination of effects.

Scaleshell mussel (*Leptodea leptodon*) – The MTNF determined that the 2005 Forest Plan “May affect, but is not likely to adversely affect” the scaleshell mussel. MTNF lands occur in two watersheds that provide habitat for the scaleshell mussel (the Gasconade and Meramac Rivers). The same 20 standards and guidelines that apply for the pink mucket, apply to the scaleshell. These standards and guidelines will protect the water quality and occupied habitat, therefore the Service concurs with the MTNF's determination of effects.

Topeka shiner (*Notropis topeka*) – There are no known populations or individuals of this species on the MTNF. The most recent record on the MTNF is the capture of 9 fish in the Middle River in 1941. No Topeka shiners were discovered on MTNF during recent surveys. There are currently no known populations within any watersheds on the MTNF. For these reasons, the Service concurs with the MTNF's determination that the 2005 Forest Plan will have no effect on the Topeka shiner.

Bald eagle (*Haliaeetus leucocephalus*) – The MTNF has suitable winter habitat for bald eagles along major rivers and impoundments scattered throughout the Forest. Only one documented (inactive) nest occurs on the Forest, but active nests do occur on lands adjacent to the Forest. There are no documented communal roost sites on the MTNF. Even though recreational use of rivers and lakes continues to increase, the bald eagles continue to use the same areas. Populations in Missouri are also increasing. The 2005 Forest Plan is consistent with several action items in the Northern States Bald Eagle Recovery Plan. The 2005 Forest Plan standards and guidelines contain measures that will protect and maintain suitable habitat for the bald eagle. The Service concurs with the MTNF's determination that the 2005 Forest Plan may affect, but is not likely to adversely affect bald eagles.

Gray bat (*Myotis grisescens*) – Gray bats use caves on the MTNF year round. It is estimated that there are over 80,000 gray bats using caves on the Forest in the summer (either maternity or bachelor/transient caves). There is one cave on the Forest suspected of harboring wintering gray bats. There are hibernacula elsewhere in Missouri. Gray bats generally forage along streams. A table on page 175 of the BA provides information on the known foraging areas associated with documented gray bat caves on the Forest. Human disturbance in caves is considered to be the single largest threat to the species. The one suspected hibernacula is not gated (to exclude human entry). However, because this cave is difficult to find and it has difficult and dangerous passages, human disturbance is not considered to be a threat at this cave. Four of the six known maternity caves on the MTNF are gated. One of the ungated caves has an entrance so small that a gate cannot be placed without harming bats and installing a gate at this cave would pose a flooding hazard. There is little evidence that human visitation is occurring at this location. Another ungated cave is located on a steep hillside that discourages human visitation. A third ungated cave is in a location very accessible to humans. This cave was thought to be abandoned in 1994, however in March 2005, 26 gray bats were found in this cave. Gray bats using this cave were either late hibernators or transient bats and there is no indication that it is a maternity colony. The 2005 Forest Plan is consistent with and implements several action items from the Gray Bat Recovery Plan. The 2005 Forest Plan contains 22 standards and guidelines that eliminate adverse impacts of Forest management activities to gray bats or reduce impacts to levels that are insignificant or discountable (see Appendix D of the BA). The Service concurs with the MTNF's determination that the 2005 Forest Plan may affect, but is not likely to adversely affect the gray bat.