



United States Department of the Interior

FISH AND WILDLIFE SERVICE
West Virginia Field Office
Post Office Box 1278
Elkins, West Virginia 26241

12050
TAKE
PRIDE IN
AMERICA

August 22, 1995

Colonel Richard W. Jemiola
District Engineer
U.S. Army Corps of Engineers
502 Eighth Street
Huntington, West Virginia 25701

Dear Colonel Jemiola:

This is in response to your July 21, 1995 request for review of the Dolly Sods Wilderness Ordnance Removal Project Draft Environmental Assessment (EA) dated July 7, 1995 regarding consultation pursuant to Section 7 of the Endangered Species Act of 1973, as amended (16 U.S.C. 1531 et seq) (ESA). The U.S. Army Corps of Engineers, Huntington District (District) proposes to remove unexploded ordnance from the Dolly Sods Wilderness on the Monongahela National Forest in West Virginia. The purpose of the project is to reduce the risk to the public and to the environment from unexploded ordnance.

The District has agreed to implement the measures described in the EA and the Biological Evaluation in Appendix IV, Part C, to avoid the likelihood of adverse impacts from the proposed action on the endangered Virginia northern flying squirrel, Glaucomys sabrinus fuscus and the threatened Cheat Mountain salamander, Plethodon nettingi.

Background

Informal consultation between the U.S. Fish and Wildlife Service and the District relative to the project began by letter dated June 2, 1995, when the Service informed the District of the presence of the endangered G. s. fuscus and the threatened P. nettingi in the Dolly Sods Wilderness. The Service requested that the District prepare a biological assessment (BA) in accordance with Section 7(a)(2) of the ESA. The July 7, 1995 EA provides the requested information.

Proposed Project

The 10,215-acre Dolly Sods Wilderness was a part of the 2,181,000 acre West Virginia Maneuver Area during World War II. Even though areas were searched and cleared by military explosive ordnance disposal teams after the war, at least 20 pieces of ordnance have been found in recent years. A high concentration of ordnance is thought to exist within the Red Creek Valley, an area heavily used by campers, hikers, and hunters. The U.S. Forest Service maintains 20.8 miles of trails and has documented 101 commonly used camping areas in the Wilderness.

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The proposed action entails searching 20 feet along each side of the entire length of all trails using hand-held metal detectors. If metal is indicated the area will be excavated by hand to a depth of one foot. Camps sites will be searched and excavated by hand to a 4-foot depth where metal is detected. Small undergrowth, grasses, and fallen trees will be cleared only if necessary to search an area and only if the area is accessible by recreational users. Due to obvious safety reasons, any ordnance discovered will be detonated in place.

Review of Endangered Species Information

Virginia northern flying squirrel, *Glaucomys sabrinus fuscus*

The northern flying squirrel, *Glaucomys sabrinus* is a boreal forest species which occurs from Alaska and Canada to New England and south to North Carolina and Tennessee. The subspecies *G. s. fuscus* occurs only in West Virginia and slightly into the Allegheny Mountains of Virginia. In West Virginia the squirrel prefers high elevation mixed northern hardwood, red spruce, and hemlock forest in Pendleton, Pocahontas, Tucker, Webster, Greenbrier, and Randolph Counties. Its diet primarily consists of fungi, lichens, and staminate cones. Nuts, fruits, and seeds make up a lesser part of its diet. *G. s. fuscus* is active year-round and does not hibernate or undergo torpidity. It is primarily nocturnal, being more active in the evening hours, but may emerge for short periods during the day. It can have up to two litters of young each year, with young being born in late March and again in late August. Young often stay with their mothers during the winter months and are included in the wintering aggregation which is common to flying squirrels.

Cheat Mountain salamander, *Plethodon nettingi*

P. nettingi prefers mixed northern hardwood and red spruce forest of the higher elevations of Grant, Tucker, Randolph, Pocahontas, and Pendleton Counties. It is nocturnal but during day can be found in the interior of decayed logs or under rocks and fallen limbs. Its diet consists primarily of mites, springtail, beetles, flies, and ants. Eggs have been observed from May to August, usually with the female in attendance. The total range extends from Blackwater River canyon in the northeast to Dolly Sods, southeast to Spruce Knob, and west through McGowan and Cheat Mountains southwest to Thorny Flat.

Reasons for Decline and Continued Threats

The major threats to *G. s. fuscus* are the destruction of the red spruce and mature northern hardwood habitat and the expansion of the more aggressive southern flying squirrel, *Glaucomys volans*.

Habitat modifications that remove the forest canopy are probably the primary factors affecting the habitat of *P. nettingi*. Removal of the forest canopy permits a greater percentage of sunlight to reach the forest floor, resulting in an increase in soil temperature and a decrease in soil moisture. Activities that remove the forest canopy include road development, ski slopes, various methods of timber harvesting, wildlife openings, utility rights-of-way, mining activities, insect infestations such as gypsy moths, and some wildfires. *P. nettingi* is also threatened by two more aggressive salamander species the redback salamander, *Plethodon cinereus* and the mountain dusky salamander, *Desmognathus ochrophaeus*. Acid rain may also pose a threat to *P. nettingi* by decreasing soil pH.

Status of the species

There is one known population of G. s. fuscus in the project area. This population is near the northwest corner of the Dolly Sods Wilderness. Other sites within the project area contain high potential habitat for the species.

There are two known populations of P. nettingi in the Dolly Sods Wilderness. Both of these populations are bisected by hiking trails, Fisher Spring Trail and Rohrbaugh Plains Trail. Most of the project area is considered high potential habitat for the species.

Effects of the action

If ordnance must be removed or detonated, digging holes and detonation of the ordnance could directly affect both species. However, the Service concurs with the District that, with implementation of the following measures, as described in the Environmental Assessment and the Biological Evaluation, the proposed project is not likely to adversely affect the subject two species.

Glaucomys sabrinus fuscus⁹

In all potential habitat where ordnance must be detonated, crews should use noise-deadening techniques, such as sand bags. This should reduce the disturbance and reduce the possibility of shrapnel damaging trees.

Plethodon nettingi

When ordnance is suspected, crews will be responsible for all excavations. They will carefully remove all litter, soil, and vertebrates. Litter and soil will be placed in separate containers and each vertebrate species will be put in a clean separate jar. After excavation is completed and no ordnance discovered, soil, litter, and vertebrates will be returned to the precise location from where they were removed. A biologist will instruct the crews regarding proper removal and return of vertebrate species. If ordnance is discovered, a biologist will assess the surrounding area for potential P. nettingi habitat and surveys for the species will be conducted. Surveys will be conducted at night and within 48 hours of a rainfall. The area to be surveyed will include the estimated size of the crater plus 40 feet in all directions. If P. nettingi is located, each specimen will be placed in a separate jar, maintained in a cool environment (approximately 15 degrees centigrade), and returned to the precise locations after the area has been restored (no longer than 24 hours).

In restoring the site, the litter and soil from the site will be returned to the crater. Logs and flat stones from the immediate area will be placed over the soil. Additional soil and litter required to fill the crater, will be obtained within 100 feet of the site. No soil or litter should be transported from outside of the immediate area. To minimize the effects of the transfer of soil and litter, small quantities will be removed from several areas within the designated area. Foreign litter and soil could contain juveniles of the competitor salamanders P. cinereus and D. ochrophaeus. Soil and litter will be carefully examined for all salamander species. No species of salamander will be removed from its territory. Foot travel and cutting of vegetation will be held to a minimum in all potential habitat areas.

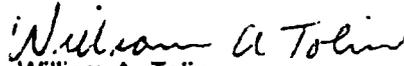
Conclusion

Based upon the District's proposed implementation of the above-listed measures, the Service concurs with the District's finding that the proposed ordnance and waste removal action at the Dolly Sods Wilderness is not likely to adversely effect G. s. fuscus and P. nettingi.

This concludes the need for further action on this project as required under Section 7 of the ESA. Should this project be modified or new information becomes available or "take" occurs consultation should be reinitiated. Such action may include implementation of additional measures to minimize harm to the species.

If you have any questions, please contact me at this office (phone 304-636-6586).

Sincerely,


William A. Tolin
Acting Supervisor

cc: }

WVDNR - Dowler

USFS - Feakes

USFS - Page

Readers file

Project file

PAFO Kulp

ES:WVFO:WATolin:tjf 8/22/95

Filename:DOLLYSOD.BO



United States Department of the Interior



FISH AND WILDLIFE SERVICE

West Virginia Field Office
Post Office Box 1278
Elkins, West Virginia 26241

October 8, 1996

Colonel Richard W. Jemiola
District Engineer
U.S. Army Corps of Engineers
502 Eighth Street
Huntington, West Virginia 25701-2070

Dear Colonel Jemiola:

This constitutes a planning aid letter (PAL) for the Dolly Sods North, Ordnance Removal Plan, Monongahela National Forest, Grant and Tucker Counties, West Virginia. The U.S. Army Corps of Engineers, Huntington District (District) proposes to remove ordnance and explosive waste from the Dolly Sods North Area to reduce the risk to the public and the environment from unexploded ordnance.

This report is prepared pursuant to provisions of the Fish and Wildlife Coordination Act (48 Stat. as amended; 16 U.S.C. 661 et seq.) and the Endangered Species Act of 1973, as amended (16 U.S.C. 1531 et seq.) (ESA).

The Dolly Sods North Area was a part of the 2,181,000 acre West Virginia Maneuver Area during World War II. Although the area was searched and cleared by military explosive ordnance disposal teams after the war, at least 20 pieces of ordnance have been found in recent years. A high concentration of ordnance is thought to exist within the Red Creek Valley, an area heavily used by outdoor recreationists including; campers, hikers, hunters, and fishermen.

The Dolly Sods North Area, recently purchased by the U.S. Forest Service does not have an extensive, maintained trail system and supports only a small number of established camp sites. Although the U.S. Fish and Wildlife Service did not search the entire area, one well used trail was found in the southern portion of the area, the Blackbird Knob trail, and one well used camp site near Red Creek on the Blackbird Knob trail were observed. There is a system of old, unmaintained four wheel drive roads in the central and northern portion of the area. These roads are presently receiving lite trail use by hikers and mountain bikers.

The proposed action entails searching 20 feet along the entire length of all trails using hand-held metal detectors. If metal is indicated the area will be excavated by hand to a depth of one foot. Camps sites will be searched and excavated by hand to a 4-foot depth where metal is detected. Small undergrowth, grasses, and fallen trees will be cleared only if necessary to search an area and only if the areas is accessible by recreational users. Due to obvious safety reasons, any ordnance discovered will be detonated in place.

The purpose of this review is to provide site-specific information on the Cheat Mountain salamander, the Virginia northern flying squirrel, and other species of high biological interest.

Except for occasional transient species such as the threatened bald eagle, Haliaeetus leucocephalus, two Federally listed species and seven species of concern could occur in the project impact area. These include:

FEDERALLY LISTED

Northern flying squirrel, Glaucomys sabrinus fuscus
Cheat Mountain salamander, Plethodon nettingi

SPECIES OF CONCERN

Southern rock vole, Microtus chrotorrhinus carolinensis
Eastern small-footed bat, Myotis leibii
Eastern woodrat, Neotoma floridana magister
Southern water shrew, Sorex palustris punctulatus
Appalachian cottontail, Sylvilagus obscurus
Northern goshawk, Accipter gentilis
Cerulean warbler, Dendroica cerulea
Butternut, Juglans cinerea

A number of listed species and species of concern can occur in the project impact area. The Service is mostly concerned with possible impacts to the Cheat Mountain salamander and to a lesser extent the Virginia northern flying squirrel.

The Cheat Mountain salamander is restricted to cool, moist forests usually containing red spruce, at elevations over 2,640 feet. The salamander is nocturnal, resting during the day under leaves, logs, bark, or rocks on the forest floor. Several known populations of the Cheat Mountain salamander and large tracts of unsurveyed high potential habitat occur to the south in the adjacent Dolly Sods Wilderness Area. However, surveys for the species in the southern portion of the Dolly Sods North area, focusing on the vicinity of Blackbird Knob, have failed to establish the presence of the salamander (Dr. Thomas Pauley, personal communication).

Vegetation over most of the area is characterized as grassland and shrubs with individual trees or isolated patches of fragmented, immature forest cover. The large majority of the Dolly Sods North Area is unsuitable habitat for the Cheat Mountain salamander. This is primarily due to the exposure or structure of the young, fragmented forest which is unable to maintain the cool, moist environment necessary for the survival of the Cheat Mountain salamander. There are three such isolated stands of forest in the central and northern portion of the area which may provide habitat (Dr. Thomas Pauley, personal communications); these stands have not been surveyed and are not thought to contain suitable habitat.

When a metal object is encountered in potential habitat (forested), the following procedures developed between the U.S. Forest Service and U.S. Fish and Wildlife Service to protect the salamander during the on-going ordnance removal project on the Dolly Sods Wilderness Area must be followed. When ordnance is suspected, crews will be responsible for all excavations. They will carefully remove all litter, soil, and salamanders from an area large enough to dig a hole to the desired depth, one foot in or adjacent to a trail and 4 feet in a camp site. Leaf litter and organic material will be placed in a plastic bag or bucket for replacement over the site later. Any salamanders found during this process shall be placed in a suitable container (breathable plastic bag) with damp moss and kept cool in the shade. It may be necessary to utilize a cooler. Only one salamander will be placed in each container.

The ordnance specialist will then hand excavate down to the metal object to identify it, or to the maximum depth allowed. If the metal object is not ordnance, the hole will be refilled and

leaf litter and organic material replaced. Any salamanders collected at the site will then be released.

If the object is ordnance and must be detonated in place, a qualified Forest Service representative will search and collect all salamanders from within 15 feet of the site. If salamanders are found, the leaf litter and organic material will be gathered within 15 feet of the site and placed in containers to be replaced after detonation along with the salamanders. Salamanders will be placed in suitable containers and kept cool as previously described. In restoring the detonation crater, the litter and soil from the site will be returned to the crater. Logs and flat stones from the immediate area will be placed over the soil. Additional soil and litter required to fill the crater, will be obtained within 100 feet of the site. No soil or litter should be transported from outside of the immediate area. To minimize the effects of the transfer of soil and litter, small quantities will be removed from several areas within the designated area. Soil and litter will be carefully examined for all salamander species. No species of salamander will be removed from its territory. Foot travel and cutting of vegetation will be held to a minimum in all potential habitat areas.

If there is a need to use sandbags as a protective measure during detonation, a borrow area will be jointly selected by the ordnance specialist and the Forest Service representative, as an area from which soil may be taken to fill sand bags. These borrow areas will be treated similarly to sites where a metal object is found.

Reference our letter dated August 22, 1995 and our letter dated April 8, 1996 to the Monongahela National Forest regarding the protective measures adopted to protect the salamander in the Dolly Sods Wilderness (enclosed). These procedures are also outlined in the Draft Dolly Sods Work Plan.

The preferred habitat of the Virginia northern flying squirrel is mature mixed northern hardwood and red spruce/hemlock. There are no known capture sites of the Virginia northern flying squirrel in the project area. There is one capture site just south of the Dolly Sods North area in the northwest corner of the Dolly Sods Wilderness. The southern portion of the Dolly Sods North area in the vicinity of Red Creek and the Left Fork of Red Creek and the three fragmented immature forest stands in the northern and central portion provide potential habitat for the squirrel. However, the majority of the area is open grassland, shrub, or fragmented forest cover with little or no conifer component; unsuitable habitat for the squirrel. Even if the squirrel does inhabit the Dolly Sods North area, the Service believes that the adoption and implementation of protective measures such as noise deadening techniques i.e. sandbags, identified for the ordnance removal effort in the Wilderness area, provide adequate protection for the Virginia northern flying squirrel.

Since the majority of the area is low potential habitat for these species and the protective measures for the Dolly Sods Wilderness Project are to be adopted and implemented, the Service believes that the project will not adversely affect the Cheat Mountain salamander and the Virginia northern flying squirrel.

In regard to species of concern, the same protective measures adopted to protect the Federally listed species will also protect these species and no adverse effects are anticipated. The green salamander, Aneides aeneus a State and U.S. Forest Service sensitive species could also occur on the area, however, no adverse effects are anticipated to the species from the project.

This concludes the need for further action on this project as required under Section 7 of the ESA. Should the protective measures developed for the ordnance removal project in the Dolly Sods Wilderness area not be implemented, or the project is significantly modified or new

information becomes available or "take" occurs consultation should be reinitiated. Such action may include implementation of additional measures to minimize harm to the species.

If you have any questions, please contact Endangered Species Specialist, William A. Tolin at 304-636-6586.

Sincerely,

A handwritten signature in black ink that reads "Christopher M. Clower". The signature is written in a cursive style with a large, prominent initial "C".

Christopher M. Clower
Supervisor

enclosure



United States Department of the Interior



FISH AND WILDLIFE SERVICE

West Virginia Field Office
Post Office Box 1278
Elkins, West Virginia 26241

April 8, 1996

Ms. Nancy Feakes
District Ranger
Potomac Ranger District
HC 59, Box 240
Petersburg, West Virginia 26847

Dear Ms. Feakes:

The U.S. Fish and Wildlife Service has reviewed the proposed modifications, dated March 1, 1996, for the planned removal of unexploded ordnance in the Dolly Sods Wilderness Area. These operational measures are to protect the Cheat Mountain salamander, Plethodon nettingi. If proven effective, they could also be adopted for use on the proposed Dolly Sods North ordnance removal project. The measures were formulated in an interagency meeting on January 18, 1996.

The protective measures approximate those proposed in the U.S. Army Corps of Engineers, Huntington District's draft environmental assessment, dated July 7, 1995. The Service indicated that implementation of the initial measures would have resulted in no adverse affect to the salamander by letter dated August 22, 1995. The current plan differs from the previous one in that it does not require a walk through survey to determine areas most likely for salamanders; all salamanders would be removed from a 15-foot radius rather than a 40-foot radius during in-situ detonation; and field surveys will not be required at night nor within 48 hours of rainfall.

The proposed changes will not compromise the overall plan to protect the Cheat Mountain salamander. The ordnance removal project should not adversely affect Federally listed species and no further Section 7 Consultation under the Endangered Species Act (87 Stat. 884, as amended; 16 U.S.C. 1531 et seq.) is required with the Service at this time.

Sincerely,

William A. Tolin
Acting Supervisor

cc:
Huntington District - Jemiola
WVDNR - Dowler
USFS - Kinerson
PAFO - Kulp
Readers file
Project file
ES:WVFO:Tolin:tjf:4/8/96
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