

July 1, 2002

Mr. Tom Inge  
U.S. Army National Guard Maneuver Training Center  
Environmental Program Manager  
Fort Pickett, VAFM-E, Building 316  
Blackstone, Virginia 23824

Re: Biological Opinion for Multi-Purpose  
Range Complex, Project # 2507, Fort  
Pickett, Dinwiddie County, Virginia

Dear Mr. Inge:

This document transmits the U.S. Fish and Wildlife Service's (Service) biological opinion based on our review of the above referenced groin project located in Dinwiddie County, Virginia and its effects on Michaux's sumac (*Rhus michauxii*), in accordance with section 7 of the Endangered Species Act (ESA) of 1973 (87 Stat. 884, as amended; 16 U.S.C. 1531 et seq.). This biological opinion is based on information provided in the permit application, telephone conversations, field investigations, and other sources of information. The U.S. Army's Fort Pickett's (Fort Pickett) proposed action is to construct the Multi-Purpose Range Complex (Range). A complete administrative record of this consultation is on file in this office.

### I. CONSULTATION HISTORY

06/12/02      The Service conducted a site visit.

06/20/02      The Service received Fort Pickett's request to initiate formal consultation. The Service sent Fort Pickett a letter stating that a biological opinion would be provided to Fort Pickett by November 2, 2002.

### II. BIOLOGICAL OPINION

#### DESCRIPTION OF PROPOSED ACTION

Fort Pickett proposes to construct a Multi-Purpose Range Complex where advanced multi-unit training and qualification of mechanized units can be accomplished. Fort Pickett proposes to modify and improve Range 15 (see map in Enclosure 1). Currently, Fort Pickett can support mechanized training up to Table 8; completion of the proposed action will support mechanized training up to Table 12. Vehicles expected to use the Range include the M1A1 tank, amtracks (amphibious tractors), wheeled vehicles, and replacements to these weapons systems. Completion of the Range will provide realistic training resulting in enhanced readiness for active, reserve, and National Guard personnel within the Department of Defense. Units from South Carolina, North Carolina, Tennessee, Virginia, West Virginia, and Pennsylvania are expected to use the Range. Use of the Range is expected to increase from 90-100 training days per year (30% usage) to 260-280 training days per year (100% usage)

(ranges require some non-firing days for maintenance).

Specifically, roads serving the Range will be rocked and maintained to prevent the level of erosion that is currently occurring. Mechanized vehicles, particularly when turning, exert great stresses on roads. The gravel roads will need periodic maintenance, and Fort Pickett has plans to conduct this maintenance to prevent erosion problems. All vehicles engaged in training will be restricted to these permanent lanes. New firing positions, targets, and access roads will be constructed, and old facilities will be upgraded. The new Range will have more and better firing positions and targets than Range 15. Targets will consist of fixed and pop-up targets on rails located behind small berms.

During the planning for the Range, personnel from the Natural Resources Management Office worked with the planners to avoid and minimize impacts to the sumac. Using a Geographic Information System (GIS) equipment, they mapped and provided the locations of the sumac to the planners. Three drafts were exchanged, and every effort was made to avoid impacts to federally listed species, wetlands, and other resources. The proposed action includes a target location at a small population of the sumac. Fort Pickett considers these impacts unavoidable and without a practicable alternative.

The "action area" is defined as all areas to be affected directly or indirectly by the federal action and not merely the immediate area involved in the action. Mechanized units will physically occupy and shoot at the Range. Wildland fires will continue to occur in and around the Controlled Access Area. The increase in training at Fort Pickett will not be restricted to the new Range. Units not firing on the new Range will train in other areas of Fort Pickett. The Service has determined that the action area for this project is Fort Pickett in its entirety.

#### STATUS OF THE SPECIES RANGEWIDE

Michaux's sumac is a rhizomatous, usually dioecious, deciduous shrub, thought to be endemic to the inner coastal plain and lower Piedmont from Georgia to Virginia, where it typically occupies sandy or rocky open woods (USFWS 1993). The Service listed the species as endangered on September 28, 1989, due to its rarity and vulnerability to threats. Only 35 extant populations are currently known to exist, with 30 in North Carolina, three in Virginia and two in Georgia. Approximately half of the known stems are found in the Virginia sites. The Virginia sites were discovered at Fort Pickett after the listing (which did not include Virginia in the range of the species). The species is historically known from Florida.

Michaux's sumac is sometimes called false poison sumac, a misnomer caused by its superficial resemblance to poison sumac, *Rhus vernix*. Michaux's sumac differs from other similar species in the genus by its short stature, dense pubescence, and evenly serrate leaflets. It grows approximately 0.2 to 1.0 meters in height, and flowers in June and July. The flowers are small, borne in a dense cluster, and colored greenish yellow to white; while the fruit is a red, densely pubescent drupe, appearing through the months of August to October.

Michaux's sumac appears to depend on vegetative propagation through its rhizomes (VDNH 1994). Pollination is effected by insects, most likely bees, and seed dispersal is accomplished by birds (VDNH 1994). *Rhus michauxii* is known to hybridize with *R. glabra* at Fort Pickett. *R. michauxii* is also known to hybridize with *R. copallina* at other sites (VDNH 1994).

The habitat for Michaux's sumac appears to be open, sunny, fire-maintained plant communities with the following common plant associates: *Ulmus alata*, *Carya tomentosa*, *Solanum* spp., *Pinus taeda*, *P. palustris*, *Quercus nigra*, *Q. alba*, *Q. margaretta*, *Q. incana*, *Q. laevis*, *Q. marilandica*, *Q. rubra*, *Q. velutina*, *Liquidambar styraciflua*, *Sassafras albidum*, *Diospyros virginiana*, *Prunus angustifolia*, *P. serotina*, *Stillingia* spp., *Andropogon virginicus*, *Lespedeza* spp., and *Solidago odorata* (USFWS 1993, Fort Pickett 1999).

Michaux's sumac usually occurs on acidic soils and appears to depend upon some form of disturbance to maintain the open quality of its habitat (USFWS 1993). Artificial disturbances, such as railroad and right-of-way maintenance, are maintaining some of the openings historically provided by naturally occurring periodic fires. Fire and other forms of disturbance, such as mowing or careful clearing (outside the June through October flowering and fruiting season), appear to be essential for maintaining the open habitat preferred by Michaux's sumac (USFWS 1993). Without these disturbances, this habitat is gradually overtaken and eliminated by other shrubs.

As of 1997, 31 of the 36 extant populations of Michaux's sumac known to exist, occur in North Carolina. Of these populations, eight are located on Fort Bragg and receive Federal protection, 14 occur on the state-owned Sandhills Gamelands, while the remaining nine populations are located on private lands. Of these populations, ownership includes Carolina Power & Light (CP&L), Crescent Electric, North Carolina Department of Transportation, City of Raleigh, and The Nature Conservancy. These agencies continue to provide some degree of management and protection to these sites; however, right-of-way mishaps, and a lack of burning or clearing undergrowth have occurred, leaving the sites somewhat impacted (Marjorie Boyer, 1996).

The 1996 Final Report on *Rhus Michauxii* Monitoring and Management 1992-1996, provided to the Service under a cooperative agreement with North Carolina Department of Agriculture, Plant Conservation Program, indicated that in 1995, large numbers of plant seedlings were successfully propagated from rhizomes for augmentation or re-introduction efforts. Four sites were selected in Davie, Hoke, and Moore Counties, North Carolina to attempt augmentation trials. On two sites, the plants were not tended after transplanting, while the other sites received weekly watering after transplanting. All the plants died on the two sites in Davie and Hoke counties that did not receive any care. On the other sites, the majority of the plants survived.

## ENVIRONMENTAL BASELINE

### Status of the Species Within the Action Area -

Factors Affecting Species Habitat Within the Action Area -EFFECTS OF THE ACTION

Direct Effects - Twelve stems (probably one individual) of Michaux's sumac will be directly taken. If not transplanted, these stems will be graded and buried during the construction of a target.

Interrelated and Interdependent Actions - An interrelated activity is an activity that is part of the proposed action and depends on the proposed action for its justification. An interdependent activity is an activity that has no independent utility apart from the action under consultation. No activities interrelated to and interdependent with the proposed action are known at this time.

Indirect Effects - Indirect effects are defined as those that are caused by the proposed action and are later in time, but still are reasonably certain to occur (50 CFR 402.02). Fire frequency is expected to remain the same throughout the Range and the Controlled Access Area. No indirect effects are anticipated.

CUMULATIVE EFFECTS

Cumulative effects include the effects of future state, tribal, local, or private actions that are reasonably certain to occur in the action area considered in this biological opinion. Future federal actions that are unrelated to the proposed action are not considered in this section because they require separate consultation pursuant to Section 7 of the ESA. The Service is not aware of any cumulative effects within the action area at this time.

CONCLUSION

Transplanting endangered or threatened plant species from project impact areas, while minimizing impacts to individuals, is generally not recommended. The intent of the ESA is to protect the ecosystems upon which these federally-listed species depend. Thus, protecting habitat is considered to be a key factor for ensuring survival and recovery of listed species. Since the loss of 12 stems of Michaux's sumac is anticipated due to the construction of the Range, the Service supports the removal and transplantation of these plants to a protected and managed site.

After reviewing the current status of Michaux's sumac throughout its range and in the action area, the environmental baseline for the action area, the effects of the proposed range construction, and the cumulative effects, it is the Service's biological opinion that the construction of the Multi-Purpose Range Complex at Fort Pickett, as proposed, is not likely to jeopardize the continued existence of Michaux's sumac. No critical habitat has been designated for this species, therefore, none will be affected.

### III. INCIDENTAL TAKE STATEMENT

Sections 7(b)(4) and 7(o)(2) of the ESA do not apply to the incidental take of listed plant species. However, protection of listed plants is provided to the extent that the ESA requires a Federal permit for removal or reduction to possession of endangered plants from areas under Federal jurisdiction, or for any act that would remove, cut, dig up, or damage or destroy any such species on any other area in knowing violation of any regulation of any State or in the course of any violation of a State criminal trespass law.

### IV. CONSERVATION RECOMMENDATIONS

Sections 2(c) and 7(a)(1) of the ESA direct Federal agencies to use their authorities to further the purposes of the ESA by carrying out conservation programs for the benefit of endangered and threatened species. The term "conservation recommendations" has been defined as Service suggestions regarding discretionary agency activities to minimize or avoid adverse effects of a proposed action on listed species or critical habitat or regarding development of information. The recommendations provided here relate only to the proposed action and do not necessarily represent complete fulfillment of the agency's Section 7(a)(1) responsibility for the species.

The Service recommends that Fort Pickett transplant the 12 known stems from the action area to another site at Fort Pickett and monitor the Range annually for two years for resprouts. If resprouts are found, the Service recommends that Fort Pickett transplant those plants to another site at Fort Pickett.

### V. REINITIATION NOTICE

This concludes formal consultation on the action(s) outlined in the request. As provided in 50 CFR § 402.16, reinitiation of formal consultation is required where discretionary federal agency involvement or control over the action has been retained (or is authorized by law) and if: (1) the amount or extent of incidental take is exceeded; (2) new information reveals effects of the agency action that may affect listed species or critical habitat in a manner or to an extent not considered in this opinion; (3) the action is subsequently modified in a manner that causes an effect to the listed species or critical habitat not considered in this opinion; or (4) a new species is listed or critical habitat designated that may be affected by the action. In instances where the amount or extent of incidental take is exceeded, any operations causing such take must cease pending reinitiation.

The Service appreciates this opportunity to work with Fort Pickett in fulfilling our mutual responsibilities under the ESA. If you have any questions, please contact Mr. Eric Davis of this office at (804) 693-6694, extension 104.

Sincerely,

Mr. Inge

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Enclosures

### LITERATURE CITED

Fort Pickett. 1999. Biological Assessment for Michaux's sumac (*Rhus michauxii*) at Fort Pickett. Resource International, Ltd. of Ashland, VA. Blackstone, VA. 19 pp.

U.S. Fish and Wildlife Service. 1993. Michaux's Sumac Recovery Plan. Atlanta, GA. 30pp.

Virginia Department of Conservation and Recreation, Division of Natural Resources. 1994.

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(edavis:6/22/02)

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