

BIOLOGICAL EVALUATION OF
REGIONAL FORESTER'S SENSITIVE SPECIES

Precommercial Thinning of Pine Plantations

Bankhead National Forest
Lawrence and Winston Counties, Alabama

INTRODUCTION: This Biological Evaluation (BE) addresses the effects of the following activity on federally-listed Proposed, Endangered and Threatened species on the Bankhead National Forest. Timber management practices over the past several decades have created numerous early seral conifer plantations that currently contain too many trees per acre and are at a high risk potential for wildfire, insect damage and other forest health concerns. Pre-commercial thinning has opportunity to improve the health and productivity of these plantations and to reduce the moisture/light competition and influence the species composition.

AFFECTED ENVIRONMENT: The treatment area will primarily reduce stocking rates within planted pine stands by using hand held equipment such as chainsaws, brush cutters, machetes, loppers or any similar tools. The stands are too young for a commercial thinning operation. No ground disturbing equipment will be utilized to accomplish this project. Additional work activity such as road construction or use of ground disturbing equipment is not required.

The areas surveyed for this evaluation did not contain glades, rock outcrops, aquatic areas or wetlands, which are habitats where protected, threatened, endangered or sensitive plant species are typically found. Recent surveys of similar habitats have failed to find the presence of species which are federally listed. No riparian areas, wetlands or streambeds will be disturbed.

Bankhead National Forest is located within the northwest corner of Alabama and lies within Lawrence, Winston and Franklin counties. It is comprised of approximately 181,470 acres of forestland. The forest cover varies in both cover type and age class but is mostly a mixture of mature hardwoods and pine. The proposed project is located in four Forest Service management compartments across the forest. They are Compartment 160 – Stand 47 (4 acres); Compartment 166 – Stand 27 (44 acres); Compartment 165- Stand 1 (20 acres); Compartment 30- Stand 16 (36 acres). Maps are available in the project file which is retained by the District Silviculturist.

SENSITIVE SPECIES EVALUATED – BANKHEAD NATIONAL FOREST

A list of the Regional Forester's Sensitive Species (2001) that may occur or are known to occur on Bankhead National Forest (BNF) and must be evaluated for potential effects of management are as follows:

Scientific Name	Common Name	Habitat	Bankhead Forest Distribution
<i>Aesculus parviflora</i>	Small flowered buckeye	18	F1
<i>Astragalus tennesseensis</i>	Tennessee Milkvetch	6	F1
<i>Aureolaria patula</i>	Spreading yellow false foxglove	7	F1
<i>Carex brysonii</i>	Bryson's sedge	18	F3
<i>Delphinium alabamicum</i>	Alabama larkspur	6	F1
<i>Diervilla rivularis</i>	Riverbank bush-honeysuckle	11	F1
<i>Hymenophyllum tayloriae</i>	Gorge filmy fern	7	F1
<i>Jamesianthus alabamensis</i>	Alabama jamesianthus	11	F2
<i>Juglans cinerea</i>	Butternut	18	F2
<i>Leavenworthia crassa</i>	Fleshyfruit Gladecress	6	F2
<i>Lesquerella densipila</i>	Duck River Bladderpod	6	F1
<i>Monotropsis odorata</i>	Sweet pinesap	17	F1
<i>Asplenium x ebenoides</i>	Scott's Spleenwort	7	F1
<i>Marshallia trinervia</i>	Broadleaf Barbara's buttons	11	F1
<i>Minuartia alabamensis</i>	Alabama Sandwort	6	F1
<i>Neviusia alabamensis</i>	Alabama snow-wreath	6	F1
<i>Platanthera intergrilabia</i>	White fringeless orchid	2	F1
<i>Polymnia laevigata</i>	Tennessee Leafcup	18	F1
<i>Robinia viscosa</i>	Clammy Locust	17	F1
<i>Rudbeckia triloba var pinnatiloba</i>	Pinnate-lobed Black-eyed Susan	7 / 18	F1
<i>Scutellaria alabamensis</i>	Alabama skullcap	7	F1
<i>Sedum nevii</i>	Nevius' stonecrop	7	F1
<i>Silene ovata</i>	Blue Ridge catchfly	7	F1
<i>Talinum calcaricum</i>	Limestone Fameflower	6	F1
<i>Talinum mengesii</i>	Menge's fameflower	6	F1
<i>Thalictrum mirabile</i>	Little mountain meadow rue	7	F1
<i>Trillium lancifolium</i>	Lanceleaf Trillium	11	F2
<i>Trillium simile</i>	Jeweled Trillium	18	F1
<i>Speyeria diana</i>	Diana Fritillary	11	F1
<i>Corynorhinus rafinesquii</i>	Rafinesque's Big-eared bat	10	F1
<i>Cheilolejeunea evansii</i>	A liverwort	11	F1
<i>Aneura maxima</i>	A liverwort	11	F1
<i>Helianthus eggertii</i>	Eggert's Sunflower	6	F1
<i>Leavenworthia alabamica var. alabamica</i>	Alabama Gladecress	6	F1

Scientific Name	Common Name	Habitat	Within Affected Area? If yes, may be affected By the project?
<i>Potamilus inflatus</i>	Alabama Heelsplitter	A	F1
<i>Pellia X appalachiana</i>	A liverwort	11	F1
<i>Plagiochila echinata</i>	A liverwort	11	F1
<i>Radula sullivantii</i>	A liverwort	11	F1
<i>Riccardia jugata</i>	A liverwort	11	F1
<i>Hydroptila paralatosa</i>	A caddisfly	A	F1
<i>Rhyacophila carolae</i>	A caddisfly	A	F1
<i>Elliptio arca</i>	Alabama spike	A	F1
<i>Obovaria jacksoniana</i>	Southern Hickorynut	A	F1
<i>Obovaria unicolor</i>	Alabama Hickorynut	A	F1
<i>Strophitus subvexus</i>	Southern creekmussel	A	F1
<i>Villosa nebulosa</i>	Alabama rainbow	A	F1
<i>Etheostoma bellator</i>	Warrior darter	A	F2
<i>Etheostoma douglasi</i>	Tuskaloosa darter	A	F2
<i>Etheostoma phytophilum</i>	Rush darter	A	F2
<i>Etheostoma tuscumbia</i>	Tuscumbia darter	A	F1
<i>Percina sp.cf.macrocephala</i>	Longhead darter (Warrior Brinled Darter)	A	F2
<i>Necturus alabamensis</i>	Black Warrior waterdog	A	F3
<i>Haliaeetus leucocephalus</i>	Bald eagle	11	F1

¹S = sensitive; C = candidate for Federal listing
 FP=Forest Potential-No known occurrences,
 F1=0-5 Known occurrences,
 F2=6-20 Known occurrences,
 F3=21-100 Known occurrences on Bankhead NF

Habitat Code

1=Caves; 2=Wetlands; 6=Glades, prairies;7=Rock outcrops & cliffs; 8=Grass/forb habitats; 10=mid-late successional deciduous forests; 11=forest riparian areas; 12=habitat generalist; 13= area sensitive mid-late successional deciduous forests

This list of Regional Forester's Sensitive Species to be evaluated for Bankhead National Forest projects was derived from the BA and BE for implementation of the Forest Plan (2003). **Species shaded in gray in the above tables (all RFSS aquatic animals) will not be affected by the proposed project.** No impacts or effects (direct, indirect, or cumulative) are expected to these species, or the known or potential habitats for these species. These determinations are possible because the proposed action does not include any activity within the habitats where these species are known to occur.

Regional Forester's Sensitive Species WITH DETERMINATIONS

Figure RFSS_BE-6. Regional Forester's Sensitive Species Determinations for Implementation of the Proposed Action.

Scientific Name	Common Name	Determinations of Effect
<i>Aesculus parviflora</i>	Small flowered buckeye	No Impact
<i>Astragalus tennesseensis</i>	Tennessee Milkvetch	No impact
<i>Aureolaria patula</i>	Spreading yellow false foxglove	No Impact
<i>Carex brysonii</i>	Bryson's sedge	No Impact
<i>Delphinium alabamicum</i>	Alabama larkspur	No Impact
<i>Diervilla rivularis</i>	Riverbank bush-honeysuckle	No Impact
<i>Hymenophyllum tayloriae</i>	Gorge filmy fern	No Impact
<i>Jamesianthus alabamensis</i>	Alabama jamesianthus	No Impact
<i>Juglans cinerea</i>	Butternut	No Impact
<i>Leavenworthia crassa</i>	Fleshyfruit Gladecress	No Impact
<i>Lesquerella densipila</i>	Duck River Bladderpod	No Impact
<i>Monotropis odorata</i>	Sweet pinesap	No Impact
<i>Asplenium x ebenoides</i>	Scott's Spleenwort	No Impact
<i>Marshallia trinervia</i>	Broadleaf Barbara's buttons	No Impact
<i>Minuartia alabamensis</i>	Alabama Sandwort	No Impact
<i>Neviusia alabamensis</i>	Alabama snow-wreath	No Impact
<i>Platanthera intergrilabia</i>	White fringeless orchid	No Impact
<i>Polymnia laevigata</i>	Tennessee Leafcup	No Impact
<i>Robinia viscosa</i>	Clammy Locust	No Impact
<i>Rudbeckia triloba var pinnatiloba</i>	Pinnate-lobed Black-eyed Susan	No impact
<i>Scutellaria alabamensis</i>	Alabama skullcap	No Impact
<i>Sedum nevii</i>	Nevius' stonecrop	No Impact
<i>Silene ovata</i>	Blue Ridge catchfly	No Impact
<i>Talinum calcaricum</i>	Limestone Fameflower	No Impact
<i>Talinum mengesii</i>	Menge's fameflower	No Impact
<i>Thalictrum mirabile</i>	Little mountain meadow rue	No Impact
<i>Trillium lancifolium</i>	Lanceleaf Trillium	No Impact
<i>Trillium simile</i>	Jeweled Trillium	No Impact
<i>Speyeria diana</i>	Diana Fritillary	No Impact
<i>Corynorhinus rafinesquii</i>	Rafinesque's Big-eared bat	No Impact
<i>Cheilolejeunea evansii</i>	A liverwort	No Impact

Figure RFSS_BE-6. Regional Forester's Sensitive Species Determinations for Implementation of the Proposed Action.

		Determinations of Effect
Scientific Name	Common Name	
<i>Aneura maxima</i>	A liverwort	No Impact
<i>Helianthus eggertii</i>	Eggert's Sunflower	No Impact
<i>Leavenworthia alabamica</i> var. <i>alabamica</i>	Alabama Gladecress	No Impact
Scientific Name	Common Name	
<i>Potamilus inflatus</i>	Alabama Heelsplitter	No Impact
<i>Pellia X appalachiana</i>	A liverwort	No impact
<i>Plagiochila echinata</i>	A liverwort	No Impact
<i>Radula sullivantii</i>	A liverwort	No Impact
<i>Riccardia jugata</i>	A liverwort	No Impact
<i>Hydroptila paralatosa</i>	A caddisfly	No Impact
<i>Rhyacophila carolae</i>	A caddisfly	No Impact
<i>Elliptio arca</i>	Alabama spike	No Impact
<i>Obovaria jacksoniana</i>	Southern Hickorynut	No Impact
<i>Obovaria unicolor</i>	Alabama Hickorynut	No Impact
<i>Strophitus subvexus</i>	Southern creekmussel	No Impact
<i>Villosa nebulosa</i>	Alabama rainbow	No Impact
<i>Etheostoma bellator</i>	Warrior darter	No Impact
<i>Etheostoma douglasi</i>	Tuskaloosa darter	No Impact
<i>Etheostoma phytophilum</i>	Rush darter	No Impact
<i>Etheostoma tuscumbia</i>	Tuscumbia darter	No Impact
	Longhead darter (Warrior Brinled Darter)	No Impact
<i>Percina sp.cf.macrocephala</i>		
<i>Necturus alabamensis</i>	Black Warrior waterdog	No Impact
<i>Haliaeetus leucocephalus</i>	Bald eagle	No Impact

This Biological Evaluation was prepared by:

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Date:

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