IDAHO NATIONAL GUARD TRAINING AREA INVENTORY:

GARWOOD TRAINING AREA

By

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April 1998

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Prepared for:
State of Idaho, Military Division
MOA NGB16-97-D-0001
Task Order No. 001-FY-97

SUMMARY

The Garwood Training Area lies 4-5 miles north of Hayden, and about one mile south of Garwood, along Highway 53 near its junction with Hwy 95. The area lies on the outwash plains created at the southern edge of the continental icesheet. It is gently undulating terrain covered by second growth of the ninebark phase of the grand fir/beadlily plant association. The entire area has been logged at least one time, although it is still covered with native vegetation. No populations of rare plant or animal species were found during inventories in April and June 1997.

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INTRODUCTION

During April 1997, the Military Division of the State of Idaho entered into a Memorandum of Agreement (MOA) with the Idaho Department of Fish and Games's Conservation Data Center for the purpose of providing threatened and endangered, and sensitive species surveys on lands utilized for military training activities in the state. The Idaho National Guard utilizes 28 training areas throughout Idaho. Eight training areas were chosen for surveys during 1997, including the Garwood Training Area.

The Idaho Military Division (Idaho National Guard) is responsible for ensuring proper stewardship of natural resources under its jurisdiction through various federal laws and Army regulations. For the scope of work under the MOA, threatened, endangered and sensitive species include any species listed as threatened or endangered under federal or state jurisdiction, species proposed as candidates for listing, and other species deemed rare at local, state, regional or national levels.

The Conservation Data Center (CDC) is the central repository in Idaho for information related to rare plant and animal populations, as well as data on significant ecological sites in the state. These data are organized on maps, manual files, and a series of interrelated computerized data bases encompassed by our Biological and Conservation Data System. These data bases include species and community occurrences, extensive bibliographic material, site specific ecological and management data, ecological monitoring, and others.

The Idaho CDC is a node in an international network of Natural Heritage Programs and Conservation Data Centers that occur in all the United States and in many other areas of the western hemisphere. All Natural Heritage Programs manage data in a standardized format so that data can be aggregated upward in the network for regional-, national-, and continental-scale perspectives of biodiversity protection. The Idaho CDC cooperates with numerous state, federal, county, and municipal institutions, as well as private corporations, organizations, and individuals to accomplish its mission.

METHODS

We used a three-phase approach to field inventories of Guard training areas for rare species and habitats: (1) information gathering; (2) field inventory; and (3) documentation. Each of these phases is described below for this training area.

Information Gathering

As explained in the Introduction, the CDC is the central repository for rare species information in Idaho. CDC biologists collect rare species information and have considerable expertise about habitats in the state. We also have developed relationships with many cooperating institutions over the years who provide us distribution information. In other words, our data bases are being continually updated with the best information available. The first step in the process involved reviewing our map and computer data bases with help from Fish and Game's nongame biologists. From this review, we developed a target list of rare plants and animals that may occur at each of the training areas. The next step was then to review the literature or expertise of appropriate

biologists to develop an inventory protocol for each species.

For the Garwood Training Area no target species were identified. There are no rare plant or animal species known from the vicinity that could have potential habitat on the site.

Field Inventory

Field inventories were conducted during the appropriate time(s) of the year, depending on the phenology or natural history of the target species. The training areas are small enough that a complete inventory can be made of the sites. The following types of information were collected during the inventories:

> **Habitat:** If native habitats existed on the training area, the plant association(s) were identified using the *Natural Plant Communities of Idaho* catalog compiled by the CDC. An *Idaho Plant Community Observation Form* was filled out for each occurrence of the plant association at the site. Information collected on this form includes location, size, site quality, land use, community description, successional and structural conditions, and species composition.
>
> **Rare Plant or Animal:** If a rare species was encountered, an *Idaho Rare Animal Observation Form* or *Idaho Rare Plant Observation Form* was filled out for each occurrence at the site. Information collected on these forms include location, population size and quality, land use, and habitat description. The location was mapped on a USGS 7.5' quadrangle.
>
> **Vascular Plant Species:** A complete list of vascular plants was made during the inventory. No voucher specimens were collected, but most species were identified using technical floras.

In the case of the Garwood Training Area, late April through June was chosen as the optimum time to conduct the field inventory. Inventories were conducted on April 23 and June 16, 1997. Two days proved sufficient to inventory for all elements over the entire site.

Documentation

The first step in documenting the field surveys is to process the field data into various modules of the Biological and Conservation Data System (BCD) of the CDC. Here they contribute to the centralized information base about rare species, habitats, and managed areas in the state. The pertinent modules are described below.

> **Training Area:** General training area information is entered into the *Managed Area* module of BCD. Information on location, ownership and management responsibility, site description, land use, references, and management description are included in this computerized record. The boundaries of the area are mapped on the CDC's base set of USGS quads for the state. They are also digitized and added to the Managed Area layer in the Department's GIS.

Habitats: Similar to rare species populations, occurrences of plant associations are entered into the *Element Occurrence* module (both species and communities are "elements" of biodiversity, hence the generic name element occurrence). Using field data from the Plant Community Observation Form, information for each plant association occurrence is kept on map, computer, and manual files. The computer file contains numerous fields under such headings as Location, Status (quality, dates of observation, etc.), Description, Protection, Ownership, and Documentation (sources of information about an occurrence).

Rare Species: As described above, populations of rare species are also cataloged in the *Element Occurrence* module of BCD, with similar information to natural communities. Field data from the Rare Animal or Rare Plant observation forms are used to populate the data base records.

Characterization Abstracts are used to produce status reports for each rare species encountered. Status information for vertebrate animals is abstracted in the *Vertebrate Characterization Abstract* (VCA), while the plant abstract module is referred to as the *Plant Characterization Abstract* (PCA). Each characterization abstract record contains both global (rangewide) as well as state-specific information. The exception is if the species is endemic to Idaho, in which case only global information is used.

The next step is to use these data bases, supplemented with other information and personal knowledge, to generate this summary report of the inventory.

RESULTS

Training Area

The following description was adapted from the Managed Area record for Garwood Training Area (BCD record M.266; Appendix 1):

The training area is located about 4-5 miles north of Hayden, and about one mile south of Garwood, along Highway 53 near its junction with Hwy 95. The area lies on the outwash plains created at the southern edge of the continental icesheet. It is gently undulating terrain covered by second growth of the ninebark phase of the grand fir/beadlily plant association *(Abies grandis/Clintonia uniflora - Physocarpus malvaceus*). The entire area has been logged at least one time, although it is still covered with native vegetation. Most of the area is dominated by 60-80' tall grand fir and Douglas-fir. There is one small area of dense, 25' tall lodgepole pine.

Habitats

Although the area was logged at some time in the past, it still supports a native, second-growth forest. Most of the area appears to be the ninebark phase of the grand fir/beadlily plant association. Some of the site, however, portions may also be the grand fir/twinflower plant association *(Abies grandis/ Linnaea borealis*). I am uncertain of the extent of this type because of all the disturbances in the area. Most of the stands are mid-seral grand fir and Douglas-fir, with some early seral thickets of lodgepole pine. There are a few widely scattered western redcedar in

the area, indicating that it may be in the transition zone from grand fir climax forests to western redcedar climax. Because of the logging and numerous roads that crisscross the stand, the ecological quality of the site is not high.

In summary, the native community identified at the site is as follows (see Appendix 2 for more information on this occurrence):

Plant Association	**CDC Occurrence Number**	**Approx. Size (acres)**
Abies grandis/Clintonia uniflora - Physocarpus malvaceus	005	36

Rare Species

No rare plants or animals are known from the vicinity of this training area and none were on the target list. Not surprisingly, none were discovered on the site during the field inventory in April and June.

Vascular Plant Species

I observed 97 vascular plant species at the training area during April and June 1997, including trees, shrubs, forbs, and grasses and sedges. The list appears in Appendix 3.

Appendix 1

Managed Area Basic Record

Garwood Training Area (M.266)

Managed Area Basic Record
GARWOOD TRAINING AREA
#266

Location

County: Kootenai
Quadrangle: Hayden
Township, Range, and Section:
052N 004W 26 SW4SE4SE4

Description

Garwood Training Area is located about 4-5 miles north of Hayden, and about 1 mile south of Garwood, Idaho, along Highway 53 near its junction with Hwy 95. The area lies on the outwash plains created at the southern edge of the continental icesheet. It is gently undulating terrain covered by second growth of the grand fir/beadlily habitat type. The entire area has been logged at least one time, although it is still covered with native vegetation. Most of the area is dominated by 60-80' tall grand fir and Douglas-fir. There is one small area of dense, 25' tall lodgepole pine.

Acres: 36.00

Stewardship

Manager:
Bob Ewing, Maintenance Engineer
Idaho Transportation Department
600 W. Prairie
Coeur D'Alene, ID 83814

Cooperating Institution:
Idaho Army National Guard,
SFC Jay Baker, E. 5555
Seltice Way, Post Falls, ID 83854.
(208) 765-5189

Management:

This is a small, isolated tract of second-growth grand fir forest. Numerous roads cris-cross the tract. Highways, railroads, gravel pit and agricultural land surround the area. There appears to be little public use. The Idaho National Guard uses this area 4-6 times a year for tactical combat engineer training. Moseley made a species list of vascular plants, inventoried plant community types, and looked for potential habitat for rare plants and animals during two visits in 1997.

Elements

Plant Communities:
Abies grandis/Clintonia uniflora plant association, *Physocarpus malvaceus* phase

Rare Species:
None

References

Moseley, B. 1997. Field notes for the Garwood Training Area (M.USIDHP*266). 2 pp. plus map.

Record Maintenance

Edition: 97-10-23

Edition Author: L. Williams

File Note: A managed area file is maintained at the Idaho Conservation Data Center, Department of Fish and Game, Boise.

Appendix 2

Communities and Rare Species Occurrence Records

Plant Communities:
Abies grandis/Clintonia uniflora-Physocarpus malvaceus 005

Rare Species:
None

ABIES GRANDIS/CLINTONIA UNIFLORA, PHYSOCARPUS MALVACEUS PHASE
GRAND FIR/CLINTONIA, MOUNTAIN NINEBARK PHASE
Occurrence Number: 005

Survey Site Name: GARWOOD TRAINING AREA

County: Kootenai

USGS quadrangle: HAYDEN

Latitude: 474910N Longitude: 1164735W

TOWNRANGE:	SECTION:	MERIDIAN:	TRSNOTE:
052N 004W	26	BO	SW4SE4SE4

Location:
Garwood Training Area is located about 4-5 miles north of Hayden, and about 1 mile south of Garwood, Idaho, along Highway 53 near its junction with Hwy 95.
Survey Date: 1997-06-16
Last Observed: 1997-06-16
First Observed: 1997-06-16

EORANK: D
EORANK Comments: Small, isolated, disturbed, logged site.

Population Data:
1997: Mid-seral (mostly) with some early seral (N end). Area has been logged at least once. Surveyed by B. Moseley, Idaho CDC.

Habitat Description:
Abies grandis/Clintonia uniflora habitat type, *Physocarpus malvaceus* phase. Type occurs on a flat area in glacial outwash gravels substrate. Mid-seral stand dominated by open stands of *Pseudotsuga menziesii* and *Abies grandis*. Numerous disturbed openings dominated by a diverse shrub layer with *Symphoricarpos albus, Holodiscus discolor, Physocarpus malvaceus, Acer glabrum*, and others.

Elevation: 2300 feet

Size: 36 AC

Land Owner/Manager:
GARWOOD TRAINING AREA
IDAHO TRANSPORTATION DEPARTMENT

Management Comments:
Occurrence is surrounded by crop land, railroad right-of-way, gravel pit, and the highway. Many roads cris-cross the stand.

Area is occasionally used by the Idaho National Guard for training.

Appendix 3

Vascular Plant Species List

Garwood Training Area

Vascular plant species observed by Bob Moseley, April and June 1997.

* = non-native species

TREES	
Abies grandis	grand fir
Acer glabrum	Rocky Mountain maple
Larix occidentalis	larch
Pinus contorta	lodgepole pine
Pinus ponderosa	ponderosa pine
Populus tremuloides	aspen
Populus trichocarpa	black cottonwood
Pseudotsuga menziesii	Douglas-fir
Thuja plicata	western redcedar
SHRUBS	
Amelanchier alnifolia	serviceberry
Arctostaphylos uva-ursi	kinnikinnik
Berberis repens	Oregon-grape
Crataegus douglasii	hawthorn
Holodiscus discolor	oceanspray
Linnaea borealis	twinflower
Lonicera ciliata	creeping honeysuckle
Paxistima myrsinites	boxwood
Physocarpus malvaceus	ninebark
Prunus virginiana	chokecherry
Rosa gymnocarpa	rose
Rosa woodsii	Wood's rose
Rubus leucodermis	blackcap
Rubus parviflorus	thimbleberry
Salix scouleriana	Scouler's willow
Sambucus cerulea	elderberry
Sorbus sitchensis	mountain ash
Spiraea betulifolia	spiraea
Symphoricarpos albus	common snowberry
FORBS	
Achillea millefolium	yarrow
Adenocaulon bicolor	trail plant
Anaphalis margaritacea	pearly everlasting
Anemone piperi	Piper's anemone
Antennaria microphylla	rosy pussytoes
Aralia nudicaulis	wild sarsaparilla
Arenaria macrophyllum	big-leaf sandwort
Besseya rubra	kittentails
Calochortus eurycarpus	mariposa lily
Castilleja miniata	scarlet paintbrush
**Centaurea maculosa*	spotted knapweed
Chimaphila umbellata	prince's-pine
**Chrysanthemum leucanthemum*	ox-eye daisy
**Cirsium vulgare*	bull thistle
Clintonia uniflora	Queen's cup beadlily
Collinsia parviflora	blue-eyed Mary

**Convolvulus arvensis*	bindweed
Corallorhiza maculata	coralroot
Corallorhiza trifida	coralroot
Disporum hookeri	fairy-bell
Epilobium angustifolia	fireweed
Fragaria vesca	strawberry
Fragaria virginiana	strawberry
Galium triflorum	bedstraw
Geranium viscosisimum	sticky geranium
Geum macrophyllum	bigleaf avens
Heuchra cylindrica	alumroot
**Hieracium aurantiacum*	orange hawksbeard
**Hypericum perforatum*	St. Johns wort
**Lactuca seriola*	prickly lettuce
Lathyrus bijugatus	sweet-pea
**Linaria dalmatica*	dalmatian toad-flax
Lithospermum ruderale	stoneseed
Microsteris gracilis	microsteris
Mitella stauropetala	mitrewort
Montia perfoliata	clasping miner's lettuce
Osmorhiza chilensis	sweet-cicily
Penstemon confertus	yellow penstemon
Potentilla glandulosa	glandular buckwheat
Potentilla gracilis	cinquefoil
**Potentilla renacta*	sulfur cinquefoil
Prunella vulgaris	heal-all
Pteridium aquilinum	braken fern
Ranunculus uncinatus	buttercup
**Rumex acetosella*	sheep sorrel
Smilacina racemosa	spikenard
Smilacina stellata	false Solomon-seal
**Tanacetum vulgare*	tansy
**Taraxacum officinale*	dandelion
Tiarella trifoliata	foamflower
**Trifolium pratense*	red clover
**Trifolium repens*	white clover
Trillium ovatum	trillium
**Verbascum thapsus*	woolly mullein
Veronica serpyllifolia	thyme-leaved speedwell
**Vicia villosa*	vetch
Viola orbiculata	yellow violet

GRAMINOIDS

**Bromus inermis*	smooth brome
**Bromus japonicus*	downy brome
Calamagrostis rubescens	pinegrass
Carex deweyana	Dewey's sedge
**Dactylus glomerata*	orchardgrass
Elymus glaucus	blue wildrye
Festuca occidentalis	western fescue
Festuca subulata	fescue
Luzula parviflora	wood-rush
**Phleum pratense*	timothy
**Poa compressa*	Canada bluegrass
**Poa pratensis*	Kentucky bluegrass