

Status of the Amended Salmon-Challis National Forest Plans Management Indicator Species Pileated Woodpecker

November 2004

Introduction

The pileated woodpecker is native to North America and is a long-lived and wide-ranging resident species. It is found in forested portions of all the eastern states. In the western states they occur in Washington, Oregon, Nevada, Montana, and Idaho forests that can grow large-diameter trees. Pileated woodpeckers are detected by the annual Breeding Bird Surveys that are conducted on the Salmon-Challis National Forest each year, in conjunction with a large-scale national monitoring effort for birds. This bird is a loud, vociferous species that is easily detected by "point count transects", several of which have been conducted on at least one Ranger District. The relationship of this species with mixed conifer forests communities containing large diameter live trees, standing dead and down logs, particularly in multi-storied stands, is fairly well understood, as is the effect of timber management activities on the characteristics of such stands. Pileated woodpeckers commonly occur in the ponderosa pine, Douglas-fir and mixed pine and fir stands where most forested vegetative management occurs on this forest, and are affected by changes in habitats they provide.

Habitat Distribution

Total acres and potential vegetation types within the coniferous habitat\community at type and distribution of this community/habitat type are displayed in Table 1 and Figure 1.

Monitoring Protocols

Breeding Bird Surveys

The National Breeding Bird Survey is a national bird occurrence monitoring program coordinated by the US Geological Survey. Within the state of Idaho are 19 breeding bird routes where pileated woodpeckers have been detected. These routes are used to monitor long-term changes in population as part of the National Breeding Bird Survey effort. There are seven routes associated with the Salmon-Challis National Forest.

Point Counts

Pileated woodpeckers are monitored by point count transects conducted in accordance with the protocol recommended by Hamel and others (1996) and Hutto and Hoffland (1996). These protocols establish transects consisting of a series of points located at approximately 1 km intervals, but no closer than approximately 250 m. At each point, all birds detected visually or aurally are tallied, separately, during a three-minute listening period followed by a two minute listening period, for a total of 5 minutes. On transects where access is by means other than vehicle, an additional 5 minute listening period may be used. The protocol was modified for use on the Salmon-Challis to include a "play-back" session of pileated calls and drumming between the first 3-minute listening period and the following 2-minute listening period. A "play-back" session is also included between the 2-minute and final 5-minute listening periods when the third listening period is included. This modification is being used because the primary purpose of the transect is to detect the "target species" and the use of recorded calls to elicit response by pileated woodpeckers has been found to enhance detection rates for this species. Transects are strategically located in suitable habitats, are conducted before 10:00 am during the spring breeding

season, and are only completed during favorable weather conditions (i.e. light winds less than 20 km/h and no rain).

Distance from the observer(s) of all birds detected, either visually or aurally, are recorded in one of four categories: from 0 to 25m, 25 to 50m, beyond 50 m in the habitat and flyovers, regardless of the distance. Actual distances, where appropriate, are determined via laser range finder. Times of all detections are also recorded.

Vegetation data collected include forest habitat type, successional stage, prior timber management treatments applied (i.e. clearcut, shelterwood, etc.) and presence of standing snags, live cavity trees and large woody debris (includes stumps), by two size classes (i.e. greater than 25 cm and greater than 50 cm) within 50m. Estimates of the latter three parameters are recorded using "0" for none, "1" for 1-3, and "2" for more than 3, for each size class. Nonvegetative information collected at each point includes exact location (GPS coordinates) elevation, aspect, slope and presence/absence of water. Each transect and point are permanently marked for future identification and transects should be repeated as near to the same date each year as possible. A minimum of one transect is conducted on each Ranger District. Data sheets for both non-vegetative and vegetative components are attached (Enclosure 1).

Data Evaluation

Very little pileated woodpecker data currently exists in the corporate database for the Salmon-Challis NF. The species is considered common where suitable habitats occur across the forest and numerous individual observations have been recorded and are now included in the NRIS/FAUNA database. However, it has only been recorded on four of the seven Breeding Bird Survey Routes on this forest and only a very few times on those routes. Three point counts, followed by call playback sessions, were conducted specifically for this species in project areas on the Salmon-Cobalt RD but no individuals were detected. These counts were project oriented and have not been repeated. However, permanent monitoring transects were established on all Ranger Districts this spring (FY04) (Table 4). Pileated woodpeckers were detected on all districts except the Lost River (D4) and Middle Fork (D6). The species is not known to occur on the Lost River RD but is known to occur on the Middle Fork RD and additional surveys will be conducted there.

Conclusion

Breeding Bird Surveys (BBS)

Although single survey routes do not have an adequate number of data points to show population trend individually, they do indicate if pileated woodpeckers were detected or not (Table 3, Figures 5-7); and combined with the other routes in Idaho, they provide a measure of relative statewide population trend. Nationally, this portion of the northwest shows a long-term upward trend of greater than 1.5% per year over a 30-year period (1966-1996) (Figure 3). For the state of Idaho more specifically, the BBS data shows a long-term upward trend of 3.5% per year (Table 2, Figure 2).

Point Counts

Although sufficient data does not currently exist to either establish a forest-wide base line or indicate trend for this species, such data will be accumulated as these transects are monitored over time. Data from FY2004, the first year of this long-term monitoring effort, is presented in Table 4.

Table 1 - Coniferous Habitat/Community Type on the Salmon-Challis National Forest

GIS PVT Layer Designation	Acres
Dry Douglas Fir w/ Ponderosa Pine	246,439
Dry Douglas Fir w/o Ponderosa Pine	602,236
Limber Pine	21,293
Subalpine Fir Dry - Steep	654,840
Subalpine Fir Moist	35,408
Subalpine Fir / Douglas Fir	56,902
Subalpine Fir / LLP	10,345
Whitebark PineP / Subalpine Fir	146,923
Subalpine FirF / Whitebark Pine	83,347
Whitebark Pine	18,767
Douglas Fir / LPP	620,669
Douglas Fir / Limber Pine	43,259
Total Acres	2,540,428

Figure 1 – Distribution of Coniferous Habitat/Community Type

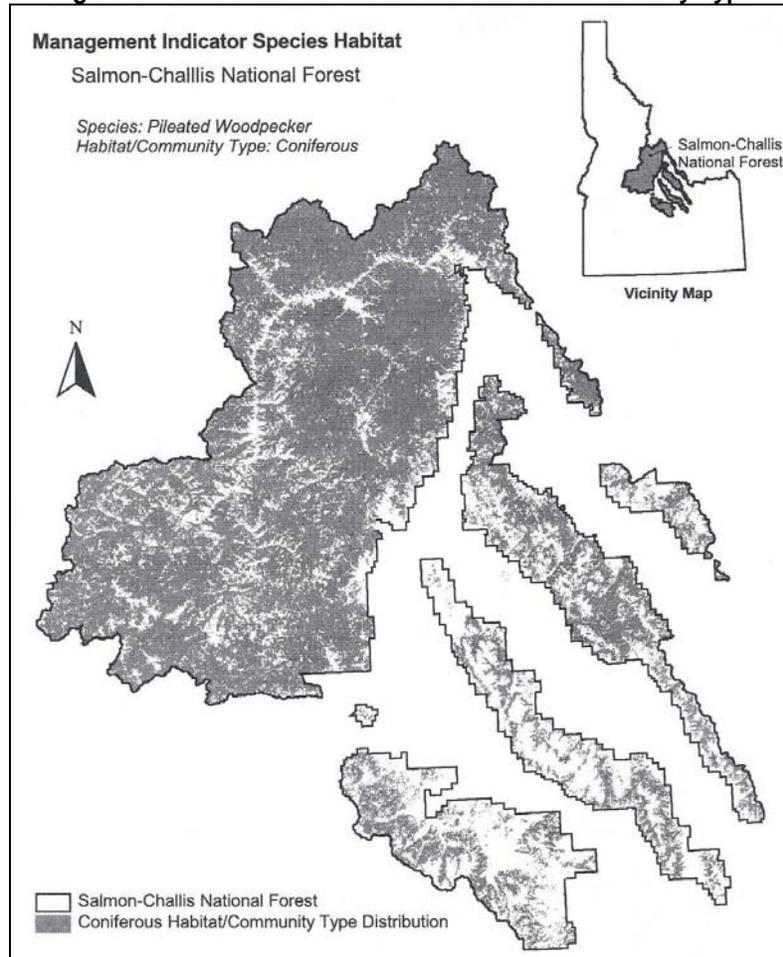


Table 2 - North American Breeding Bird Survey – Idaho Trend Results

Region	-----1968 – 2003 trends-----					-----1966 – 1979-----			-----1980 – 2003-----			
	Trend	P	N	(95% CI)		R.A.	Trend	P	N	Trend	P	N
Idaho	3.5	0.40	16	-4.5	11.5	0.49	-40.8	0.34	2	0.1	0.97	16

Figure 2 – Idaho Trend Results

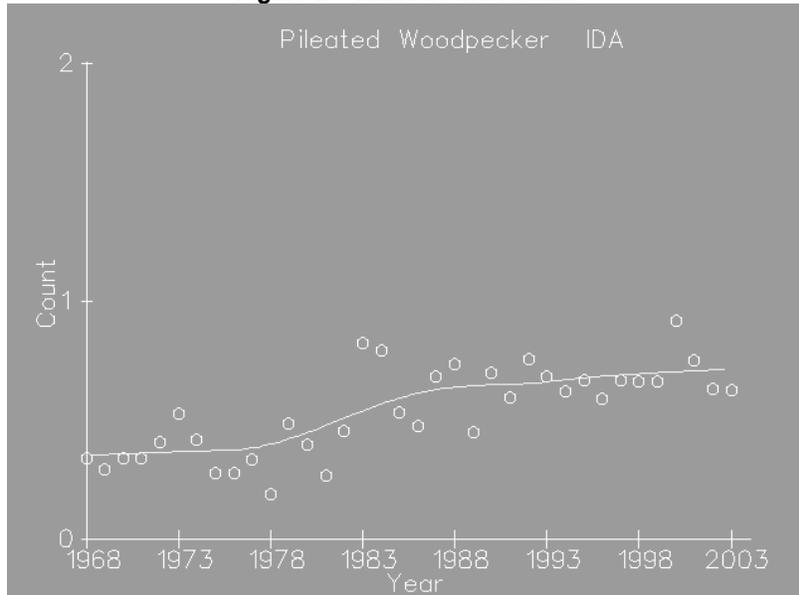


Figure 3 - Breeding Bird Survey National Trend Map 1966-1996

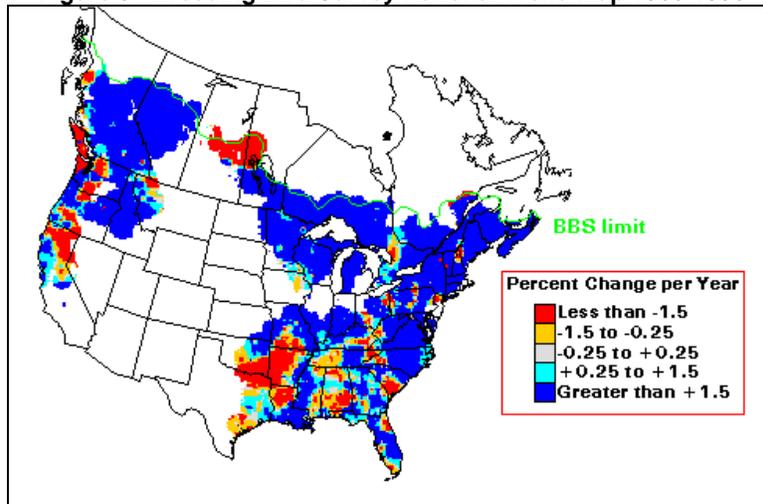


Table 3 - Breeding Bird Survey Route Individual Observations Salmon-Challis National Forest

Bird Species	Baker (1974-2003)	Cape Horn (1972-2003)	Challis (1975-2003)	Cobalt (1989-2003)	Leadore (1974-2003)	Lost River (1968-2003)	Sunbeam (1994-2003)
Pileated Woodpecker	0	6	1	2	1	0	0

Figure 4 - Cape Horn Route Trend Analysis

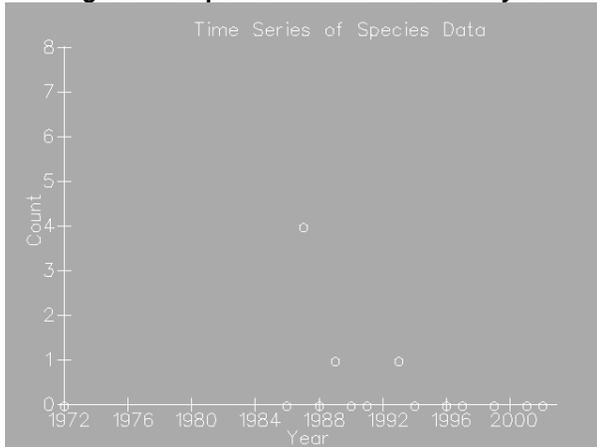


Figure 5 - Challis Route Trend Analysis

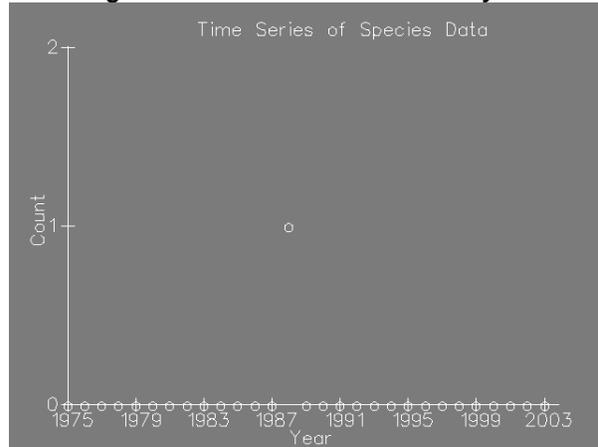


Figure 6 - Cobalt Route Trend Analysis

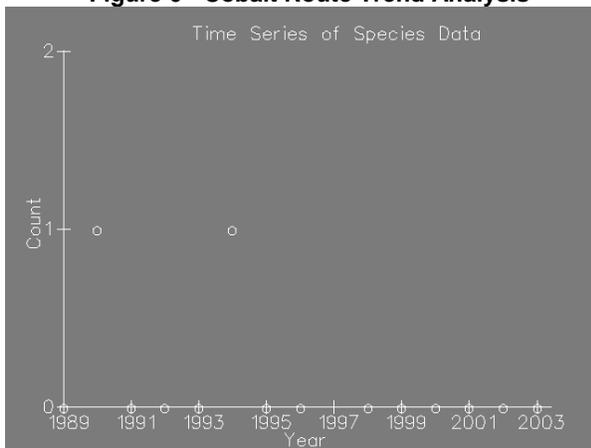


Figure 7 - Leadore Route Trend Analysis

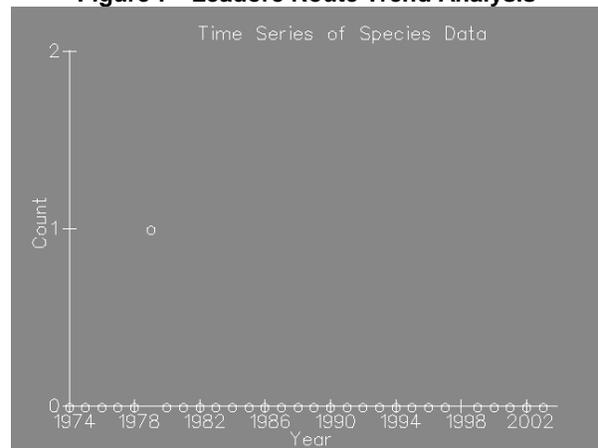


Table 4 - Salmon-Challis National Forest Pileated Woodpecker Transects and Individual Counts – 2004

Location	District	Date	Number of Individuals
Deep-Cobalt	Salmon-Cobalt	04/06/04	2 birds (1 pair)
Copper-McDon	Salmon-Cobalt	04/07/04	2 birds (1 pair)
Challis Creek Road (Transect 1)	Challis	04/06/04	2 birds (1 pair)
Challis Creek Road (Transect 2)	Challis	04/27/04	6 birds (3 pairs)
Garden Creek Road	Challis	06/15/04	0
West Fork Morgan (Transect 1)	Challis	04/01/04	4 birds (2 pairs)
West Fork Morgan (Transect 2)	Challis	04/30/04	4 birds (1 pair)
Yankee Fork Road (Transect 1)	Yankee Fork	03/26/04	0
Yankee Fork Road (Transect 2)	Yankee Fork	03/30/04	0
Squaw Creek Road (Transect 1)	Yankee Fork	04/29/04	0
Squaw Creek Road (Transect 2)	Yankee Fork	05/05/04	0
Bayhorse Road	Yankee Fork	06/21/04	1 bird
Sawmill Canyon	Lost River	04/30/04	0
Boundary Creek (Transect 1)	Middle Fork	05/18/04	0
Boundary Creek (Transect 1)	Middle Fork	05/26/04	0
Lick/Sheep/Hughes	North Fork	04/20/04	1 bird
Colson Creek Road	North Fork	04/26/04	4 birds (1 pair)
Hayden/Mill-South	Leadore	03/25/04	7 birds
Hayden/Mill-North	Leadore	03/30/04	0
2004 Total Count – 33 Birds			

PILEATED WOODPECKER SURVEY DATA SHEET

Date: _____ **District:** _____ **Observers:** _____
Survey Route Name/Location: _____

Start Time: _____ **Start Temp:** _____ °C °F **End Time:** _____ **End Temp:** _____ °C °F
UTM or LAT/LONG (Circle One) _____ **Zone:** _____ **Datum:** _____

Equipment: Map of survey route, GPS unit, survey forms, binoculars, cassette or CD player, speaker, tape or CD or pileated woodpecker calls and drumming, field notebook, watch/stop watch, bird field guide

Stop #	Odometer	Start Time	GPS Yes No		Water Yes No		Latitude or Northing	Longitude or Easting	Wind	Sky
1										
Major Overstory % Canopy Closure:							Major Understory:			
							Playback Response:			
	Species	6-14"	24-25"	>25"		Pileated Sign (e.g., foraging or nesting cavities; old or recent, other)				
Live Trees										
Hard Snags										
Soft Snags										
Stobs										
Woody Debris										

Notes:

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