
**Terrestrial Mollusk Surveys and Species
Habitat Assessments for Olympic
National Park, Queets Area,
DNR Road 010 Project**



Hemphillia malonei

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TABLE OF CONTENTS

TABLE OF CONTENTS	2
INTRODUCTION	3
BACKGROUND	3
METHODS	3
Conducting Surveys.....	4
<i>Mollusks</i>	4
<i>Other Species of Concern</i>	5
Data Collection for Mollusks.....	5
RESULTS	5
Mollusks.....	5
Potential Suitable Habitat for Other Species of Concern.....	5
LITERATURE CITED	6
APPENDIX 1	7
APPENDIX 2	8

INTRODUCTION

Olympic National Park has proposed to reopen DNR Road 010 through lands managed by the U.S. Forest Service Region 6 (USFS R6) near the Queets River Road in Jefferson County, Washington. According to USFS regulations, surveys for survey and manage species must be conducted prior to any ground disturbing activities. To fulfill these regulations, Hamer Environmental conducted surveys for terrestrial mollusks listed by the USFS as survey and manage species for the Olympic National Park. The site was also examined for the presence of potential suitable habitat for other listed species on the Olympic National Forest.

The selected site is on Olympic National Forest lands that may be impacted by the road reopening. The survey site was located along DNR Road 010, within T24N R10½ W, Section 11 (Figure 1).

BACKGROUND

Survey and Manage Species

Species designated as Survey and Manage Species (S&M) are species considered to be “at risk” under the Northwest Forest Plan. The list of designated species is reviewed annually by the USFS and Bureau of Land Management (BLM). According to the Northwest Forest Plan, surveys for S&M species must be conducted prior to any habitat disturbing activity. We used the S&M list updated in June 2002 for this survey effort (Appendix 1).

METHODS

The site to be surveyed for the Olympic National Park road reopening project was identified and delineated in the field by Nancy Hendricks, an Environmental Protection Specialist for Olympic National Park. The road was flagged in orange/white polka dot flagging and surveys were conducted where the proposed road crossed through lands managed by Olympic National Forest. Olympic National Forest boundaries were clearly marked with spray painted trees and boundary plaque markers in the field. Additionally, we located nearby section markers in the field to confirm the proper survey segment start and end points.

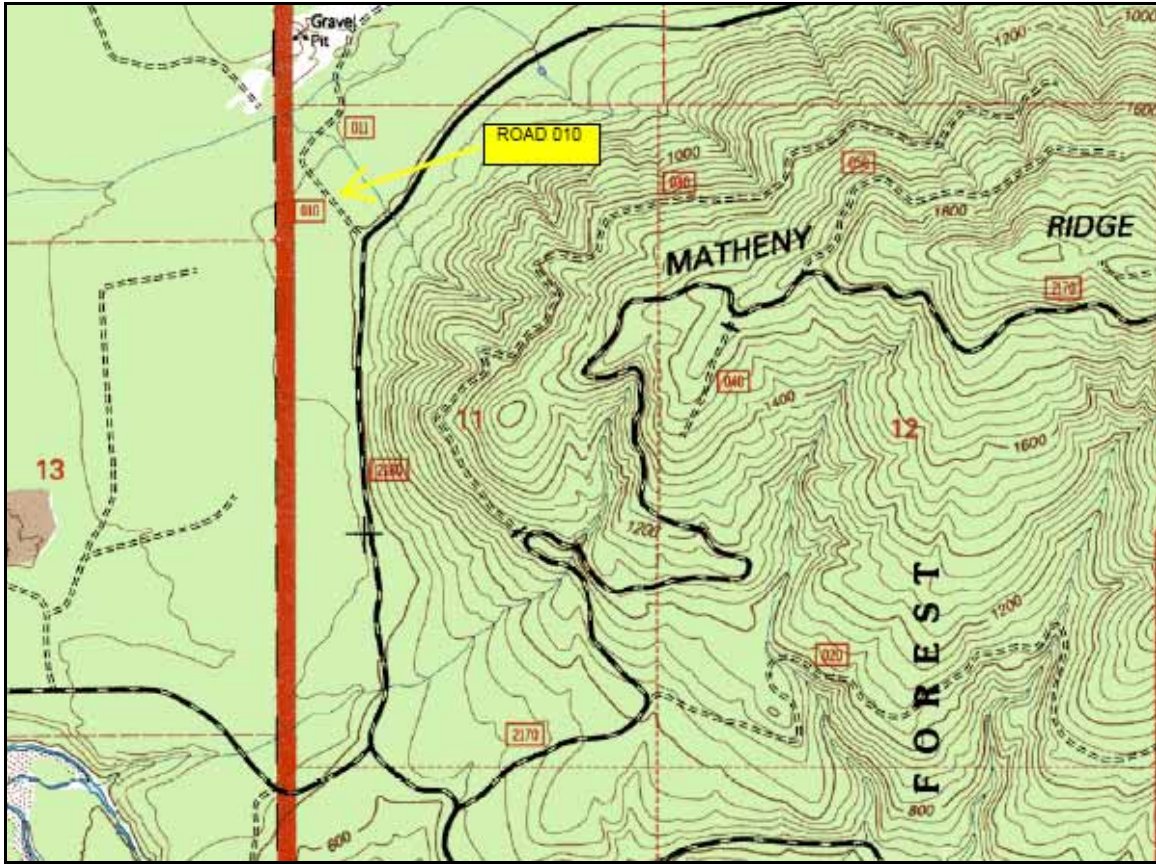


Figure 1. Location of terrestrial mollusk surveys and habitat assessments for additional species. WDNR Road 010; T24N R10½ W, Section 11.

Conducting Surveys

Mollusks

We surveyed the road segment utilizing both sample area and point search methods as described in the publication “Survey Protocol for Survey and Manage Terrestrial Mollusk Species from the Northwest Forest Plan” (Duncan et al. 2003). We conducted all surveys using the environmental constraints described in the protocol. We conducted two survey visits spaced 3 weeks apart. Point search sampling consisted of opportunistic searches conducted while walking the survey route between sample areas.

- The short point searches included rolling over small logs, looking under bits of bark, rocks, vegetation and debris, picking through leaf litter, and searching the leaf litter at the base of logs, shrubs and ferns.
- The sample area searches included the examination of all large debris within the sample area, searching through and under several shrubs and other plants, sorting through concentrations of leaf and needle litter, the examination of smooth lower trunks, leaves and branches of hardwood trees, and the rolling back of moss mats to examine the undersides and the mineral soil below.

Other Species of Concern

In addition to surveys for terrestrial mollusks, we also surveyed the segment for the presence of potential suitable habitat for all federally listed species on the Olympic National Forest (Appendix 2). These species included those listed by the U.S. Fish and Wildlife Service (USFWS) as endangered, threatened, candidates or species of concern. It also included species listed by the USFS R6 as sensitive, survey and manage, and management indicators (Appendix 2). We used the publication, “Wildlife-Habitat Relationships in Oregon and Washington” (Johnson and O’Neil 2001), as a reference to determine the habitat associations for each species. We then searched for the presence of these habitat types within the project area. A complete list of these species, their federal status and whether suitable habitat is present in or adjacent to the project area can be found in Appendix 2.

Data Collection for Mollusks

Thomas Mohagen of Hamer Environmental L.P. conducted surveys on 25 September and 20 October 2006 and compiled a complete list of mollusks found for the survey segment. We completed a survey documentation form for the segment. All mollusks were identified to species.

RESULTS

Mollusks

We found a total of ten *Haplotrema vancouverense* and five *Vespericola columbianus* during the two visits to the survey segment. We found no S&M species within the areas surveyed (Table 1).

Table 1. Mollusk survey results for the single survey segments during 19 May and 21 June, 2006 (see datasheets for more detailed information).

		Total <i>Haplotrema vancouverense</i>	Total <i>Vespericola columbianus</i>	Total S&M:
	Visit 1	4	1	0
	Visit 2	6	4	0

Potential Suitable Habitat for Other Species of Concern

A comprehensive list can be found in Appendix 2.

LITERATURE CITED

Duncan, N., T. Burke, S. Dowlan and P. Hohenlohe. 2003. *Survey Protocol for Survey and Manage Terrestrial Mollusk Species from the Northwest Forest Plan*. Bureau of Land Management, Portland, Oregon.

Johnson D.H. and T. A. O'Neil (Manag. Dirs.). 2001. *Wildlife-Habitat Relationships in Oregon and Washington*. Oregon State University Press, Corvallis, Oregon.

APPENDIX 1

Species Included in Survey and Manage Standards and Guidelines and Category Assignment (June 2002): MOLLUSKS

TAXA GROUP <i>Species</i>	Category
MOLLUSKS	
<i>Ancotrema voyanum</i>	E
<i>Cryptomastix devia</i>	A
<i>Cryptomastix hendersoni</i>	A
<i>Deroceras hesperium</i>	B
<i>Fluminicola</i> n. sp. 3	A
<i>Fluminicola</i> n. sp. 11	A
<i>Fluminicola</i> n. sp. 14	A
<i>Fluminicola</i> n. sp. 15	A
<i>Fluminicola</i> n. sp. 16	A
<i>Fluminicola</i> n. sp. 17	A
<i>Fluminicola</i> n. sp. 18	A
<i>Fluminicola</i> n. sp. 19	A
<i>Fluminicola</i> n. sp. 20	A
<i>Fluminicola seminalis</i>	A
<i>Helminthoglypta hertleini</i>	E
<i>Helminthoglypta talmadgei</i>	D
<i>Hemphillia burringtoni</i>	E
<i>Hemphillia glandulosa</i> , In WA Western Cascades Physiographic Province	E
<i>Hemphillia malonei</i> , Washington	C
<i>Hemphillia pantherina</i>	B
<i>Juga</i> (O) n. sp. 2	A
<i>Juga</i> (O) n. sp. 3	A
<i>Lyogyrus</i> n. sp. 1	A
<i>Lyogyrus</i> n. sp. 2	A
<i>Lyogyrus</i> n. sp. 3	A
<i>Megomphix hemphilli</i> , South of south boundary of Lincoln, Benton, and Linn Counties, Oregon	F
<i>Megomphix hemphilli</i> , North of south boundary of Lincoln, Benton, and Linn Counties, Oregon	A
<i>Monadenia chaceana</i>	B
<i>Monadenia fidelis klamathica</i>	B
<i>Monadenia fidelis minor</i>	E
<i>Monadenia fidelis ochromphalus</i>	B
<i>Monadenia troglodytes troglodytes</i>	A
<i>Monadenia troglodytes wintu</i>	A
<i>Oreohelix</i> n. sp.	A
<i>Pristoloma articum crateris</i>	B
<i>Prophysaon coeruleum</i> , In California and Washington	A
<i>Trilobopsis roperi</i>	A
<i>Trilobopsis tehamana</i>	A
<i>Vertigo</i> n. sp.	A
<i>Vespericola pressleyi</i>	A
<i>Vespericola shasta</i>	A
<i>Vorticifex</i> n. sp. 1	E

APPENDIX 2

Common Name	Scientific Name	Status USFWS	Status USFS	USFS S & M Status	Status WDFW	Habitat Present in or Adjacent to Proposed Units		Species Present in or Adjacent to Proposed Units	
						In	Adjacent	In	Adjacent
USFWS LISTED SPECIES									
Bald eagle	<i>Haliaeetus leucocephalus</i>	FT	MIS		ST				
Marbled murrelet	<i>Brachyramphus marmoratus</i>	FT			ST				
Marbled murrelet critical habitat		DCH							
Northern spotted owl	<i>Strix occidentalis caurina</i>	FT	MIS		SE				
Northern spotted owl critical habitat		DCH							
USFWS CANDIDATE SPECIES									
Mazama (western) pocket gopher	<i>Thomomys mazama melanops</i>	FC			SC				
USFWS SPECIES OF CONCERN									
Newcomb's littorine snail	<i>Algamorda newcombiana</i>	FSoC			SC				
Valley silverspot butterfly	<i>Speyeria zerene bremnerii</i>	FSoC			SC				
Olympic torrent salamander	<i>Rhyacotriton olympicus</i>	FSoC	R6		SM	X	X		
Van Dyke's salamander	<i>Plethodon vandykei</i>	FSoC	R6		SC	X	X		
Cascades frog	<i>Rana cascadae</i>	FSoC			SM	X	X		
Tailed frog	<i>Ascaphus truei</i>	FSoC			SM	X	X		
Western toad	<i>Bufo boreas</i>	FSoC			SC	X	X		
Aleutian Canada goose	<i>Branta canadensis leucopareia</i>	FSoC			ST				
Northern goshawk	<i>Accipiter gentilis</i>	FSoC			SC	X	X		
Peregrine falcon	<i>Falco peregrinus</i>	FSoC	R6		SS	X	X		
Olive-sided flycatcher	<i>Contopus cooperi</i>	FSoC			SoC	X	X		
Oregon vesper sparrow	<i>Pooecetes gramineus affinis</i>	FSoC			SC				
Long-eared myotis	<i>Myotis evotis</i>	FSoC	MR		SM				
Long-legged myotis	<i>Myotis volans</i>	FSoC	MR		SM		X		
Pacific Townsend's big-eared bat	<i>Corynorhinus townsendii townsendii</i>	FSoC	R6, MR		SC				

Terrestrial Mollusk Surveys and Species Habitat Assessments

Common Name	Scientific Name	Status USFWS/NMFS	Status USFS	USFS S and M Status	Status WDFW	Habitat Present in or Adjacent to Proposed Project		Species Present in or Adjacent to Proposed Project	
						In	Adjacent	In	Adjacent
USFS R6 SENSITIVE SPECIES									
Puget Oregonian snail	<i>Cryptomastix devia</i>		R6	A	S2	X	X		
Burrington's jumping slug	<i>Hemphillia burringtoni</i>		R6	E	S1S2	X	X		
Malone's jumping slug	<i>Hemphillia malonei</i>		R6	C	S1S2	X	X		
Blue-gray tailedropper	<i>Prophysaon coeruleum</i>		R6	A	S2	X	X		
Hoko vertigo	<i>Vertigo n. sp.</i>		R6	A	S1	X	X		
Pacific fisher (extirpated)	<i>Martes pennanti</i>	FC	R6		SE				
Pacific Townsend's big-eared bat	<i>Corynorhinus townsendii townsendii</i>	FSoc	R6, MR		SC				
Mazama (western) pocket gopher	<i>Thomomys mazama melanops</i>	FC			SC				
Cope's Giant Salamander	<i>Dicamptodon copei</i>		R6			X	X		
Olympic torrent salamander	<i>Rhyacotriton olympicus</i>		R6			X	X		
Van Dyke's salamander	<i>Plethodon vandykei</i>		R6		SC	X	X		
Common loon	<i>Gavia immer</i>		R6		S				
American peregrine falcon	<i>Falco peregrinus anatum</i>		R6		SE	X	X		
USFS MANAGEMENT INDICATOR SPECIES									
Bald eagle	<i>Haliaeetus leucocephalus</i>	FT	MIS		ST				
Northern spotted owl	<i>Strix occidentalis caurina</i>	FT	MIS		SE				
Pileated woodpecker	<i>Dryocopus pileatus</i>		MIS		SC	X	X		
Primary cavity excavators			MIS						
Columbian black-tailed deer	<i>Odocoileus hemionus columbianus</i>		MIS			X	X		
Roosevelt elk	<i>Cervus canadensis roosevelti</i>		MIS		SoC	X	X		
Pine marten	<i>Martes martes</i>		MIS			X	X		
USFS SURVEY and MANAGE									
Puget Oregonian snail	<i>Cryptomastix devia</i>		R6	A		X	X		

Terrestrial Mollusk Surveys and Species Habitat Assessments

Evening fieldslug	<i>Deroceras hesperium</i>		S&M	B ³		X	X		
Malone jumping slug	<i>Hemphillia malonei</i>		R6	C		X	X		
Burrington's jumping slug	<i>Hemphillia burringtoni</i>		R6	E	S1S2	X	X		
Hoko vertigo	<i>Vertigo n. sp.</i>		R6	A		X	X		
Blue-gray tailedropper	<i>Prophysaon coeruleum</i>		R6	A		X	X		

FEDERAL SPECIES STATUS

* = More information needed to assess distribution of species within Forest Service boundaries

FE= Federally listed as endangered species, as of 09/05/03, USFWS, Western Washington Office

FT= Federally listed as threatened species, as of 09/05/03, USFWS, Western Washington Office

FSoC= Federally proposed, Candidate Spp or Spp of Concern: as of 09/05/03, USFWS, Western Washington Office

DCH= Federal Designated Critical Habitat, as of 09/05/03, USFWS, Western Washington Office

FC= Federal Candidate, as of 09/05/03, USFWS, Western Washington Office

C2= For USDC National Marine Fisheries Service, species is undergoing a status review

FOREST SERVICE SPECIES STATUS

MIS= Management Indicator Species: Olympic National Forest Care and Resource Mgt. Plan, 1990

R6= Region 6, USFS, Sensitive Species, 11/28/00: Updated Regional Forester's Sensitive Animal List

S&M= Survey & Manage Species, 6/17/03: Project Review Form for Survey and Manage Species

SURVEY AND MANAGE SPECIES STATUS

A= Rare; Pre-disturbance surveys practical

C= Uncommon; Pre-disturbance surveys practical

B³= Rare; Pre-disturbance surveys not practical; Equivalent-effort pre-disturbance surveys

STATE SPECIES STATUS

SE= Listed as endangered by the WDFW (WAC 232-12-014)

ST= Listed as threatened by the WDFW (WAC 232-12-011)

SC= State Candidate species are those fish and wildlife species that will be reviewed by the department for possible listing as:

Endangered, Threatened, or Sensitive according to the process and criteria defined in WAC-232-12-297

SS= Listed as State Sensitive by the WDFW ((WAC 232-12-011)

SM= State Monitored