

The National Forest Genetics Laboratory (NFGEL)
USDA Forest Service

ANNUAL REPORT INFORMATION
Fiscal Years 2006 – 2011

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NFGEL Staff Activities by Fiscal Year 2006 - 2011

Publications

- Schoettle, AW, BA Goodrich, V Hipkins, C Richards, and J Kray. 2011. Geographic Patterns of Genetic Variation, Population Structure and Adaptive Traits in *Pinus aristata*, Rocky Mountain Bristlecone Pine. *In*: Keane, RE, DF Tomback, MP Murray, CM Smith (eds). The future of high-elevation, five-needle white pines in Western North America: Proceedings of the High Five Symposium. 28-30 June 2010; Missoula, MT. Proceedings RMRS-P-63. Fort Collins, CO: US Department of Agriculture, Forest Service, Rocky Mountain Research Station. p. 152.
- Bower, AD, BA Richardson, V Hipkins, R Rochefort, and C Aubry. 2011. Comparison of Genetic Diversity and Population Structure of Pacific Coast Whitebark Pine Across Multiple Markers. *In*: Keane, RE, DF Tomback, MP Murray, CM Smith (eds). The future of high-elevation, five-needle white pines in Western North America: Proceedings of the High Five Symposium. 28-30 June 2010; Missoula, MT. Proceedings RMRS-P-63. Fort Collins, CO: US Department of Agriculture, Forest Service, Rocky Mountain Research Station. p. 150.
- Mahalovich, MF and VD Hipkins. 2011. Molecular Genetic Variation in Whitebark Pine (*Pinus albicaulis* Engelm.) in the Inland West. *In*: Keane, RE, DF Tomback, MP Murray, CM Smith (eds). The future of high-elevation, five-needle white pines in Western North America: Proceedings of the High Five Symposium. 28-30 June 2010; Missoula, MT. Proceedings RMRS-P-63. Fort Collins, CO: US Department of Agriculture, Forest Service, Rocky Mountain Research Station. p. 118 - 132.
- Wilson, BL, VD Hipkins and TN Kaye. 2010. One taxon or two: are *Frasera umpquaensis* and *F. fastigiata* (Gentianaceae) distinct species? *Madrono* 57(2): 106–119.
- Krutovsky, KV, JB St. Clair, R Saich, VD Hipkins, and DB Neale. 2009. Estimation of population structure in coastal Douglas-fir [*Pseudotsuga menziesii* (Mirb.) Franco var. *menziesii*] using allozyme and microsatellite markers. *Tree Genetics & Genomes* 5:641-658.
- DeWoody, J, TH Rickman, BE Jones, and VD Hipkins. 2009. Allozyme and microsatellite data reveal small clone size and high genetic diversity in aspen in the southern Cascade Mountains. *Forest Ecology and Management* 258(5): 687-696.
- Dvorak, WS, KM Potter, VDHipkins, and GR Hodge. 2009. Genetic diversity and gene exchange in *Pinus oocarpa*, a Mesoamerican Pine with resistance to the pitch canker fungus (*Fusarium circinatum*). *International Journal of Plant Sciences*. 170(5):609–626.
- Mock, KE, CA Rowe, MB Hooten, J DeWoody, and VD Hipkins. 2008. Assessing antiquity, sexual reproduction, and ploidy in western North American aspen (*Populus tremuloides*). *Molecular Ecology* 17(22):4827-4844.
- DeWoody, J, C Rowe, VD Hipkins, and K Mock. 2008. “Pando” lives: molecular genetic evidence of a giant aspen clone in central Utah. *Western North American Naturalist* 68(4): 493-497.

- DeWoody, J, L Arguello, D Imper, RD Westfall, and VD Hipkins. 2008. Genetic evidence of hybridization between *Oenothera wolfii* (Wolf's evening primrose) and *O. glazioviana*, a garden escape. *Madrono* 55(2): 132-142.
- Potter, KM, WS Dvorak, BS Crane, VD Hipkins, RM Jetton, WA Whittier, and R. Rhea. 2008. Allozyme variation and recent evolutionary history of eastern hemlock (*Tsuga canadensis*) in the southeastern United States. *New Forests* 35:131-145.
- Braatne, JH, SJ Brunfeld, VD Hipkins, and BL Wilson. 2006. Naturalization of plains cottonwood (*Populus deltoides* subsp. *monilifera*) along drainages west of the Rocky Mountains. *Western North American Naturalist* 66(3):310-320.
- Wheeler, N, P Payne, V Hipkins, R Saich, S Kenny and G Tuskan. 2006. Polymix breeding with paternity analysis in *Populus*: a test for differential reproductive success (DRS) among pollen donors. *Tree Genetics & Genomes* 2(1):53-60.
- DeWoody, J, JD Nason, and VD Hipkins. 2006. Mitigating scoring errors in microsatellite data from wild populations. *Molecular Ecology Notes* 6:951-957.

Internal Activities

Valerie Hipkins

Acting Program Manager, Conservation of Biodiversity, USDA Forest Service, Pacific Southwest Research Station. December 2009 – January 2011

Acting Program Manager, Sierra Nevada Research Center, USDA Forest Service, Pacific Southwest Research Station. January 2009 – May 2009

Chair of the PSW Research Station Community Enhancement and Diversity (civil rights) Team – December 2010 – 2011.

Member of the PSW Research Station Community Enhancement and Diversity (civil rights) Team – December 2008 – 2011.

Member of the PSW Research Station Leadership Development Team. August 2009 – January 2011

Member of the PSW Research Station Redesign Team. August 2009 – January 2010

Member of the PSW Research Station Administrative Redesign Team. June – August 2009

Participant in the US Forest Service Senior Leader Training Program (SLP5). September 2007 – August 2008.

Attended Foresters Becoming Executives, Yale University. April 2007.

Participated in the Chief's Review of the Rocky Mountain Research Station. 2008.

Site Manager for the Institute of Forest Genetics, Pacific Southwest (PSW) Research Station, Placerville, CA. 2006–2008.

Team Leader for the PSW Research Station 'Field Administration Organization Review' panel. 2006.

Participated in the Impact Classification process (five GS-12 positions). 2006.

PSW Research Station representative on the Cal Poly Forestry and Natural Resources Advisory Board. 2004-2005.

Randy Meyer

Union President – Pacific Southwest Research Station, and Eldorado NF – Region 5.
Member of USDA Forest Service National Safety Committee (January 2001 - Current)
Member of the PSW Research Station Safety Committee January 2002 – Current.
Member of the PSW Research Station Community Enhancement and Diversity (civil rights) Team – January 2003 – Current.
NFFE Forest Service Council, Union Representative for WO/RO/Area Transformation (2006-2008)
NFFE Forest Service Council, Safety Committee Chair (2006 – Current)
NFFE Forest Service Council, Union Representative on Accident Investigations August 2006, Krassel
http://www.nts.gov/aviationquery/brief.aspx?ev_id=20060824X01237&key=1
NTSB: SEA06GA158 Forest Service Aircraft Accident: N355EV
August 2007, Angora Wildland Fire Entrapment and Shelter Deployment
http://wildfirelessons.net/documents/Angora_Fire_APA.pdf
June 2008, Indians Fire Burn Over
http://wildfirelessons.net/documents/Indians_Fire_APA_021209.pdf
July 2008, Dutch Creek Fatality (Palmer)
<http://iirdb.wildfirelessons.net/main/ReviewsDetails.aspx?ID=50386>
National Leadership Council (Safety Core Team)
(2008 – Current)
Safety Engagement Facilitator
April, June (x2), September (x2), October and November (x2) 2011
Member of the PSW Research Station ‘Field Administration Organization Review’ Team. 2006.
Member of the PSW Research Station Administrative Redesign Team. June – August 2009
Member of the PSW Research Station Redesign Team (Technicians).
August 2009 – January 2010

Hosted

NFGEL continues to host a variety of visitors. Tours of the facility and operation were provided to Forest Service employees, members of the public and private industry, university faculty and classes, foreign scientists, and employees from other state and federal government agencies.

Host and participant in El Dorado County Career Technical Partnership for high school teacher externs. July 2010.

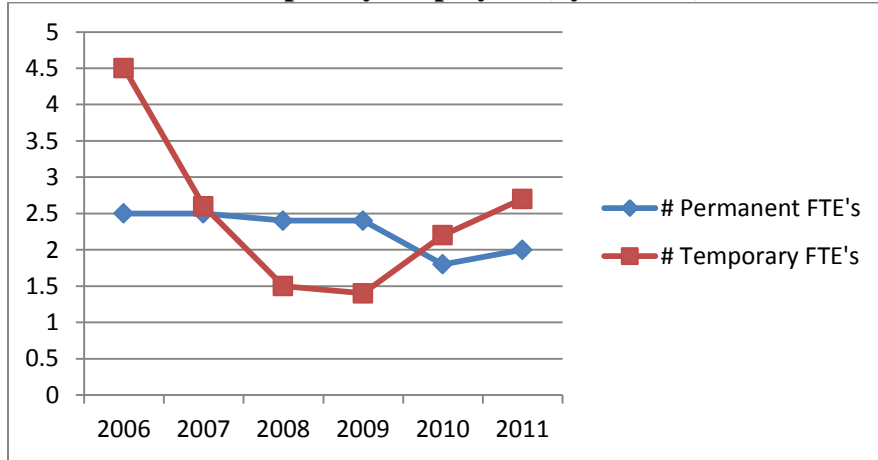
Hosted intern: Leonardo Pucci, student from Brazil. September 2011.

Hosted intern: Jeff Picard, California Institute of Technology student. June – July 2011.

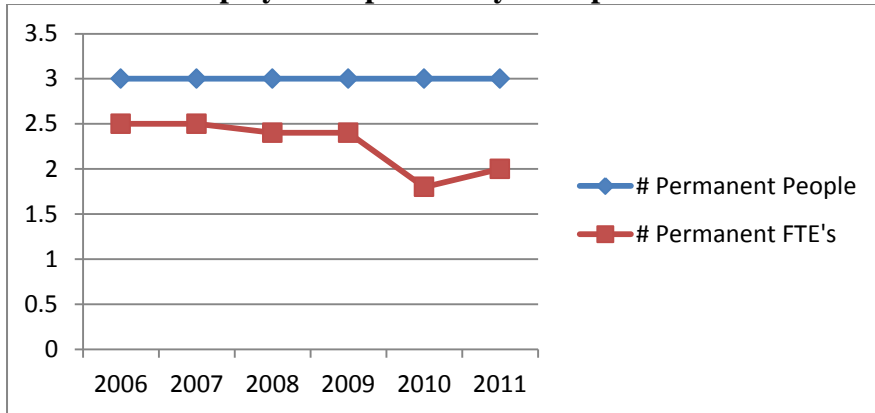
Planned, organized, and lead the “Natural Connections” Annual Field Resources Education Day in Placerville, CA for 4th – 12th grade students. October 2008 (250 students), 2009 (460 students), 2010 (900 students).

NFGEL Staffing by Fiscal Year 2006 - 2011

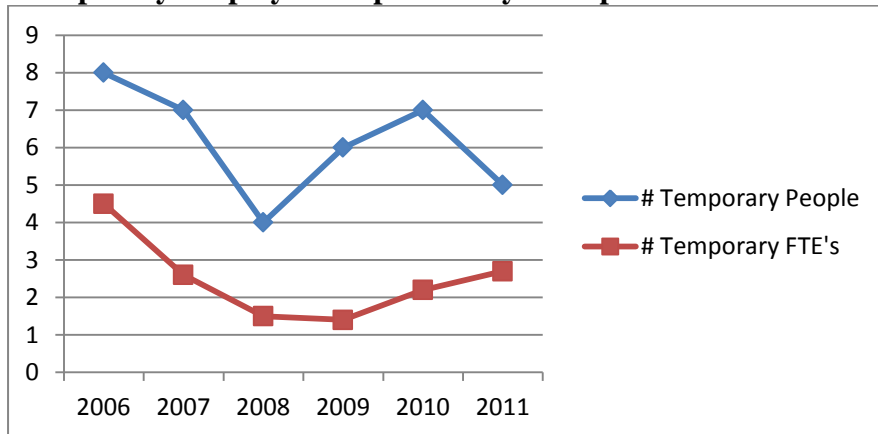
Permanent and Temporary Employees (by # FTEs)



Permanent Employees Expressed by # People and # FTEs



Temporary Employees Expressed by # People and # FTEs



FY 2006					
EMPLOYEE	TOUR	FULL/PART TIME	FTE (YR)	GS LEVEL	EMPLOYEMENT DATES
Pat Guge	PERM	FT	1.0	GS-7	10/2005 - 9/2006
Valerie Hipkins	PERM	FT	1.0	GS-13	10/2005 - 9/2006
Randy Meyer	PERM	PT	0.5	GS-7	10/2005 - 9/2006
Jennifer DeWoody	TERM	FT	1.0	GS-9	10/2005 - 9/2006
Rob Saich	TERM	FT	1.0	GS-7	10/2005 - 9/2006
Kenneth Choi	TEMP	PT	0.2	GS-3	6/2006 - 9/2006
Ricardo Hernandez	TEMP	PT	0.8	GS-3	10/2005 - 9/2006
Ashley Lindstrom	TEMP	PT	0.2	GS-3	10/2005 - 12/2005
Amber Morgan	TEMP	PT	0.1	GS-3	10/2005
Kristin Motz	TEMP	PT	0.7	GS-3	1/2006 - 9/2006
Mark Wilkie	TEMP	PT	0.5	GS-3	10/2005 - 8/2006
Bob Westfall	contract				2/2006 - 3/2006
Total FTE's			5		

FY2007					
EMPLOYEE	TOUR	FULL/PART TIME	FTE (YR)	GS LEVEL	EMPLOYEMENT DATES
Valerie Hipkins	PERM	FT	1.0	GS-13	10/2006 - 9/2007
Randy Meyer	PERM	PT	0.5	GS-7	10/2006 - 9/2007
Ricardo Hernandez	SCEP	FT	1.0	GS-4	10/2006 - 9/2007
Jennifer DeWoody	TERM	FT	1.0	GS-9	10/2006 - 9/2007
Rob Saich	TERM	FT	0.3	GS-7	10/2006 - 12/2006
Ken Choi	TEMP	PT	0.1	GS-3	10/2006
Lucas Healy	TEMP	PT	0.1	GS-2	7/2007 - 8/2007
Jody Mello	TEMP	PT	0.6	GS-3	12/2006 - 9/2007
Kristin Motz	TEMP	FT	0.4	GS-3	12/2006-1/2007, 6/2007-9/2007
Charlie Tierney	TEMP	PT	0.1	GS-2	7/2007 - 8/2007
Bob Westfall	contract				10/2006, 12/2006, 3/2007
Total FTE's			4.1		

FY2008					
EMPLOYEE	TOUR	FULL/PART TIME	FTE (YR)	GS LEVEL	EMPLOYEMENT DATES
Valerie Hipkins	PERM	FT	1.0	GS-13	10/2007 - 9/2008
Randy Meyer	PERM	PT	0.4	GS-7	10/2007 - 9/2008
Ricardo Hernandez	SCEP	FT	1.0	GS-4	10/2007 - 9/2008
Andy Bower	PERM	FT	0.3	GS-9	7/2008 - 9/2008
Jody Mello	TEMP	PT	0.7	GS-3	10/2007 - 9/2008
Kristin Motz	TEMP	PT	0.4	GS-3	12/2007-1/2008, 6/2008-9/2008
Charlie Tierney	TEMP	PT	0.1	GS-3	8/2008
Total FTE's			3.9		
**LAB RENOVATION (9/2007 AND CONTINUES PAST END OF FY)					

FY2009					
EMPLOYEE	TOUR	FULL/PART TIME	FTE (YR)	GS LEVEL	EMPLOYEMENT DATES
Valerie Hipkins*	PERM	FT	0.6	GS-13	10/2008 - 9/2009
Barbara Crane*	PERM	FT	0.2	GS-13	1/2009 - 2/2009
Tom Blush*	PERM	PT	0.2	GS-13	3/2009 - 4/2009
Randy Meyer	PERM	PT	0.4	GS-7	10/2008 - 9/2009
Ricardo Hernandez	SCEP	FT	1.0	GS-4	10/2008 - 9/2009
Andy Bower	PERM	FT	0.3	GS-9	10/2008 - 12/2008
Jody Mello	TEMP	PT	0.7	GS-3	10/2008 - 9/2009
Nicole Villalvazo	TEMP	FT	0.2	GS-3	6/2008 - 8/2009
Brittney Wendell	TEMP	FT	0.2	GS-3	6/2008 - 8/2009
Jennifer DeWoody	contract				4/2009 - 9/2009
Adam Roethlisberger	contract				4/2009 - 6/2009
Total FTE's			3.8		
**LAB RENOVATION COMPLETED JUNE 2009					
* 1/2009 - 5/2009: VH ON PSW DETAIL, SALARY CHARGED TO NFGEL; CRANE AND BLUSH ASSUMED ACTING ROLE, SALARY CHARGED TO HOME UNITS, TRAVEL TO NFGEL					

FY2010					
EMPLOYEE	TOUR	FULL/PART TIME	FTE (YR)	GS LEVEL	EMPLOYEMENT DATES
Valerie Hipkins*	PERM	FT	0.1	GS-14	10/2009 - 9/2010
Jessica Wright*	PERM	FT	0.3	GS-12	1/2010 - 5/2010
Randy Meyer	PERM	PT	0.4	GS-7	10/2009 - 9/2010
Ricardo Hernandez	SCEP	FT	1.0	GS-4	10/2009 - 9/2010
Rosanna Hanson	TEMP	PT	0.3	GS-5	6/2010 - 9/2010
Jody Mello	TEMP	PT	0.7	GS-4	10/2009 - 9/2010
Kristin Motz	TEMP	FT	0.5	GS-5	12/2009 - 5/2010
Delaney Rice	TEMP	PT	0.2	GS-3	6/2010 - 8/2010
Sarah Trujillo	TEMP	PT	0.3	GS-3	6/2010 - 9/2010
Nicole Villalvazo	TEMP	PT	0.1	GS-3	12/2009
Brittney Wendell	TEMP	PT	0.1	GS-3	12/2009
Total FTE's			4.0		
* 12/2009 - 9/2010: VH ON PSW DETAIL, 70% OF SALARY CHARGED TO NFGEL; WRIGHT ASSUMED ACTING ROLE, 44% SALARY CHARGED TO NFGEL					

FY2011					
EMPLOYEE	TOUR	FULL/PART TIME	FTE (YR)	GS LEVEL	EMPLOYEMENT DATES
Valerie Hipkins*	PERM	FT	0.7	GS-13	10/2010 - 9/2011
Randy Meyer	PERM	PT	0.4	GS-7	10/2010 - 9/2011
Ricardo Hernandez	SCEP	FT	0.9	GS-4	10/2010 - 8/2011
Brandon Clinton	TEMP	FT	0.1	GS-5	4/2011 - 5/2011
Rosanna Hanson	TEMP	PT	0.8	GS-5	10/2010 - 9/2011
Jody Mello	TEMP	PT	0.8	GS-4	10/2010 - 9/2011
Courtney Owens	TEMP	FT	0.7	GS-5	2/2011 - 9/2011
Sarah Trujillo	TEMP	FT	0.3	GS-3	6/2011 - 9/2011
Jennifer DeWoody	contract				6/2011 - 9/2011
Kevin Potter	contract				10/2010 - 9/2011
Total FTE's			4.7		
* 10/2010 - 1/2011: VH ON PSW DETAIL, 75% OF SALARY DURING THIS TIME CHARGED TO NFGEL					

NFGEL PROJECTS FY2006 - Present
October 12, 2011

PROJECT	REGION	SPECIES	CONTACT	FY REPORTED	Project Title
166	R5	<i>Elymus elymoides, Achnatherum occidentalis, Achnatherum hymenoides</i>	K.Nelson	'06	Using genetics to establish native grass seed zones and a seed bank system for the eastern Sierra and cis-Great Basin
180	R9	Canada Yew	P.Berrang	'06	Identifying Canada yew (<i>Taxus canadensis</i>) on the Huron-Manistee National Forest
181	USFWS	Western Lily	D.Imper	'06	Genetic diversity and differentiation in Western lily (<i>Lilium occidentale</i>)
192	Roseburg Resources	Douglas-fir	M. Albrecht	'06	Genotyping a Douglas-fir seed orchard: future pollen contamination assessment
193	Weyerhaeuser Co	Loblolly Pine	C.Lambeth	'06	Determining the proportionate paternal contribution to a seed pool created from controlled crosses in loblolly pine
194	R5	<i>Rorippa subumbellata</i>	J.Fraser	'06	Genetic monitoring of <i>Rorippa subumbellata</i> (Tahoe Yellow Cress): analyzing northeast populations and monitoring south shore populations
202	CA Dept of Forestry and Fire	Ponderosa Pine	D.Nichols	'06	Using DNA in a wildland fire investigation
204	FS-PSW	Sugar Pine	D.Neale	'06	DNA extraction from single sugar pine megagametophytes
205	MeadWestvaco	Loblolly Pine	D.Gerwig	'06	Mass-controlled pollination analysis and genetic fingerprinting in Loblolly Pine
206	FS-PSW	Loblolly Pine, Sugar Pine, Monterey Pine, Douglas-Fir, Norway Spruce, Coast Redwood	D.Neale	'06	DNA extraction from Pinaceae: Conifer Translational Genomics Network
208	FS-LE&I	Incense Cedar	D.Deaton	'06	(project dropped) Using DNA to prosecute wood theft
212	UC-Davis	Douglas-fir	D.Neale	'06	DNA extraction from Douglas-fir: Conifer Translational Genomics Network

PROJECT	REGION	SPECIES	CONTACT	FY REPORTED	Project Title
171	R5	<i>Vaccinium parvifolium</i>	J.Nelson	'07	Analysis of microsatellite variation in seven populations of <i>Vaccinium parvifolium</i> , and recommendations for future study design
174	USFWS	<i>Sidalcea</i> spp	D.Imper	'07	Isozyme analyses indicate eleven populations of <i>Sidalcea</i> spp. constitute three genetic groups
195	R6	<i>Sisyrinchium</i> spp	A.Ruchte	'07	Genetic analyses provide no evidence of hybridization between <i>Sisyrinchium sarmentosum</i> and <i>S. idahoense</i>
197	FS-PSW/NCSU	Loblolly Pine	D.Neale, B.Goldfarb	'07	DNA extraction from loblolly pine for the ADEPT2 effort
200	R8	Eastern Hemlock	B.Crane	'07	Allozyme variation and recent evolutionary history of eastern hemlock (<i>Tsuga canadensis</i>) in the southeastern United States
201	R5/R6	Red Fir	J.Jones	'07	Isozyme evidence is consistent with an unknown tree being <i>Abies magnifica</i> (California red fir)
203	FS-PSW	Loblolly Pine	D.Neale	'07	DNA extraction from loblolly pine for association mapping
211	Lonepine	American Sycamore	J.King	'07	Clonal structure of western sycamore growing in Sycamore Grove Park
214	FS-RMRS	<i>Chamerion angustifolium</i>	D.McArthur	'07	Isozyme variation and differentiation among populations of <i>Chamerion angustifolium</i> (fireweed)
215	FS-RMRS	<i>Castilleja miniata</i>	D.McArthur	'07	Isozyme variation and differentiation among populations of <i>Castilleja miniata</i> (paintbrush)
216	Olympic Resource Management	Douglas-fir, Western Hemlock	D.Cress	'07	Ramet identification in Douglas-fir and Western Hemlock
225	NCSU	Quaking Aspen	R.Sederoff	'07	Genotyping Quaking Aspen to determine clonal identity

PROJECT	REGION	SPECIES	CONTACT	FY REPORTED	Project Title
196	R3	Rocky Mountain Bristlecone Pine	A.Schoettle	'08	Genetic diversity and differentiation in Rocky Mountain Bristlecone Pine (<i>Pinus aristata</i>)
213	FS-PSW	Quaking Aspen	K.Mock	'08	"Pando" lives: molecular genetic evidence of a giant aspen clone in central Utah
218	Camcore	<i>Pinus oocarpa</i>	W.Dvorak	'08	Genetic diversity and gene exchange in <i>Pinus oocarpa</i> , a Mesoamerican pine with resistance to the pitch canker fungus (<i>Fusarium circinatum</i>)
219	Starker Forests	Douglas-fir	F.Pfund	'08	Clonal identity and pollen contamination in Douglas-fir
222	Roseburg Resources	Douglas-fir	M.Albrecht	'08	Assessing pollen contamination in a Douglas-fir seedlot
223	R9	Eastern White Pine	P.Berrang	'08	Clonal identity in Eastern White Pine
224	UC-Davis	Coast Redwood	D.Neale	'08	Coast Redwood DNA extraction for the Conifer Translational Genomics Network
226	UC-Davis	Loblolly Pine, Sugar Pine, Monterey Pine, Douglas-Fir, Norway Spruce, Coast Redwood	D.Neale	'08	Conifer DNA extraction for the Conifer Translational Genomics Network
227	FS-PNW	Douglas-fir	C. Harrington	'08	Monitoring cell cycles in Douglas-fir buds using flow cytometry
228	R1/BLM	Ponderosa Pine	M. Mahalovich	'08	Ponderosa Pine (<i>Pinus ponderosa</i>) source identification in isolated populations on BLM and FWS lands in Wyoming, Utah, and Nevada using molecular markers
229	FS-PNW	Pitch Pine	P. Hodgskiss	'08	DNA extraction: to study the reproductive isolation of two populations of pitch pine trees

PROJECT	REGION	SPECIES	CONTACT	FY REPORTED	Project Title
124	BLM/R6	Sugar pine	H.Koester	'09	Pollen contamination in the Sprague Sugar Pine seed orchard (genotyping the orchard)
138	R6	Sugar pine	H.Koester	'09	Pollen contamination in the Sprague Sugar Pine seed orchard (genotyping the seed)
156	NPS	Whitebark Pine	R.Rochfort	'09	Assessment of genetic diversity of Whitebark Pine in Washington and Oregon
157	R6	Whitebark Pine	C.Aubry	'09	Assessment of genetic diversity of Whitebark Pine in Washington and Oregon
198	R9	Butternut	P.Berrang	'09	Identifying Butternut (<i>Juglans cinerea</i>) in the Northeast U.S. using molecular markers
209	R1	Whitebark Pine	M.Mahalovich	'09	Genetic variation within and among Whitebark Pine individual tree cone collections
217	R1	Whitebark Pine	M.Mahalovich	'09	Genetic variation within and among Whitebark Pine individual tree cone collections
220	FS-RMRS	<i>Geranium richardsonii</i>	D.McArthur	'09	Isozyme variation and differentiation among populations of <i>Geranium richardsonii</i>
221	R6	Whitebark Pine	C.Aubry	'09	Assessment of genetic diversity of Whitebark Pine in Washington and Oregon
230	USDA-NRCS	<i>Trichloris pluriflora</i>	J. Lloyd-Reilley	'09	Genetic diversity in collections of Multiflower False Rhodes Grass (<i>Trichloris pluriflora</i>)
231	UC-Davis	Sugar pine	D.Neale	'09	DNA extraction from sugar pine for purposes of QLT mapping
236	UC-Davis	Loblolly Pine, Sugar Pine, Monterey Pine, Douglas-Fir, Norway Spruce, Coast Redwood	D.Neale	'09	Conifer DNA extraction for the Conifer Translational Genomics Network

PROJECT	REGION	SPECIES	CONTACT	FY REPORTED	Project Title
125	BLM/R6	Douglas-fir	H.Koester	'10	Pollen contamination in the Provolt Douglas-fir seed orchard (genotyping the orchard)
172	BLM	Douglas-fir	H.Koester	'10	Pollen contamination in the Provolt Douglas-fir seed orchard (genotyping the seed)
233	R1	<i>Festuca idahoensis</i>	M. Mahalovich	'10	Idaho fescue (<i>Festuca idahoensis</i> Elmer) ploidy level in the Northern Region and three agricultural releases
237	Camcore	Eastern Hemlock	R. Jetton	'10	Extensive inbreeding and unexpected geographic patterns of genetic variation in eastern hemlock (<i>Tsuga canadensis</i>), an imperiled North American conifer
243	R1	Lodgepole Pine	V. Walker	'10	Genetic identification of possible escaped rootstock in Lodgepole Pine (<i>Pinus contorta</i>)
245	FS-RMRS	Limber Pine	A. Schoettle	'10	Genetic identification in Limber Pine (<i>Pinus flexilis</i>): how many individual trees are in a cluster
247	CA Dept Food & Ag	unknown conifer species	D. Kelch	'10	Using DNA to determine the species of a piece of wood

PROJECT	REGION	SPECIES	CONTACT	FY REPORTED	Project Title
121	BLM/R6	Port-Orford Cedar, Alaskan Yellow Cedar	R.Stevens	'11	(project dropped) Verify hybridization between Port-Orford Cedar and Alaskan Yellow Cedar
238	R5	<i>Vaccinium</i> spp	J.Nelson	'11	Genetic structure of <i>Vaccinium</i> (Huckleberry) near Shasta Lake, Northern California
239	R5	<i>Neviusia cliftonii</i>	J.Nelson	'11	Population genetics of <i>Neviusia cliftonii</i> (Shasta snow-wreath)
240	Oregon Dept Forestry	Ponderosa Pine	L.Miller	'11	Selfing rates in Ponderosa Pine (<i>Pinus ponderosa</i>) and Western Redcedar (<i>Thuja plicata</i>) seed orchards
241	Oregon Dept Forestry	Western Red Cedar	L.Miller	'11	Selfing rates in Ponderosa Pine (<i>Pinus ponderosa</i>) and Western Redcedar (<i>Thuja plicata</i>) seed orchards
252	Western Carolina University	<i>Hydrastis canadensis</i>	J. Torgerson	'11	Isozyme protocol development for a Goldenseal (<i>Hydrastis canadensis</i>) population genetics study
253	USDA-NRCS	<i>Heteropogon contortus</i>	A. Tjelmeland	'11	Is cryptic invasion occurring in populations of tanglehead (<i>Heteropogon contortus</i>)?
260	UC-SB	Quaking Aspen	B. Greer	'11	Clonal dynamics in aspen response to water stress

PROJECT	REGION	SPECIES	CONTACT	FY REPORTED	Project Title
249	Colorado State University	Lodgepole Pine	S. Bisbing	'12	The role of genetic differentiation and local adaptation on the morphological variation of <i>Pinus contorta</i>
128	FS-SRS	Loblolly pine	F.Bridgewater	on going	Characterize genetic variation in the Founder Tree Project population
147	R8/R9	<i>P. virgatum, Schizachyrium scoparium, Elymus virginicus</i>	P.Berrang	on going	Distribution of genetic variation across the population range of grass species used for restoration
155	R9	Eastern White Pine	P.Berrang	on going	Genetic analysis of an Eastern White Pine seed orchard for the Lake States
165	UC-Davis	Monterey Pine	D.Rogers	on going	Genetic diversity and structure of an endangered population of a binational species of concern: Monterey pine (<i>Pinus radiata</i>)
173	R6	Port Orford Cedar	R.Sniezko	on going	Port-Orford Cedar sampling strategy to compare the genetic structure and diversity among pre-epidemic, post-epidemic, and <i>Phytophthora lateralis</i> resistant orchard populations
188	FS-PSW	<i>Picea chihuahuana</i>	P.Hodgskiss	on going	Genetic analysis of <i>Picea chihuahuana</i>
207	FS-PSW	Southwestern White Pine	A.Mix	on going	Family structure in WPBR <i>Pinus strobiformis</i> (south western white pine) family 564
210	R4	Cottonwoods	J.Richardson	on going	Clonal structure and species determination in cottonwood
232	BLM	Ponderosa Pine	R.Means	on going	Genetic testing of disjunct Ponderosa Pine stands on BLM lands in Wyoming and throughout the west
234	Amer. Chest. Found.	American Chestnut	B. Monahan	on going	DNA extraction from American Chestnut (<i>Castanea dentata</i>)
235	Western NE Res. Council	Quaking Aspen	B. McIntosh	on going	Genetic make up of aspen colonies across Nebraska
242	FS-RMRS	Ponderosa Pine, Douglas-fir, Lodgepole Pine, Subalpine Fir, Arizona Longleaf Pine, Western Redcedar, Grand Fir, W. Larch	S. Cushman	on going	Quantifying gene flow and adaptive variation in conifers across the Western states to predict effects of climate change on forest ecosystems

244	FS-RMRS	Rocky Mountain Bristlecone Pine	A. Schoettle	on going	Genetic diversity in <i>Pinus aristata</i> samples from the St Mary's Glacier site on the Roosevelt National Forest, Colorado
246	BLM	Douglas-fir, Sugar Pine, Noble Fir	M.Crawford	on going	Ramet identification in Douglas-fir, Noble fir, and Sugar pine
248	R6	Golden Chinquapin	A. Bower	on going	Genetic structure of Golden Chinquapin (<i>Chrysolepis chrysophylla</i>)
250	R5	Ponderosa Pine	G. Lunak	on going	Genetic analysis of relationship among Sierra Pacific Industries Super Trees near Stirling City
251	R5	<i>Fritillaria eastwoodiae</i>	J. Nelson	on going	Population genetics study of <i>Fritillaria eastwoodiae</i>
254	BLM	Ponderosa Pine	B. Means	on going	Genetics relationships of isolated, disjunct ponderosa pine stands
255	R5	<i>Lewisia kelloggii</i>	J. O'Brien	on going	Putative new taxon of <i>Lewisia</i> from northwestern California
256	R5	<i>Astragalus webberi</i>	C. Rowe	on going	Genetic variation of <i>Astragalus webberi</i> (Webber's milkvetch)
257	Archangel	Giant Sequoia, Coast Redwood	B. Walraven	on going	Clonal identity in giant sequoia and coast redwood
258	R6	<i>Sisyrinchium sarmentosum</i>	A. Bower	on going	Hybridization and species identity in <i>Sisyrinchium sarmentosum</i>
259	R8	Longleaf Pine	B. Crane	on going	Is there a genetic difference between the traditional coastal sources and the piedmont sources of longleaf pine?
261	GreenWood Resources, Inc.	Poplar	C. Scott	on going	DNA fingerprinting elite populus clones
262	R6	Quaking Aspen	V. Erickson	on going	Determining if aspen regeneration is sexual (seedlings) or asexual (clonal)
263	R5	Ponderosa Pine	G. Lunak	on going	Pollen contamination from outside sources in ponderosa pine

NFGEL BUDGET, FY06 - FY11 (NFWV allocation)

Activity	FY06	FY07	FY08	FY09	FY10	FY11
Receipts (in thousands)						
Allocation	410.0	410.0	410.0	480.0	480.0	480.0
Carryover	0.0	0.0	0.0	56.1	125.0	146.1
Soft Money Spent	113.5	89.3	7.9	37.1	65.1	54.6
Total	523.5	499.3	417.9	573.2	670.1	680.7
Expenditures (in thousands)						
Overhead to PSW Headquarters	42.0	53.3	8.2	30.6	10.6	10.7
Overhead for Admin Services	0.0	0.0	0.0	20.0	33.8	33.8
Overhead to Site (rents/utilities)	33.1	34.7	26.6	22.6	22.6	22.6
Salary (permanant)	263.0	233.0	181.8	192.3	184.0	191.3
(temporary + contract)	51.3	50.1	46.8	79.4	128.6	90.6
Chemicals/Supplies	69.2	58.3	50.8	30.1	67.9	130.1
Equipment	40.4	50.7	19.2	31.5	34.4	32.7
Repair	9.6	1.8	7.2	0.4	21.2	17.5
Computers	0.3	4.8	1.0	7.0	2.9	7.2
Travel/Training	10.0	9.2	2.2	14.2	2.5	8.0
Awards	0.0	0.0	4.9	0.0	4.6	5.0
Postage	0.5	0.4	0.1	0.1	0.1	0.3
Office Supplies / Administrative Costs (ie lincpass)	1.7	0.9	0.0	3.3	0.0	5.2
Furniture (lab and office)	2.4	0.0	0.0	0.0	1.7	0.0
Cell Phone	0.0	0.5	1.1	1.1	1.1	1.0
Vehicle	0.0	0.0	0.9	3.1	3.1	3.0
Extension (factsheets, coasters, Natural Connections, etc)	0.0	0.0	10.6	12.2	4.2	5.8
Total	523.5	497.7	361.4	447.9	523.3	564.8
Balance	0.0	1.6	56.5	125.3	146.8	115.9

SOFT DOLLARS (NON-NFVW): ~ FY06 - 11

NFGEL Project #	Purpose of Project	Funding Source	\$ (before indirect (8%) was removed)
204/206/212/224/26/231/236	DNA Extractions for Landscape Genomics	UC-Davis	\$ 17,475
166	Native Grass Seed Zones	R5	\$ 10,000
174	<i>Sidalcea</i> Conservation	USFWS	\$ 6,258
181	Western Lily Conservation	USFWS	\$ 6,258
187	Douglas-fir Seed Orchard Management	Weyerhaeuser Co	\$ 7,357
192	Pollen Contamination	Roseburg Resources	\$ 3,456
193	Loblolly Pine Seed Orchard Management	Weyerhaeuser Co	\$ 11,792
194	Tahoe Yellow Cress Conservation	R5	\$ 30,500
198	Butternut Conservation	R9	\$ 3,500
205	Loblolly Pine Seed Orchard Management	MeadWestvaco	\$ 2,959
210	Cottonwood Conservation	R5	\$ 10,000
211	Sycamore Conservation	Lonepine	\$ 7,850
214	Fireweed Conservation	FS-R&D-RMRS	\$ 13,000
215	Paintbrush Conservation	FS-R&D-RMRS	\$ 12,000
218	<i>Pinus oocarpa</i> Conservation	Camcore	\$ 16,304
220	Geranium Conservation	FS-R&D-RMRS	\$ 14,000
222	Pollen Contamination	Roseburg Resources	\$ 1,657
227	Ploidy in Douglas-fir	FS-R&D-PNW	\$ 1,705
232/254	Ponderosa Pine Conservation/Restoration	BLM	\$ 287,358
237	Eastern Hemlock Conservation	FS-S&PF/Camcore	\$ 16,200
238	Huckleberry Conservation	R5	\$ 12,300
239	Snowwreath Conservation	R5	\$ 12,300
240/241	Conifer Selfing Rates	BLM	\$ 11,232
242	Conifer Climate Extractions	FS-R&D-RMRS	\$ 10,000
246	Ramet Identification in Conifers	BLM	\$ 67,167
249	Lodgepole Pine Conservation	Colorado State Univ	\$ 3,000
251	<i>Fritillaria</i> Conservation	R5	\$ 15,000
255	<i>Lewisia</i> Conservation	R5	\$ 400
256	<i>Astragalus</i> Conservation	R5	\$ 4,500