

Participant Info

SENIOR PERSONNEL

NAME	INSTITUTION & POSITION	GK12 POSITION	TIME	Contribution Statement
Dr. Rosemary Smith	Assoc. Prof., Biological Sciences, Idaho State University	P.I.	>160 hrs	Project Director- directs all project activities including recruitment and selection of Fellows and Teachers, summer workshop, budget, monthly project activities, publicity, reports, and
Dr. Richard Inouye	Assoc. Prof., Biological Sciences, ISU	Co- P.I.	>160 hrs	Recruit and select Fellows and Teachers, mentor Fellows, engage in partnership and project activities, including seminar, monthly meetings, special events and activities,
Dr. Mikle Ellis	Assoc. Prof., Engineering, ISU	Co- P.I.	>160 hrs	Recruit and select Fellows and Teachers, mentor Fellows, engage in partnership and project activities, including seminar, monthly meetings, special events and activities,
Dr. Richard Wabrek	Assoc. Prof., Engineering, ISU	Co- P.I.	>160 hrs	Recruit and select Fellows and Teachers, mentor Fellows, engage in partnership and project activities, including seminar, monthly meetings, special events and activities,
Dr. Steve Adkison	Asst. Prof., Writing Center, ISU	External Evaluator	160 hrs	Communication expert- design on-line writing 'prompts', manage communications website, collect writing samples, analyze data and report on changes in communication skills of GK-12
Dr. Charles Zimmerly	Coordinator, Idaho Center for Ed. Effectiveness	External Evaluator	---	External evaluator- compiles surveys, prepares annual report.
Hannah Sanger	Project Coordinator, ISU GK-12 project	Coordinator	>160 hrs	Project Coordinator: Coordinates all project activities, including Fellow and Teacher applications and enrollment, stipend distribution, and classroom activity budget disbursement. Coordinates summer workshop and monthly meetings. Maintains project website and communications. Compiles information for annual evaluations and reports.

Participant Info

GRADUATE STUDENTS- 2004 - 2007

NAME	Graduate Status	email	Phone
Doug Alder	MS in Engineering anticipated 2008	N/A	N/A
Matt Alexander	MS in Chemistry awarded 2007	N/A	N/A
Noah Anderson	DA in Biological Sciences anticipated 2008	andenoah@isu.edu	208/282-5764
Sheel Bansal	PhD in Biological Sciences anticipated 2009	bansshee@isu.edu	208/317-1600
Garrett Baryd	MS awarded 2006; Currently a geologist in Seattle, WA	garrettbaryd@yahoo.com	206-902-7998
Heather Bechtold	MS in Biology awarded 2006; Currently a PhD candidate at ISU	bechheat@isu.edu	208/478-2655
Jason Beck	MS in Biology anticipated 2009	beckjaso@isu.edu	208/223-9517
Brandon Briggs	MS in Biological Sciences awarded 2007; currently PhD candidate Oregon State U.	briggsb@onid.orst.edu	541/928 7332
Jennifer Claypool	MS program; withdrawn	N/A	N/A
Pete Coates	PhD in Biological Sciences awarded 2007	pkcoates@gmail.com	N/A
Jessica DelMonte	DA awarded 2007; Currently an Assistant Professor at U. Akron	jhopkins@uakron.edu	(330) 972-8115
Victor Godfrey	MS awarded 2007; currently an Engineer in Nampa, ID	N/A	(208) 936-8353 (208) 442-3912
Rebecca Guthrie	PhD program; withdrawn	N/A	N/A
Randy Hoover	MS in Engineering awarded 2005; currently a PhD candidate at Colorado State	Randy.Hoover@ColoState.EDU	303-242-1306
Rene Horton	PhD in Biology awarded 2006; currently post-Doc at U. Colorado	Rene.Horton@UCHSC.edu	303-724-4245
Denim Jochimsen	MS in Biology awarded 2006; currently Washington State	denim2cure@yahoo.com	509-335-3553
Jason Jones	MS in Biology awarded 2008; currently pursuing PhD	jonejase@isu.edu	208/240-1094
Jonathan Knudsen	MS in Biology awarded 2006	knudsen@uwalumni.com	N/A
Jack Shurley	PhD in Biology awarded 2007; currently lecturer, ISU	shurjack@isu.edu	208/282-3720
Zachery Lifton	MS in Geology awarded 2005; currently English Teacher, Taiwan	zliftong@gmail.com	011 886 910-520648
Jason Marena	MS in Engineering anticipated 2008; currently Engineer in Portland, OR	jrmarena@gmail.com	N/A
Milana Michalek	MS in Geosciences anticipated 2008	milana111@hotmail.com	(253) 205-4555
Katie Miller	MS in Biological Sciences awarded 2007	myotis1978@gmail.com	N/A
Sarra Moller	MS in Biological Sciences awarded 2008	slmoller@hotmail.com	N/A
Kira Pontius	MS in Biological Sciences awarded 2007	kirapontius@gmail.com	N/A
Andy Ray	PhD in Biology awarded 2006; Currently Department of Environmental Quality (DEQ) Scientist, Pocatello ID	andy.ray@deq.idaho.gov	
Steve Seiler	PhD in Biology awarded 2007; currently adjunct faculty at U. Wisconsin, Steven's Point	steve.seiler@gmail.com	N/A
Michael Zaremba	MS in Engineering anticipated 2008	zarembich@yahoo.com	208/234-7302

ADD'L PARTICIPANTS

ADDITIONAL PARTICIPANTS 2004- 2007

UNDERGRADUATE STUDENTS		K-12 TEACHERS	
NAME	DEGREE	NAME	SCHOOL
Chase Taylor	Engineering	John Loftin	Century HS
Stephanie Mathies	Biology	Marlys McCurdy	Century HS
Nathan Burke	Engineering	Meg Fleishmann	Century HS
Chad Watts	Biology	Susan Mayo	Century HS
Gifford Gillette	Biology	Deborah Hobdey	Century HS
Jeff Molitor	Engineering	Denece Schwartz	Chubbuck ES
Ryan Loveland	Engineering	Janet Cook	Edgemont ES
James Cleaver	Engineering	Josh Nielsen	Franklin MS
Andrea Pendleton	Biology	Kathy Kratz	Gate City School
Caleb Harmon	Mathematics	Catherine Kratz	Gate City School
Amy Jolley	Engineering	Christina Melancon	Gateway School
Kelsey Seipel	Biology	Kristi Wehrspann	Grace Lutheran
Tom Adams	Technology	Markette Kelemente	Highland HS
Chris Laws	Engineering	Teri Mitton	Highland HS
Brad Schroeder	Engineering	Richard Anderson	Hillcrest HS
Corban Christensen	Engineering	Curtis Thomas	Hillcrest HS
Zeb Graham	Biology/Physics	Debbie Newhouse	Holy Spirit Catholic School
Doug Alder	Engineering	Peggy Kaiser	Holy Spirit Catholic School
Netty DeGarlais	Engineering	Rebecca Thorne-Ferrel	Idaho Museum of Natural History
Hailey Campbell	Engineering	Lori Anderson	Inkom ES
Thomas Lewis	Technology	Diane Stinger	Irving MS
Brandon Mijal	Geosciences	Chris Lenihan	Irving MS
Colleen Ely	Biological	Leah Potter	Irving MS
Dan Hunzeker	Engineering	Marilyn Mikelson	Marsh Valley HS
Jack Kettler	Engineering	Robert Miron	New Horizons HS
Adrian Hansen	Biology	Becky Lorig	Pocatello Community Charter School
		Amy Pike	Pocatello Community Charter School
		Carrie Thomason	Pocatello Community Charter School
		Cindy Watts	Pocatello High School
		Eric Rude	Pocatello High School
		Jena Wilcox	Pocatello HS
		Mark Edwards	Pocatello HS
		Staci Orr	Pocatello HS
		Bonnie Jacobus	Pocatello Zoo
		Vincent Wray	Shelley HS
		Richard Neves	ShoBan Jr HS
		Cara Sonnemann	Shoshone-Bannock Jr/Sr HS
		Carol Smith	Taylorview Jr HS
		Joe Timchak	Taylorview Jr HS
		Brenda Scheer	Tendoy ES

Project Partners

NSF GK-12 at Idaho State University. Organizational Partners 2004-2007											
School District	School	# Tchrs	# Grad Fellows	# UG Fellows	Subject(s)	Select Activities	Grade Levels	Urban - rural	% Free Reduced Lunch	% Minority	AYP 2006 2007
25	Century High School	4	6	0	Anatomy & Physiology, General & A.P. Biology, Physical Science, Chemistry	Poulation ecology, water quality, A& P	9-12	Suburban	31%	90%	NO
25	Chubbuck Elem. School	1	0	2	Elementary Math, Elementary Science	Lego Robotics	6	Suburban	38%	12%	NO
91	Edgemont Elem. School	1	0	2	Elementary Math, Elementary Science	Lego Robotics	6	Suburban	34%	4%	
25	Franklin MS	1	1	0	World Geography, GATE	Lego Robotics	8	Suburban	26%	15%	NO
25	Gateway School	1	0	2	GATE	Lego Robotics	5-6	Suburban	22%	no data	N/A
25	Highland High School	2	5	0	General & A.P. Biology, Chemistry, Physical Science	Water quality, molecular biology	9-12	Suburban	22%	16%	NO
93	Hillcrest HS	2	2	1	Electronics, Engineering	FIRST Robotics	9-12	Suburban	14%	5%	
N/A	Idaho Museum of Natural History	1	0	1	Biology, Geology, Archaology	N/A	K-12	Suburban	NA	NA	NA
25	Irving Middle School	3	3	2	Life Science, GATE (Gifted and Talented Program)	Lego Robotics	7-8	Urban	51%	16%	NO
21	Marsh Valley HS	1	1	0	Physical Science, Chemistry, Robotics	FIRST Robotics	9-12	Rural	33%	5%	NO
25	New Horizons High School	1	1	0	Biology, \Physical Science, Astronomy, Chemistry	Water quality	9-12	Urban	76%	29%	NO
25	Pocatello Community Charter School	4	1	3	Elementary Math, Elementary Science	Lego Robotics, Water quality	3-6	Suburban	NA	3%	NA
25	Pocatello High School	5	5	3	Zoology, Physical Science, General Biology	FIRST Robotics, general biology	9-12	Urban	32%	15%	NO
N/A	Pocatello Zoo	1	1	1	Zoology, Biology	Biology	K-12	Suburban	NA	NA	NA
60	Shelley High School	1	2	0	Ag Mechanics, Robotics	FIRST Robotics	9-12	Suburban	26%	8%	NO
512	ShoBan Jr Sr HS	2	1	1	General Science, Physical Science, Biology	Lego Robotics	9-12	Rural	N/A	100%	NO
91	Taylorview Jr. Sr. High School	2	0	4	Physical Science	Water quality	9	Suburban	25%	11%	NO
25	Tendoy Elementary	1	0	2	Elementary Math, Elementary Science	Lego Robotics	6	Suburban	60%	13%	

** note: some fellows partnered with teachers at more than 1 school.

Project Partners

Other Collaborators	Donation	Donation Use
AMIs	\$ 5,000.00	Robotics
Anonymous	\$ 400.00	Robotics
ASME, Idaho Section	\$ 100.00	Robotics
Bonneville Education Fdn	\$ 2,500.00	Robotics
Hillcrest HS	\$ 1,500.00	Robotics
Idaho Fish and Game	\$ 3,000.00	Ecology studies
Idaho Forest Products Board	\$ 400.00	Water Quality Studies
Idaho Governor's Grant	\$ 3,000.00	various
Idaho National Laboratory	\$ 8,000.00	Robotics
Idaho National Laboratory - minigrant	\$ 6,000.00	various
IEEE, Idaho Section	\$ 1,000.00	Robotics
INRA	\$ 24,000.00	Robotics
local fundraising	\$ 18,100.00	Robotics
NASA	\$ 90,000.00	Robotics
Qwest	\$ 13,789.00	Robotics
SD#25 GATE program	\$ 800.00	Robotics
SD#91	\$ 3,300.00	Robotics
Shelly School Board	\$ 3,000.00	Robotics
Simplot	\$ 4,630.00	various
Taylorview Booster Club	\$ 300.00	physical science
Tendoy Elementary PTA	\$ 100.00	robotics
SUM	\$	188,919.00

Project Activities

A Training

Summer Worksho We held a 1 week summer workshop for all participants in mid-August. This workshop achieved several goals and we found it to be instrumental to the success of our program. First, the workshop brought all participants up to speed on the goals of the GK-12 program at ISU, and the roles of We held monthly meetings for all participants once a month for 2 hours, as well as monthly meetings for the fellows-only once a month for 2 hours.

Monthly Meetings These meetings allowed the participants time to share ideas, it provided time for limited training (especially for the fellows on various teaching techniques and classroom management); it provided time for the senior personnel to interact with the participants and to solve any problems on a

Funding

for meetings We provided travel funding for any teachers or fellows who wished to present at conferences and would speak about the GK-12 during their presentation.

We also provided travel funding for teachers and fellows to attend the regional NSTA meeting, which was held in Salt Lake City, UT. This cost was

B Curriculum Materials Adopted/Developed:

All GK-12 fellows were required to write up 2-3 lesson plans that they created/adapted in their classrooms. They are available at http://www.isu.edu/departments/gradk12/lesson_plans.html

C Communication

Presentations

Bayrd, G. 2006. "Successful Teacher / Fellow partnerships in the NSF GK-12 program." Geological Society of America Meeting.

Beck, J. and M. McCurdy 2006. "Fissures, Foramen, and Fossa: Skeletal anatomy Darwin style" National Association of Biology Teachers.

DelMonte, J. 2005. "Skeletons in the stream: A temporal study of in-stream leaf decomposition." North American Benthological Society Annual Meeting.

Hartle, R.T., and P. Beardley. 2006. "Cultural Obstacles to Collaborations Between K–12 Educators and Scientific Researchers." National Science Teacher's Association Regional Meeting. Salt Lake City, UT.

Hopkins, J. And G.W. Minshall. 2007. "Impacts of flow disturbance on densities of the New Zealand mud snail, Portneuf River, Idaho." North American Benthological Society Meeting. Columbia, SC.

Jones, J. 2007. "What's going down City Creek: Evaluating Pocatello's water quality using a small city stream. North American Benthological Society Meeting. Columbia, SC.

Kihara, Ian D.; Gardner, Joseph S.; Barnett, Robert; Pak, Joshua J., June 2006. "Upper Rim Functionalization of Resorcinarenes." American Chemical Society's Northwest Regional Meeting. Boise, ID.

Kratz, C. and D. Stinger. 2006. "Lego Robots in the Gifted and Talented Classroom." Idaho State Council for Exceptional Children Conference, Boise and Sun Valley, ID.

Michalek, M. 2007, "Introducing Current Geo-skills and technology in the classroom: Map Reading, The Compass, GPS and GIS in an 8th Grade World Geography Classroom: The GK-12 Project and Idaho State University, Pocatello, Idaho", Geological Society of America. Denver, CO.

Miller, KEG, Matocq, MD. 2007 "What makes a winter home? Hibernacula characteristics of Townsend's big-eared bat in southeast Idaho". North American Symposium on Bat Research.

Moller, S. L., and E. R. Keeley. 2007. "Trophic relationships in Panther Creek Watershed, Idaho" American Fisheries Society, San Fransisco, CA

Pontius, K.E. and R.J. Smith. 2007. "Changes in reproductive strategy in response to elevation in a burying beetle." Animal Behavior Society Annual Meeting. Burlington, VT.

Project Activities

Rude, E. 2006. "Forensics in the Classroom" National Science Teachers Meeting in Anaheim, CA.

Smith, R. and H. Sanger, 2007. "Communicating GK-2 to the Media." National GK-12 Meeting, Washington DC.

Press Coverage

Over 40 Newspaper, TV and radio stories were published in local media. A selection of these stories can be found at:
http://www.isu.edu/departments/gradk12/in_the_news.html

Newsletter

We began a GK12 newsletter, which was emailed and mailed to all participants, and collaborators, as well as the local media

Flyers We developed a flyer to help the FIRST robotics teams raise funds. This flyer was created by ISU's Public Relations department.

D Published Articles

Ray, A. and P. M. Beardsley. 2006. Overcoming student misconceptions in photosynthesis: a model and inquiry-based approach using aquatic plants. Science Activities.

E Books

none

F website

www.isu.edu/departments/gradk12