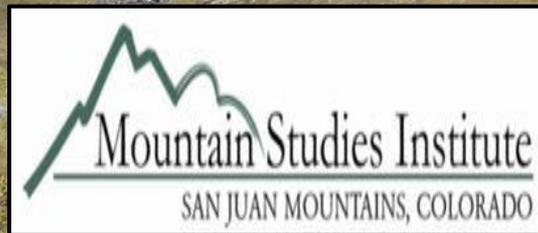


In the Name of Science:

*A Partnership for the San Juan Mountains
and the Communities that Love Them*



Pauline E. Ellis
Partnership Coordinator
San Juan National Forest

Today's Road Map

- History/Background of MSI and of our Partnership
- **Why** Partner with MSI?
- Good Works: Success Stories
- Advice: Good or Bad
- Lessons Learned



History of MSI





Mountain Studies Institute

SAN JUAN MOUNTAINS, COLORADO

MISSION

“To enhance understanding and sustainable use of the San Juan Mountains (and their communities) through research and education.”





”To sustain the health, diversity, and productivity of the Nation’s forests and grasslands to meet the needs of present and future generations.”

“To enhance understanding and sustainable use of the San Juan Mountains (and their communities) through research and education

MSI Goals



Collaborate, Listen, and Build Bridges: Work with individuals, groups, government, non-profits, businesses, universities, and colleges. Listen to the needs of stakeholders and identify critical information gaps. **Connect stakeholders and scientists** through conferences, workshops, and networking efforts.



Provide Robust Scientific Information: Initiate research and monitoring projects that **fill identified management and information needs. Apply results through on-the-ground** restoration and revitalization projects. Increase local knowledge by facilitating the work of scientists and educators from colleges, universities, agencies, and non-profits.

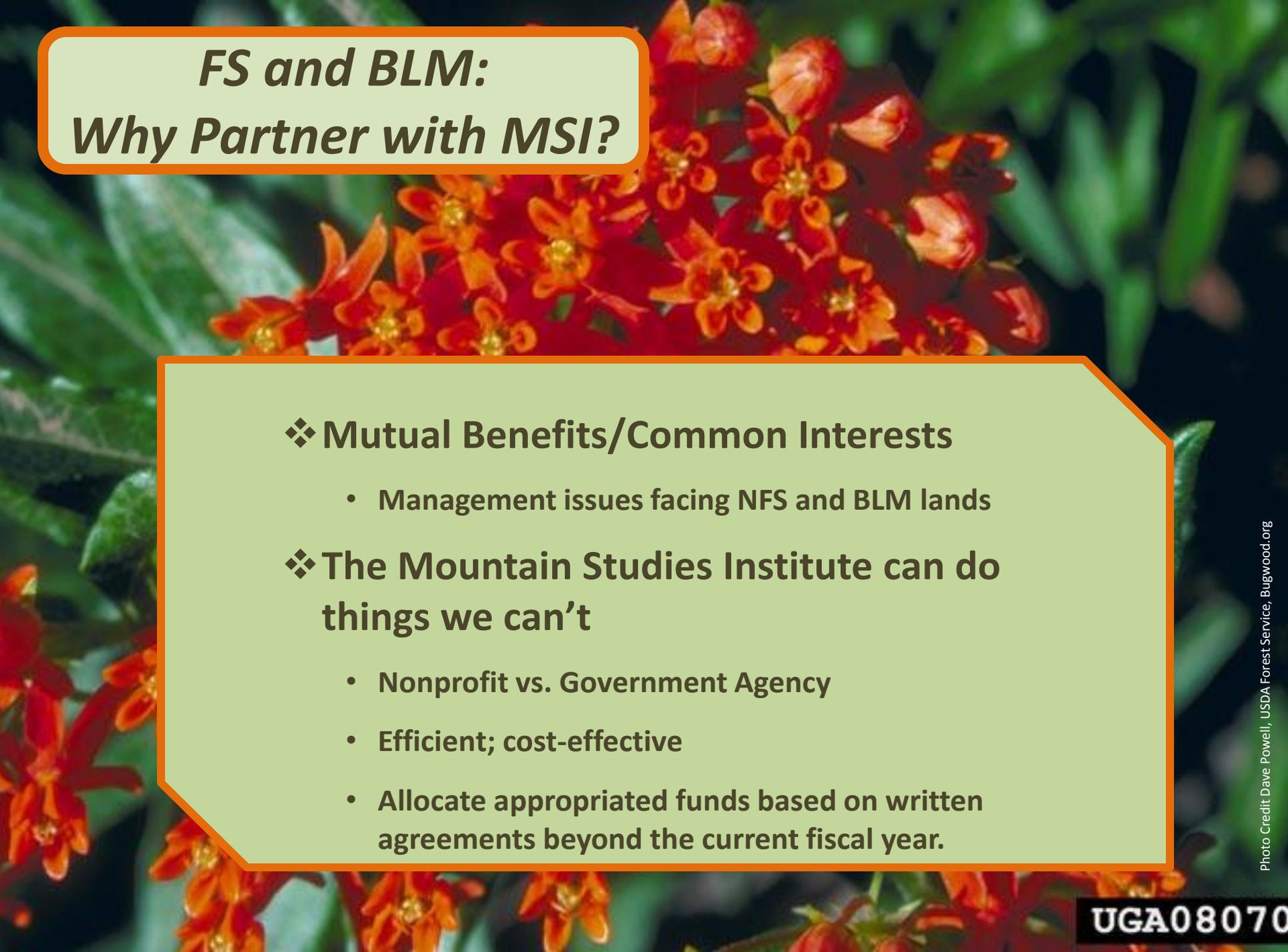


Promote Environmental Literacy: Provide educational activities and materials that engage people in science. **Translate scientific results so that people can understand and use them for decision-making. Train the next generation** of decision-makers by providing educational opportunities for students, including young children, college-age, and continuing education.



Create Economic Benefit: Demonstrate that the **research and education "industry"** can provide significant economic benefit for a rural community.



The background of the slide is a close-up photograph of a cluster of bright red flowers with yellow centers, likely a species of Salvia or similar. The flowers are in sharp focus, while the green leaves and other flowers in the background are blurred.

FS and BLM: Why Partner with MSI?

❖ Mutual Benefits/Common Interests

- Management issues facing NFS and BLM lands

❖ The Mountain Studies Institute can do things we can't

- Nonprofit vs. Government Agency
- Efficient; cost-effective
- Allocate appropriated funds based on written agreements beyond the current fiscal year.

FS and BLM: Why Partner with MSI?

“Science People Can Use”

- Applied Science vs. Research**
- Bridge Between:**
 - Scientists/Researchers/Academia AND**
 - Laypeople/Public Lands Managers**
- We ask MSI to find answers to questions that inform a course of action**

Success Stories

Natural Resource Internship Program

**MSI, CU
Boulder, San
Juan Public
Lands
(USFS/BLM),
and Fort
Lewis College**



- Initiated in 2008
- 10 weeks in the summer
- 30 undergraduates and recent grads served thus far
- Several past interns have received employment with USFS, BLM, and universities directly as a result of the program.
- Intern quote: “I learned more skills and knowledge in 10 weeks here than a full semester (of classes)”



Success Stories

Hydrology of the Fruitland Outcrop Area

MSI, CU Boulder,
San Juan Public
Lands (USFS/BLM),
and Fort Lewis
College



Preliminary Result: Prevalence of young water and strong hydrologic connections across the Northern San Juan Basin system, reinforced by geochemical indicators, suggest risk of hydrologic disturbance by CBM development where the Fruitland Outcrop nears the surface.



Success Stories

Fen Wetland Assessment, Restoration & Education

MSI, San Juan Public Lands (USFS/BLM), CSU, MI Tech, San Juan Fens Partnership, and others

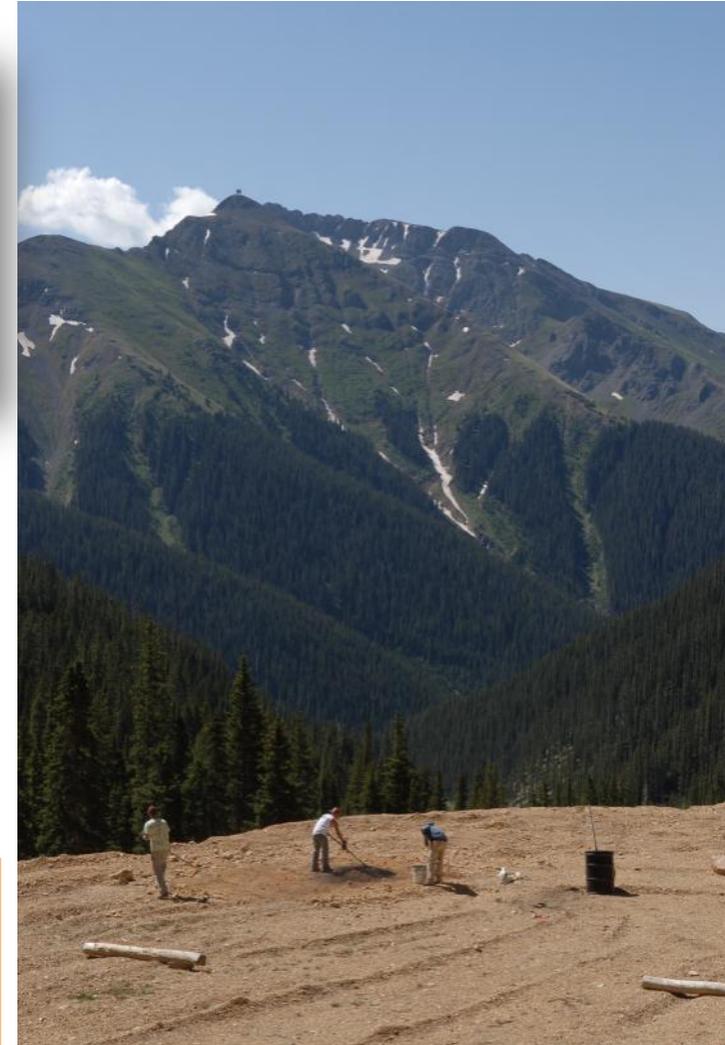


- Fen Assessment completed
- Restoration of several fens, including Chattanooga begun
- Fen Conservation Manual in preparation
- Wetland outreach booklet & 5 workshops

Success Stories

Biochar Re-Vegetation & Carbon Storage Project

MSI, San Juan Public Lands (USFS/BLM), and CU/FLC interns



- Experimental study to test the success of using biochar for re-vegetation of damaged soils (abandoned mine lands, gas well pads, recreation misuse)
- SJPLC is working on making biochar from local fuels project thinnings

Success Stories

PikaNET: Volunteer Monitoring Network for the American Pika

MSI, CU Boulder, San Juan Public Lands (USFS/BLM), and other partners



- MSI helped fund CU pika research in the San Juan Mtns
- Collaborative program born to recruit volunteers to fill data gaps
- Combines research and education
- Workshops started this summer!

Success Stories

Mercury in Precipitation and Environment

MSI, San Juan Public Lands (USFS/BLM), and various partners



- Mercury in precipitation, lake sediment cores, lake biota, and wetland songbirds
- MSI's results motivated the SJPLC to install a long-term Mercury Deposition Network sampler
- Back-trajectory analysis of storm tracks that bring mercury to SW Colorado (ongoing)



Best Practices for Success

- ❖ Shared Need/Vision
- ❖ Accomplish More TOGETHER
- ❖ Be Sure to Keep the Paperwork Clean

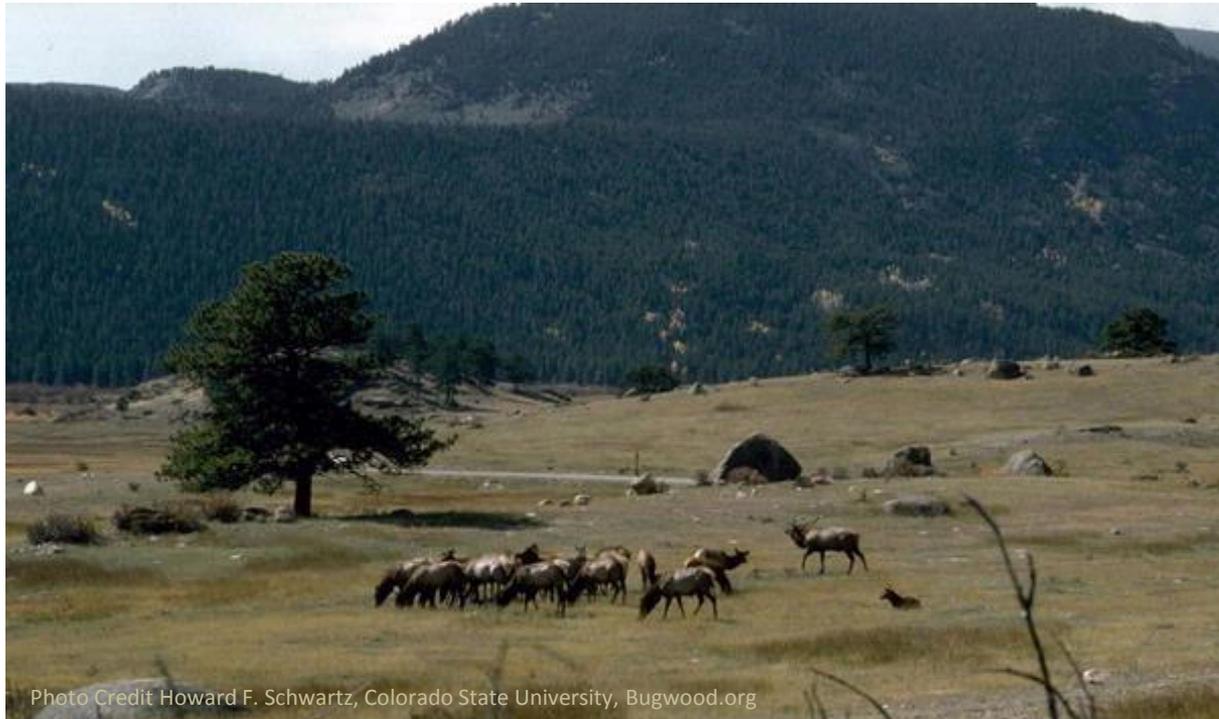


Photo Credit Howard F. Schwartz, Colorado State University, Bugwood.org

What About the Bumps and Bruises?



- ❖ What happens **when** scientists disagree?
- ❖ What happens when we are casual with our paperwork?
- ❖ Model for success revolved around Federal money, and it dried up, how to proceed?

Lessons Learned



- ❖ Have a realistic “long-view”
- ❖ Be willing to morph if your long-view doesn’t pan out (Life Cycle)
- ❖ Putting all your eggs in the Federal basket doesn’t make for a good long-view
- ❖ It is good to be diverse, but being spread too thin isn’t the best long-view either

Life Cycle of Our Partnership

Stage	Progress
Caterpillar	Visioning- what is the need? Why important? Who shares interest
	Conceptual- framework for cooperation, communication, collaboration- who, what, where, when, how
Cocoon	Research and Development- seek expertise, stakeholders, gather information, network model, vet partners, define operations, roles of participants, goals and objectives, assess risk
	Implementation- define work plan, connect tasks to timeline, formal agreements, assess communication, assess funding, develop evaluation criteria
Butterfly	Active projects
	Evaluation and Recognition
BACK TO EGG!	IT'S OKAY TO MORPH!!

Thanks for Listening!

