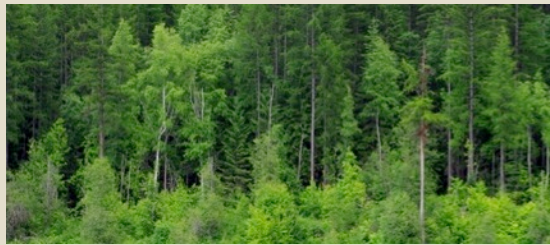
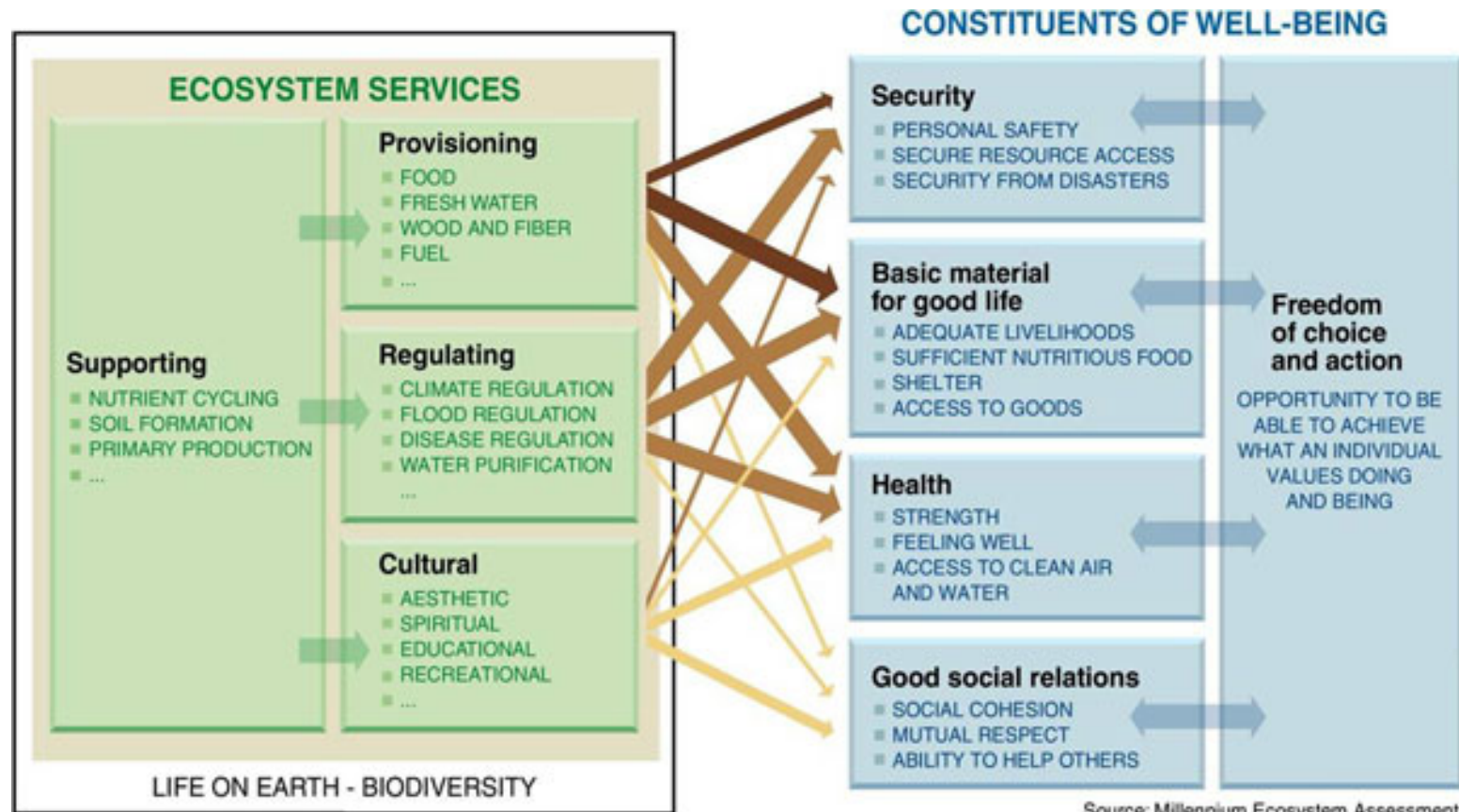




# Managing Idaho's Landscapes for Ecosystem Services (MILES)



# What are Ecosystem Services?



ARROW'S COLOR  
Potential for mediation by socioeconomic factors

- Low
- Medium
- High

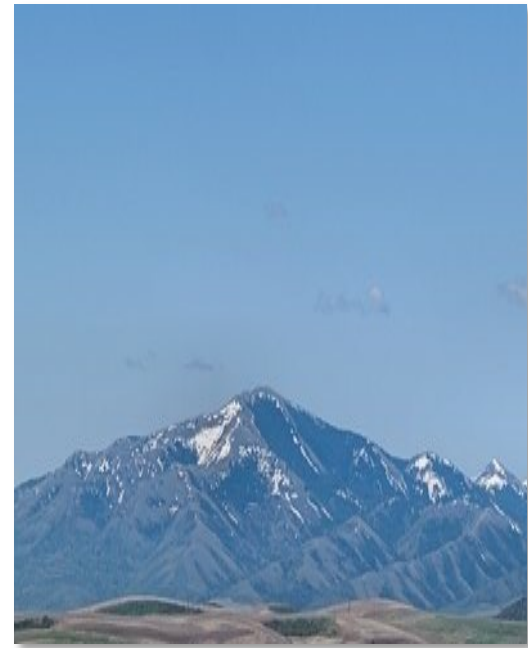
ARROW'S WIDTH  
Intensity of linkages between ecosystem services and human well-being

- Weak
- Medium
- Strong

*Millennium Ecosystem Assessment, 2005*

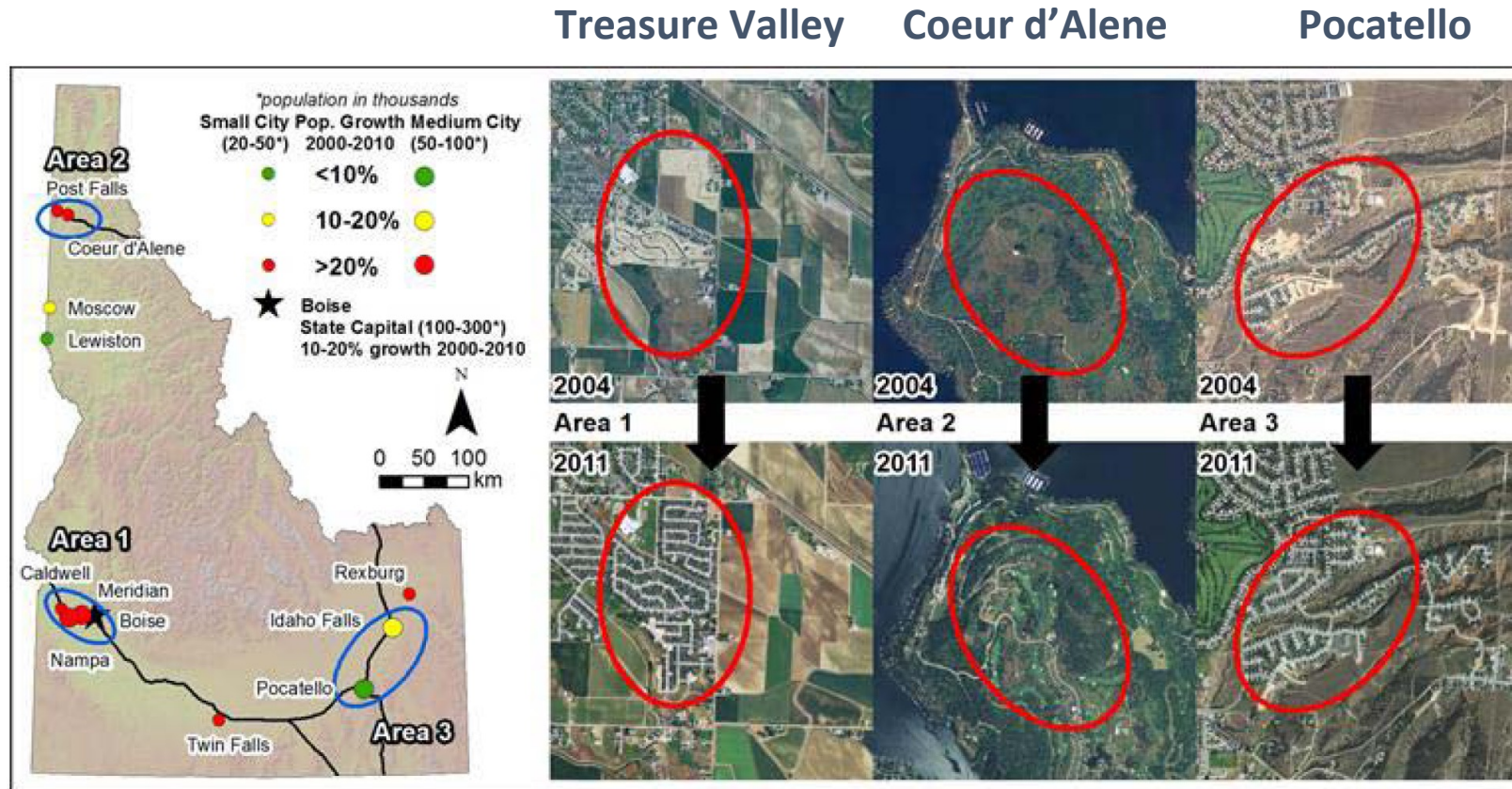
# MILES Vision

... for Idaho to develop capacity to *create new knowledge* about ecosystem services, landscape change, and associated socio-economic systems, and to develop our ability to *provide science-based decision support* needed to sustainably manage Idaho's resources.

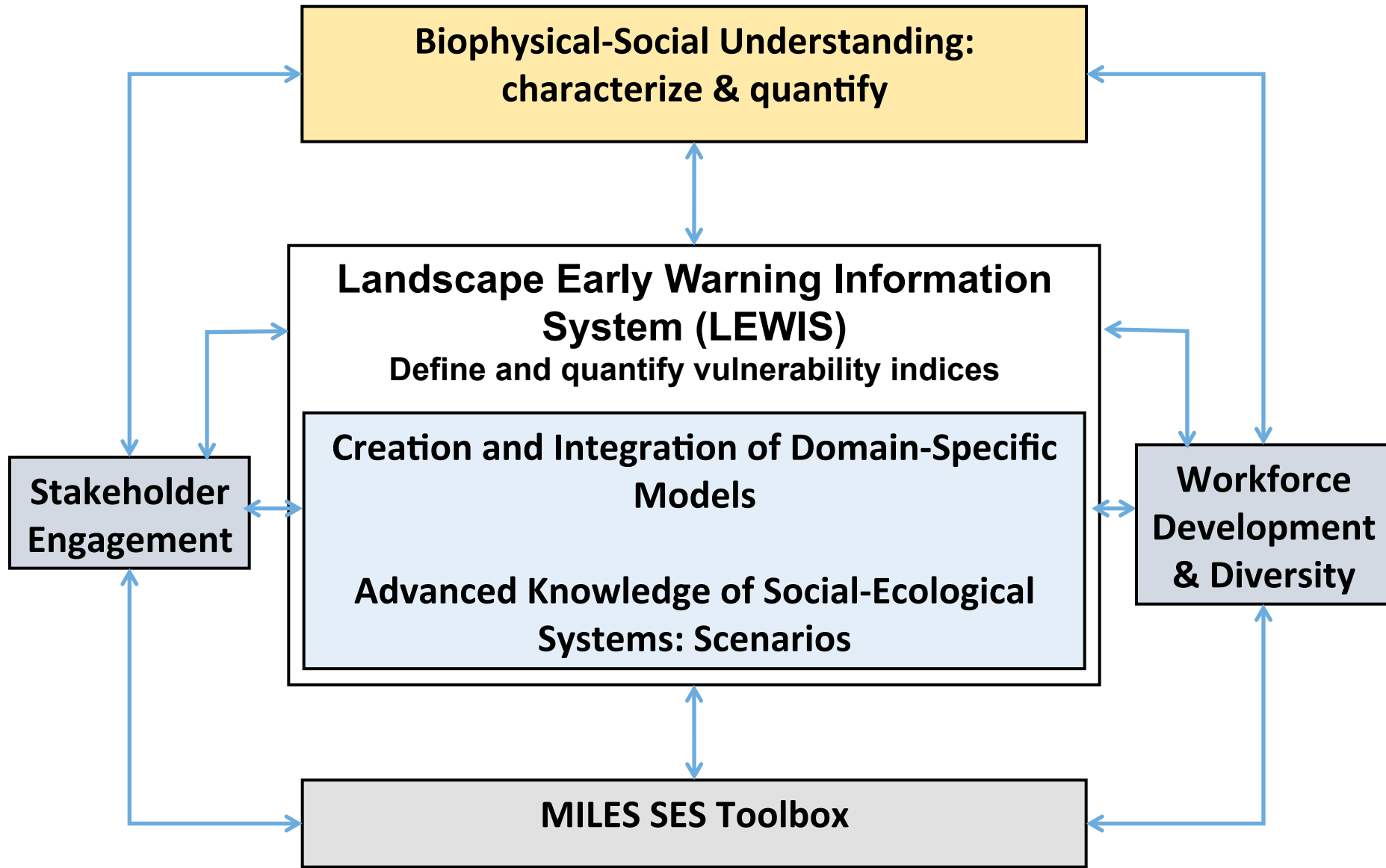


# Three Field Laboratories

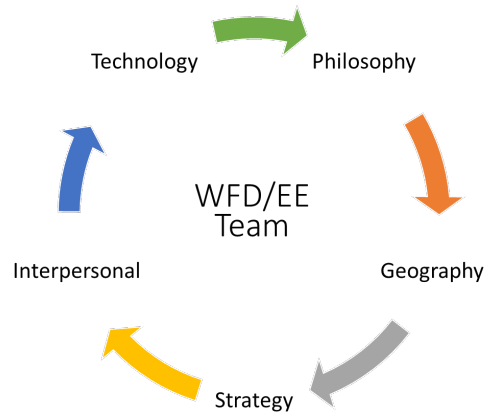
*Landscape change under the stressors of climate change and urban expansion*



*Field laboratories share characteristics (water resource issues, population growth) but also has unique stakeholder perceptions, values and associated biophysical system processes; activities are both integrated statewide, and site specific.*



# Workforce Development/External Engagement Initiatives



MILES Ambassador Program: connecting Idaho's Primarily Undergraduate Institutions with statewide research enterprise

MILES Undergraduate Research and Internships program (MURI): connecting undergraduate students with research enterprise

MILES Adventure Learning program (AL): connecting secondary teachers and students with statewide research enterprise

Integration Goal: form a pattern of statewide teamwork to develop and implement WFD/EE 'best practices'. Involves regular meetings by 21 participants from 6 different institutions.



# MILES Ambassadors



**Dave Makings,**  
College of Southern  
Idaho (CSI)



**Willard Pack,**  
College of Western Idaho  
(CWI)



**Julie Van Middlesworth,**  
North Idaho College (NIC)



**Keegan Schmidt,**  
Lewis Clark State  
College (LCSC)

- Designed to increase the participation of 2-year and 4-year Idaho colleges in MILES activities
- Serves to promote Idaho EPSCoR's diversity and workforce development goals by providing assistance to MURI, Adventure Learning, and State Initiatives.



# MURI Program



## Spring/Summer MURI:

Students Awarded - **64**

**23%** Underrepresented Minority

**55%** Female

**13%** PUI students

**5%** Stakeholder

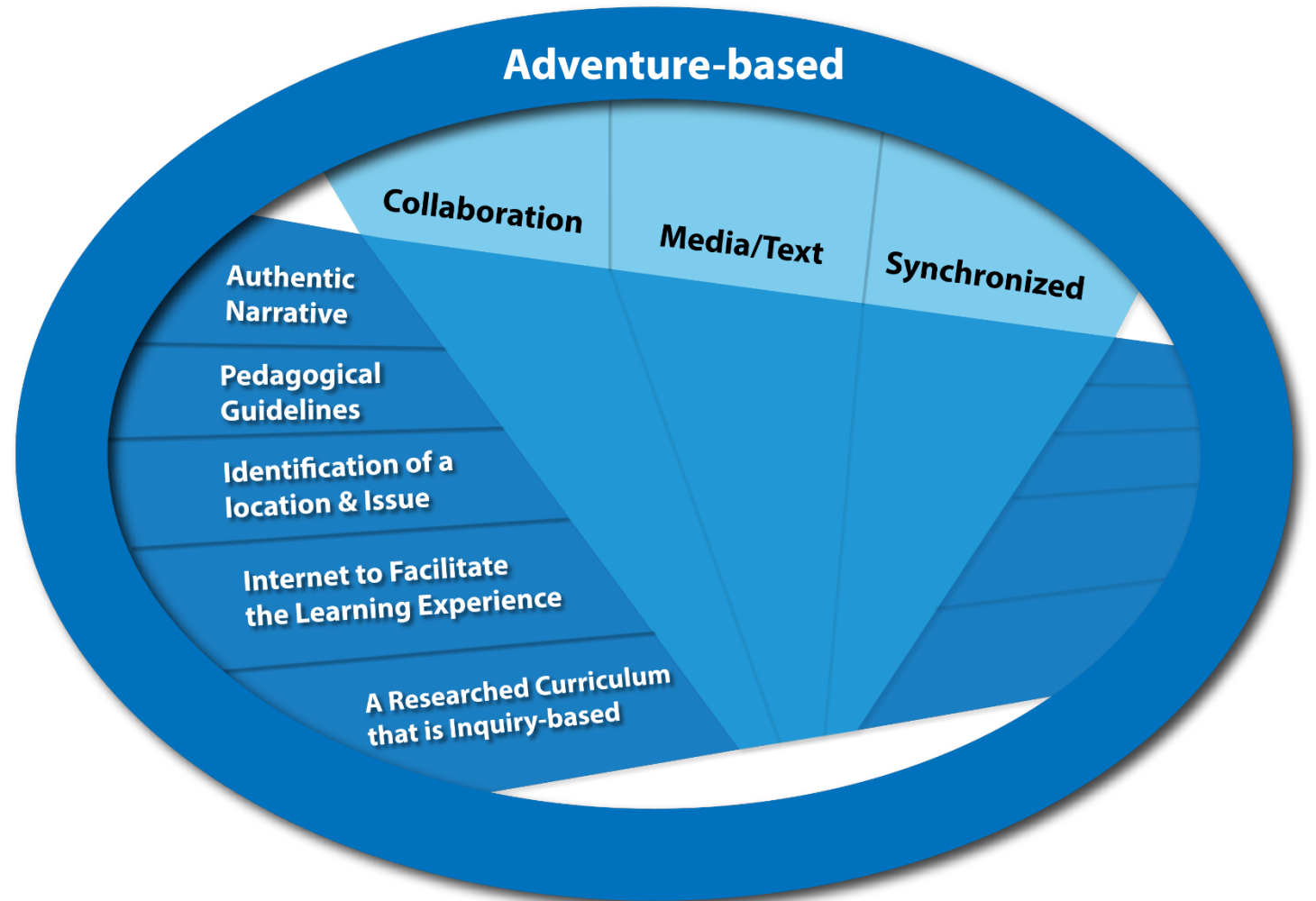
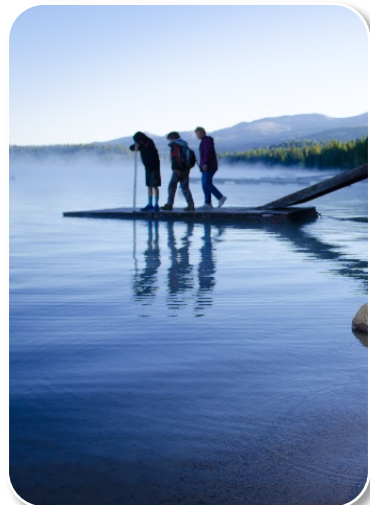
### Examples:

- mapped pollinator diversity and abundance and native plant distributions
- Fuel loads and fire risk



# Adventure Learning

MILES Adventure Learning program: connecting secondary teachers and students with statewide research enterprise





## Getting Our Feet in the Water:

*An adventure through Idaho's resource-rich landscapes*

Join the adventure as researchers, teachers, and students follow scientific studies in important ecosystems around Idaho.



## Summer 2014—Teacher Workshops

Middle- and high-school teachers from across Idaho are invited to take part in workshops designed to build understanding of the various ways we benefit from having healthy, functioning ecosystems, and the challenges that we face as a state in trying to manage our resources to maintain balance in these systems.

### Adventure Learning

- [Summer 2014 Blog](#)
- [Teacher Resources](#)
- [Lesson Plans](#)
- [Winter 2014 Blog](#)

### Teacher Workshops

**Calling for K-12 teacher applicants!**

Visit the [Idaho EPSCoR website](#) for details.

### Partners

# Links to AIM-UP: Discussion & Feedback

Historical perspective: past-present-future of the urban-wildland interface

Collections provide necessary evidence for past ecosystems and can help populate models to predict future conditions.

What are innovative questions to link social sciences with natural science collections?

Mapping/Geography is key! How to share availability of georeferenced collections?

How can Vision & Change/ Next Generation Science Standards be integrated into a collections-based model of teacher professional development?



# STATE Initiatives

## Idaho STEM Pipeline

- Website designed to provide information on STEM programming in Idaho
- Links to STEM opportunities for students, teachers, and community
- Averages 10k + hits monthly



## Updates:

- Spanish Translation
- Live Twitter Feed



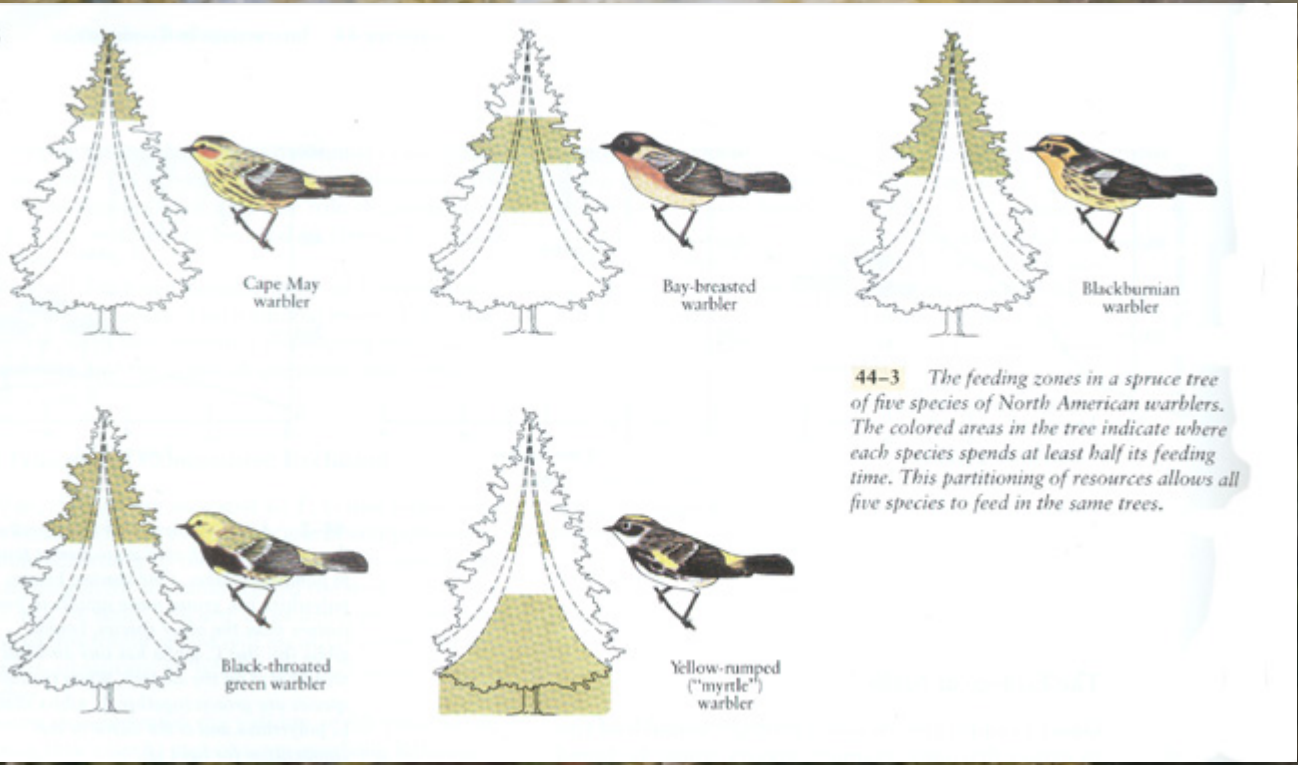
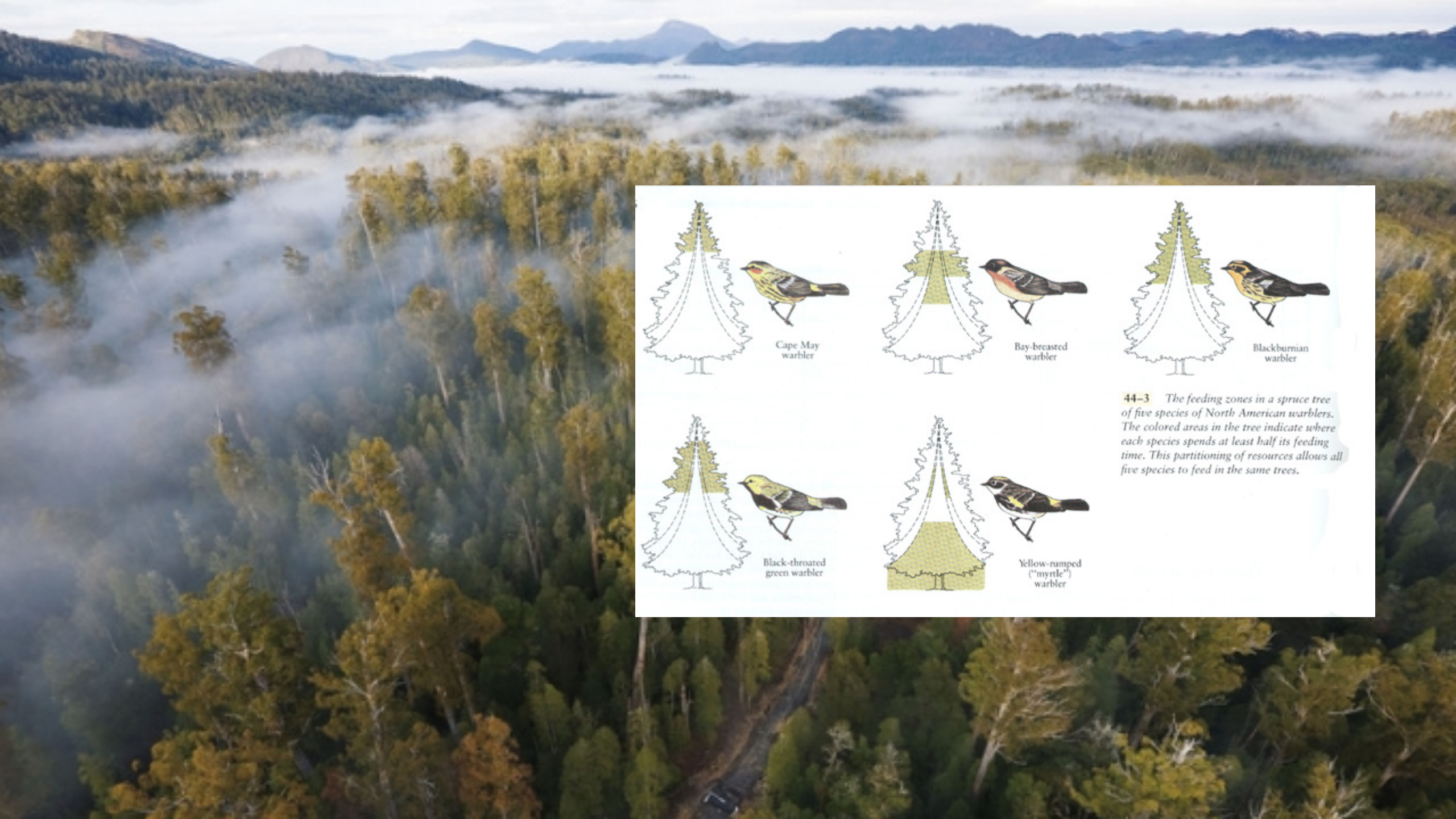
# STATE Initiatives



## Idaho STEM Higher Education Network

- ❖ Established to foster communication across campuses
- ❖ Involves Idaho's three public universities and 2 and 4 year colleges
- ❖ Assists in creating sustainable partnerships and strengthening recruitment and retention efforts - particularly for underrepresented minorities and women





44-3 The feeding zones in a spruce tree of five species of North American warblers. The colored areas in the tree indicate where each species spends at least half its feeding time. This partitioning of resources allows all five species to feed in the same trees.