



ENVIRONMENTAL SCIENCE AND POLICY



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GEORGE MASON UNIVERSITY
Where Innovation Is Tradition

Current Trends



The Economist 2014

- Increased human population – unsustainable growth
- Witnessing environmental impacts & events never seen before

Jobs Market Trends



ESP: Best Green Jobs

- Water quality technicians
- Foresters
- Conservation biologists
- Urban growers/farmers
- Sustainability systems developers
- Green builders/urban planners
- Recyclers
- Solar cell technicians
- Green design professionals
- Energy efficiency builders
- Wave/wind energy producers
- Biofuels jobs

ENVIRONMENTAL STUDIES





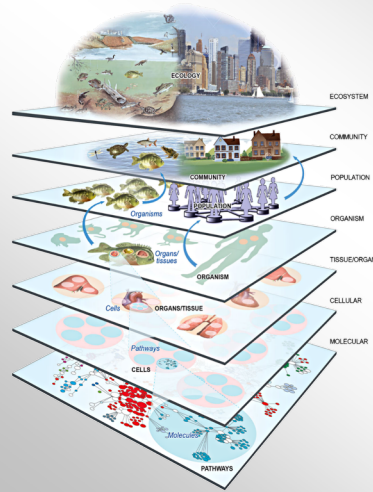
Research Industrial Complex

We need to bridge the barriers that divide disciplines of knowledge

Empower individuals and institutions to act collaboratively and take risks

Engage in translational ecological health science

ESP: Local Solutions for Global Issues



Using systems-based thinking and approaches at multiple scales to solve high priority environmental problems

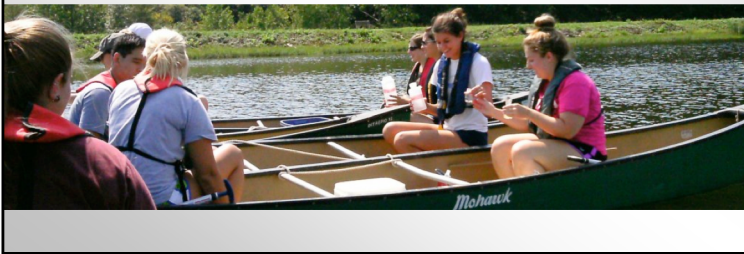
ESP: Bridging Science & Policy



Train Future Environmental Science & Policy Leaders as Practitioners skilled in Social Sciences

ESP Vision

- Our graduates [will be] solving complex environmental issues that challenge the integrity and sustainability of global systems through research, transdisciplinarity and engagement
- Our faculty are internationally recognized for their innovative research and their outreach and communication to the public and private sectors

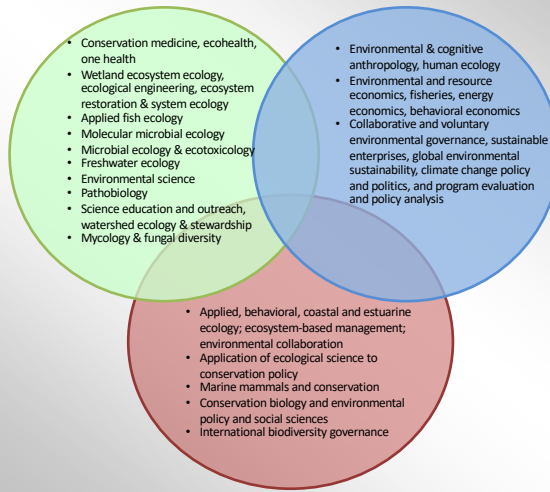


ESP Values

- Respect
- Collaboration
- Transdisciplinarity
- Flexibility
- Innovation
- Diversity
- Sustainability

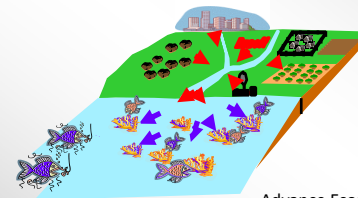


ESP Strengths: Natural & Social Sciences



ESP: Focus on our Strategies

International Leadership in Water & Watershed Science & Policy



Excellence in Conservation Science & Policy



Advance Ecosystem Health & Sustainability

The One Health Triad



ESP: Strategic Direction

1. Faculty Excellence
2. Increasing Student Enrollment
3. Job Placement for Students & Alumni
4. Diversity in the Field



1. Faculty Excellence

- Transdisciplinarity
- Integrative Research
- Systems thinking
- New Faculty Positions:
 - ✓ Microbial Ecology
 - ✓ Marine Conservation & Policy
 - ✓ Urban Wildlife Ecology
 - ✓ Environmental Toxicology
 - ✓ Science Communication



2. Increase Student Enrollment

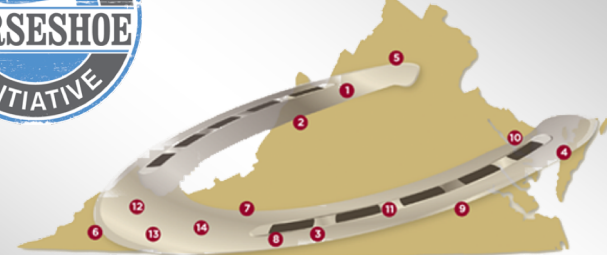
- Creating a pipeline from K-12 into college and beyond
- Implement distance education programs: online & hybrid courses
- Provide international opportunities for US students
- Attract international graduate students



ESP: Reaching out to Rural Communities



- 75% of VA geography
- 2 million people
- 14/23 community colleges



- The Virginia Foundation for Community College Education (VFCCE)
- Transform rural communities through higher education and 21st century job skills
- Mobile recruitment fair to engage, educate, and recruit HS and CC students

ESP: Green Leaf Program & Mason Core

- “Engagement series” including a pathway of Green Leaf courses through Mason Core (Gen Ed)
- Explore an Environmental Science Core Requirement (EVPP110, 111 & 201 currently under Natural Science)
- An environmental transcript for non ESP students
- A way to green ALL students leaving Mason as global environmentally conscious citizens



ESP: Increase Graduate Opportunities

- Provost Curriculum Impact Grant
- Professional Science Master’s in Environmental Management
- Targeting professionals
- One year program
- On line



3. Job Placements of Students & Alumni

- Establishing feeder programs between ESP and NGOs, private sector & government agencies
- Increasing internship placements
- Increasing job opportunities in environmental science & policy



ESP: Promoting Partnerships



4. Diversity in the Field

- Focusing on diversity recruitment & increasing minority students to better represent global trends
- Developing cooperative agreements with MSIs (Minority Serving Institutions)
- Strengthening relationships with Mason admissions (WYSE), housing, university life, LLC students



ESP: Moving Forward

- Molecular ecology lab with Biology and Forensics
- Urban systems faculty cluster
- ESP Departmental Seminar Series
- Annual Conference/Symposium/Workshop on Selected Topics at PSC



ESP: In Conclusion

Generate Knowledge: Next generation with a local perspective by providing innovative, culturally appropriate & cost effective solutions

Build Capacity: Promote the **capacity** of ESP faculty, maintain a life-long learning local community & a global network



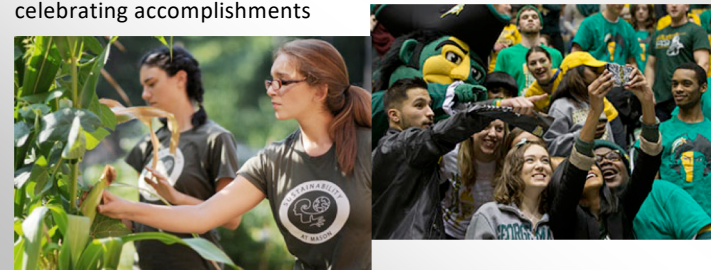
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ESP: In Conclusion

Empower Students: Continue building a **cadre** of national & international scientists by increasing recruitment

Impact Practice and Policy: **Influence** science, practice & policy locally and internationally

Sustain Education, Research & Service: Lecture series, annual conference, **transdisciplinary** programs, setting professional norms & celebrating accomplishments



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Effective Partnerships



Thinking Globally, Acting Locally...



Thinking Locally, Acting Globally...



Thank you



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ESP: Potomac Environmental Research and Education Center

- Chesapeake Bay Local Leadership Training
- As a vehicle to connect with community leaders, politicians & promoting partnerships
- EPA and the Chesapeake Bay Program seek local training for elected officials, so they better understand their watershed

