

# FES 5-year Report

October 8, 2019

Troy Hall, Department Head





# A brief review...

- FES created in 2008
    - Merger of Forest Resources and Forest Science
  - Leadership turnover
    - Tom Adams (2008 – 2009)
    - Brenda McComb (2009 – 2011)
    - Paul Doescher (2011 – 2013)
    - Jim Johnson (2014)
    - Troy Hall (2014 – 2019)
- 



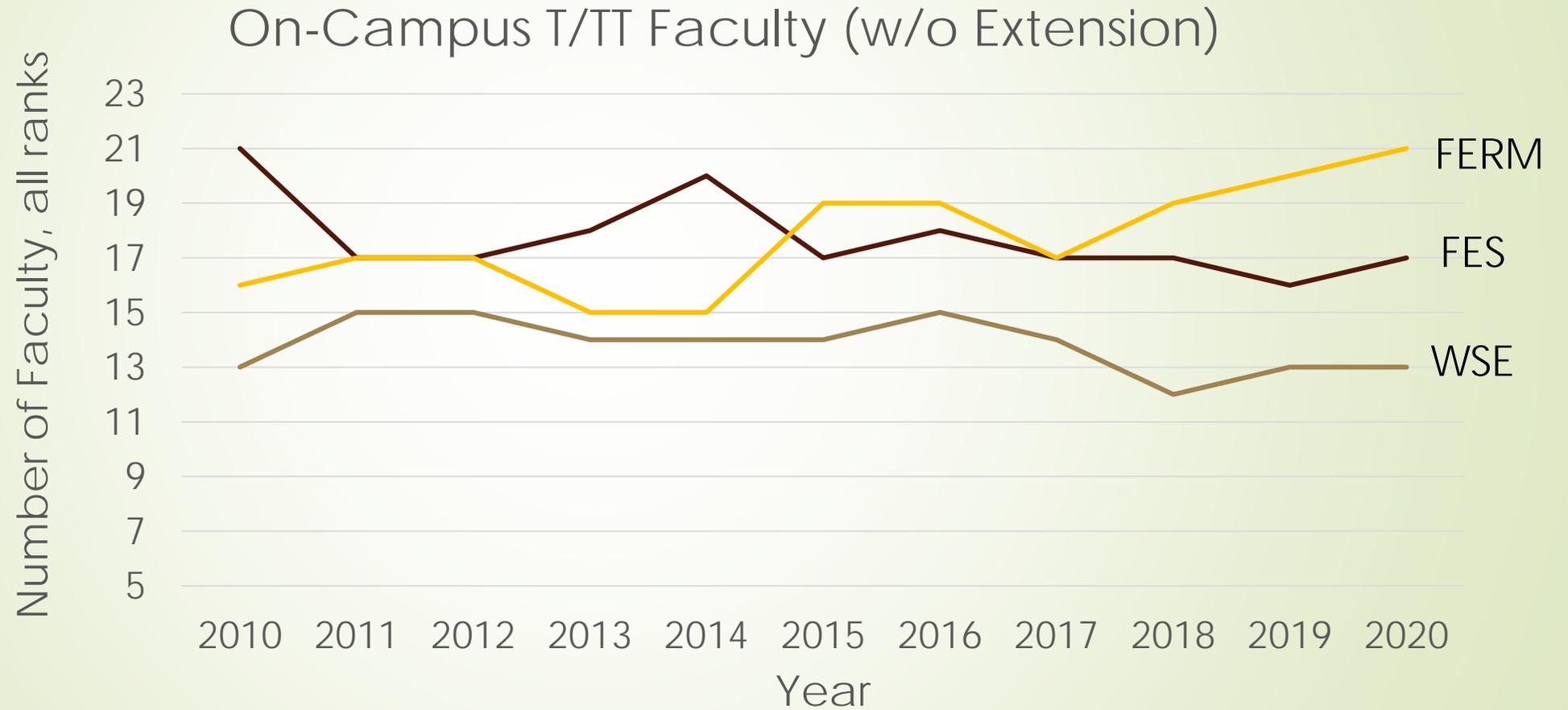
# FES mission statement (2013)

Our department brings together **biological** and **social** scientists and **philosophers** to understand **ecological systems, social systems, and the interactions between them**. We work in terrestrial to aquatic systems, in wildland to urban settings, and from local to global scales. We evaluate the **scientific and philosophical basis for management and policy decisions** and provide enhanced frameworks for those decisions reflective of our latest findings. We conduct **creative problem-solving and fundamental research**; educate and engage the **next generation of scholars, practitioners and users** of the world's natural resources; and share our knowledge and discoveries with others.



# STAFFING

# CoF T/TT faculty over the years



# FES personnel changes since 2014

## T/TT Departed

- Albers (2014)
- Salwasser (2014)
- Jensen (2014)
- Shelby (2015)
- Doescher (2015)
- Harmon (2016)
- Tynon (2016)
- Johnson (2017)
- Ganio (2018)
- Lachenbruch (2019)
- Upcoming: Law (2019)

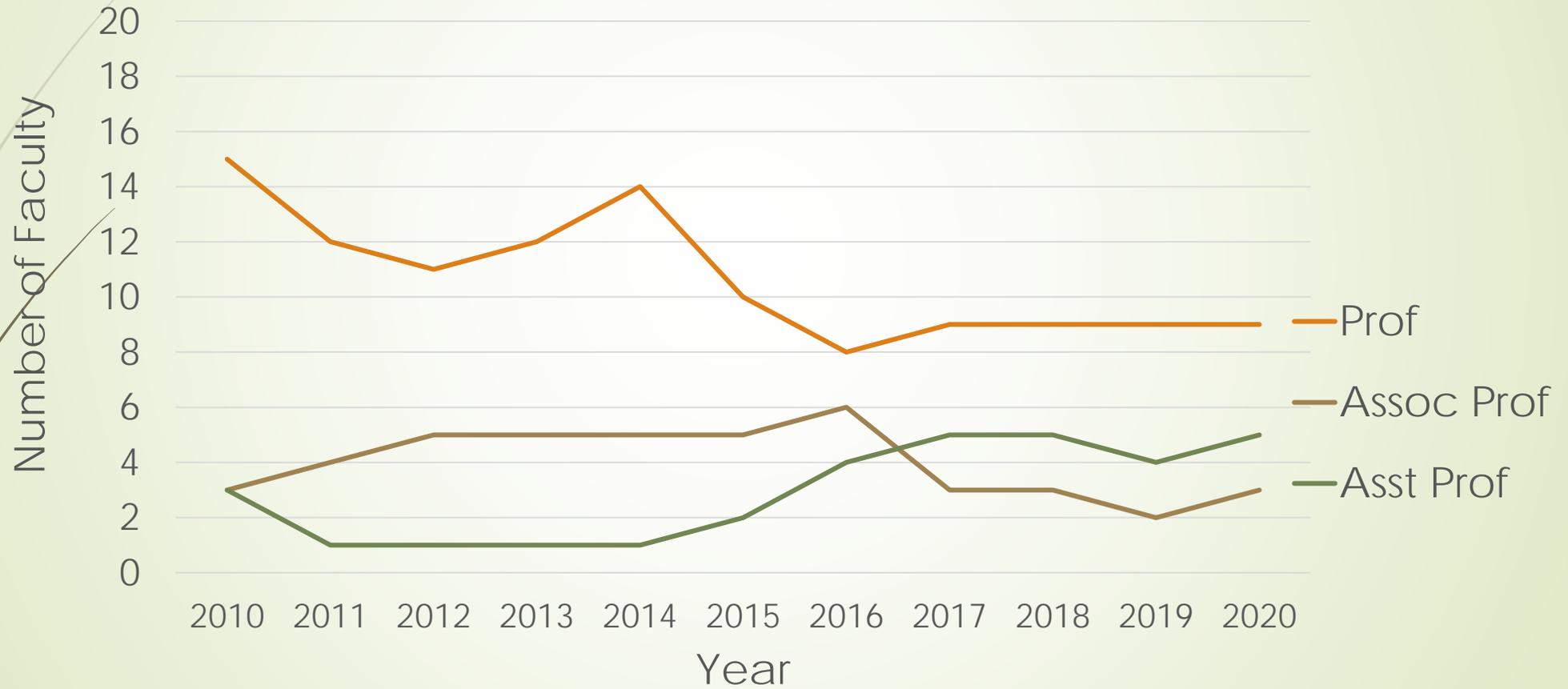
Moved to Admin:  
Rosenberger & Bliss

## New T/TT

- Hall (2014)
- Warren (2015)
- Krawchuk (2015)
- Munanura (2015)
- Hajjar (2016)
- D'Antonio (2016)
  
- Open: Forest Biodiversity Conserv.
- Open: Forest Carbon

# FES T/TT faculty

FES On-Campus T/TT Faculty (w/o Extension)





# Other personnel

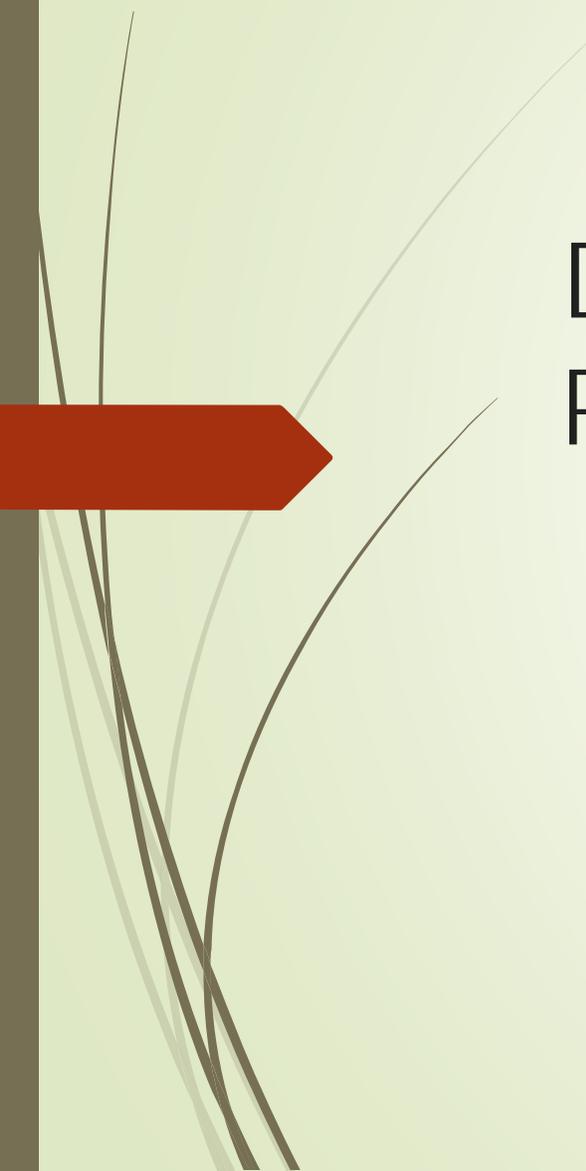
- ▶ Extension
  - ▶ Specialists
  - ▶ Agents
  - ▶ Professors of Practice
  - ▶ Program coordinators
- ▶ Professorial, non-tenure-track
  - ▶ Visiting assistant professors
  - ▶ Senior research
- ▶ Instructors
  - ▶ Full-time
  - ▶ Part-time
  - ▶ One-off
- ▶ Research-related
  - ▶ Professional faculty
  - ▶ Post-docs
  - ▶ FRAs





# Considering FES Staffing Priorities

- What are the right criteria for next hires?
    - Research emphasis
    - Teaching nexus
    - Other?
- 



# DEPARTMENTAL POLICIES AND PROCEDURES



# Process/policy initiatives since 2014

- Governance policy
  - Peer review of teaching
  - Mentoring committees
  - Promotion & tenure guidelines
  - TA policy
- 

# DEI leadership

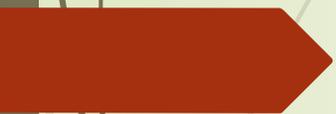
- CoF planning process
- Membership on college committee
- ADVANCE





# Process/policy initiatives

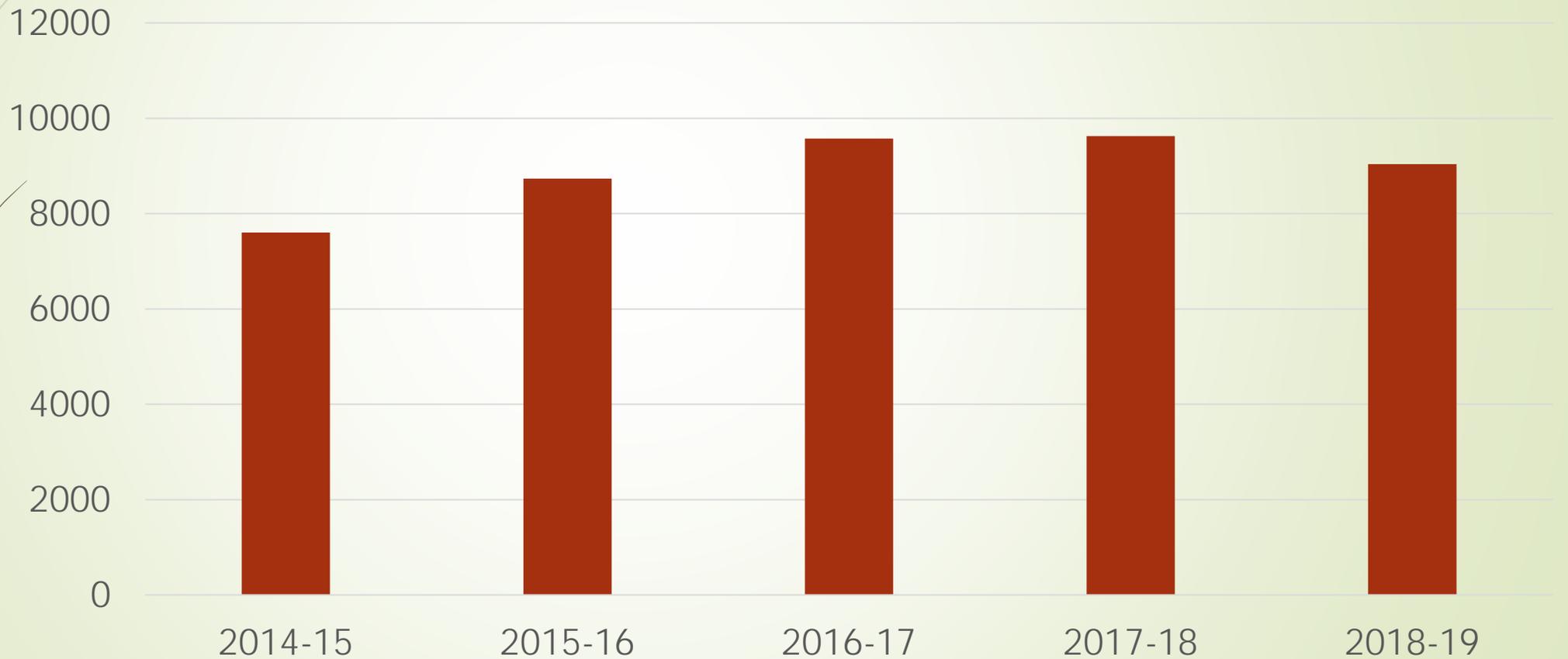
- ▶ What's needed next?
  - ▶ Review of governance policy
  - ▶ Review of standing and ad hoc committees
  - ▶ Committee charters and membership
  - ▶ DEI-specific P&T criteria
  - ▶ P&T criteria for different ranks
  - ▶ With a shift toward more junior faculty, what – if anything -- should be done differently?



# TEACHING

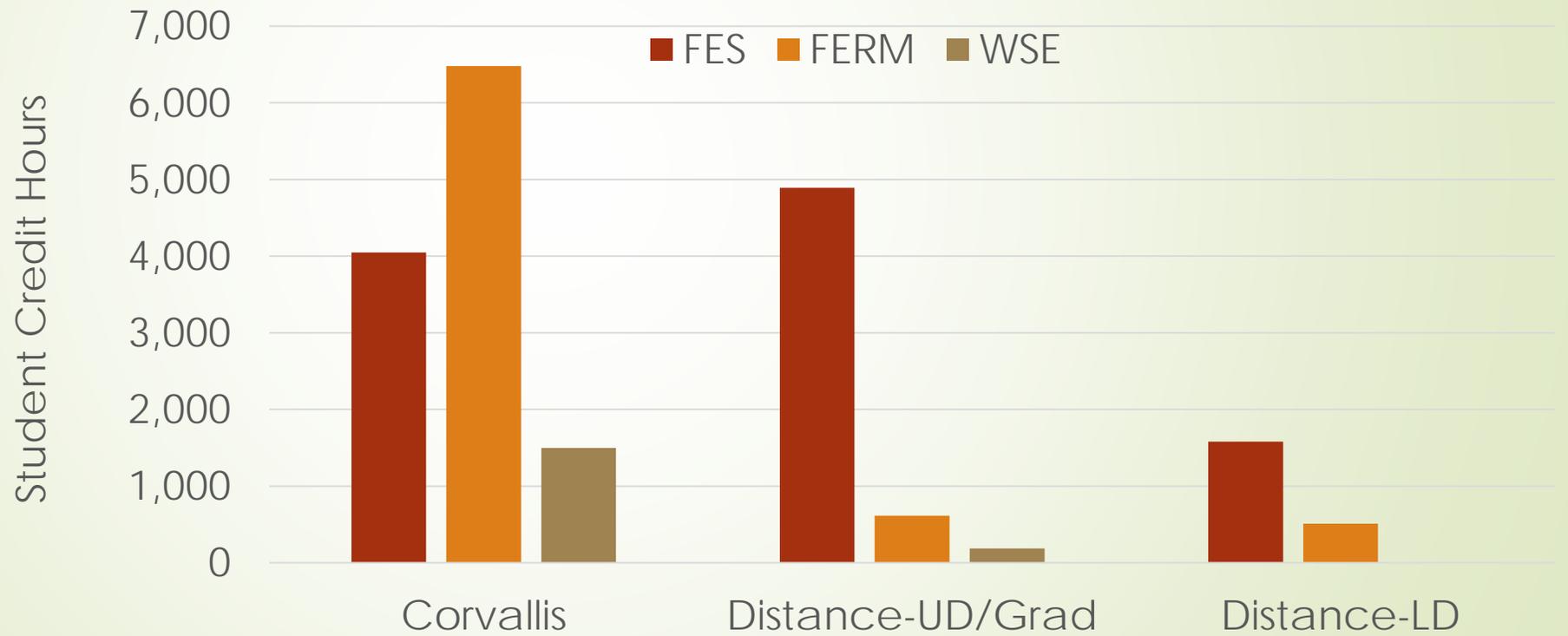
# FES SCH: All Courses, Grad + Undergrad

Annual Student Credit Hour Production, Corvallis/Ecampus FES



# SCH production in CoF last year

Of 20,524 SCH, FES accounted for 53%



# Undergrad Degree Programs

- ▶ Tourism, Recreation, and Adventure Leadership



# Undergrad Degree Programs

- Natural Resources
  - Steady growth since inception





# Undergrad Degree Programs

- ▶ Developed new Integrated Conservation Analysis Specialty Option in NR
  - ▶ NR 202 Natural Resource Problems & Solutions
  - ▶ NR 312 Critical Thinking for Natural Resource Challenges
  - ▶ NR 325 Scientific Methods for Analyzing Natural Resource Problems
  - ▶ NR 351 When Science Escapes the Lab: Science & Resource Management

# Undergrad Degree Programs

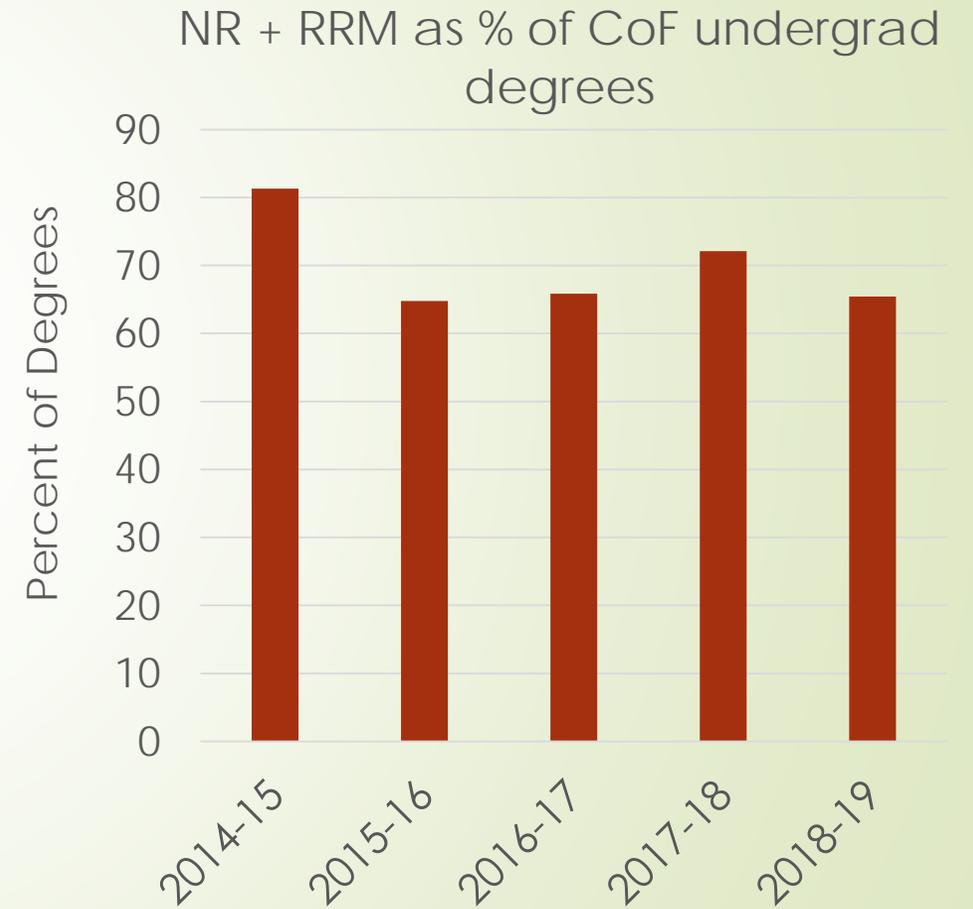
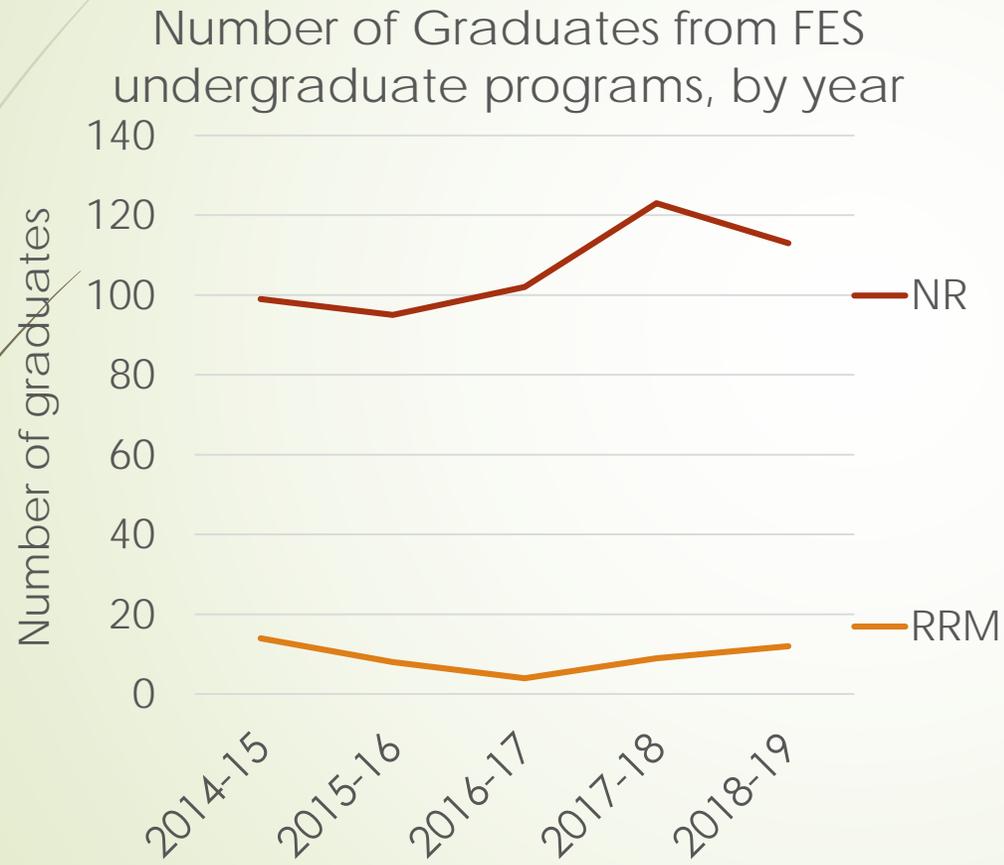
- Natural Resources
  - Rolled out version 3.0
  - Revised options
  - FES 485 Consensus & Natural Resources now required
  - Refined capstone (NR 455)

## The Structured Decision Making Framework



<https://nctc.fws.gov/courses/programs/decision-analysis/structured-decision-making-overview.html>

# Number of graduates (BS degrees)





# Teaching – contributions to undergraduate student success

- ▶ Support for other degree programs through courses offered:
  - ▶ Forest Biology
  - ▶ Entomology
  - ▶ Forest Ecology
  - ▶ Fire Ecology
  - ▶ Genes & Chemicals in Ag

# Teaching – contributions to undergraduate student success

- ▶ Bacc Core
  - ▶ TRAL 357 Parks and Protected Areas Management
  - ▶ NR 351 When Science Escapes the Lab
  - ▶ FES 486 Public Lands Policy & Management (WIC)
  - ▶ FES/NR 477 Agroforestry



# Teaching – contributions to undergraduate student success

- Projects
- Internships



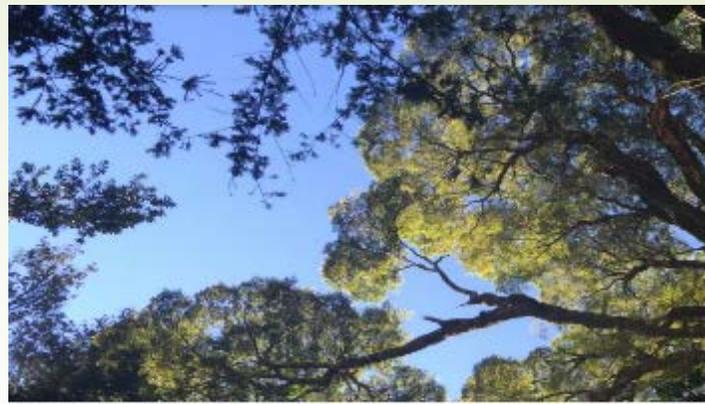
Fs.fed.us



Let's go camping Oregon

# Study Abroad

- Costa Rica
- Chile
- Borneo

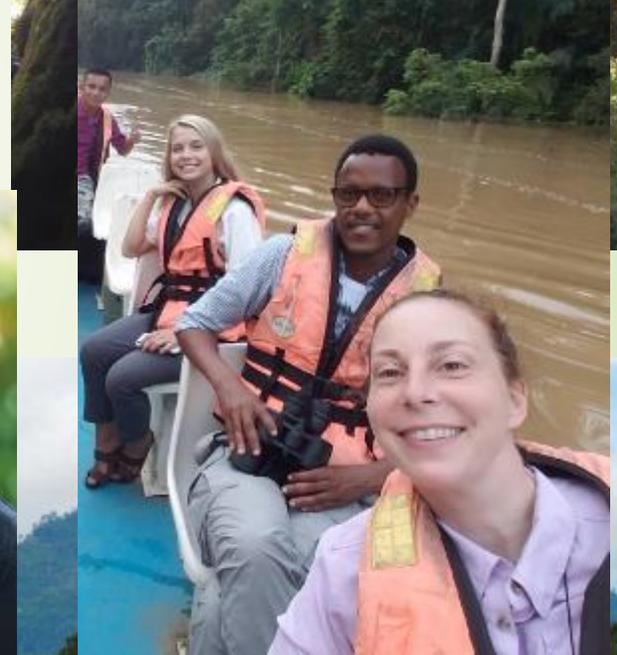


**MOUNTAINS TO THE SEA: ECO**



*Photo courtesy of Autentico Adventures Costa Rica*

**COSTA RICA: AN IMMERSION IN CULTURE**



**OIL PALMS AND ORANGUTANS: FOREST CONSERVATION IN MALAYSIAN BORNEO**



# Graduate Degree Programs

# Graduate Degree Programs

- Revised MS/PhD
  - Employer & grad survey
  - Learning outcomes
  - Degree requirements





# Degree Programs – MNR & Certificates

## ➤ MNR revisions

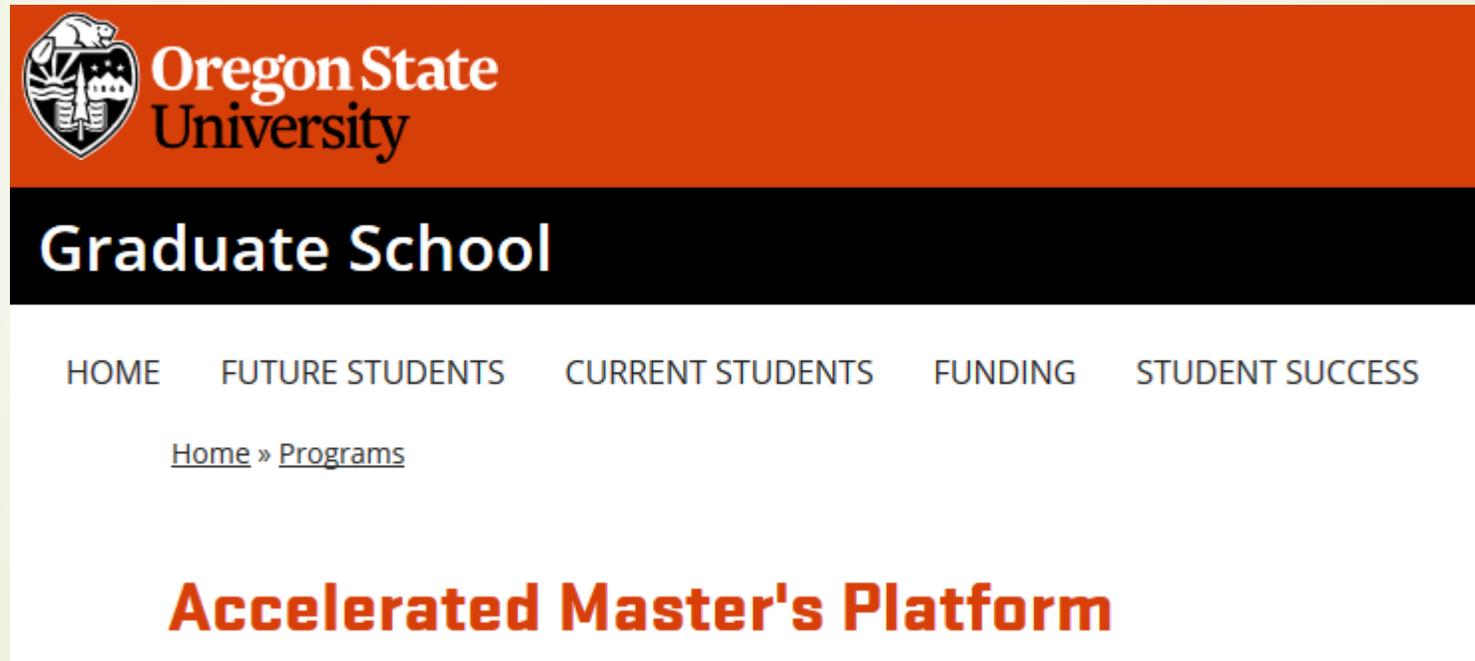
- Improved oversight of student progress & student tracking
- Split capstone into clear sequence
- Appointed curriculum committee

## ➤ Certificates

- Steady enrollment in Sustainable NR Certificate
- Launched Forests & Climate Change certificate
- Growth in Urban Forestry Certificate

# Degree Programs – MNR

- ▶ Launched the Accelerated Masters (AMP)



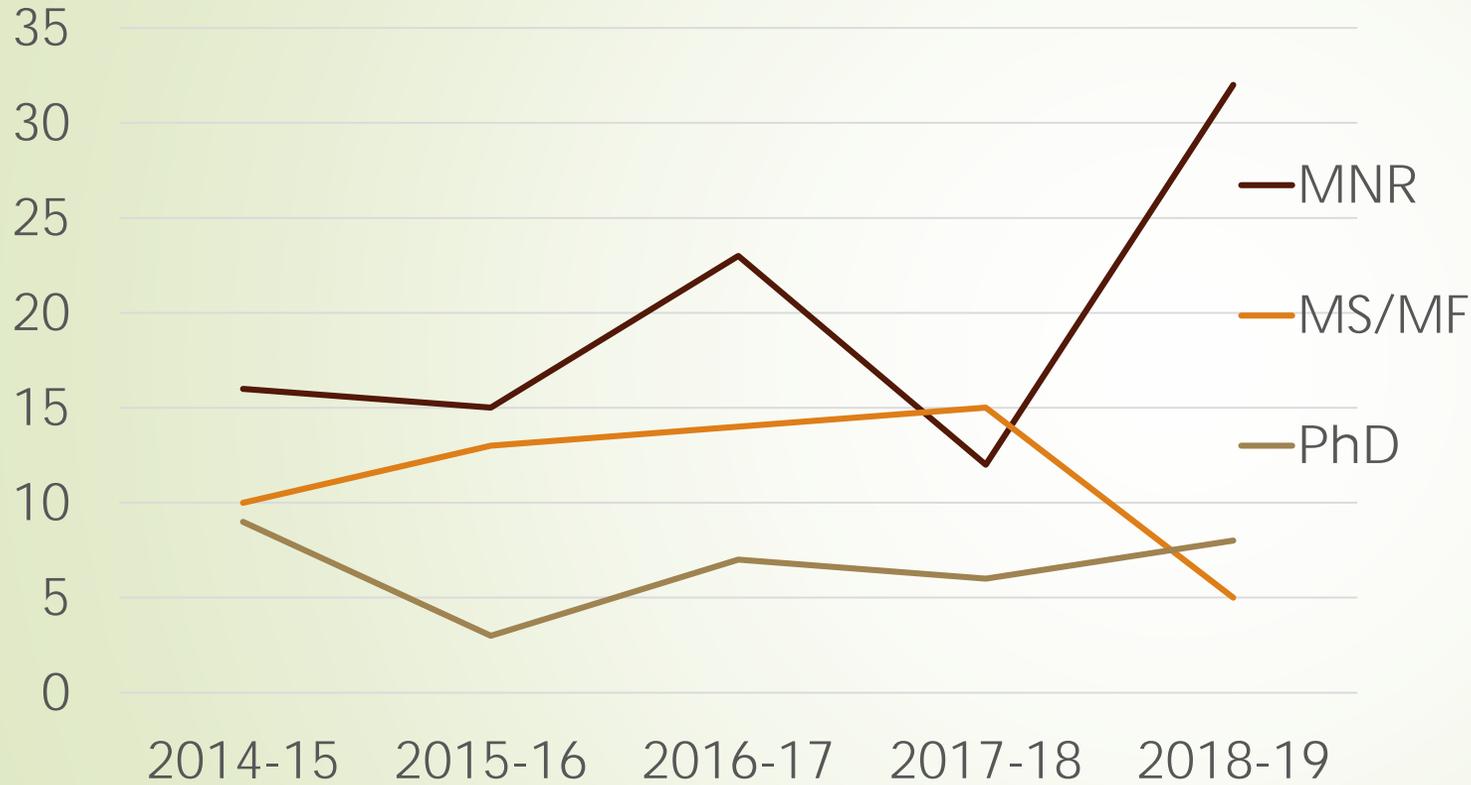
The screenshot shows the Oregon State University Graduate School website. At the top left is the Oregon State University logo, featuring a shield with a tree, a book, and a building, with the text "Oregon State University" to its right. Below the logo is a black banner with the text "Graduate School" in white. Underneath the banner is a navigation menu with the following items: HOME, FUTURE STUDENTS, CURRENT STUDENTS, FUNDING, STUDENT SUCCESS, and F. Below the navigation menu is a breadcrumb trail: [Home](#) » [Programs](#). At the bottom of the screenshot, the text "Accelerated Master's Platform" is displayed in a large, bold, orange font.



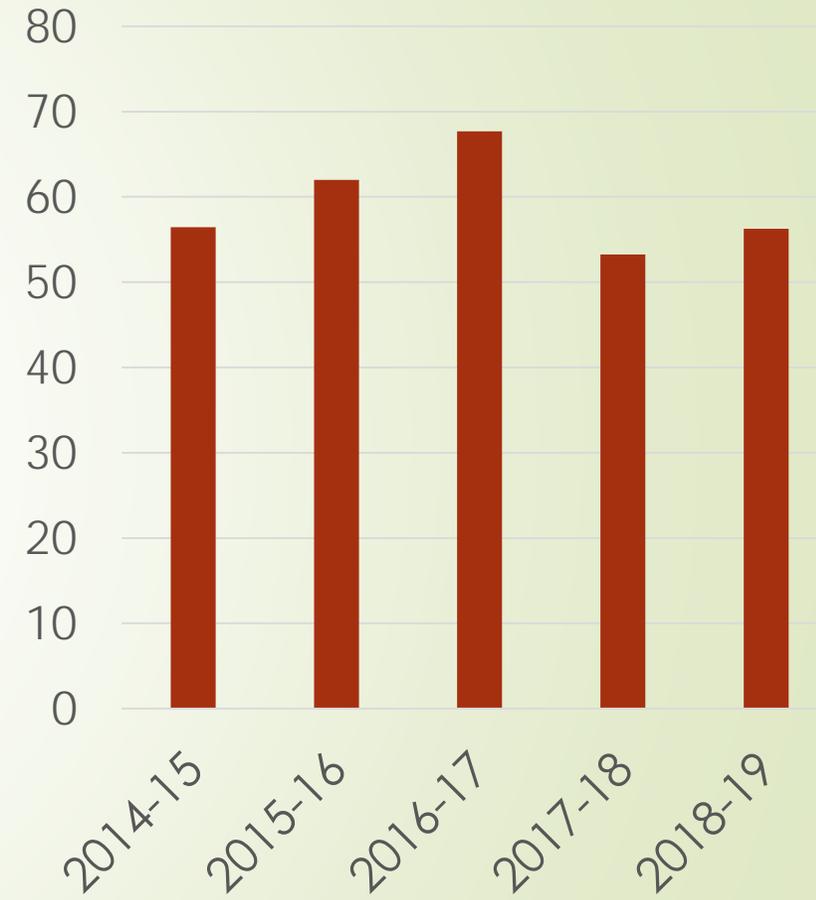
# Degree Programs – MNR

- ▶ Accelerated Masters
  - ▶ 8 Interested students so far...
  - ▶ All but one are taking part time classes while they work full time jobs; all have GPA 3.5+

### # Graduates -- FES Graduate Degree Programs



### FES Grads as % of all CoF graduate degrees



# Grad programs, across campus and afar

## Ecology, Evolution and Conservation Biology Seminar Series

**FW/IB/BOT/FES 507**  
**Winter Term**  
**Wednesdays 3-4 P.M.**  
**Withycombe 109**

**Free and open to the public!**

**January 9 // Dr. Jane Lubchenco**  
**Oregon State University**  
Balancing conservation and sustainable use:  
Science and policy

**January 16 // Dr. Lael Parrott**  
**University of British Columbia**  
Building sustainable future landscapes: Lessons  
from the Okanagan Valley, British Columbia

### **Sponsoring Departments**

Fisheries and Wildlife, Forest Ecosystems and  
Society, Integrative Biology, Botany and Plant  
Pathology, OSU Research Office, and Forest  
Biodiversity Research Network

### **Professors**

Matt Betts, Andy Jones, Taal Levi, Rebecca Terry,  
David Lytle

**February 13 // Dr. Albert Ruhi**  
**UC Berkeley**  
Rivers of the Anthropocene: Responses of  
freshwater communities to novel flow regimes

**February 20 // Dr. Steve Beissinger**  
**UC Berkeley**  
A century of climate and land-use change on birds  
and mammals: The Grinnell Resurvey Project

# Grad programs, across campus and afar



**MANAGING FORESTS AS COMPLEX ADAPTIVE SYSTEMS: GRADUATE FIELD COURSE IN NORTH PATAGONIA**



# Teaching – Issues for discussion

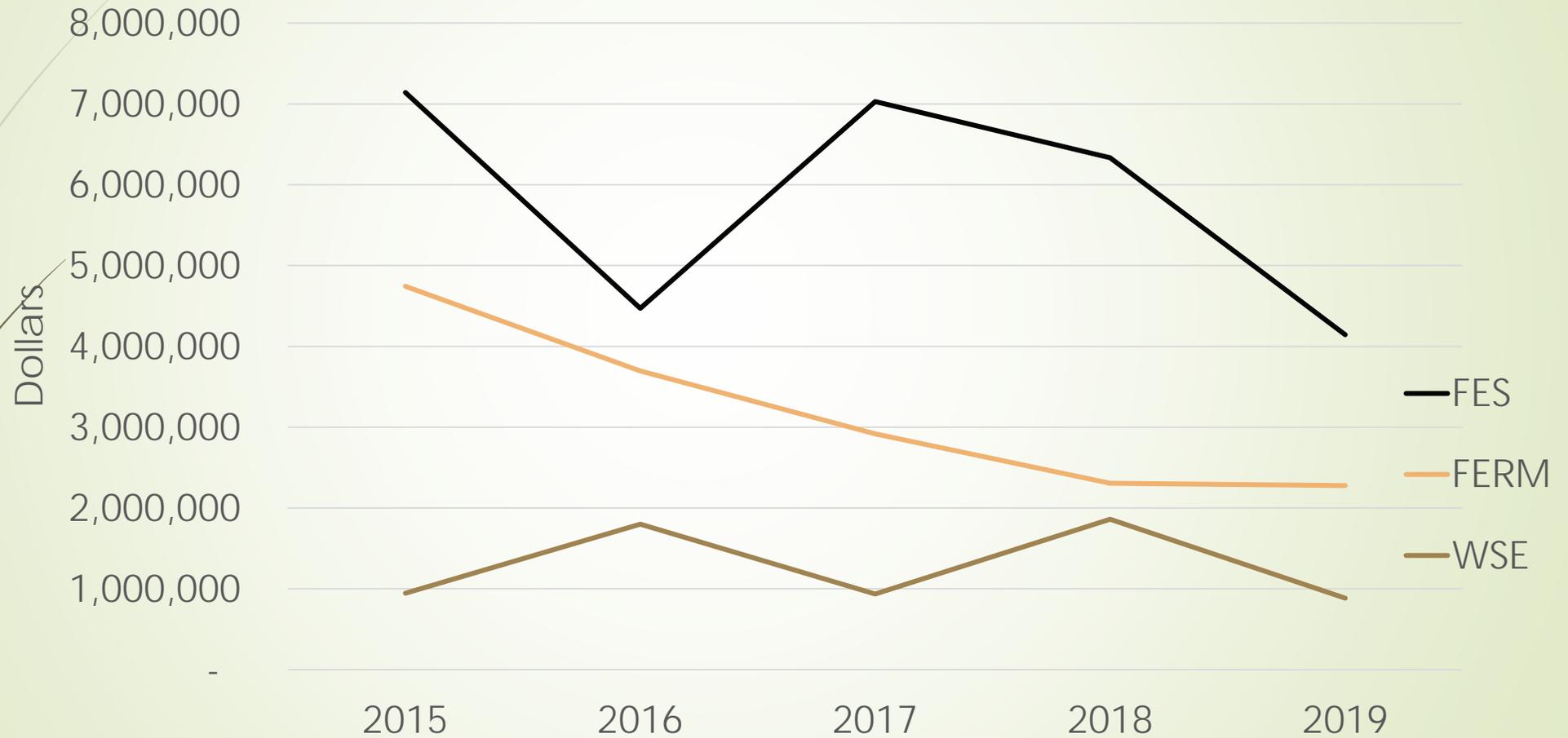
- Consider our role in Bacc Core and high-impact undergrad offerings
- Marketing the ICA option in the NR degree
- Consider the need for a market survey/employer survey?
- Prep for the MS, PhD, and MNR 10-year reviews
- Decide whether to offer MNR on campus



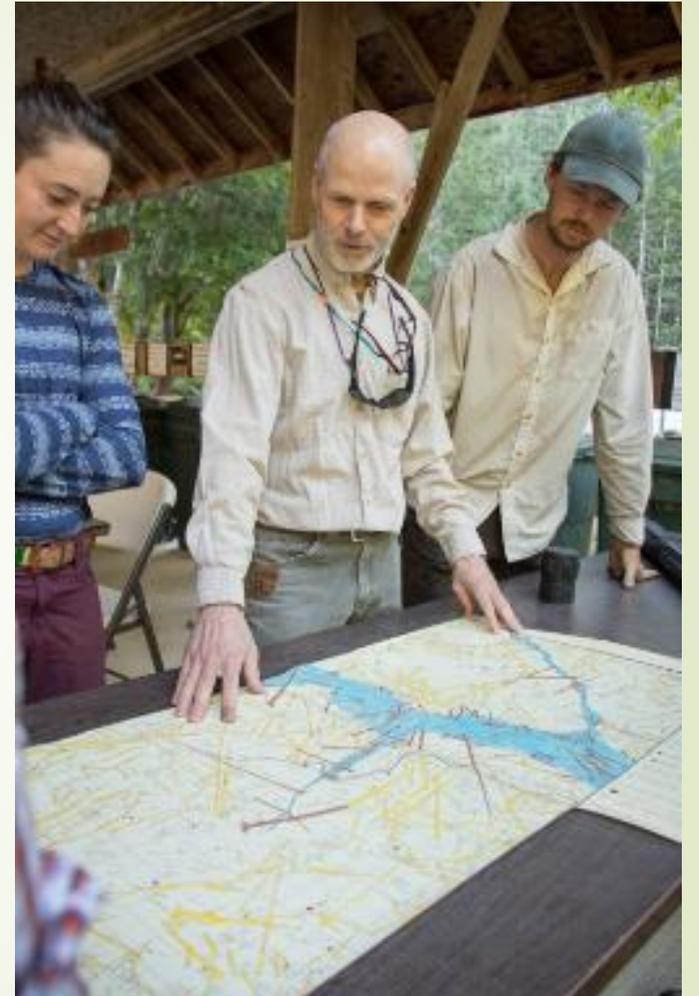
RESEARCH



# Grant awards (Cayuse), by FY



# RESEARCH: A FEW HIGHLIGHTS



# LTER



HJ Andrews Experimental Forest  
LONG-TERM ECOLOGICAL RESEARCH



# Forest Biodiversity

## Pollinator recognition by a keystone tropical plant

Matthew G. Betts<sup>a,1</sup>, Adam S. Hadley<sup>a</sup>, and W. John Kress<sup>b</sup>

<sup>a</sup>Department of Forest Ecosystems and Society, Oregon State University, Corvallis, OR 97331; and <sup>b</sup>Department of Botany, National Museum of Natural History, Smithsonian Institution, Washington, DC 20013-7012

Edited by James D. Thomson, University of Toronto, Toronto, Canada, and accepted by the Editorial Board February 10, 2015 (received for review 10, 2014)

**Understanding the mechanisms enabling coevolution in complex mutualistic networks remains a central challenge in evolutionary biology. We show for the first time, to our knowledge, that a tropical plant species has the capacity to discriminate among floral**

**traits with particular types of pollinators (e.g., bird-pollinated and bee-pollinated) (14, 15). However, observational pollination mutualisms indicate a high degree of generalization within floral syndromes (16, 17); plant species may exhibit**

## Opinion

# What is a Trophic Cascade?

William J. Ripple,<sup>1,\*</sup> James A. Estes,<sup>2</sup> Oswald J. Schmitz,<sup>3</sup> Vanessa Constant,<sup>4</sup> Matthew J. Kaylor,<sup>5</sup> Adam Lenz,<sup>6</sup> Jennifer L. Motley,<sup>7</sup> Katharine E. Self,<sup>5</sup> David S. Taylor,<sup>4</sup> and Christopher Wolf<sup>1</sup>

Trends in Ecology & Evolution

# Fire Ecology



## Northwest Fire Science Consortium

A JFSP FIRE SCIENCE EXCHANGE NETWORK



### UNDERSTANDING CLIMATE AND HUMAN IMPACTS ON HISTORICAL FIRE REGIMES IN THE PNW

RESEARCH BRIEF 21 • SUMMER 2019

PNAS

## Adapt to more wildfire in western North American forests as climate changes

Tania Schoennagel<sup>a,1</sup>, Jennifer K. Balch<sup>a,b</sup>, Hannah Brenkert-Smith<sup>c</sup>, Philip E. Dennison<sup>d</sup>, Brian J. Harvey<sup>e</sup>, Meg A. Krawchuk<sup>f</sup>, Nathan Mietkiewicz<sup>b</sup>, Penelope Morgan<sup>g</sup>, Max A. Moritz<sup>h</sup>, Ray Rasker<sup>i</sup>, Monica G. Turner<sup>j</sup>, and Cathy Whitlock<sup>k,l</sup>

# Forest Biotechnology/Tree Improvement

**PNWTIRC**

Pacific Northwest Tree Improvement  
Research Cooperative  
**Annual Report  
2017-2018**

Oregon State University College of Forestry  
Department of Forest Ecosystems and Society  
Glenn Howe, Jennifer Kling, Anna Magnuson  
Oguz Urhan, Susan McEvoy, Brad St.Clair



<http://pnwtirc.forestry.oregonstate.edu/>



**OSU receives \$4 million grant to identify mechanisms for control of genetic engineering in plants**



**Northwest Tree Improvement Cooperative**

# Forests, Livelihoods, and Local Engagement

## Comparison of USDA Forest Service and Stakeholder Motivations and Experiences in Collaborative Federal Forest Governance in the Western United States

Emily Jane Davis<sup>1</sup> · Eric M. White<sup>2</sup> · Lee K. Cerveny<sup>2</sup> · David Seesholtz<sup>3</sup> ·  
Meagan L. Nuss<sup>4</sup> · Donald R. Ulrich<sup>4</sup>

Environmental Management (2017) 60:908–921  
DOI 10.1007/s00267-017-0913-5



Available online at [www.sciencedirect.com](http://www.sciencedirect.com)

**ScienceDirect**

**Research frontiers in community forest management**  
Reem Hajjar<sup>1,2</sup> and Johan A Oldekop<sup>2,3</sup>

Current Opinion in  
**Environmental  
Sustainability**



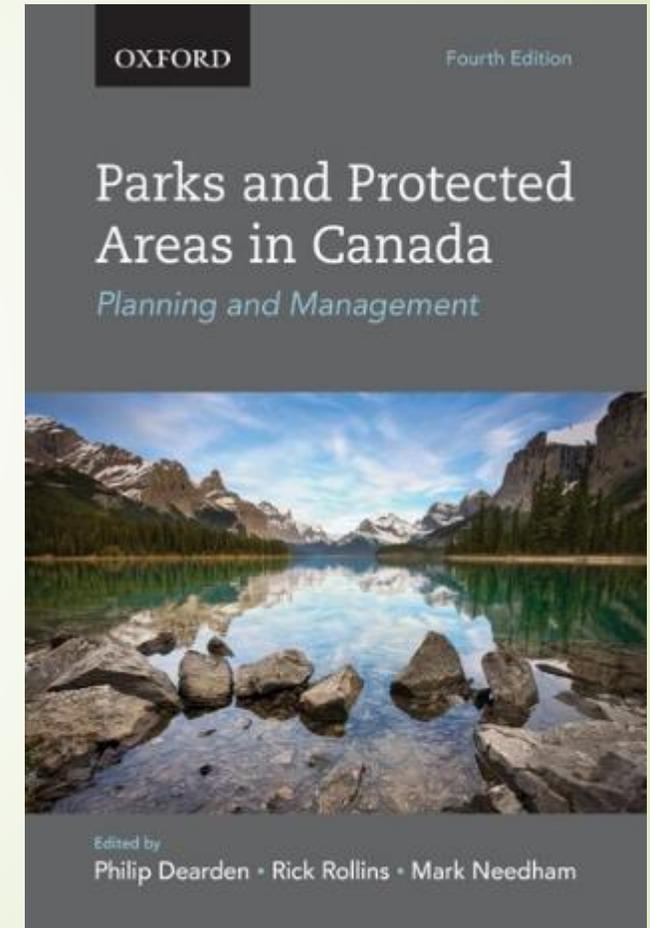
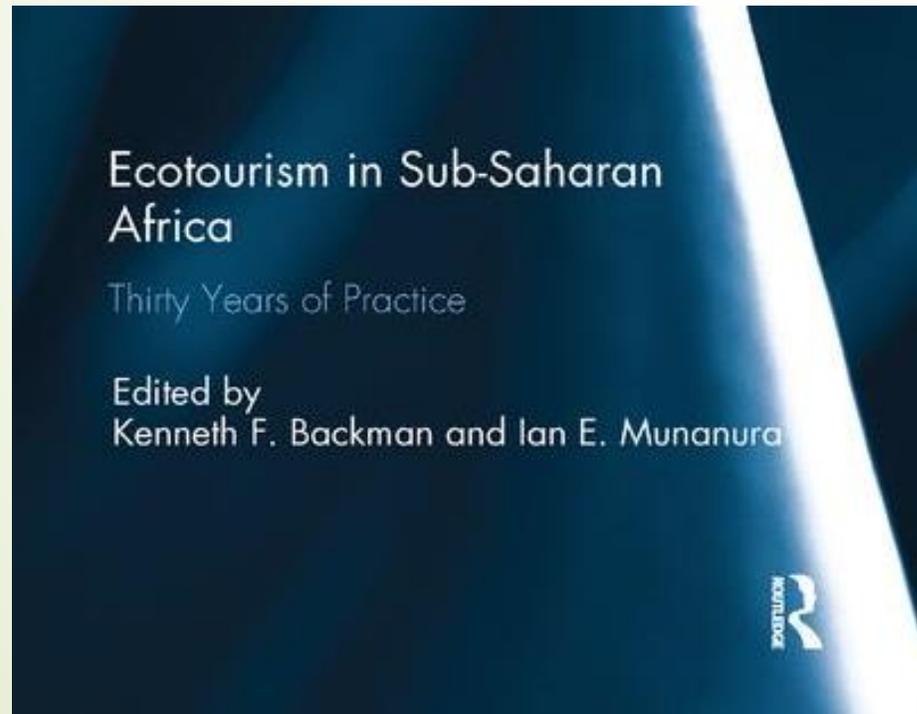
# Recreation & Ecotourism

CONCEPTS AND QUESTIONS

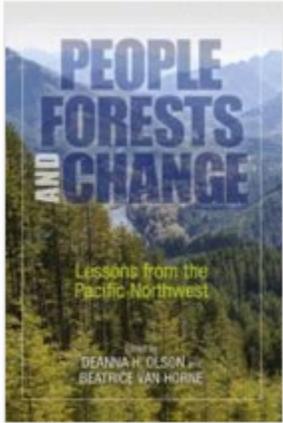
## Wildland recreation disturbance: broad-scale spatial analysis and management

Kevin J Gutzwiller<sup>1\*</sup>, Ashley L D'Antonio<sup>2</sup>, and Christopher A Monz<sup>3</sup>

*Front Ecol Environ* 2017



# Advocating for science in policy



[People, Forests, and Change](#) pp 161-173 | [Cite as](#)

## Managing Carbon in the Forest Sector

Authors

Authors and affiliations

Mark E. Harmon, John L. Campbell

## Conservation Letters

A journal of the Society for Conservation Biology

### POLICY PERSPECTIVE

## Emotions and the Ethics of Consequence in Conservation Decisions: Lessons from Cecil the Lion

Michael Paul Nelson<sup>1</sup>, Jeremy T. Bruskotter<sup>2</sup>, John A. Vucetich<sup>3</sup>, & Guillaume Chapron<sup>4</sup>



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The Free Encyclopedia

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# World Scientists' Warning to Humanity

From Wikipedia, the free encyclopedia

In November 2017, 15,364 scientists signed a **World Scientists' Warning to Humanity**: A Second Notice written by lead author professor of ecology, [William J. Ripple](#) of Oregon State University, along with 7 co-authors calling for, among other things, [limiting population growth](#), and drastically diminishing [per capita](#) consumption of [fossil fuels](#), [meat](#), and other [resources](#).<sup>[a]</sup> The Second Notice

SHARE



566



2K



Productivity of eucalyptus plantations could be increased with trees genetically modified for faster growth.  
CASADAPHOTO/SHUTTERSTOCK.COM

## Scientists say sustainable forestry organizations should lift ban on biotech trees

By [Erik Stokstad](#) | Aug. 23, 2019, 5:45 PM

# Bev Law





# Research – Discussion topics

- Which research areas we should be collectively exploring?
  - What types of funding can/should we be seeking?
  - How can we maintain a robust research-based grad program?
  - What recommendations do we want to make to new Dean?
- 



# SERVICE



# The Financial Picture of Oregon's Forest Collaboratives

EMILY JANE DAVIS AND ANNA SANTO

SPRING 2019



ECOSYSTEM WORKFORCE PROGRAM WORKING PAPER NUMBER 90



## Women Owning Woodlands

  
**TREE  
SCHOOL  
CLACKAMAS**

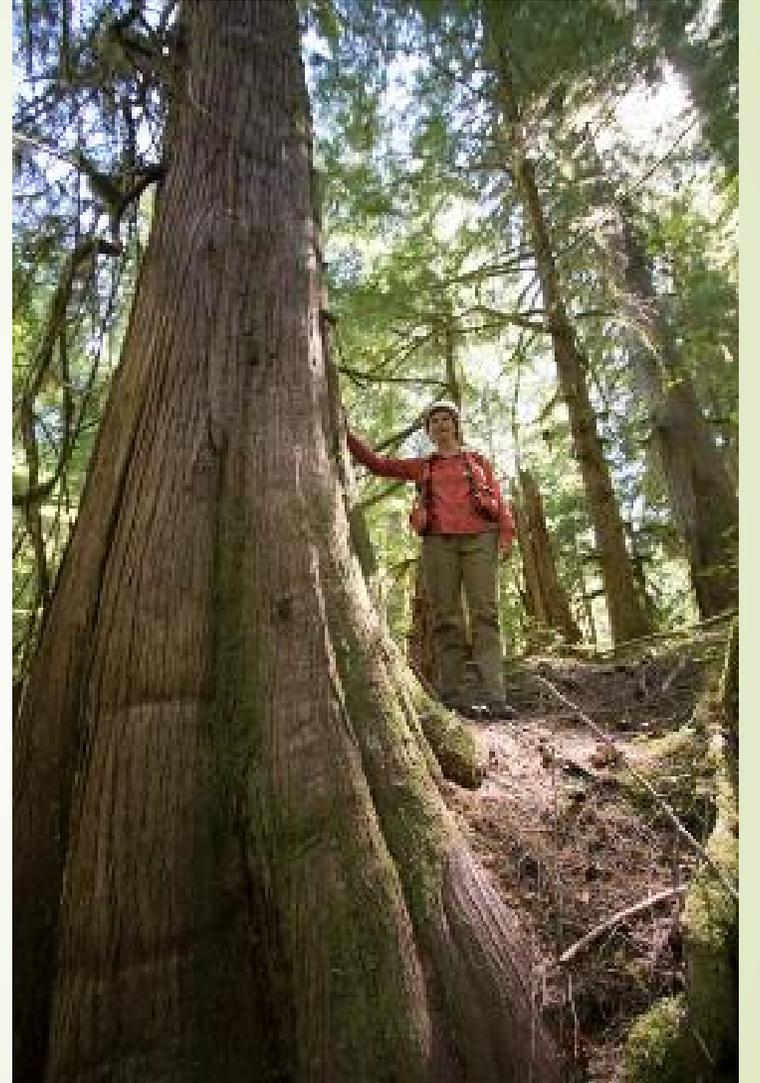


# Professional leadership & service

- IUFRO working groups
- Conference leadership
- Editorial boards
- Consultants to agencies and international bodies
- Service on NGOs and other boards

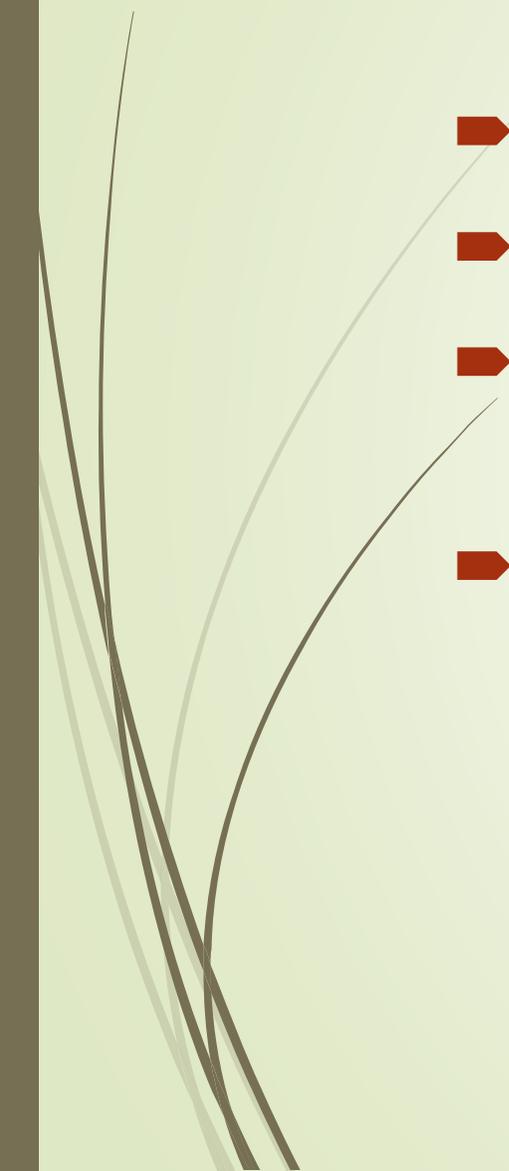


WRAPPING UP...





## FES points of pride

- ▶ FES accounts for a majority of graduates from CoF
  - ▶ We are the primary grant getter in the college
  - ▶ We conduct broad, exciting, and interdisciplinary research on critical global topics
  - ▶ We provide impactful outreach, leadership for college initiatives, and service to our professions
- 



# QUESTIONS & DISCUSSION