

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)

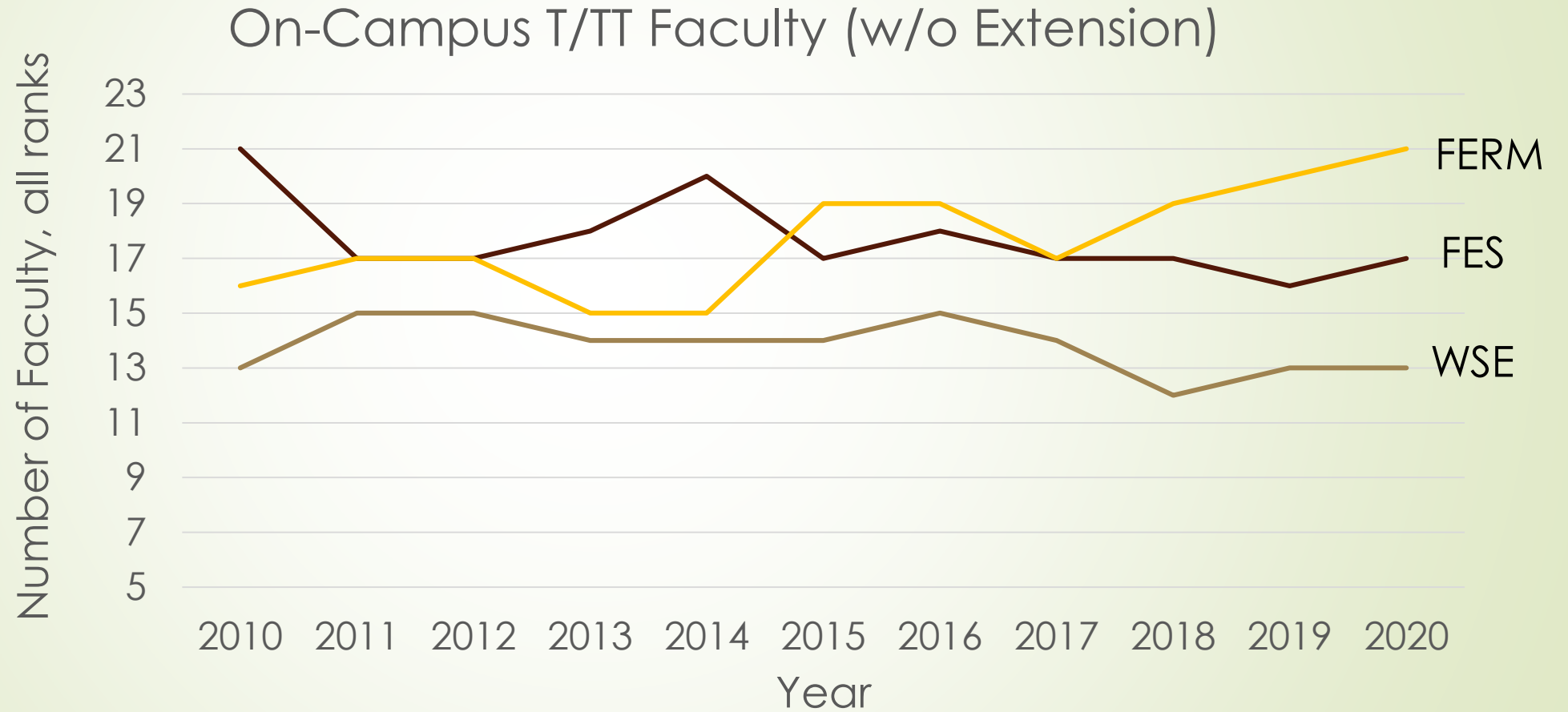


Our department brings together **biological** and **social** scientists and **philosophers** to understand **ecological systems, social systems, and the interactions between them**. We work in terrestrial to aquatic systems, in wildland to urban settings, and from local to global scales. We evaluate 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.

A decorative graphic on the left side of the slide. It features a solid red arrow pointing to the right, positioned horizontally. Behind the arrow and extending upwards and to the right are several thin, dark grey curved lines that sweep across the page.

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

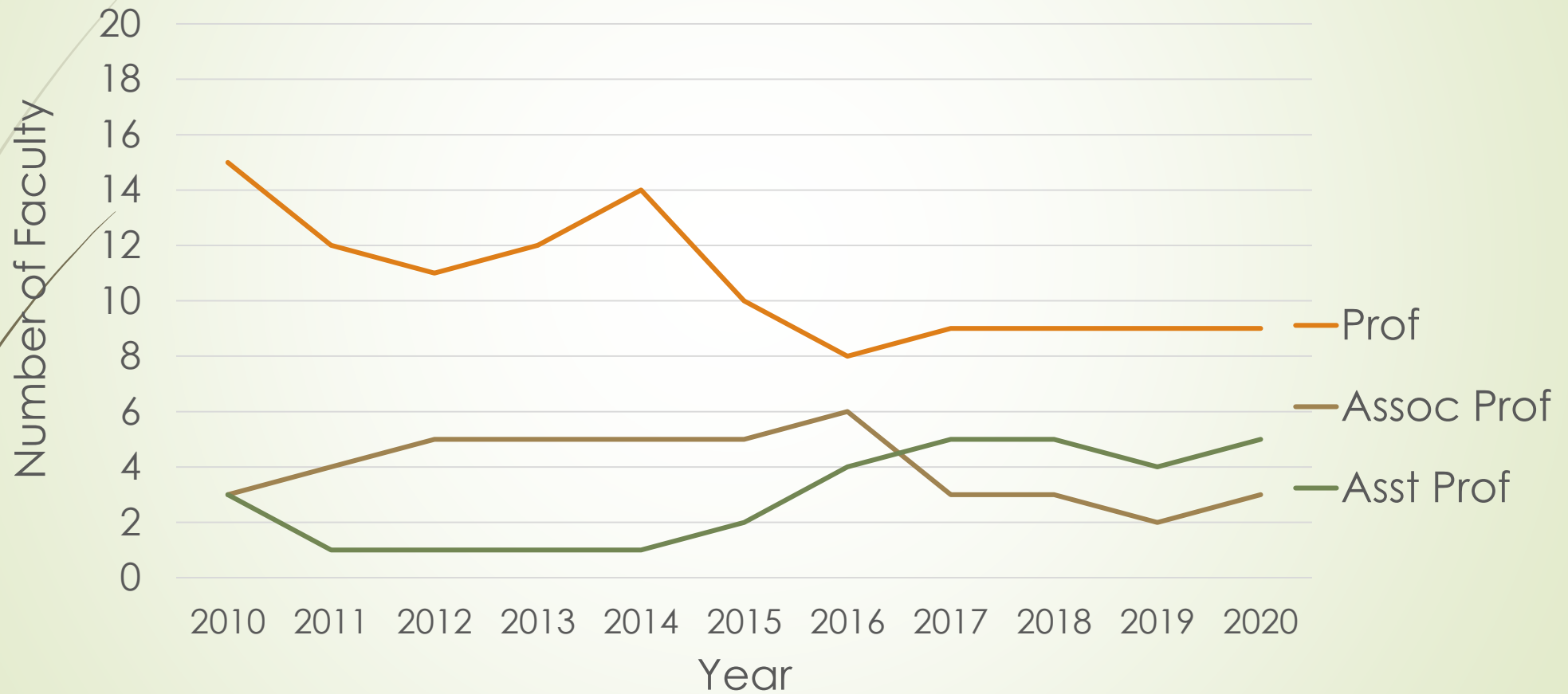
New T/TT

- 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)





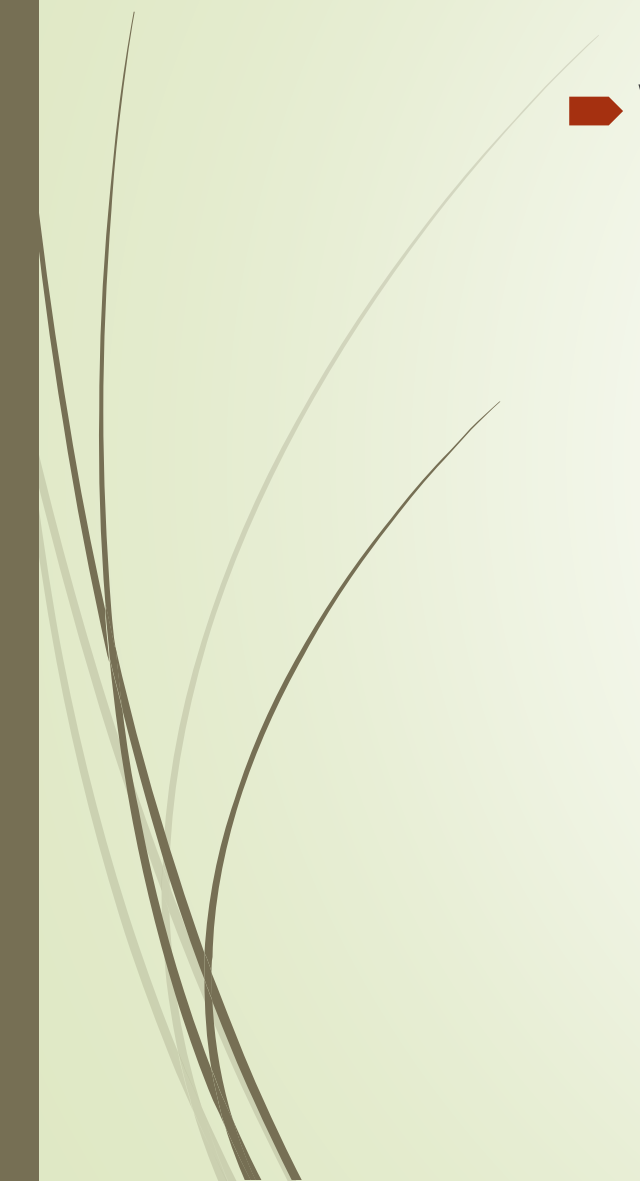
Other personnel

- 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
- 

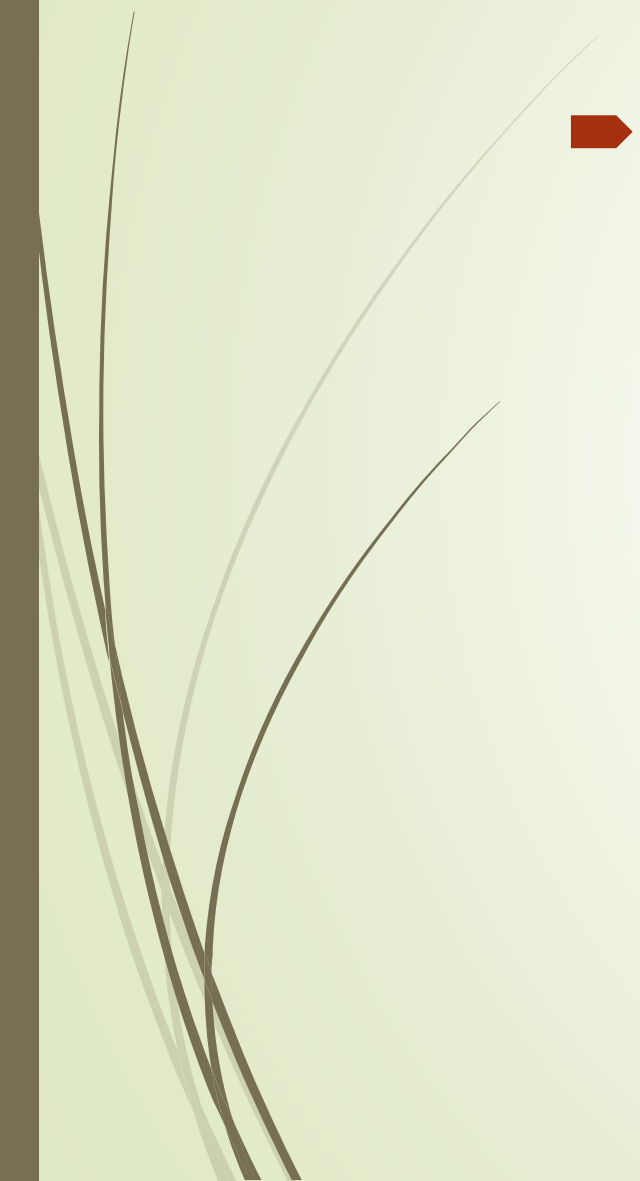
DEI leadership

- CoF planning process
- Membership on college committee
- ADVANCE





Process/policy initiatives

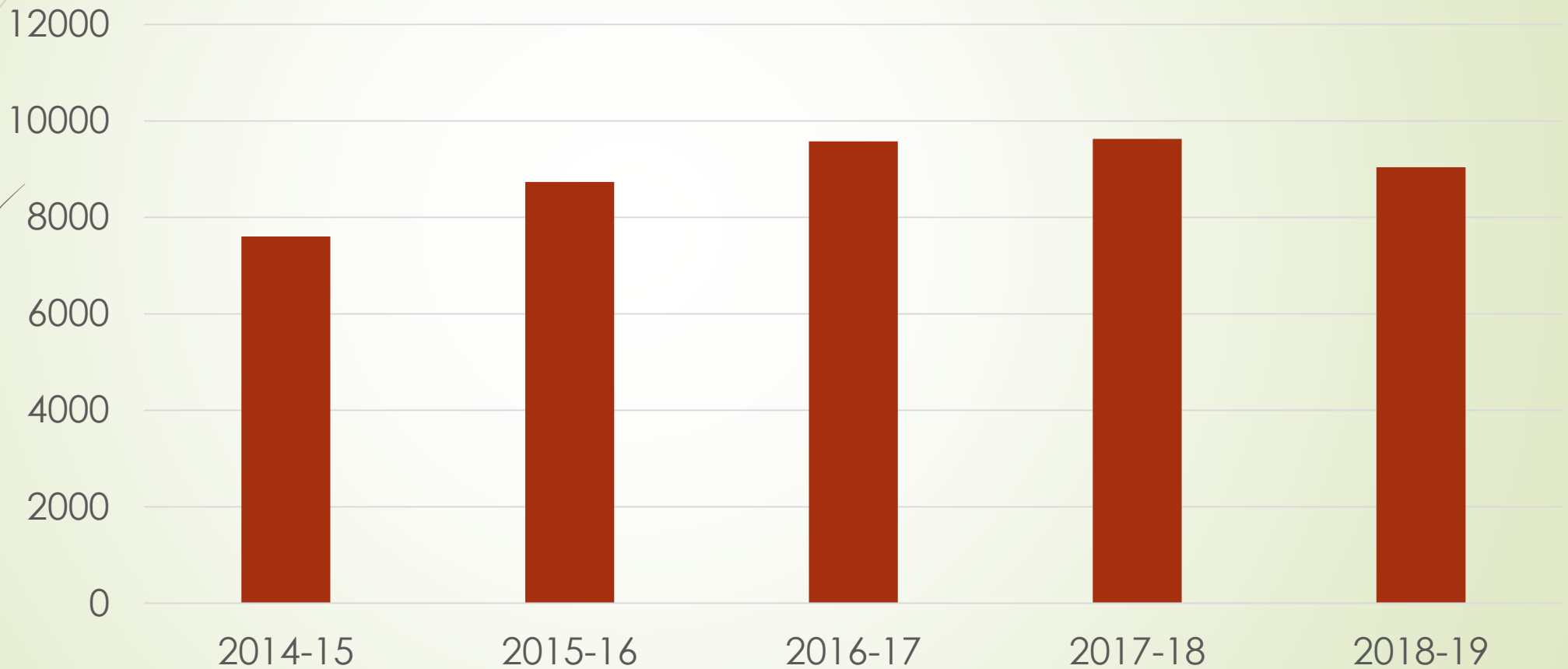
- What's needed next?
 - Review of governance policy
 - Review of standing and ad hoc committees
 - Committee charters and membership
 - DEI-specific P&T criteria
 - P&T criteria for different ranks
 - With a shift toward more junior faculty, what – if anything -- should be done differently?
- 



TEACHING

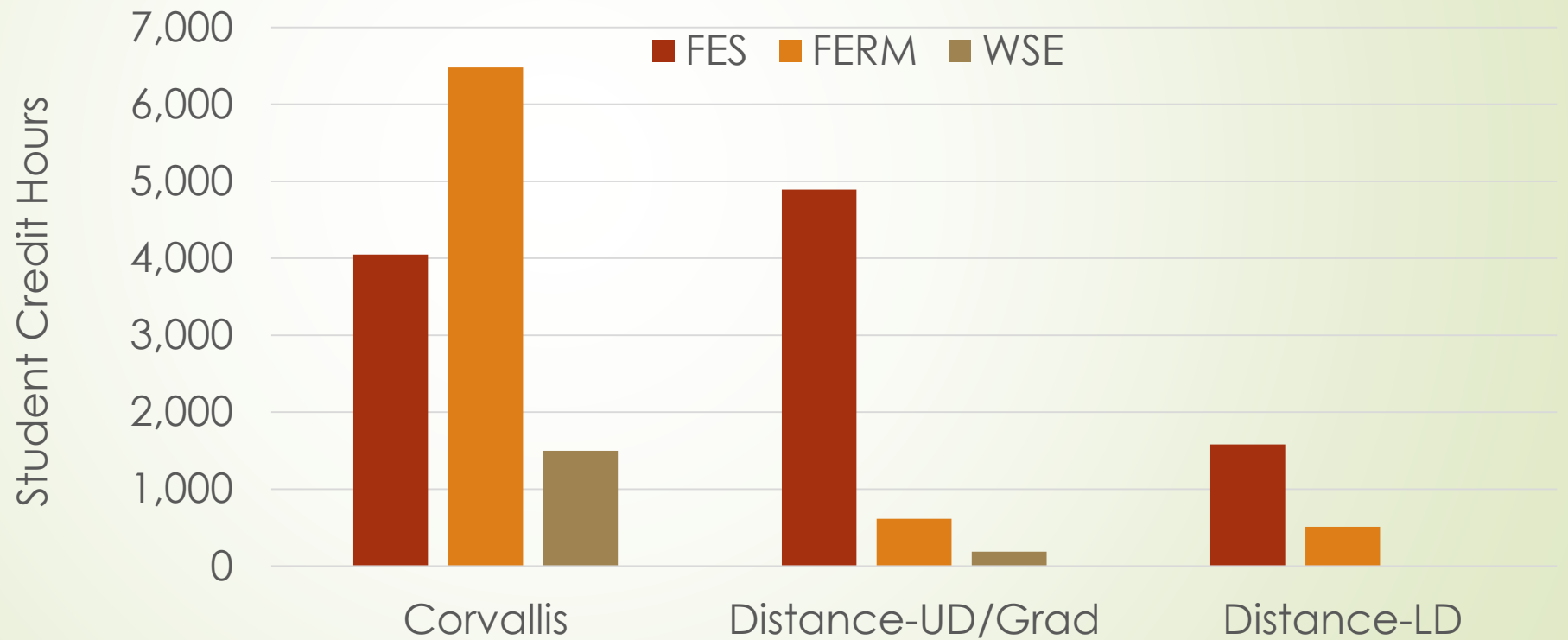
FES SCH: All Courses, Grad + Undergrad

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

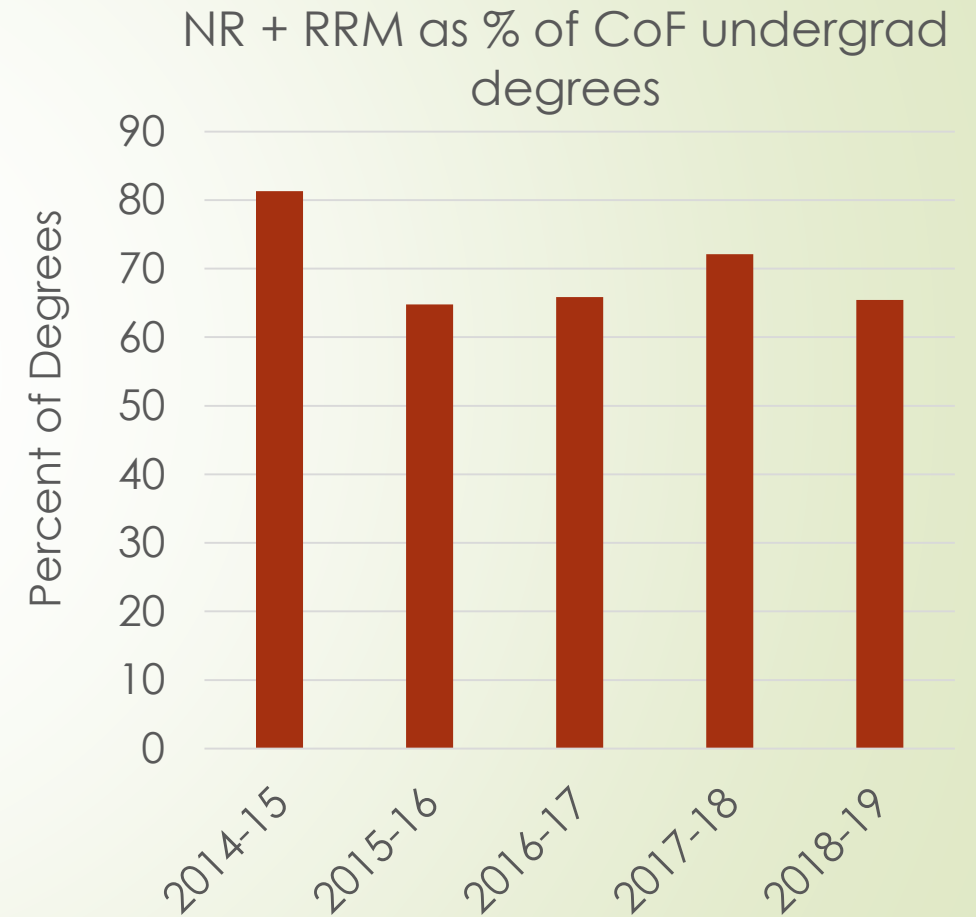
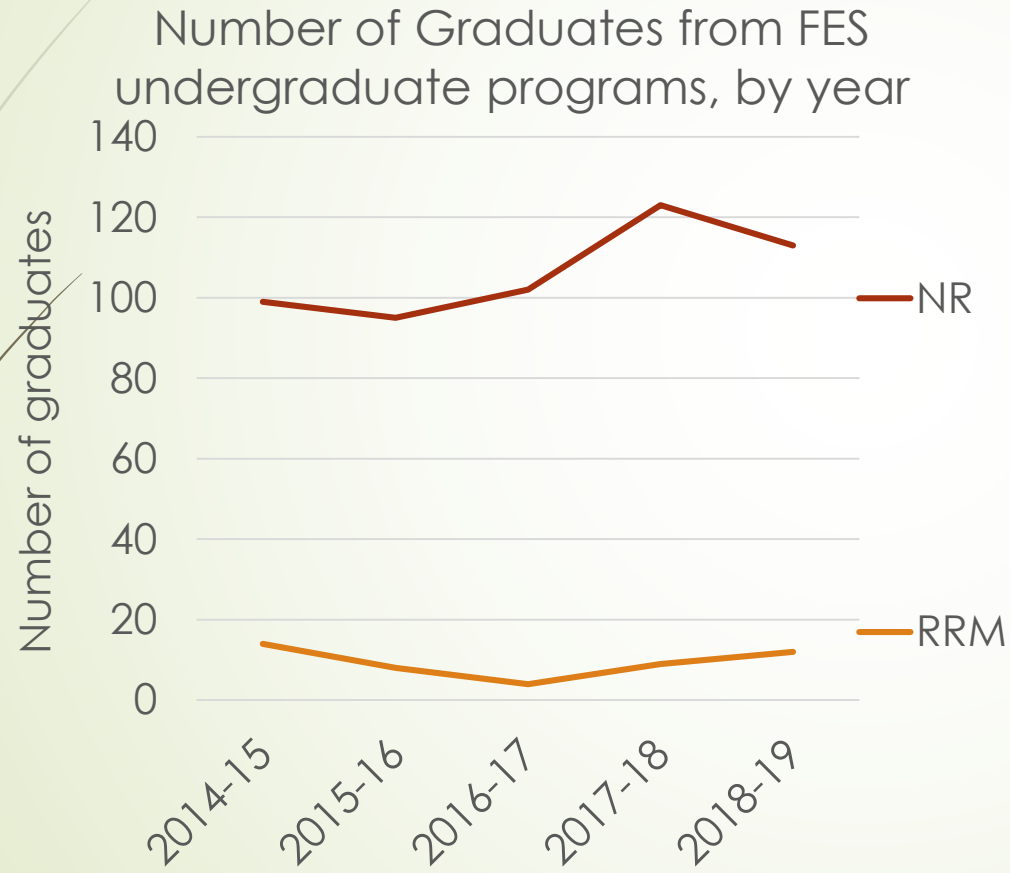
- Natural Resources
 - Rolled out version 3.0
 - Revised options
 - FES 485 Consensus & Natural Resources now required
 - Refined capstone (NR 455)

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

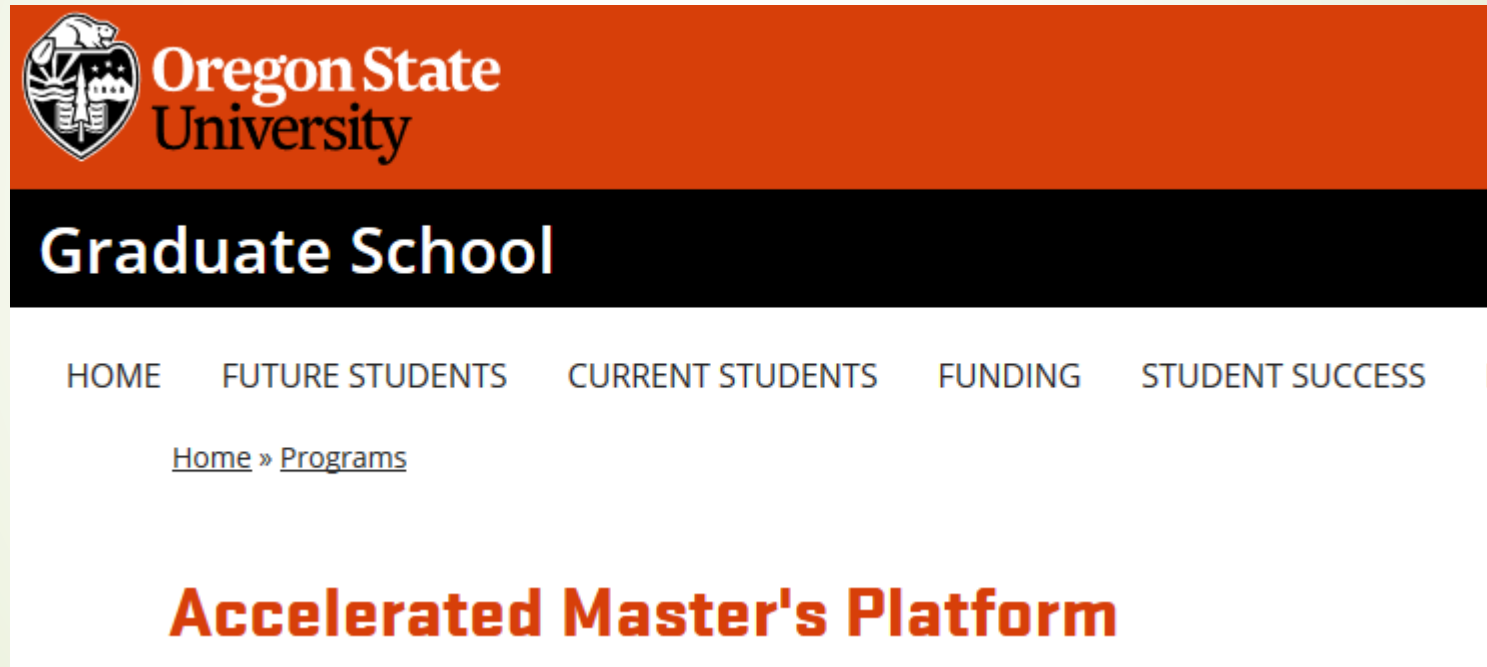
- Improved oversight of student progress & student tracking
- Split capstone into clear sequence
- Appointed curriculum committee

➤ 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)

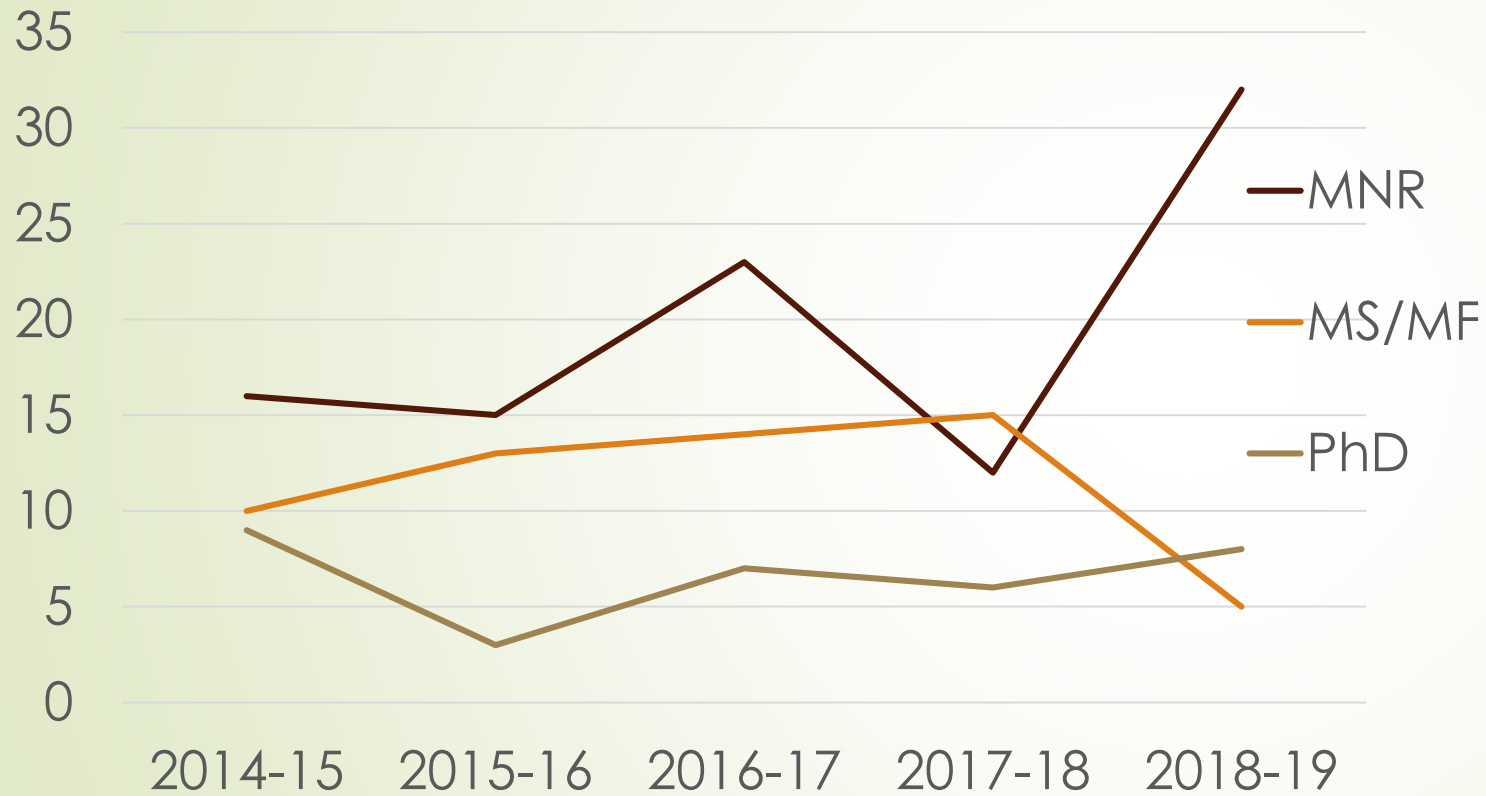




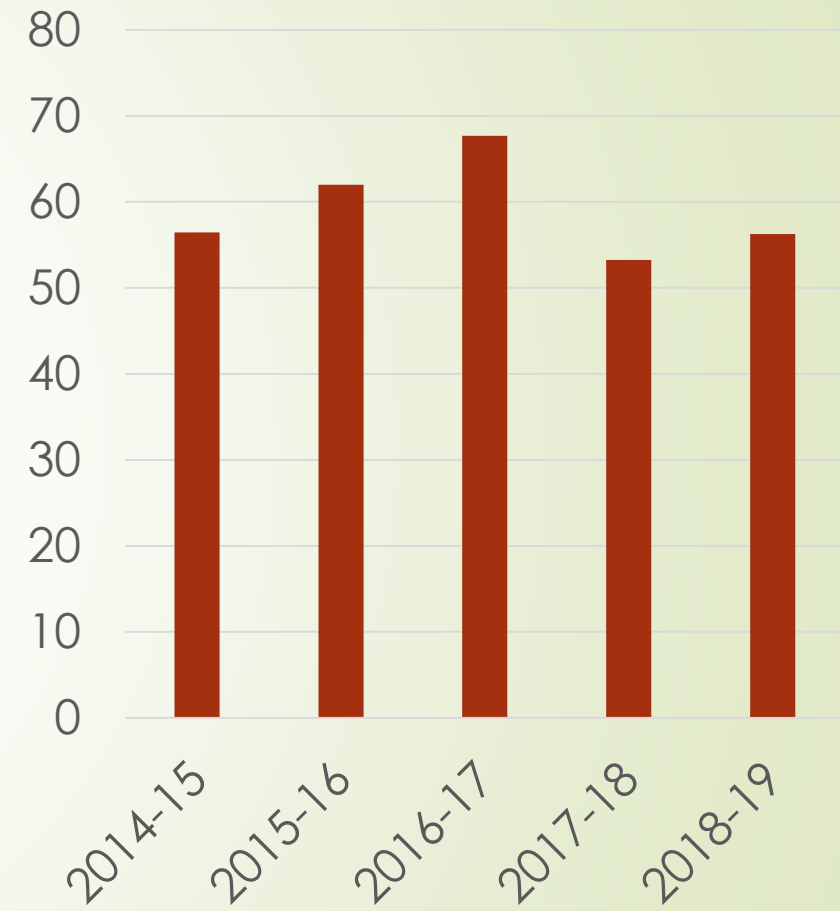
Degree Programs – MNR

- 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!

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

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

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

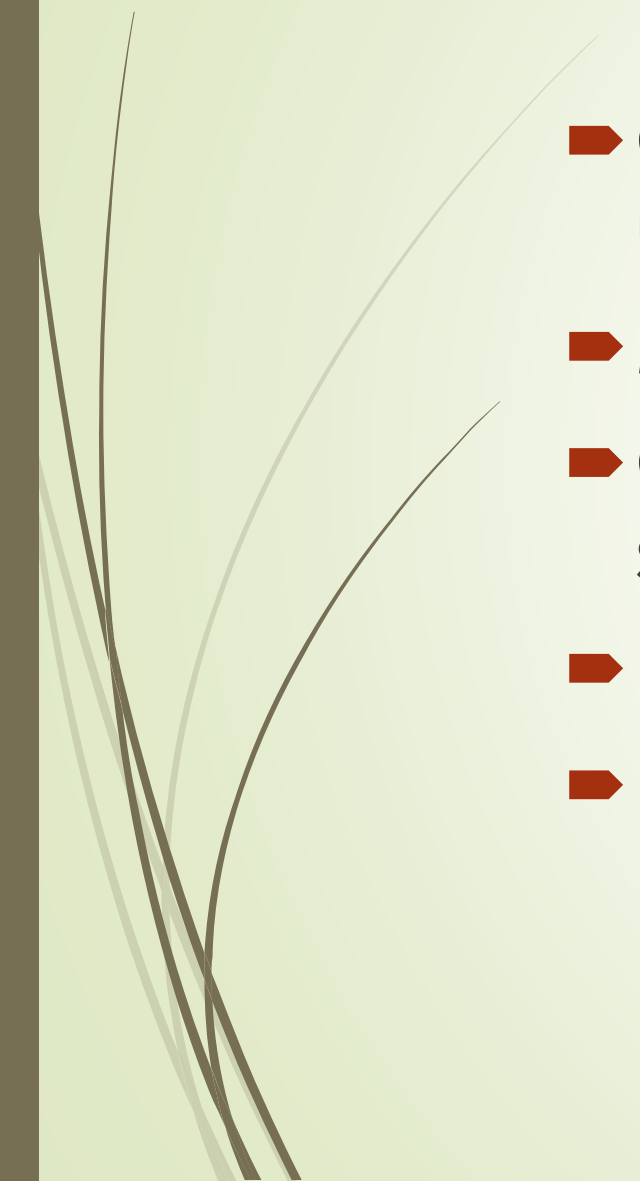
Grad programs, across campus and afar



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



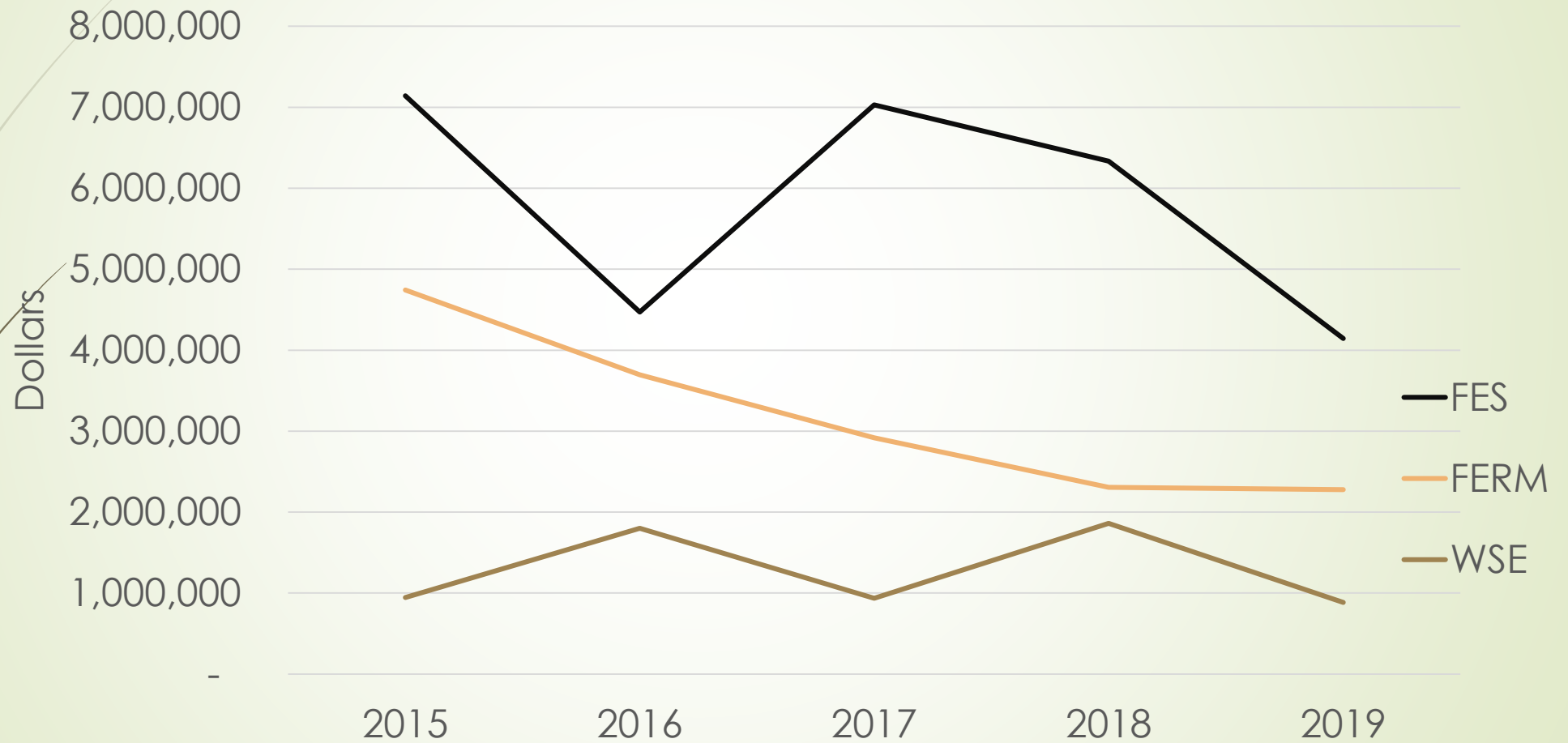
Teaching – Issues for discussion

- 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
- 

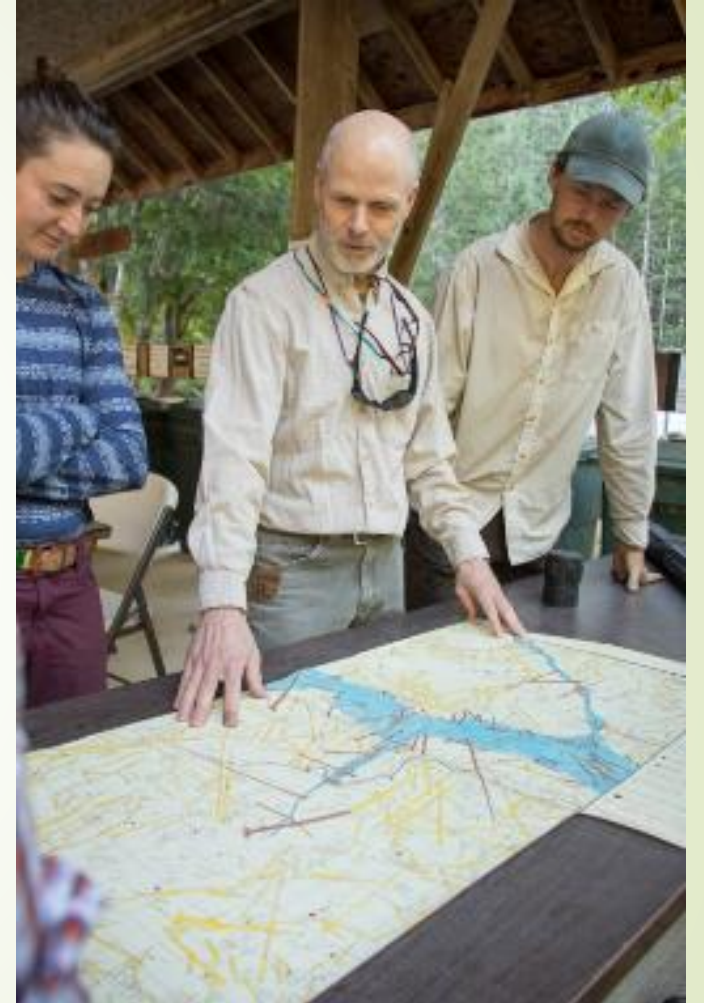


RESEARCH

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^{a,1}, Adam S. Hadley^a, and W. John Kress^b

^aDepartment of Forest Ecosystems and Society, Oregon State University, Corvallis, OR 97331; and ^bDepartment 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,^{1,*} James A. Estes,² Oswald J. Schmitz,³ Vanessa Constant,⁴ Matthew J. Kaylor,⁵ Adam Lenz,⁶ Jennifer L. Motley,⁷ Katharine E. Self,⁵ David S. Taylor,⁴ and Christopher Wolf¹

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

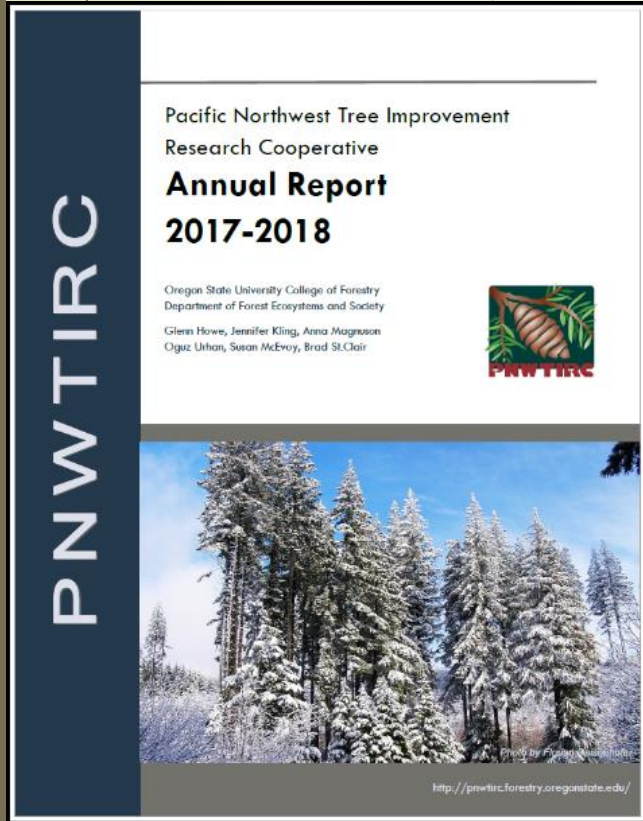


PNAS

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

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

Forest Biotechnology/Tree Improvement



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 Davis¹ • Eric M. White² • Lee K. Cervený² • David Seesholtz³ •
Meagan L. Nuss⁴ • Donald R. Ulrich⁴

Environmental Management (2017) 60:908–921

DOI 10.1007/s00267-017-0913-5



Available online at www.sciencedirect.com

ScienceDirect

Research frontiers in community forest management

Reem Hajjar^{1,2} and Johan A Oldekop^{2,3}

Current Opinion in
**Environmental
Sustainability**



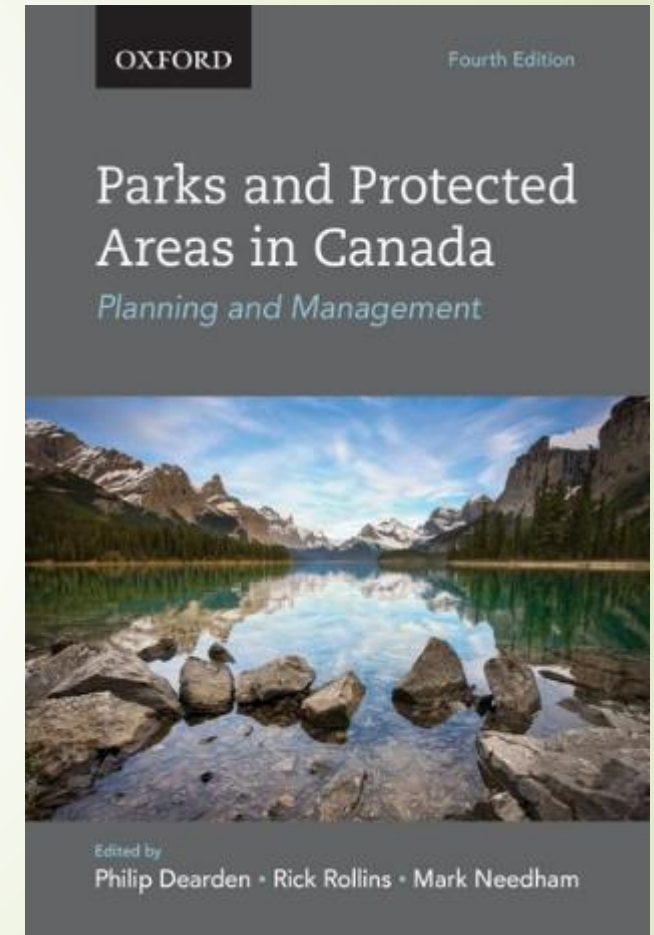
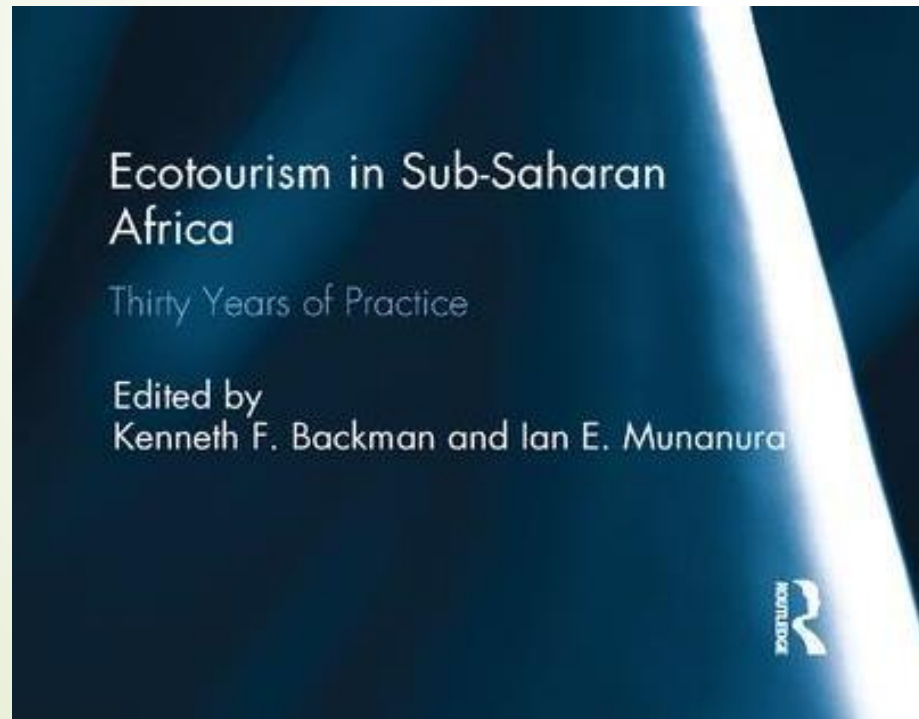
Recreation & Ecotourism

CONCEPTS AND QUESTIONS

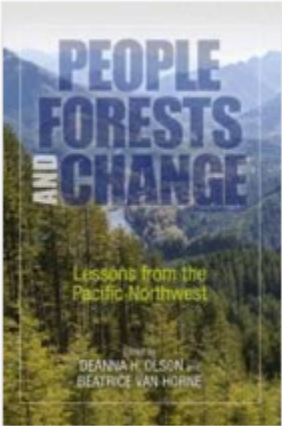
Wildland recreation disturbance: broad-scale spatial analysis and management

Kevin J Gutzwiller^{1*}, Ashley L D'Antonio², and Christopher A Monz³

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 Nelson¹, Jeremy T. Bruskotter², John A. Vucetich³, & Guillaume Chapron⁴



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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

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World Scientists' Warning to Humanity

From Wikipedia, the free encyclopedia

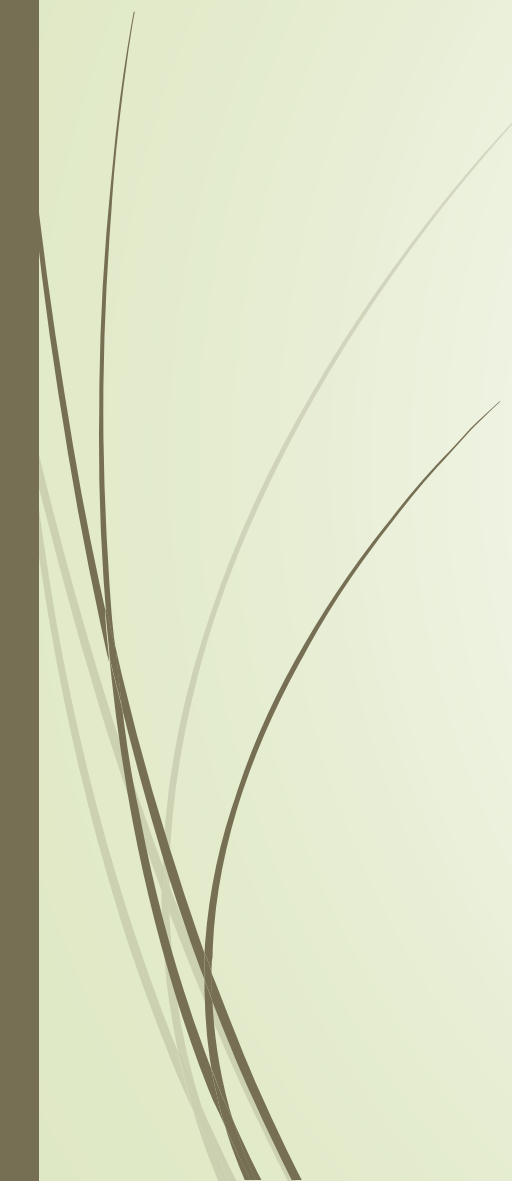
In November 2017, 15,364 scientists signed a **World Scientists' Warning to Humanity: A Second Notice** written by lead author professor of ecology, [William J. Ripple](#) of Oregon State University, along with 7 co-authors calling for, among other things, [limiting population growth](#), and drastically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

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



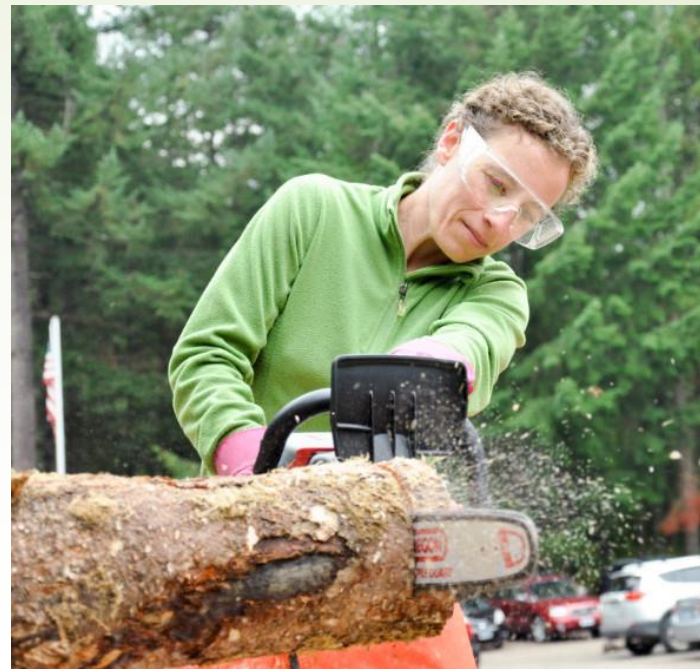
The Financial Picture of Oregon's Forest Collaboratives

EMILY JANE DAVIS AND ANNA SANTO

SPRING 2019



ECOSYSTEM WORKFORCE PROGRAM WORKING PAPER NUMBER 90



Women
Owning
Woodlands



Professional leadership & service

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

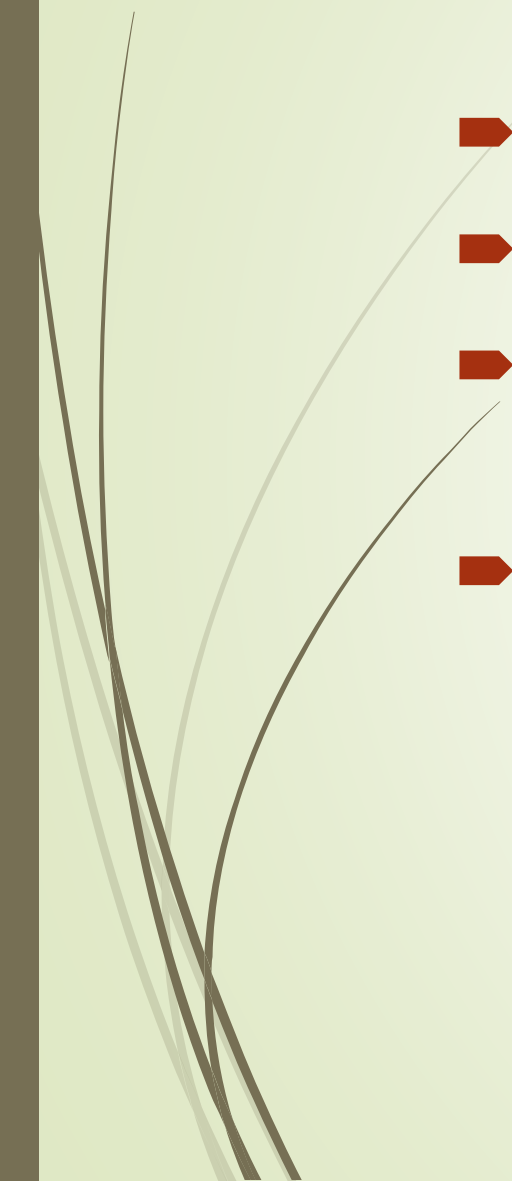


WRAPPING UP...





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