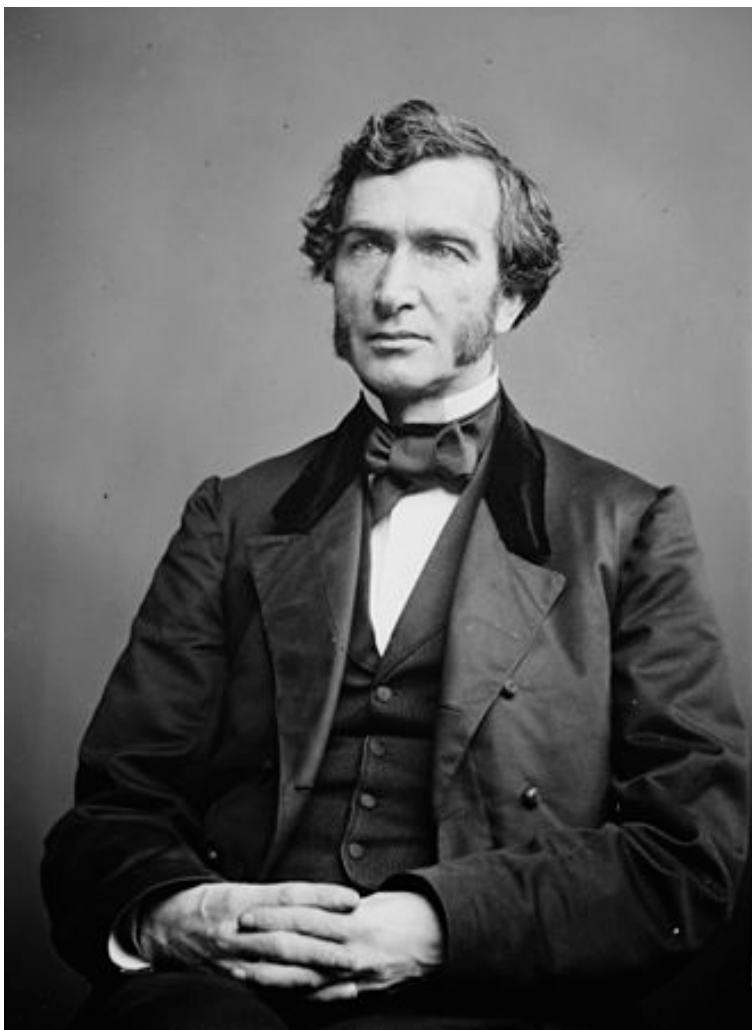


Who's Minding the Marsh?

Future of waterfowl conservationists and
professionals

John Eadie, Richard Kaminski,
David Koons & Kevin Ringelman





Justin Smith Morrill

- Land Grant Act 1862
- “... better agricultural instruction, so the land could yield more and renew itself”

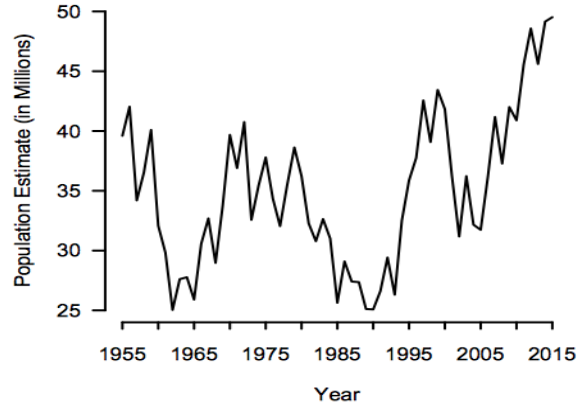


Have we kept that trust?

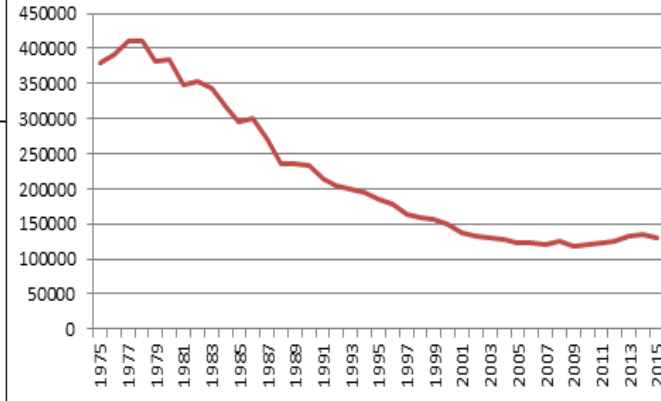


Changing times

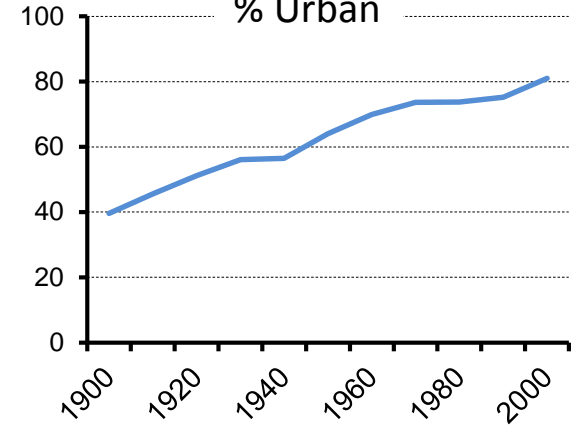
Total Ducks



Active Hunters



% Urban





Changing times

- Recruitment, retention and reactivation of hunters
- Engaging a broader constituency
- What to do, how to do it and where to do it?
- **WHO** will do it?



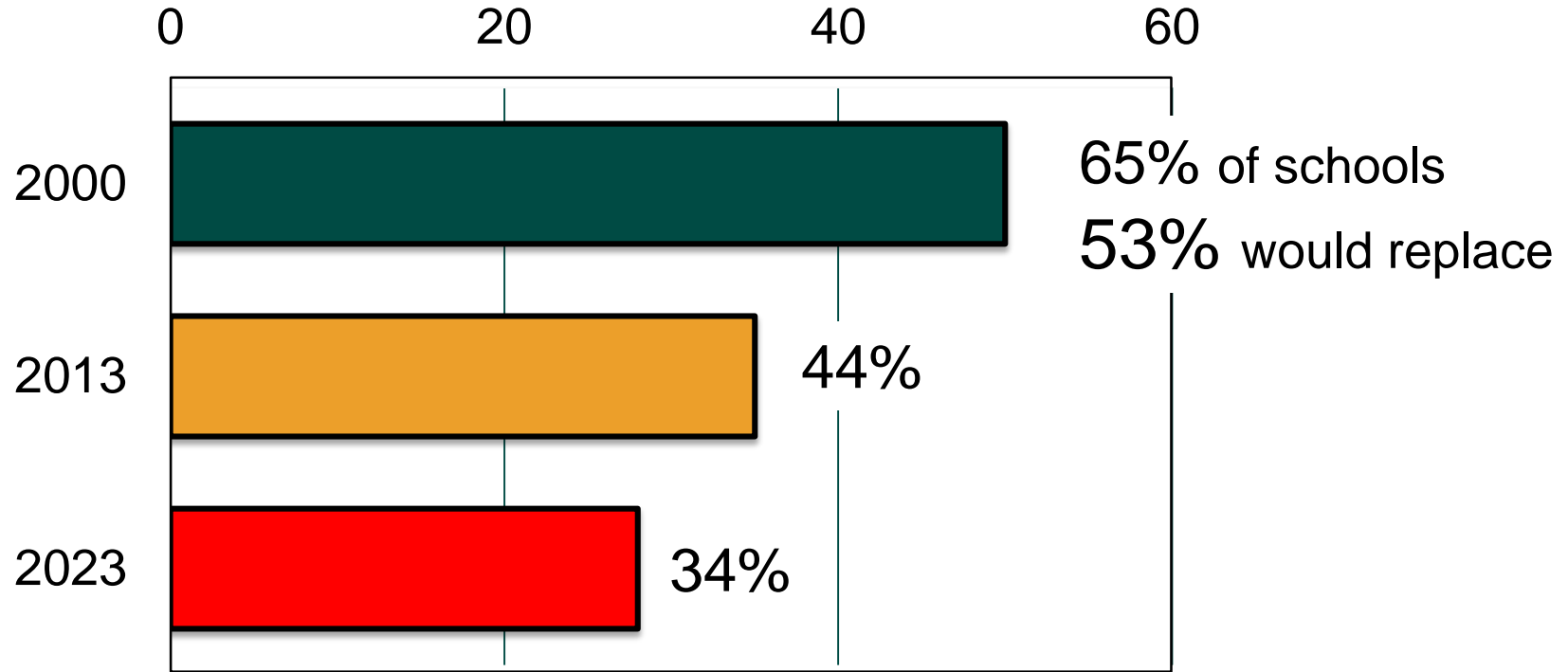


This talk

- The future of waterfowl & wetlands conservation depends not only on \$\$\$ and acres, but also professionals with necessary skills
- Are we losing our capacity to train?

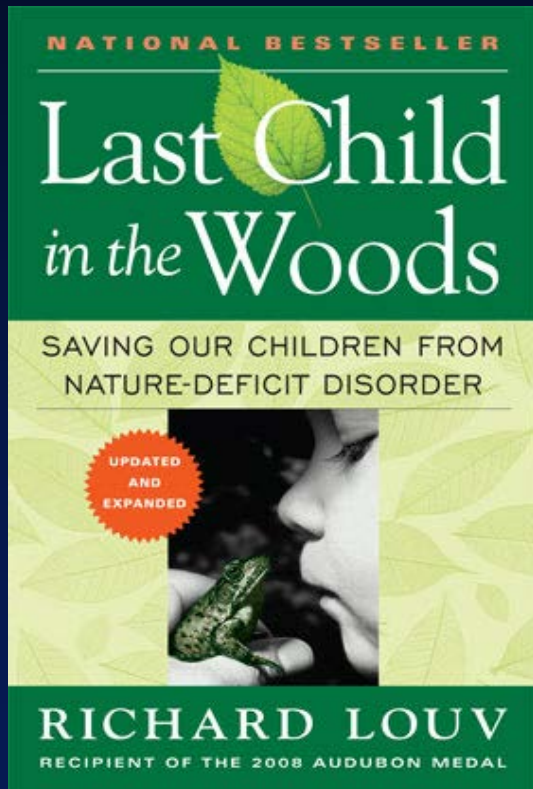


An endangered species – waterfowl faculty at 76 University Natural Resource programs



Eroding Education

“I like to play indoors better 'cause that's where all the electrical outlets are”





Eroding Education



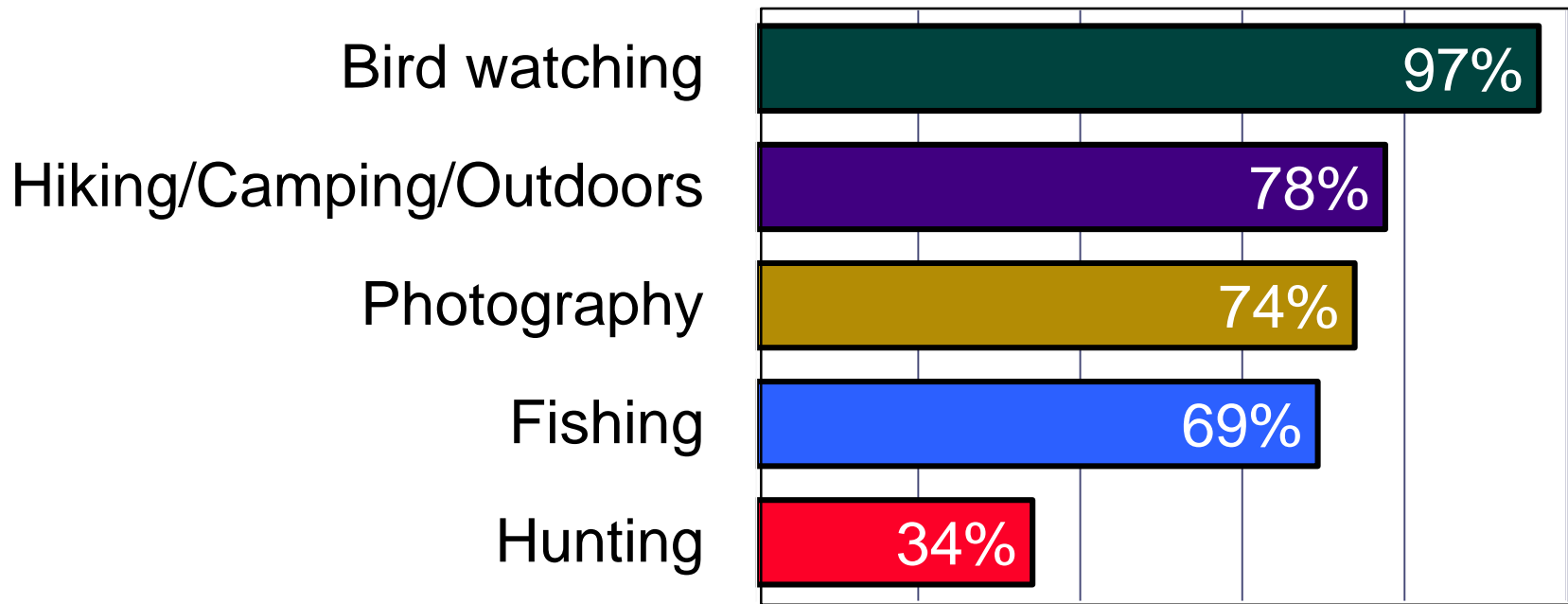
Who's minding the marsh?



UC Davis wildlife majors in waterfowl management

% activity (“some” or “lots”)

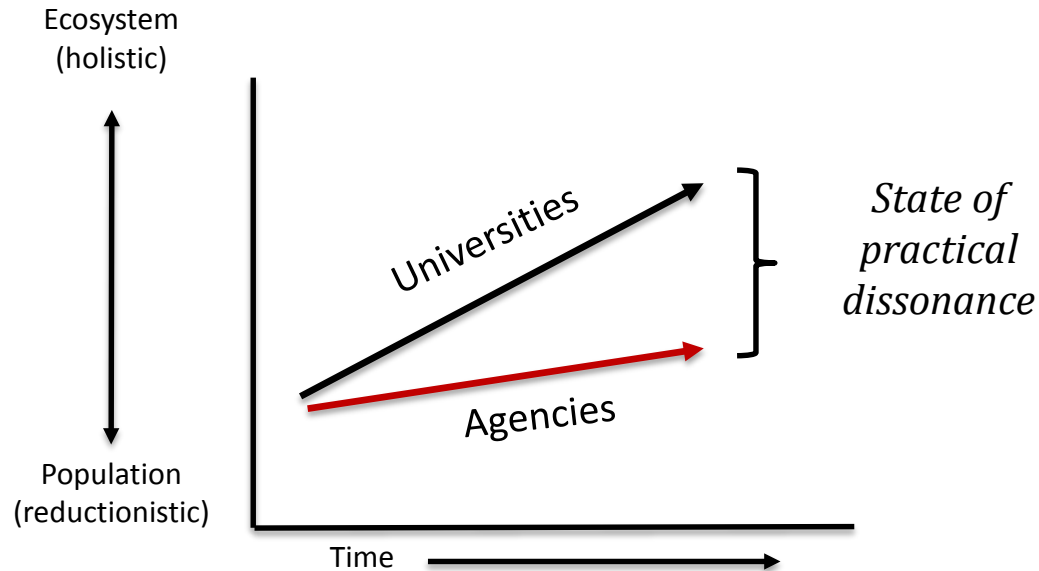
0% 20% 40% 60% 80% 100%





Practical Dissonance: Bridging the Gap Between Academia and Agencies

SUSAN P. RUPP,^{1,2} *Department of Natural Resource Management, South Dakota State University, Brookings, SD 57007, USA*





A pilot survey

- Asked two sets of questions:
 1. Importance of a variety of skills
 2. Change in training and skill level
- Faculty in US & Canadian universities who teach and conduct research on waterfowl & wetlands (N=15)
- Sample of partners in agencies and NGOs in all four flyways (N=48)
- Response rate: 27% (63/236)



Turning Point

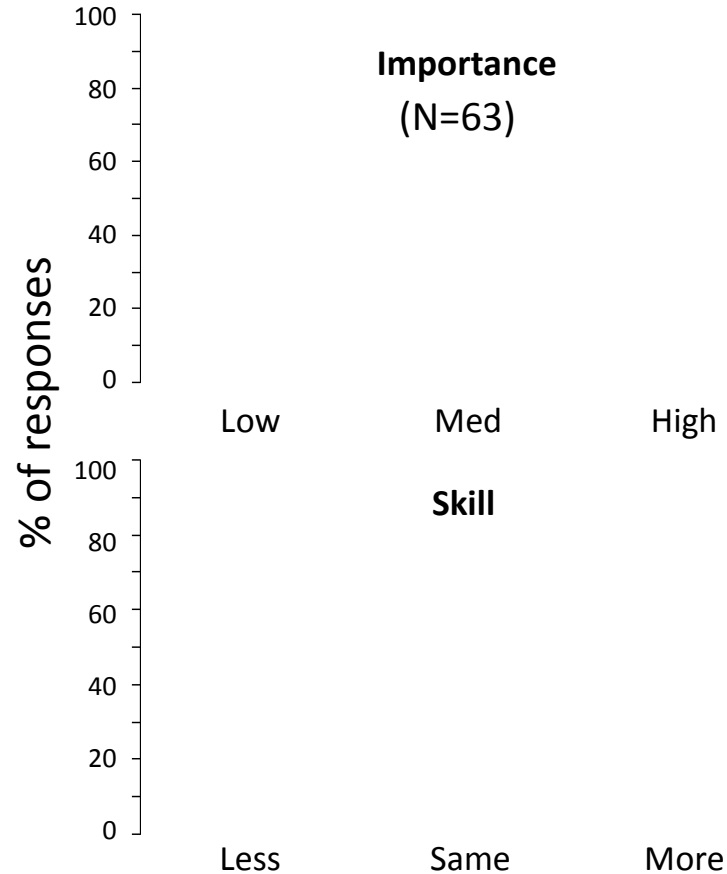
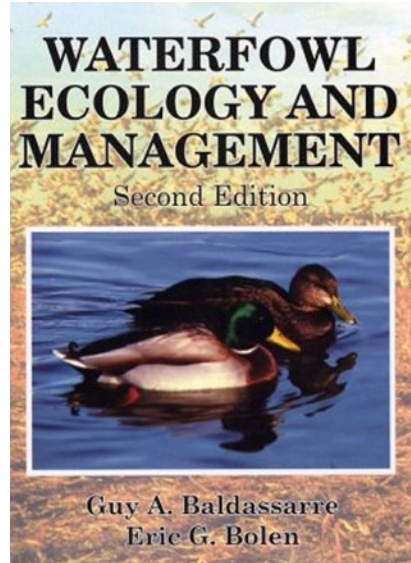
In your opinion/experience, are current wildlife / waterfowl graduates and recent hires:

- 1) Better trained than in the past 10-30 years**
- 2) Same**
- 3) Less**



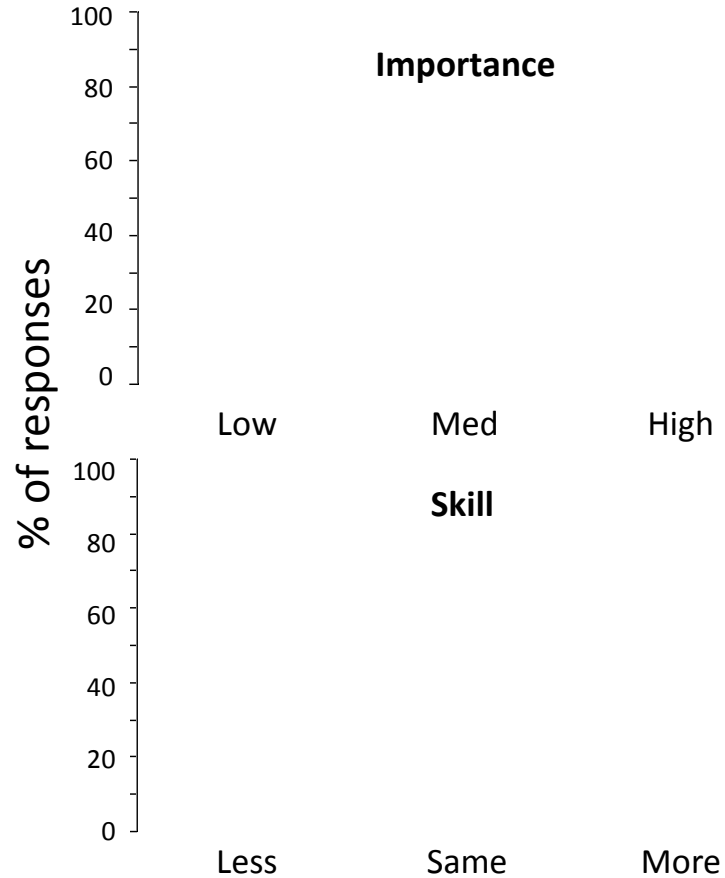


Waterfowl & Wetland Ecology, and Field Experience



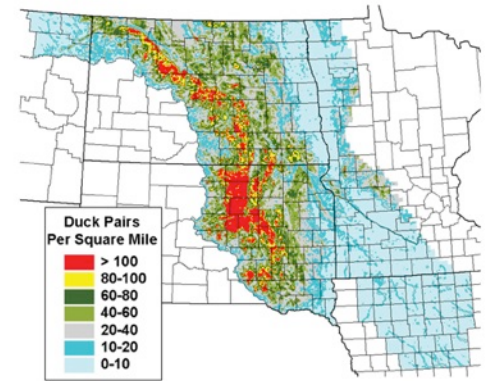
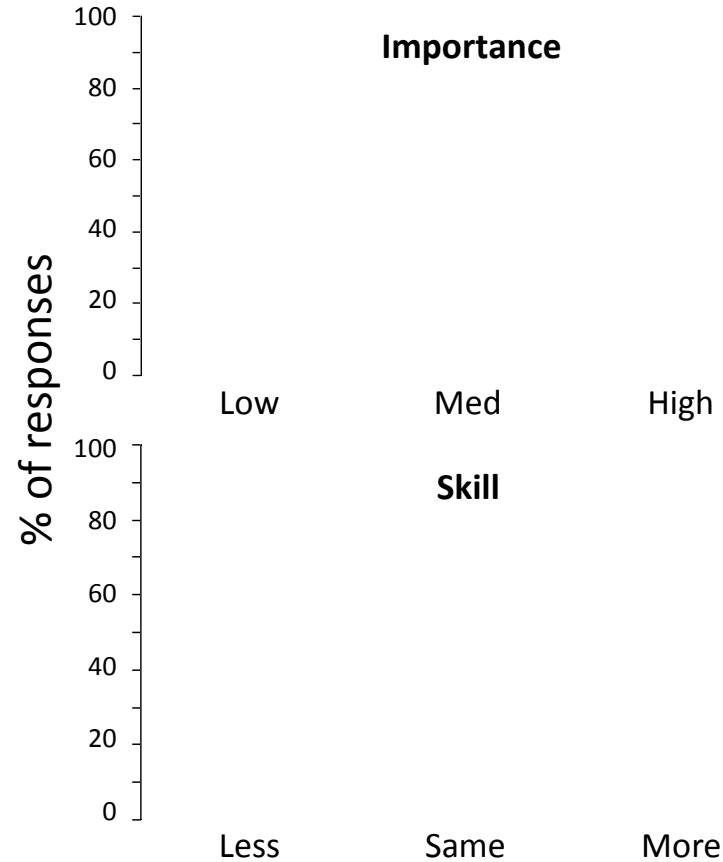
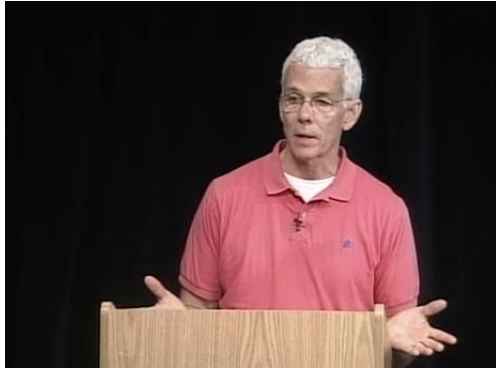


Role of Hunting



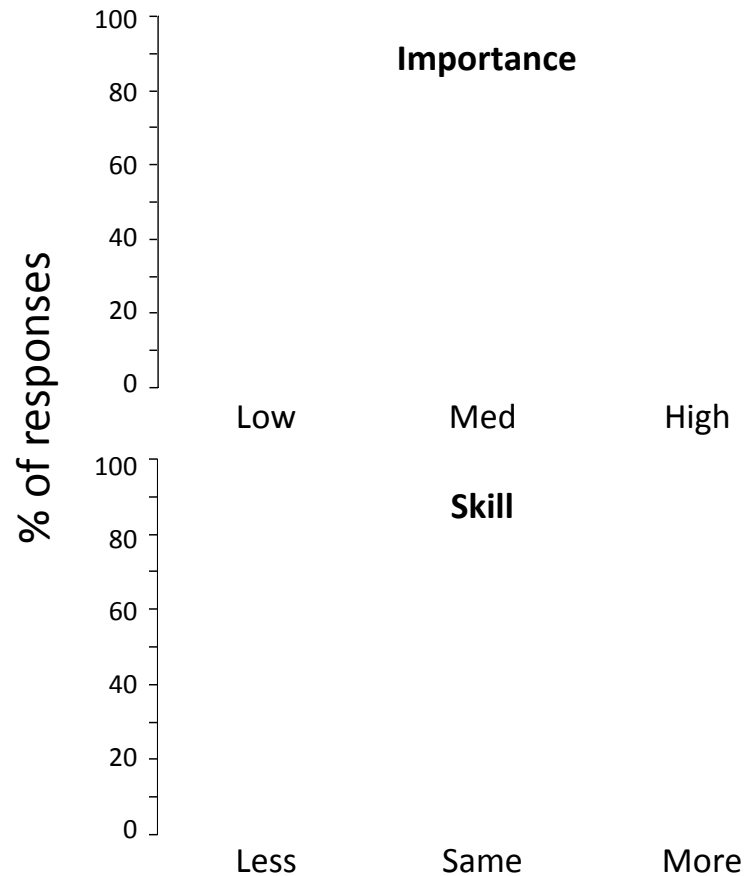


Quantitative & Spatial Analysis

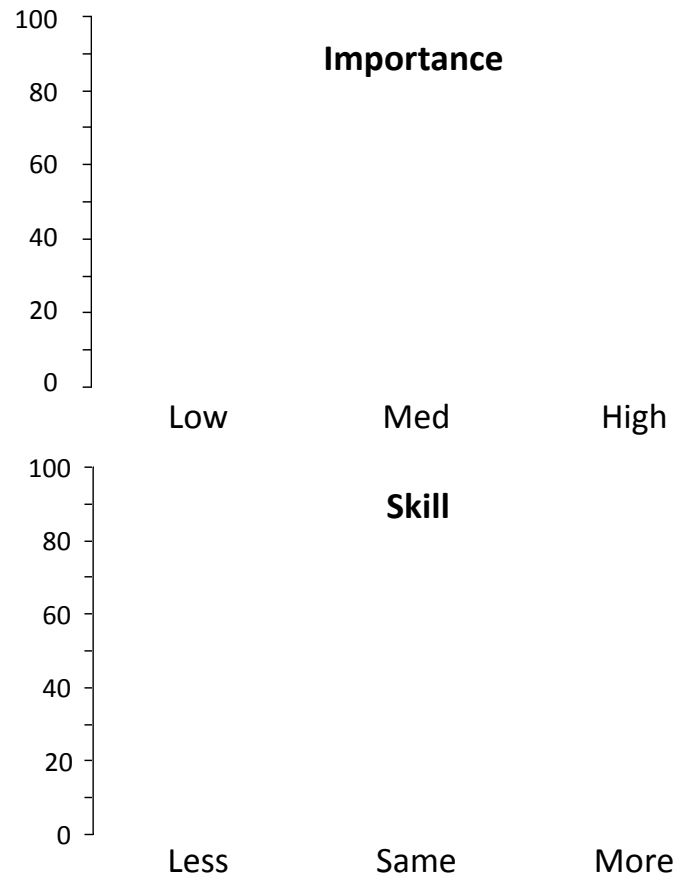




Population Ecology

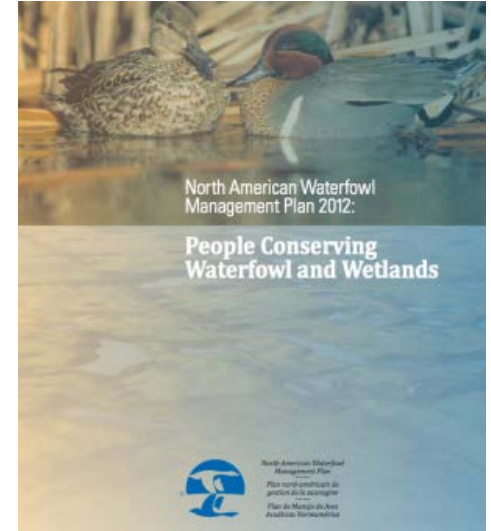
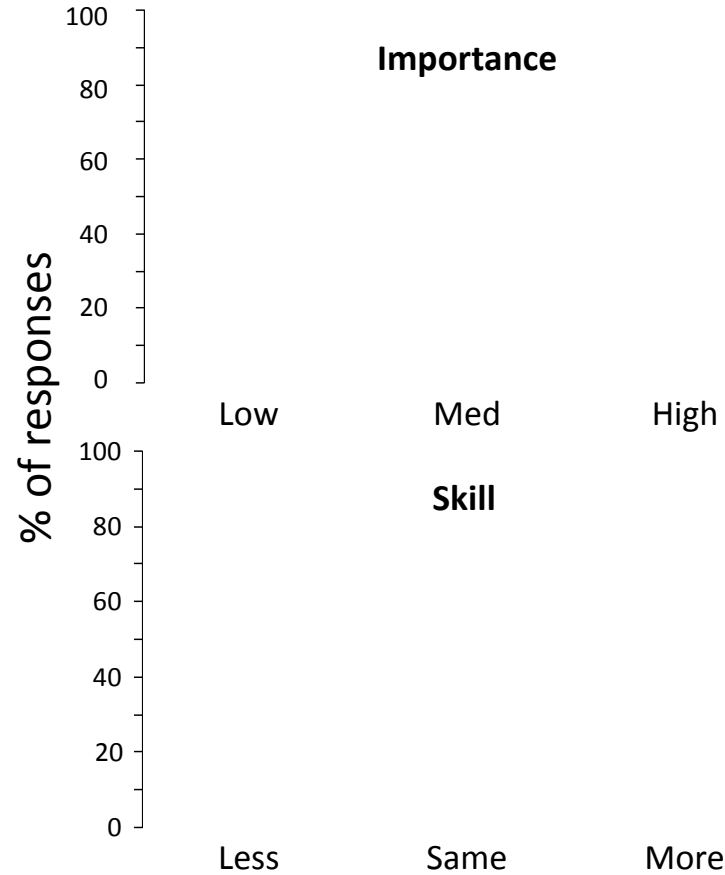
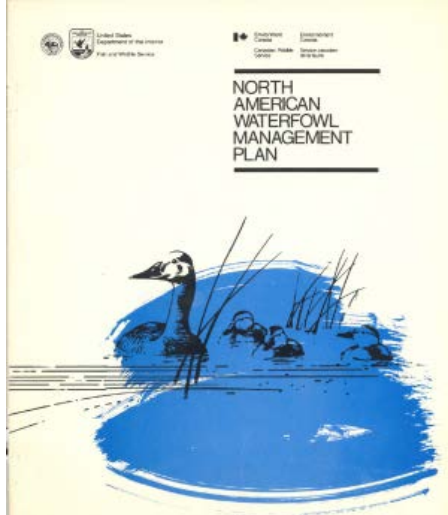


Conservation Biology



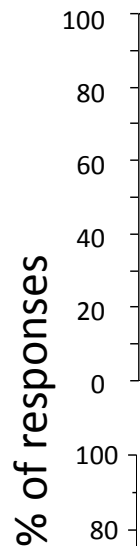
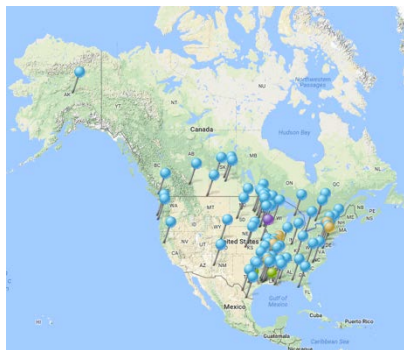
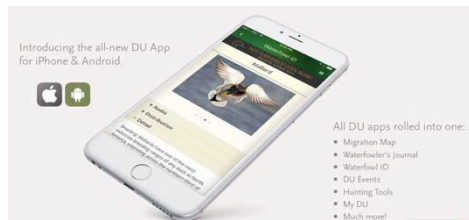


Policy & Communication





Social Media



Low

Med

High

Skill

Less

Same

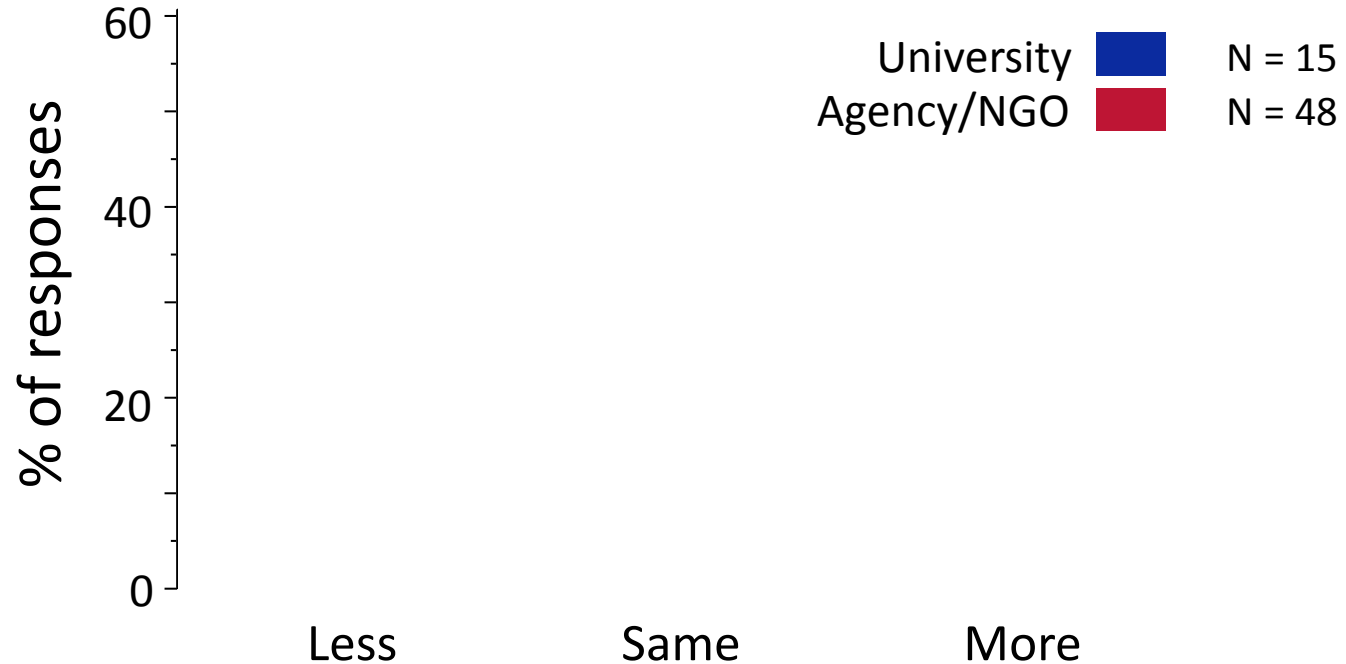
More





Overall skills - university vs. agency/NGO perspectives

Little dissonance, but losing skills





Our future professionals

- Need for strong skills in waterfowl & wetland ecology, field techniques, role of hunting
- Our graduates are less-well trained in these areas
- Quantitative skills are strong
- Need for more training in policy & communications

Why has the training faltered?



- 1) Millennials with different experiential backgrounds; (e.g., rural to urban)
- 2) Reduced university support for field-based classes and promotion of “online” education
- 3) Shift from population to ecosystems and less application
- 4) Loss of waterfowl & wetland faculty and programs
- 5) Faculty evaluated on grants and journal rankings

So what can we do?





Accept and adapt



- Perhaps we are just dinosaurs of a culture that no longer resonates with society and our youth?
- Adapt our programs & training – holistic, ecosystem-based, general education?
- But ...

Protect the base (drought-proof) Endowed Chairs & Programs



Dennis G. Raveling
Endowed Waterfowl
Chair

UC DAVIS
UNIVERSITY OF CALIFORNIA



**Colorado
State**
University
WARNER COLLEGE OF
NATURAL RESOURCES



James C. Kennedy
Chair in Waterfowl &
Wetlands Conservation
Mississippi State University



James C. Kennedy & David R. Grohne
Chair, Waterfowl & Wetlands
Conservation, University of
Wisconsin-Stevens Point

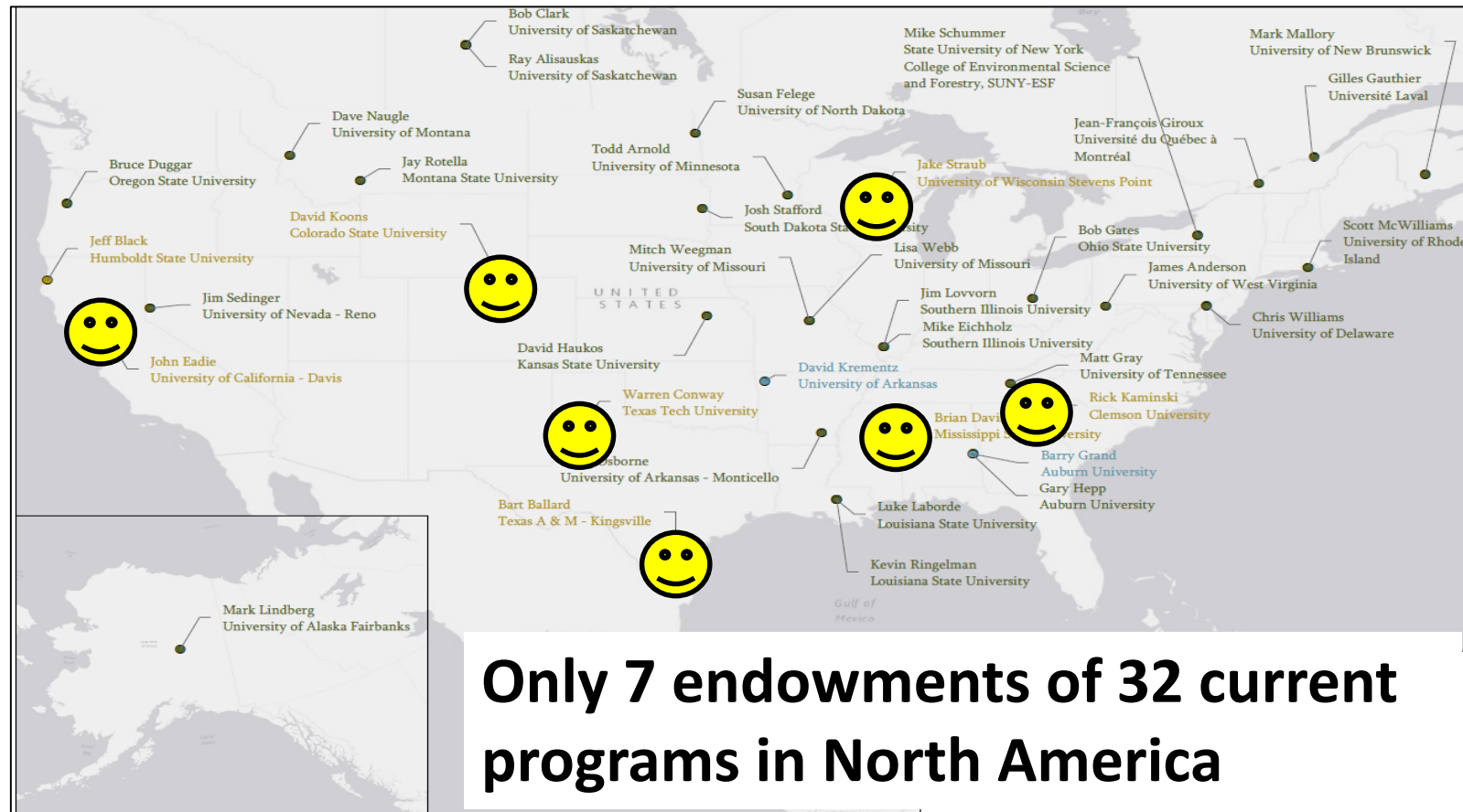


C. Berdon and Rolanette Lawrence
Chair in Waterfowl Research
Texas A&M-Kingsville



Bricker Chair in
Wildlife Management
Texas Tech University

Protect the base - Endowed Chairs



Re-tool university & community college teaching and training programs



- Need tractor drivers and program developers
- Managers and modelers
- Develop associate degrees
B.S. (or Ph.D.) not for everyone
- Endowed Extension specialists to outreach science to landowners and public managers
- Hands-on boot camps / field training
- Private sector

Experiential training





Leisure Skills Shooting Sports Courses



Fall 2013



Shooting Sports Courses Offered in Fall 2013

- ▶ 444 students – 476 slots – 93.2% efficiency
- ▶ Offered 37 courses in the following areas:
 - Basic Shotgun
 - Basic Rifle
 - Basic Archery
 - Advanced Shotgun –(skeet, trap, sporting clays)
 - Advanced Rifle
 - Women's Shotgun
 - Women's Rifle
 - Hunting and Shooting Sports Traditions
 - Women's Hunting



Highlights

379 of our 444 students responded to our survey

- ▶ 70% Male
- ▶ 30% Female
- ▶ 75% of the students indicated this was their first LS Shooting Sports class
- ▶ 90% of the students plan to take another LS Shooting Sports class in the future
- ▶ 50% of the students indicated that they had none to very little experience with Shooting Sports prior to taking our course



Student Hunter Camp

California Waterfowl Association, Paul and Sandi Bonderson



Student Hunter Camp

California Waterfowl Association, Paul and Sandi Bonderson





Student Hunter Camp



Honestly, I cried when I shot my first duck – she didn't die immediately, but Jeff was kind enough to finish her off. She was still warm in my hands as I carried her back to the blind. I was blinking back tears as I was being congratulated on my first duck.



But I didn't exactly know how I felt – I had killed for the first time, and it made me a little sad. However, after a minute, I reminded myself that humans have been hunters for as long as we have been on this earth. I realized that I was for the first time, directly responsible for the meat I would later eat.

At the end of the hunt, I had six ducks: four mallards, and two pintails!



Student Hunter Camp



People say that you cannot put a price on nature, and until this weekend I would have agreed. But after this weekend's experience, I have realized that putting a price on nature is the only way to save it. Hunters love and appreciate nature in an incredibly tangible way. I had no idea how much single payer conservation efforts could accomplish.

It might sound counterintuitive, but while hunting at Bird Haven ranch I felt more optimistic about our world's future than I have in a long time.



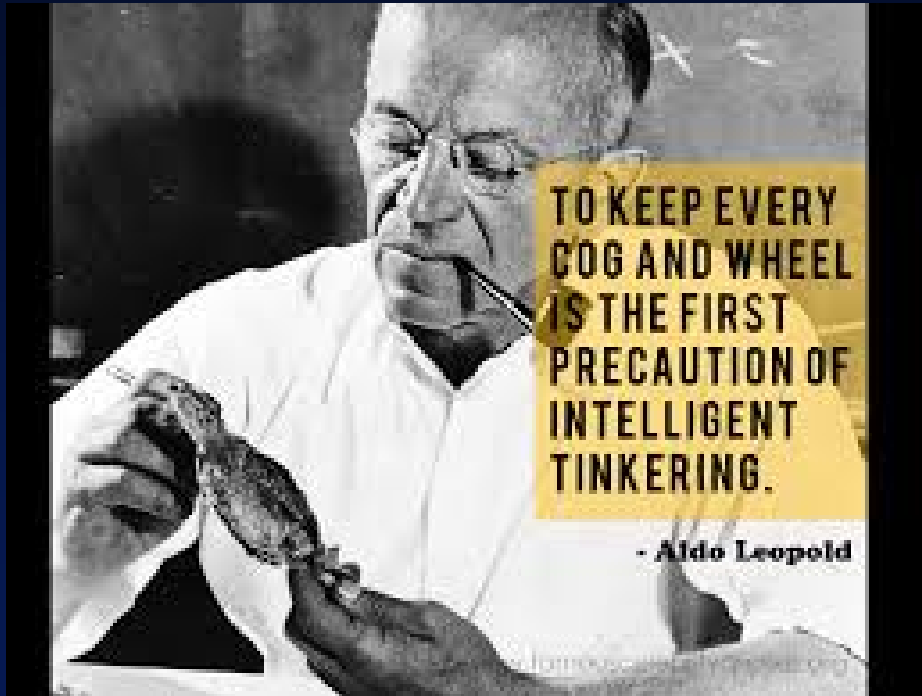




Mud on the boots blood on the hands skin in the game

- We won't sustain what we don't care for
- We won't care unless we obtain value from it
- We can't value what we don't know and don't experience

“Waterfowl, wetlands, and people who study and steward these treasures are critical “cogs and wheels” to conserve in perpetuity.”



A swan is shown in silhouette, flying across a sky with warm, orange and yellow hues from a low sun. Below the bird is a body of water with gentle ripples. The overall scene is peaceful and evocative of a marsh or wetland environment.

Who's Minding the Marsh?

We are.

I'm outta
here!

