

# Do Not Fiddle While Rome Burns: Directing Research to Address Management and Policy

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# The Great Divide



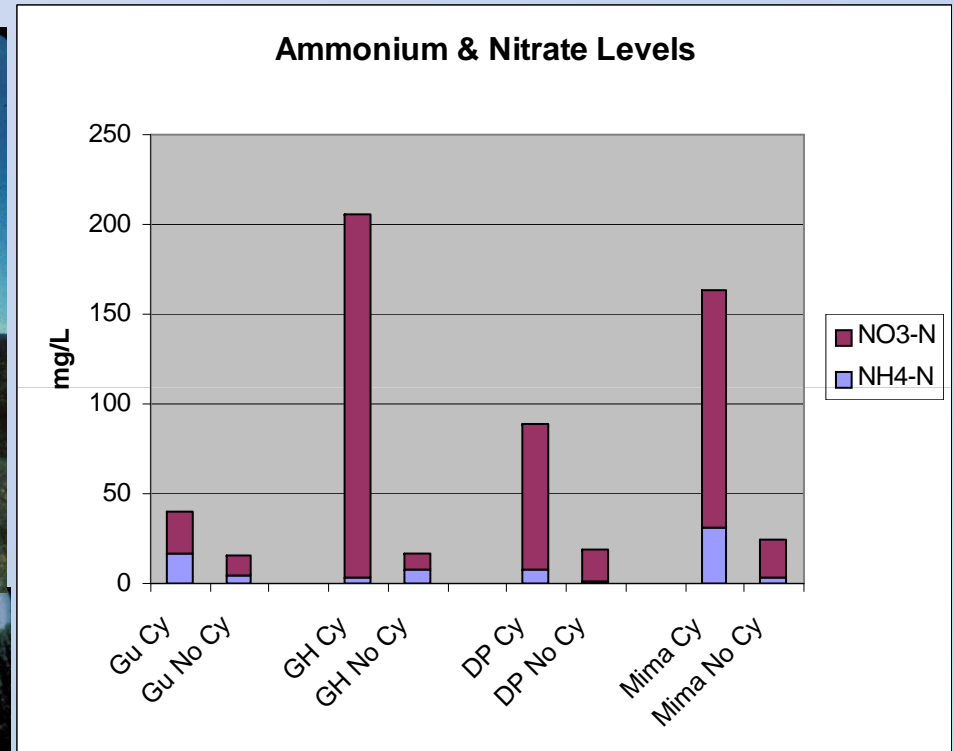
“What is needed is a concerted effort by both academic scientists and practitioners to get out of their respective ruts, open up paths of communication, share information and seek ever more efficient means to a common end.”

Editorial in Nature 2007

# Soil Impacts of *Cytisus scoparius*



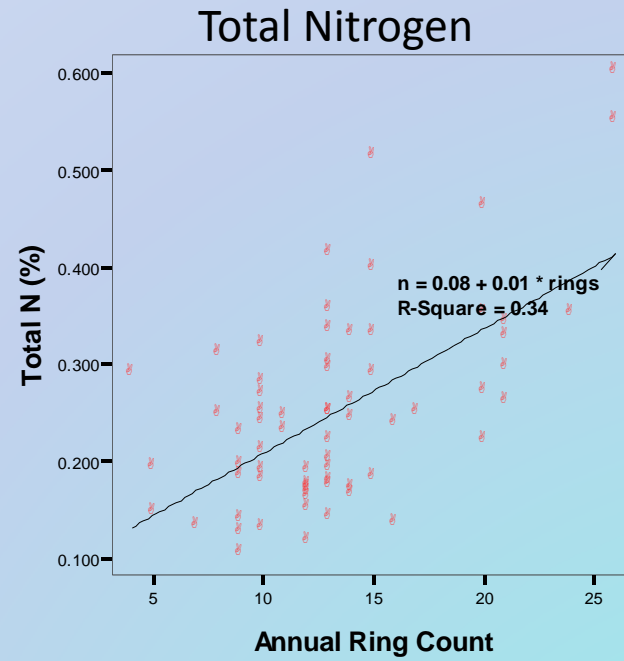
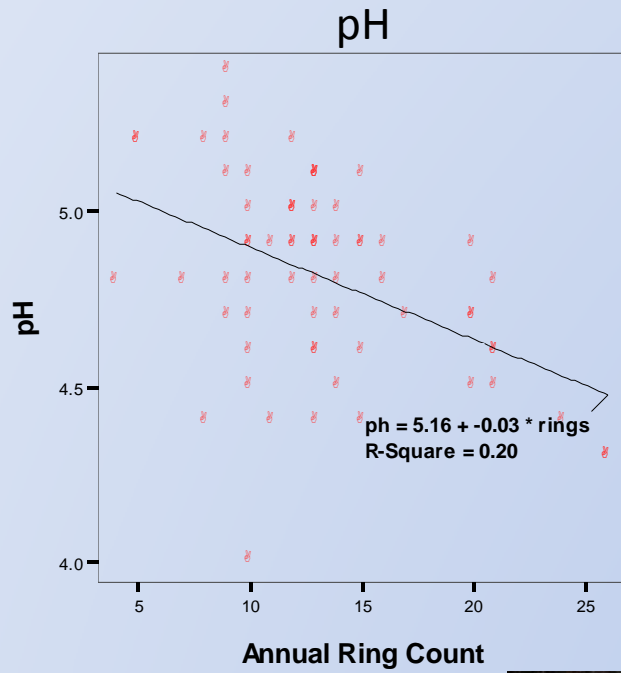
*Cytisus scoparius*



Dougherty and Reichard

Plant Protection Quarterly 2004

# Soil Impacts of *Ulex europaeus*



Scott 2005

# Outline

- Why is there a Great Divide?
- Proposed solutions
- Examples of effective translational work
- A modest proposal

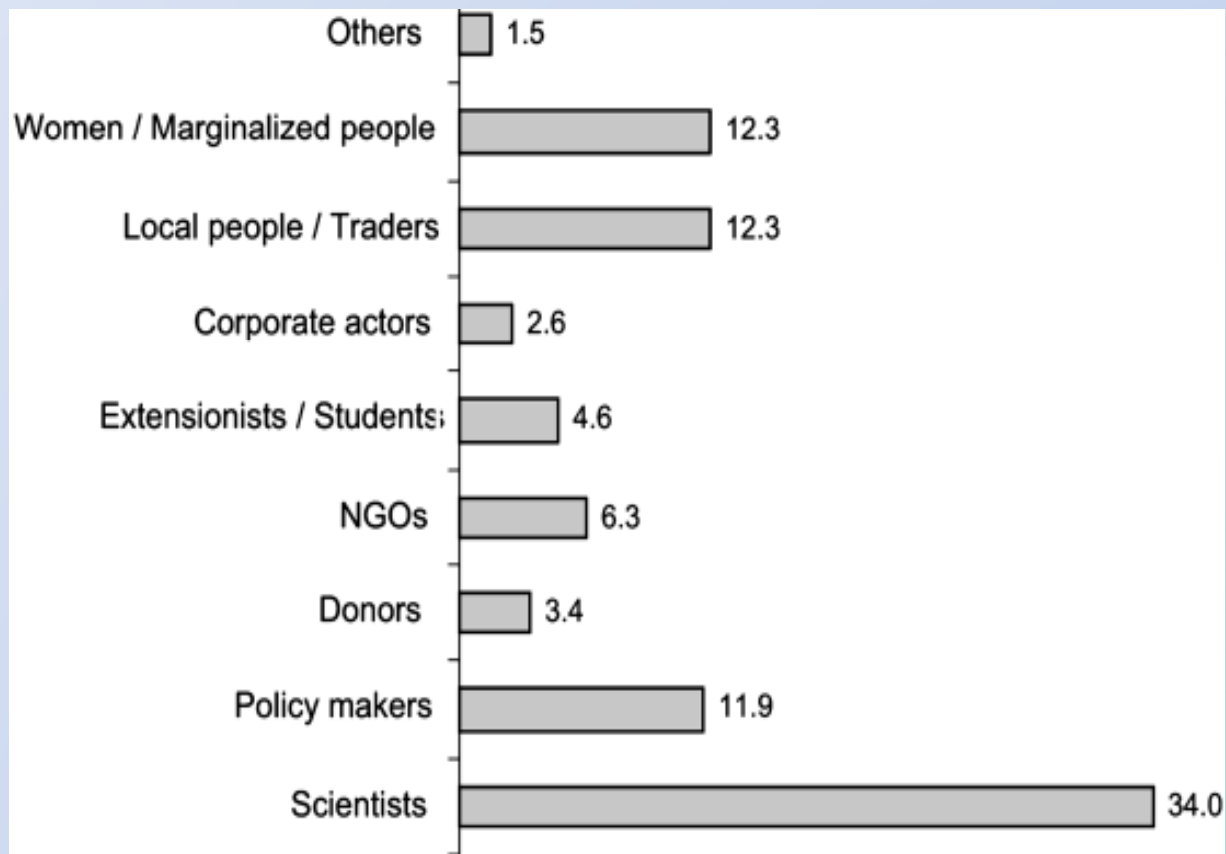
# The Great Divide

- Academic research tries to be innovative, globally relevant
- Institutional incentives for peer-reviewed papers, professional association and academic lectures
- Translational literature less accepted

# “Objectivity” in Science

- Relatively recent concept
- Values should not be used to select methods, analyze data
- Values may drive selection of questions, interpretation of results, and dissemination of conclusions





Responses to the survey question: Rank the following according to their importance as audiences for your work: (8 = most important; N= 268 researchers from 29 countries)

Shanley and Lopez (2009), Biotropica

# Disseminating Research Results Papers

- B & B (Washington State Nursery and Landscape Association)
- The Public Garden
- American Christmas Tree Journal
- American Nurseryman
- Spirituality and Healing Magazine

# Disseminating Research Results

## Presentations

- Denver, Chicago Botanical Gardens
- Seattle, Tacoma, and Houston Garden Clubs
- PNW Christmas Tree Growers Assc.
- Farwest Horticultural Show
- American Seed Trade Assc.
- Environmental Defense Board of Directors
- Environmental Protection Agency
- USDA/DOI workshop

# Solutions to the Great Divide

- Work with administration to balance publication records between peer-reviewed and commitment to stakeholder translations
- Provide training to overcome the lack of translational skills (cited by Shanley & Lopez 2009)

# Solutions to the Great Divide

- Talk with stakeholders to identify questions that address management and policy
- Publish negative results
- Summarize papers in lay publications or websites
- A moderated website using plain language that allows scientists, managers, and policy makers to post ideas and research summaries

# Examples

## Bumblebee Conservation Trust

- Founded 2006 in UK
- Found that where stakeholders are numerous, best way to reach is through popular media
- Partnerships with NGOs support habitat management



# Examples

## Bumblebee Conservation Trust

- Feedback from managers about observed pollination problem suggests new research
- Citizen science programs
- Informative website but mostly one way dialogue



# Examples

ConservationEvidence.com

- Works with the Centre for Evidence-based Conservation (Bangor University), based at Cambridge

“The objective of the website is to improve global nature conservation practice by sharing knowledge about the effects of conservation interventions”



# Examples

ConservationEvidence.com

“A conservation intervention is anything you might do to manage, protect, enhance or restore biodiversity. Interventions include types of habitat or species management, methods of species or site protection, **methods of controlling invasive species**, species reintroduction, captive breeding, legislation, and education programmes.”

# Examples

ConservationEvidence.com

- Content is by those involved in management including managers, ecologists or volunteers
- Papers
- Summaries (of previously published papers)
- Interventions (summaries that suggest specific actions)
- Synopses (shorter summaries)
- All must be an intervention that practitioner would do and demonstrate adequately monitoring

# Center for Invasive Plant Management

***Mission:*** To promote ecologically sound management of invasive plants in western North America by sponsoring research, conducting public education, and facilitating collaboration and communication among researchers, educators, policy makers, natural resource managers, and the concerned public.



<http://www.weedcenter.org/>

# Examples

## Exotic/Invasive Plant Councils

- California Invasive Plant Council
- Pacific Northwest Invasive Plant Council (WA, OR)
- Northern Rockies Invasive Plant Council (ID, MT, WY, CO)
- National Association of Exotic Pest Plant Councils

# Center for Invasive Species and Ecosystem Health

“The mission of the Center for Invasive Species & Ecosystem Health is to serve a lead role in development, consolidation and dissemination of information and programs focused on invasive species, forest health, natural resource and agricultural management through technology development, program implementation, training, applied research and public awareness at the state, regional, national and international levels.”

# Conclusions

- Efficient management of invasive plants requires collaboration between researchers land managers, and policymakers
- Scientists should address questions stakeholders need answered and communicate in ways they can access
- ConservationEvidence.com provides a good model