A Clogged Biological Pipeline: Time for a Solution

Protecting Oregon’s natural resources and agricultural economy
Background

- Worldwide
  - 224 invasive plant species targeted with 551 agents

- US
  - Benefit: 1:15
  - 43 invasive plant species targeted with 118 agents

- Oregon
  - 27 invasive plant species targeted with 77 agents
History

- **1940-1980s**

- **1987: formal charter for TAG (Technical Advisory Group)**

- **1987-2000**

- **2000-2011**

- **Since 2011**

- **551 intentional releases/introductions**

- **Only 8 documented to attack non-targets**

- **TAG: scientists from 15 gov. agencies US, Mexico, Canada**

- **37 agents approved**

- **22 agents approved**

- **0 agents approved**
What has changed?

• APHIS-PPQ no longer considers the potential benefit of releasing an agent

• APHIS considers release permits to cover all 48 contiguous states, regardless of distinct ecological regions, often increasing the number of non-target species necessary to evaluate

• Petitioners fear that only zero attack rates on non-target plants in phase-I
Clogged Pipeline

2015

• 10 TAG-approved petitions awaiting APHIS action

• Since 2000: $15M spent in research

• 8 since 2013!
Fig. Number of new biocontrol agents released by decade in US (blue) and Oregon (red). Note sharp decline in the 2000s.
Example of Inaction in the West

The gall mite *Aceria drabae* recommended for control of hoary cress, *Lepidium draba*.

- 14 years spent on research and development
- $2 million dollars spent on research
- TAG recommended mite for release in May of 2013
- No APHIS or USFWS Action for over 2½ years
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2015: Tim Butler & Eric Coombs, Noxious Weed Program
Change is Coming

- TAG transparency on petition status
- APHIS created self-imposed time constraints
- APHIS hired Bob Pfannenstiel
- USFWS hired Jeff Herod
Change has come!!

2016
*Parafreutreta regalis* (Tephrid fly) on Cape Ivy
*Lasioptera donacis* (gall midge) on Giant reed

2017
*Hypena opulenta* (Noctuid moth) on Swallow-wort

2018
*Aceria drabae* (gall mite) on White-top
*Rhinusa pilosa* (weevil) on Yellow toadflax
Lessons learned

- Work internally with APHIS-PPQ Program (letters, meetings, summits, etc.)
- Address unreasonable delays and requests for extra research during USFWS EA review (set 90 day review deadline, designate USFWS TAG representative as final approval agent)
- Seek Congressional elevation of the issue (a program review) bringing agencies and stakeholders together to identify and process problems and solutions.
- Find an organization(s) to challenge APHIS on point of not considering benefits of biological control when evaluating petition.
Biocontrol

Tyria jacobaeae

Galerucella calmariensis

Diorhabda carinulata