



***Silent Invasion: Oregonians'*  
Awareness, Understanding &  
Behaviors toward Invasive Species**

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# Collaborative Effort

- Component of Oregon Invasive Species Council's awareness & action campaign; partnership between Oregon Public Broadcasting (OPB), Nature Conservancy & SOLV
- Framed within behavior change, science communication & free-choice learning research paradigms

# Research Questions

- What is baseline knowledge, interest & behavior toward invasive species (IS) of Oregon resource users & stakeholders whose actions could most impact spread of IS (gardeners, boaters, anglers, & hunters), and sample of OPB members?
- Also explored attitudes & emotions toward introduction & spread of IS, people's beliefs about their *individual* impact, behaviors they should adopt, barriers to changing behavior & possible solutions

# Research Approaches

- Statewide survey administered by OSU's Survey Research Center
  - Six stakeholder groups surveyed (General population, OPB members, boaters, anglers, hunters and Master Gardeners); n=1000; adjusted response rate 23.8%
- Focus group study conducted by OSU Master's student, Gwenn Kubeck, on knowledge, attitudes & barriers towards IS prevention
  - Participants from four stakeholder groups (Boaters, anglers, hunters and Master Gardeners); (n=40)

## Finding: Oregonians concerned and pleased to be asked

- Quarter surveyed (225) took time to respond to open-ended question with detailed, written answers (only 4-5 were negative):
  - "I like that someone is asking the public what it is they think of this.... Thank you for allowing me to take this survey and voice my concern."
  - "Glad the state is doing a survey about this topic."
  - "Thanks for the information and concern for our environment."
  - "Thank you so much for this e-mail & helping with computer access issue. I thought the survey was very interesting as well as pertinent."

## Finding: Have some knowledge & willing to learn more

- More than three-quarters (79%) know what IS are & many concerned
- Many (65%) willing to learn more:
  - "I will be interested to learn more, and will watch for future outreach."
  - "I need to educate myself about this & news channels should report & bring attention & information to people."
  - "Educating public is one key way to stem tide of IS."

## Finding: However, real barriers to tackling issue exist

- Lack information about prevention details & responsibility (what, where, when, how; state, county, local); about specific IS (e.g. more people know Douglas fir than wheat; few know yellow-flag iris & fewer still quagga mussels; term feral not well understood).
- Majority of general public felt own *individual* actions & those of family/friends would be minimally effective in preventing & stopping IS.
- Majority of general public (72%) also said would *not* "Join a group that takes action to stop spread of non-native plants & animals" because do not feel that their *individual* action of *joining a group* can make positive contributions.

## [ Finding: Seeking leadership ]

- State agencies, NGOs, OPB, OSU Extension, hobby clubs, & newspapers seen as useful sources of environmental information
- Those surveyed see institutions as essential; Majority said these groups could be "very" or "moderately" effective in fighting IS (in approx. descending order): State agencies, Federal agencies, NGOs, hobby clubs
- Early indications that majority of public was aware of and paying attention to "Stop the Invasion" media campaign & related efforts; unfortunately we lack follow-up data to confirm this & describe specific outcomes and factors influencing those outcomes

# Conclusions

- Oregonians seeking leadership & direction & OISC, SOLV, state agencies & key media have important roles to play
- Some of this relates to information:
  - "Making more people aware by using any & all means to get their attention & educate them will help control problem of IS."
  - "Best thing is for volunteer rangers/etc. to include information in their talks at campgrounds & area kiosks."
  - "If more of us had more information on IS, it would be helpful."

## Conclusions (cont.)

- Most people, even public, were aware of problem; they lack understanding of what to do in daily lives to help & an appreciation that their *individual* actions can *collectively* be effective— if enough other individuals make same decision to act.
- One size does not fit all when building awareness & fostering behavior change. Given range of what people know & context in which they know it, as well as readiness to change along some continuum of behavior change, one message or empowerment strategy can rarely be effective.

## Conclusions (cont.)

- Also not just about awareness & action; some surveyed felt education was not enough:
  - "Oregon should have stricter inspections & laws regarding sale of exotic species in retail sector, oversight of ships coming into ports & recreational boats in lakes & streams. State agencies should be funded to do this. Having state-sponsored 'eradication crews' would go long way in minimizing spread of English ivy & gorse in county."
  - "I would like more attention by government & others about invasive species & animals."
  - "After visiting Hawai'i & seeing damage caused by non-native plants & animals, laws & regulations must be enforced to prevent problem in Oregon."

# Implications

- OISC & agencies are at tipping point
  - Need to reflect & study course of action with respect to our leadership in area
  - Crux of matter—to develop strategies for action in daily lives & messages that if enough people make *individual* choice to act, that myriad individual choices add up & can be effective in fighting problem.
  - About changing discourse & action from typical top-down approach—provide information about problem & what people *should* do—to one of grassroots empowerment, what I with others *can choose* to do & accomplish if we work *together* collectively

## Implications, cont.

- Behavior change field is discussing notion of fostering movements
  - Concerned individuals find one another, form groups around common concerns & then empowered by community, learn to translate individual ideas & actions into public issues & action (approach brilliantly used by Obama in his campaign)
- Effort to build this notion into PBS program somewhat but could be even more purposeful & fully documented

## For example, what if...

- Government-designated IS day was planned, like existing beach clean-up day, in which there was a substantial prior campaign to provide advance framing & motivation to public to participate with awards/recognition given for participation.
- Individuals could choose actions in their specific area of IS interest (gardening, boating, etc.)
- OPB, OISC members, & others could make 15-second video spots with prominent individuals (leaders? governor? all walks of life?) showing them **DOING** desired behaviors & promoting day.

## [ For example, what if... (cont.) ]

- By prior arrangement 15- second clips would be aired on mainstream TV channels & parallel ad campaign would run in multiple newspapers.
- Recognition would be given, for example, for group that put in most person-hours on given day or for most area cleared (with evidence--photos, videos--to show their results); a number of awards could be given, per Oregon region.
- Hypothesis would be that mobilization would likely be successful, particularly if there was recognition for actions of groups

## [ For example, what if... (cont.) ]

- Document by post-testing similar audiences that participated in first study & could also embed ourselves (using grad students) in sample of participating groups, to investigate factors influencing participation more deeply.
- Just preliminary idea which would take substantial effort & additional funding to pull off well, but could pay tangible dividends in terms of accomplishments & understanding whether, and if so how, social cooperation can be used to facilitate environmental issues like this.