

ISAC Subcommittee Agendas

June 14, 2011

Prevention Subcommittee (Celia Smith, chair)

Discussion: Ongoing prevention programs and activities, including:

- ANSTF/NISC joint prevention committee
- E-commerce background research
- Update on relevant federal policy issues

Communication, Education and Outreach Subcommittee (Nancy Balcom, chair)

1. Old Business

a. NISC newsletter

1. Review list of organizations collected to expand reach of NISC newsletter
2. Review content comments
3. Inclusion of white paper trailers in newsletter

b. Communications plan finalization

2. New Business

a. NISAW 2012

b. Discussion of future ISAC meeting that addresses the differences between developing an awareness campaign versus developing a campaign designed to change behavior (social marketing)

c. New sub-committee chair

3. Other

Control and Management Subcommittee (Joe DiTomaso, chair)

Discussion and finalization of recommendations presented to ISAC earlier in the day.

Organizational Collaboration Subcommittee (Susan Ellis, chair)

1. Old Business
 - a. NISAW 2011
 1. Highlights
 - b. State Invasive Species Council spreadsheet
 2. Updates
2. New Business
 - a. Management Plan revisions – suggestions for updating plan that goes through 2012
 1. Strategic Goal 5 and associated Implementation Tasks
 - b. Identification of key organizations for collaboration
 1. Determine if CEO distribution list covers this item
 - c. NISAW 2012 – ISAC involvement
 - d. New subcommittee chair

EDRR Subcommittee (Stephen Phillips, chair)

1. Review of December EDRR Subcommittee Meeting
2. PCR White Paper Outline
3. Rapid Response Funding Initiative
4. Other Issues

Research and Information Subcommittee (Peter Alpert, chair)

(Doug Tallamy will act as subcommittee chair during the meeting; Peter Alpert will be out of the country and unable to attend.)

1. Recommendation on management of invasive taxa below the species level

At the meeting of ISAC in December 2010, the subcommittee sponsored a presentation by Dr. Laura Meyerson on subspecific variation in invasiveness and on the strongly negative ecological impacts of some introduced genotypes of native species such as the common reed. Although APHIS has listed a specific genotype of *Caulerpa taxifolia* (Alan Tasker, pers. comm.), it appears that federal policy generally fails to address the potential harm caused by introductions of new genotypes of existing species or even to recognize that certain genotypes within a species may be invasive even when others

are not. The subcommittee proposed the following recommendation in December. It was referred back to the subcommittee for reworking, perhaps to so as to include more specifics about the agencies that might carry it out or about additional measures in regard to invasive genotypes. This aim of this item is thus to produce a revised recommendation to bring before ISAC during the June meeting.

INVASIVE GENOTYPES

Proposed recommendation from the Research Subcommittee

Background Given what we have learned since the promulgation of E.O. 13112, a refined definition of the biological unit of invasiveness is needed. It is now clearly known that all the genotypes of a species are not equal in invasive potential. For example, certain introduced genotypes of large grasses such as *Phragmites australis* (common reed) and *Phalaris arundinacea* (reed canary grass) have spread much more aggressively than others, and certain strains of microbes can be much more virulent than others. Therefore, the presence of one genotype of a species does not preclude potential impacts from the introduction of additional genotypes. Some current thought and practice suggest that, if a species has already been introduced, we do not need to worry about further introductions of the species. Research now shows the opposite to be the case.

Recommendation Introductions of new genotypes of existing species need to be assessed for risk of invasiveness.

2. Recommendation on horticultural species that have already been introduced and not yet spread on their own.

During the meeting of the subcommittee in December, the issue was raised that horticultural species are not subject to assessment of risk of invasiveness once they are already in the country. Many existing, or “precedented”, introduced horticultural species have never been assessed. Since numerous studies show that introduced species may appear non-invasive for decades following introduction and then clearly show themselves to be invasive, some of these precedented horticultural species may be future invasives. This points out the need to assess them for invasiveness while prevention is still possible. The subcommittee proposed the following recommendation to ISAC in December. It was referred back to the subcommittee for elaboration and resubmission, which is the aim of this item.

RISK ASSESSMENT OF PRECEDENTED HORTICULTURAL SPECIES

Proposed recommendation from the Research Subcommittee

Risk assessments should be conducted on horticultural species that have already been introduced but not yet escaped cultivation.

3. Recommendation to establish a global database of biological invasion risk assessments

In December, the subcommittee proposed the following recommendation for a global database of assessments of species for risk of becoming invasive after introduction. ISAC took no conclusive action on the recommendation. The aim of this item is to

consider whether to propose the recommendation again and, if so, whether to revise it or to add more background.

GLOBAL DATABASE ON RISK ASSESSMENT

Proposed recommendation from the Research Subcommittee

Background For plants, recent research on advance warning has included a focus on weed risk assessments, particularly tests of the Australian Weed Risk Assessment (AWRA). Most of these tests have supported its utility. For example, Gordon *et al.* (2008, Diversity and Distribution 14:234-242) found AWRA to be consistently accurate in various areas outside Australia, and Chong *et al.* (in press, Biological Invasions) found that ability of introduced plants to naturalize in Singapore was predicted well by mean AWRA scores for the same species in other four tropical regions. The latter paper concluded that a global database on assessment scores should be set up, and the Institute of Pacific Islands Forestry's program on Pacific Islands Ecosystems at Risk (PEIR) already informally posts risk assessments at <http://www.hear.org/pier/index.html>.

Recommendation Support should be formalized for a global database of risk assessments for intentional introductions of species into countries. The database should include essential information such as the risk assessment model used, the year of the assessment, the individual questions and answers used for the assessment, and the name and contact information for the agency or organization conducting the assessment.

4. Suggestion for a presentation to ISAC in fall 2011 on invasions caused by introductions within the U.S.

The aim of this item would be to name likely presenters and designate who will contact them and submit a template. The mention of this future suggestion made to ISAC in December 2010 is below.

RISK ASSESSMENT OF INTRODUCTIONS OF SPECIES FROM ONE STATE TO ANOTHER

Planned template from the Research Subcommittee for a presentation to ISAC at the meeting in the fall of 2001

Intentional introduction of a species within the U.S. from a state where it is native into a state where it is not have led to major invasions that risk assessments might have forestalled. For instance, a contractor to the U.S. Army Corps of Engineers introduced *Spartina alterniflora* from Maryland, where it is native, into California, where it is not, and this has led to a serious invasion of intertidal habitat in San Francisco Bay. We will submit a template for a presentation on problems and solutions relating to introductions of species between states within the U.S. Possible presenters include Shirley Wager-Page or Eric Rudyj from APHIS/PPQ.

5. Any other items.

Additional notes for the minutes from the meeting of the **Research Subcommittee**, December 8, 2010

Some recent research in North America has proposed alterations or alternatives to AWRA. McClay *et al.* (2010, *Biological Invasions* 12:4085-4098) reported that a modified AWRA incorrectly rejected 44% of non-weedy species in Canada and suggested that performance could be improved by better incorporating tolerance of cold. They also proposed multiplying rather than adding scores respectively related to likely invasiveness once introduced and to likely damage consequent to invasion. This alteration was further considered by Daehler and Virtue (2010, *Plant Protection Quarterly* 25:[pages not known]) and was built into an alternative, "U.S. weed-ranking model" proposed by Parker *et al.* (2007, *Weed Science* 55:386-397). The U.S. model also differs from AWRA in considering likelihood of being introduced. Features of the two models have been combined into one being developed by the Plant Epidemiology and Risk Analysis Laboratory (PERAL) of APHIS (Doria Gordon, The Nature Conservancy, pers. comm.). Among research from elsewhere, work in New Zealand suggests that AWRA may also incorrectly reject a high proportion of aquatic species (Doria Gordon, pers. comm.)

Beside which model of risk assessment to use, relevant regulatory considerations in the U.S. include which species to assess. The pending rule on a list of species that are Not Allowed Pending Pest Risk Assessment (NAPPRA) would assess only a specified set of species likely to be intentionally introduced; an alternative would be to assess all "unprecedented" (i.e., not yet introduced) species (Doria Gordon, pers. comm.). This would require knowing which species are already introduced, a task hampered by failure to require identification to species of all imports (Doria Gordon, pers. comm.).

A related issue is whether domestic introductions of native or introduced species should be assessed. USDA currently lacks authority to regulate introduction of a species within the U.S. from a state where it is native into a state where it is not, even though such introductions have led to major invasions that risk assessments might have forestalled. Introduced species that are already widespread in some states are sometimes considered beyond control and so not worth assessing for risk to states where they do not yet occur. This could preclude risk assessment for domestic introductions of invasive species to Alaska, which is relatively free from but probably vulnerable to spread of invasives from the contiguous U.S.