



The Pacific Region's New Policy on Minimizing the Introduction of Invasive Species by Service Activities

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What you need to know

This is a huge problem (*you probably already knew that!*)

- Scientists estimate that 50,000 nonnative species have been introduced to the U.S.
- The spread of invasive species is considered one of the greatest threats to biodiversity. Nearly 46% of threatened and endangered species owe their listing either in whole or in part to the uncontrolled spread of invasive species.
- The National Invasive Species Council estimates that invasive species cost the U.S. approximately \$120 billion per year, and this number does not include indirect costs such as loss of biodiversity and ecosystem services.
- Once established, invasive species are extremely difficult to remove. When removal is possible, it comes at a high cost financially and ecologically. Even after successful recovery, the food web dynamics, nutrient flow mechanisms and other intricacies of the original ecosystem may be lost. Preventing introduction and spread of invasive species is far less expensive.
- Many harmful invaders have wreaked havoc on fish and wildlife in the Pacific Region...from the extirpation of birds on Guam by brown tree snakes, to the altered fire ecology that cheatgrass brought to sagebrush ecosystems of the intermountain West, to declines in native amphibians by invasive bullfrogs nationwide. These are a small subset of the more high profile global examples.

Why do WE need a policy?

- We carry out, fund, and authorize an extensive range of field activities that can spread invasive species despite best intentions and use of precautionary measures. In fact, our own activities in the Pacific Region have resulted in accidental introductions...such as transporting a non-native weed through contaminated restoration materials.
- Executive Order 13112 requires federal agencies to “prevent the introduction of invasive species”; however, no Service or Regional policy currently exists to step down that order.
- As conservation leaders and proponents of invasive species management, we need to model practices that minimize the risk of introducing invasive species.
- No single prevention mechanism exists; minimizing the introduction of invasive species requires careful evaluation and constant vigilance.
- There is always room for improvement, and there are many opportunities to extend existing good practices across the Region.



Highlights of Policy

- Aims to increase employee awareness and promote prevention.
- Focuses on activities by (1) Pacific Region employees, and contractors and volunteers acting in the capacity as Service employees; (2) actions that other parties carry out with Service funding; and (3) other parties' actions for which the Service has regulatory, permitting, coordination, or other authority
- Calls for Region 1 Programs to develop and implement invasive species prevention guidelines for their field-based activities. There is a set of seven expectations for those guidelines (including topics like risk evaluation and gear decontamination), but otherwise Programs have flexibility to tailor guidelines that best fit their situations; the policy does not prescribe specific protocols for particular risks. There is a template (Appendix 1) that Programs can use to adopt guidelines that meet the seven expectations. **Prevention practices listed in that appendix are suggestions only, not required.**
- Applies a phased implementation timeline to allow for development and piloting: Programs have one year after policy adoption to prepare and disseminate final guidelines, and two years to fully apply those guidelines.
- Includes a compendium of best management practices from other agencies and scientific publications as a resource for developing program-specific guidelines, as well as a list of relevant federal and state laws, regulations, and policies.
- Lists responsibilities for all employees, supervisors, and other roles in the Pacific Region.
- Establishes a network of invasive species prevention leads among field stations and Regional Office Divisions that can help support policy implementation.
- Encourages cross-program coordination through the existing Pacific Region Invasive Species Team and other mechanisms



An introduction of the aggressive greater banded hornet (*Vespa tropica*) was recently detected on Guam (photo from University of Guam)



The invasive European green crab (*Carcinus maenas*) was confirmed for the first time in Puget Sound in September 2016 (photo from Washington Sea Grant)