Title:  
Response to invasive species in Alaska with the Ecosystem Approach: the evolution of education of agencies, private sector, and the general public to adopt prevention, monitoring, and management practices, and the barriers to adopting those practices.

Abstract  
Invasive species are a leading cause for loss of biodiversity and resources around the world. The arctic was once thought to be resistant to the impact of invasive species, but recently increased rates of introductions and a changing climate have come together to weaken that resistance. The Ecosystem Approach to management of invasive species impacts in the Arctic takes multiple steps including adopting prevention practices, monitoring for early detection, use of integrated pest management, and education. In Alaska, a groundwork for prevention is established through laws, inspections, monitoring programs for various species, and certification of products as free of invasive weeds. Gaps exist in the invasive species inspection and monitoring programs and certified products are underutilized. If an invasive species becomes established management is done under the principles of integrated pest management which increase success by identifying points in a target species life cycle where that species is most susceptible to chosen control practices. The principles of integrated pest management recognize that management of invasive species is a disturbance to the ecosystem, and seeks to manage the pest with minimal impact to the surrounding environment. Minimal impacts from management are achieved through use of appropriate methods for the infested area, and restoration practices such as revegetation. The University of Alaska Fairbanks Cooperative Extension Service has a lead role in educating agencies, businesses, and the public about prevention and management of invasive species. Education approaches include development of mobile applications, online courses to train professionals to detect and report invasive species, social media such as Facebook to continuously engage trainees, and traditional face to face workshops and courses. I will discuss the implementation and evolution of education for professionals and the public to understand the science of terrestrial invasive species and appropriate response with an Ecosystem Approach grounded in the principles of integrated pest management. I will discuss gaps in education for particular groups of professionals and the public, and efforts to fill those gaps. Finally, I will discuss barriers to adoption of appropriate practices for detection, prevention, and management of invasive species by agencies, the private sector, and the general public.