

TO: Senator Ron Wyden  
Chairman, Subcommittee on Public Lands and Forests

FR: Dan Nichols, Rancher and Harney County Commissioner

RE: Medusahead is a major environmental threat to the Great Basin and impacts can be mitigated by supporting the Medusahead Challenge.

Thank you for the opportunity to discuss future environmental threats to the Great Basin ecosystem. As a rancher and conservationist I believe that the continued, exponential spread of medusahead is the paramount environmental threat to the Great Basin and surrounding ecosystems. The medusahead invasion has the potential to devastate the economies of rural western communities and create environmental damage that will have negative consequences to the land and its citizens for generations into the future. Medusahead has invaded over 20 million acres throughout the western states with the majority of the invasion occurring on public lands.

Medusahead thrives in the clay soils, climate and precipitation patterns of the Great Basin. Harney County, as an example, has an average precipitation level of 11 inches a year with most of that in the form of snow and spring rain. Harney County is the largest county in Oregon with a land mass of 10,121 square miles and is larger than six states in the Union. Ownership is comprised of 27% private and 73% federal and state ownership. Local NRCS soil maps indicate that an excess of 70% of the soils in Harney County are conducive to the establishment of medusahead monocultures. That is basically equal to the landmass of the federal and state rangelands that are an integral part of the counties livestock industry. It is also land that provides habitat for mule deer, elk, sage grouse, native redband trout and bighorn sheep. All of these species and more are absolutely susceptible to the detrimental effects of medusahead monocultures and are negatively juxtaposed with current efforts and dollars being spent by government agencies to protect them and enhance their environments.

Medusahead is an alien invasive weed originating from the Mediterranean region. It was first recorded in Oregon in the 1880's and was found throughout the Willamette Valley and into Idaho by 1940. By 1995 it was estimated that medusahead occupied 1 million acres in Idaho. It expanded south into California and may have successfully invaded all suitable sites within California at approximately 5 million acres. Medusahead has mainly invaded public and private land within the Great Basin but it has also created large continuous infestations in 10 states including New York and Pennsylvania. Invasions have been expanding exponentially since 1972 and are now expanding faster than nearly all other invasive weeds in the United States.

Medusahead deteriorates healthy intact shrub-steppe communities into annual grass monocultures. It grows for short periods in the spring and fall and permanently changes the nutrient and hydrological cycles while accelerating erosion. The thick mat of fine

litter is slow to decompose because of the 10% silica composition (the main compound of glass). This composition is the reason for an 80% reduction in grazing value resulting in large amounts of fine fuels for intensive wildfire occurrences. The Federal Interagency Committee for the Management of Noxious Weeds reports that annual grass infestations increase the frequency of major wildland fires to every 3 years from every 60 years. This past summer in excess of 130,000 acres burned with an estimated cost in excess of eight million dollars in suppression efforts occurred in Harney County alone. These cost figures do not include the cost to private landowners for timber and grazing loss, herd reductions, supplemental feed and other associated business losses. Medusahead promotes fire and fire promotes medusahead.

Wildfire destroys the sagebrush portion of the plant community. Sagebrush is host to a variety of wildlife, only one of which is the sage grouse. Sage grouse is considered by some a key indicator species of the sagebrush steppe ecosystem of the Great Basin. It is a current example of the kinds of wildlife destruction that is created by this invasive weed. Sage grouse were nearly placed on the threatened and endangered species list in 2006. The U.S. Fish and Wildlife Service conducted a 12 month finding for Greater-Sage grouse and the Conservation Assessment of Greater Sage grouse and Sagebrush Habitats. They reported that two primary habitat threats are fires and invasive species such as medusahead.

All of these and many other ecological impacts translate into direct economic impacts in the Great Basin where our livelihoods depend upon a sustainable natural resource base. Watersheds are at risk, wildlife habitat is being destroyed, riparian areas are affected and frequent fires continue to accelerate the invasion process costing the federal government millions of dollars in suppression activities. The livestock industry is at risk and is the dominate industry throughout much of the Great Basin which supports the rural infrastructure and economies of nearby towns. Medusahead has a direct and negative impact on hunting and other outdoor recreation opportunities that also comprise a portion of our local economies.

Medusahead is an invasive weed that basically has no redeeming values. It is a tenacious weed that has the ability to expand and thrive under extreme conditions. It outcompetes other plant species for available water and nutrients. Because of its chemical composition and physiology it essentially has no grazing or habitat value for wildlife or domestic livestock. Due to the spring and fall growth pattern it permanently changes the nutrient and hydrological cycles that are considered to be the initial stages of desertification by many scientists. Long term negative effects on watershed and water resources are a logical outcome of an invasive medusahead monoculture. Considering the plausible desertification trend of medusahead and the region of the world that it originated from are we heading toward the desert landscapes of the mid-east as a result of the continued expansion of medusahead monocultures in the Great Basin?

With the serious possibility of that reality a group of public land managers, private landowners, researchers, scientists and educators from six western states of Oregon, Washington, Idaho, Nevada, California and Utah met in Burns, Oregon in 2004 and

created the Medusahead Challenge under the leadership of the USDA- Agricultural Research Service in Burns. From that initial meeting over 150 people from the diverse entities mentioned above have created a working partnership and developed a strategic plan to deal with medusahead from a comprehensive, holistic and systems approach. The mission of the Medusahead Challenge is to enhance and coordinate education, research and management of medusahead across the western states. This outcome based program outlines 14 separate large-scale management activities, 27 research projects and 14 educational programs necessary to protect the Great Basin. On behalf of the Medusahead Challenge and Harney County I request your help to fully implement this plan.

This group has been working successfully in a collaborative process combining private landowners, private business, scientific expertise, federal agencies and conservation groups. Over time it has become clear that a large well coordinated, holistic approach will be required if they are to make timely progress managing medusahead and mitigating the ecological and economic impacts for the Great Basin associated with this invasive weed. The Medusahead Challenge is well prepared and structured to implement the most ecologically based comprehensive program possible. Dedicated people have been working in a collaborative effort for the past three years but now need your help through some long term funding for the Medusahead Challenge through the USDA-Agricultural Research Service in Burns, Oregon. Once again, an appropriations fund request for 2008 has been submitted for \$1,000,000. This is a motivated consortium of people that have been collectively leveraging a variety of resources to meet the goals and objectives of the plan. Their continued advance in an effort to combat this major threat to the ecological and economic well being of the Great Basin could be enhanced with your support.

Thank you for your time and your consideration of this request.

Dan Nichols  
Harney County Commissioner