



U.S. Fish & Wildlife Service

Alaska Region Invasive Species News

November - December 2007

Putting the Focus on Prevention



Placing fyke net in new location.

In an earlier ARIS News story ([May-June 2007](#)), I described Alaska as “privileged” to have fewer invaders than most States but “precarious” in being at risk of increased invasion through the combined effects of development and climate change. If we are to protect Alaska’s ecosystems and the services they provide, we must increase our focus on preventing invasions. It is our privilege and our duty to do so.

Executive Order No. 13112 ([Invasive Species](#)) directs all federal agencies to “use relevant programs and authorities to: (i) prevent the introduction of invasive species ...” and not to “authorize, fund, or carry out actions that it believes are likely to cause or promote the introduction or spread of invasive species.”

One prevention planning tool we can use to help achieve both of these duties is called “Hazard Analysis and Critical Control Points” (HACCP). It is essentially a process of flow charting an operation (anything from running a field camp to building a pipeline), identifying where “contamination” by an invasive species can occur; developing procedures to minimize risk, monitoring to be sure

they work, and then adjusting as necessary based on that monitoring.

Remember those signs in restaurant bathrooms that tell employees to wash their hands before returning to work? Those signs are there as the result of a HACCP plan. In the food handling business, where HACCP got its start, the “hazards” are pathogens. In other industries, the hazard may be a chemical or physical contaminant.

In our case, the hazard is an invasive species. In all cases, it is prevention planning that helps minimize the risk.

Prevention is important in our own work and the work of our partners and permittees. For example, as we go about doing fisheries surveys, restoring riparian habitat or constructing trails, we move equipment, supplies and personnel from one place to another. Each time we intentionally move one thing, we also risk moving other things we did not intend – like weed seeds in the mud left on a piece of heavy equipment or “rock snot” ([July-August 2007 ARIS News](#)) on the waders or nets of field crews.

Besides our own field operations, we often consult on or issue permits for the activities of others. HACCP can help us protect Alaska’s native species by meeting the mandate of EO 13112 in these situations as well. Whether we are doing an ESA Section 7 consultation, reviewing a NEPA document, writing a FWCA report, or contracting out for work on Service-managed lands or waters, HACCP planning can help prevent invasion.

For example, if we contract for construction of a backcountry cabin, we may want to require the contractors to develop a HACCP plan for how they will prevent the movement of weeds when they move their equipment and supplies to the site. For a proposed mine, HACCP planning can help the developer avoid moving the weeds associated with road building. If it is offshore drilling, a HACCP plan can help identify the risk of using bio-fouled rigs from outside Alaska. In each case, the HACCP plan



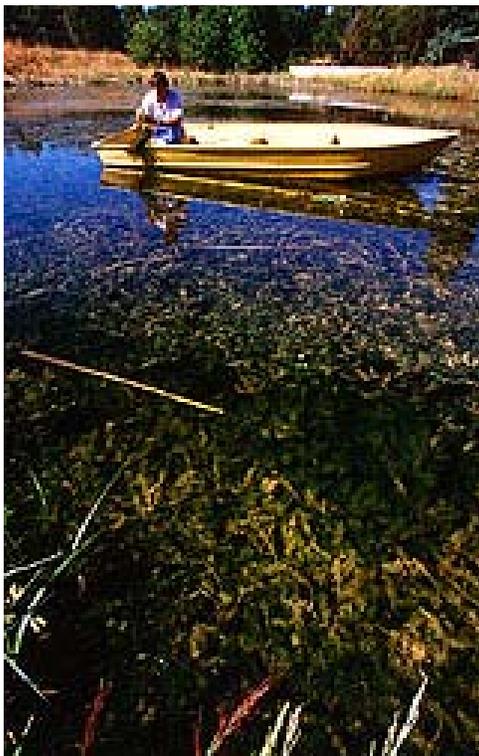
Cleaning mud and weeds from heavy equipment.

helps decide which “critical control point” in the operation will be the most effective for taking preventive action.

In many cases, the preventive action may be as simple as cleaning the equipment. A HACCP plan is not intended to slow or stop projects. It is simply a tool to help managers see and assess the risks within a logical framework. The time is now, especially in Alaska, to use prevention planning to make a real and lasting difference.

For some examples of HACCP plans that have been developed for natural resource management operations, visit <http://haccp-nrm.org>. Most are from fisheries situations, but plans of other types are beginning to be posted. The website also provides a “HACCP Wizard” – a computer program that helps walk you through the process.

Eurasian Watermilfoil
(*Myriophyllum spicatum*)



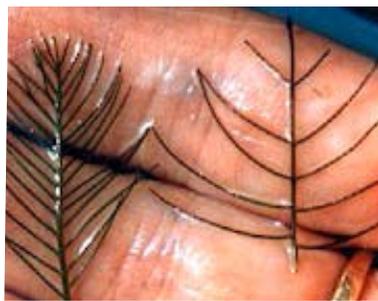
USDA

Dense growth completely clogs lake.

This invader is #1! Eurasian watermilfoil is considered the most invasive of all plant species ranked by the Alaska Natural Heritage Program (<http://akweeds.uaa.alaska.edu>). Thankfully, it is not yet known to occur in Alaska waters.

Eurasian watermilfoil (left in image below) now occurs widely across the U.S. and was once thought to occur in Alaska, but it was a case of mistaken identity. It had been confused with the native northern watermilfoil (below on right).

This aquatic weed spreads by fragmentation and will colonize lakes, rivers, irrigation canals, farm ponds, and even brackish estuaries. In Washington,



DOE

Eurasian watermilfoil plant on left and northern watermilfoil on right.

where it is considered the most problematic plant in the state, it is estimated that it can infest an entire lake within two years of introduction.

Eurasian watermilfoil forms a dense canopy that shades out native aquatic plants, provides poor habitat for fish and waterfowl, and can dramatically alter water quality (higher pH, nutrient loading, and temperature, lower oxygen).

It can become so dense, in fact, that it can clog water intakes, restrict swimming and fishing, and interfere with safe boat operation. In Alaska, of course, another concern is for safe floatplane operation. For guidance on how to prevent the transfer of aquatic weeds on floatplanes and other gear, visit: http://www.protectyourwaters.net/prevention/prevention_user.php.

Other Information Sources:

<http://www.ecy.wa.gov/PROGRAMS/WQ/plants/weeds>

<http://www.ars.usda.gov/is/AR/archive/mar99/foil0399.htm>

Giant Hogweed
(*Heracleum mantegazzianum*)



David Marrison/OSU Extension

Giant hogweed towering over urban fence.

This stuff looks like pushki on steroids! Giant hogweed is related to the native cow parsnip (aka, pushki), but it is a whole lot nastier.

Giant hogweed can grow to over 15 feet tall, with leaves over a yard wide, and flower heads up to 20 inches wide. These traits, plus the tendency to have purple spotting on the stem (see inset), help differentiate it from pushki.

It is native to the Caucasus mountains in Asia, but has become established in several northern U.S. states and is now a federally listed noxious weed. Giant hogweed has not yet been found in Alaska, but is one of the most invasive plants at our doorstep. It occurs in Oregon, Washington, and British Columbia.



U. Conn. Extension

Inset: Giant hogweed stem showing purple spotting.

In most cases, this invader is an escapee from ornamental gardens where it had been cultivated as a garden curiosity. It is a dangerous curiosity. The sap from giant hogweed can cause a

severe blistering when the affected skin is exposed to sunlight. Unfortunately, other states have found that children

are drawn to the large hollow stems which they use for pretend telescopes or swords.

This noxious plant most commonly colonizes disturbed soils, roadsides, and stream banks where it can push out native plants and restrict stream access. Giant hogweed can be removed by physical means (digging, repeated cutting), but always wear protective clothing and eyewear. Common herbicides are also effective. Because the seeds may last over a decade in the soil, long-term monitoring will be needed.

Other information sources:

<http://dnr.metrokc.gov/wlr/LANDS/weeds/hogweed.htm>

<http://www.invasivespeciesinfo.gov/plants/hogweed.shtml>

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