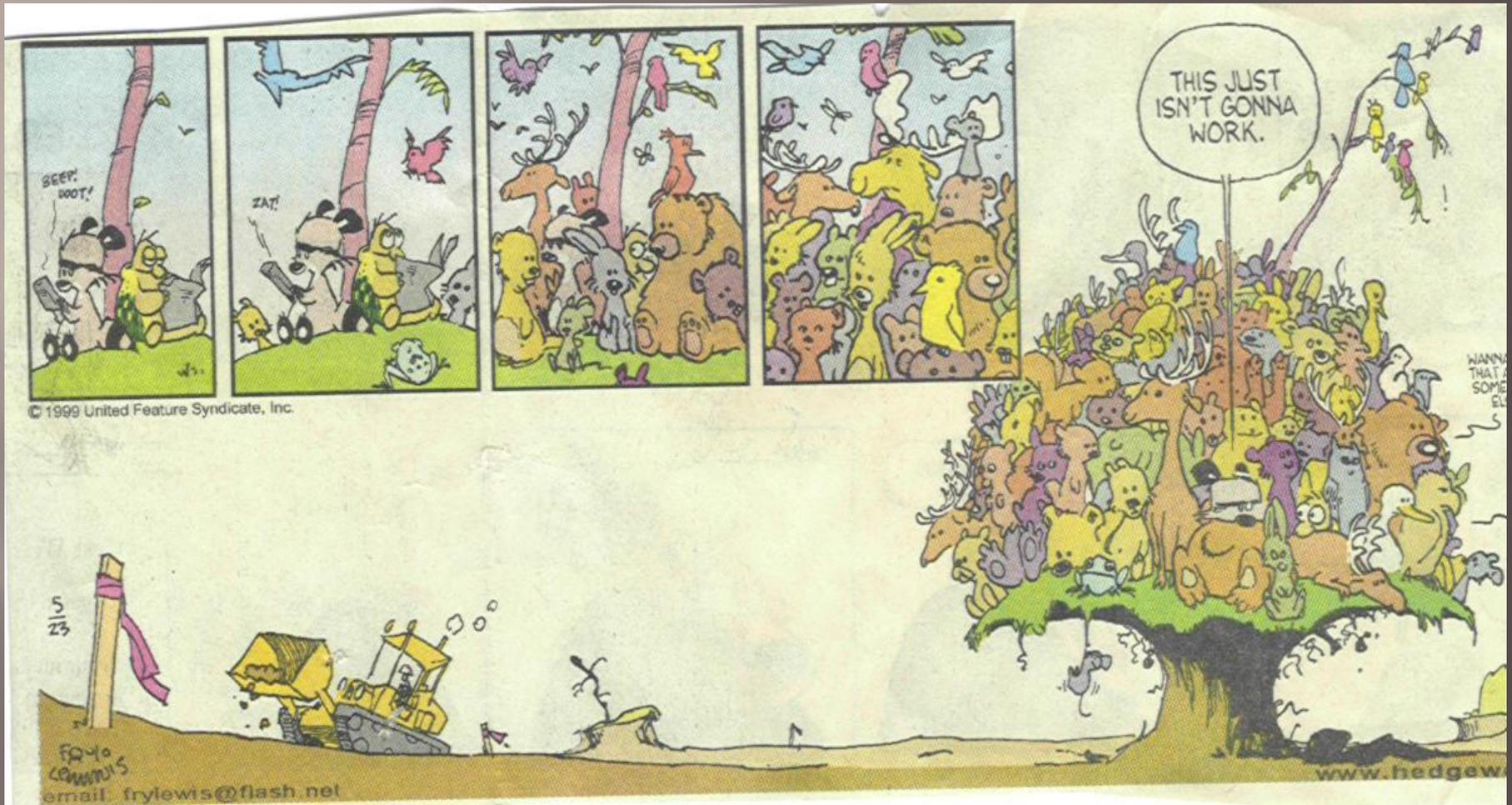


Kalispel Tribe's Invasive Species Management

Matt Berger, Wildlife Program Manager.



Over the Hedge by Michael Fry & Terry Lewis



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www.hedge.com

Economic Impacts

- ▣ Over the past 200 years or so, more than 50,000 foreign plant and animal species have become established in the United States. About one in seven has become invasive, with damage and control costs estimated at more than \$138 billion each year (United States Department of Agriculture Animal and Plant Health Inspection Service [APHIS], 2001).

ALIEN SPECIES

- ▣ With respect to a particular ecosystem, an alien species is any species, including its seeds, eggs, spores, or other biological material capable of propagating that species, that is not native to that ecosystem.

As defined in Executive Order 13112: February 3, 1999

<http://www.gpo.gov/fdsys/pkg/FR-1999-02-08/pdf/99-3184.pdf>

INVASIVE SPECIES

- ▣ An invasive species is an "alien species" whose introduction does or is likely to cause economic or environmental harm or harm to human health. Invasive plants are included in this definition.

As defined in Executive Order 13112: February 3, 1999

<http://www.gpo.gov/fdsys/pkg/FR-1999-02-08/pdf/99-3184.pdf>

Invasive Species Treatment Plan

- ▣ Define the issue – scale and time
- ▣ Gather all relevant information
- ▣ Develop a Management Plan
- ▣ Implement the Best Management Practice
- ▣ Cooperate with all involved parties to reduce, control, and /or eliminate invasive species

TWO CATEGORIES

Aquatic

And

Terrestrial

AQUATIC NUISANCE SPECIES

- ▣ Aquatic nuisance species are non-native species that threaten the diversity or abundance of native species or the ecological stability of infested waters, or commercial, agricultural, aquacultural, or recreational activities dependent on such waters (1).

As defined in Executive Order 13112: February 3, 1999

<http://www.gpo.gov/fdsys/pkg/FR-1999-02-08/pdf/99-3184.pdf>

Aquatic Invasive Species Management



Yellow Flag Iris



Didymosphenia geminata



Zebra Mussels



Northern pike

HOW CAN NON-NATIVE
FISH SPECIES BE
ERADICATED,
SUPPRESSED,
CONTROLLED OR
MANAGED?

Types

- ▣ Electrofishing
- ▣ Barriers (both electrical and manmade structures)
- ▣ Piscicide (rotenone and antimycin)
- ▣ Nets (e.g. gill nets, fyke nets)
- ▣ Dewatering
- ▣ Explosives
- ▣ Angling
- ▣ Habitat Manipulation



ALL AGES
Free Entry

Valid fishing license/
endorsements required

FISHING DERBIES

— 2 WEEKENDS —

JUNE 29-JULY 1 • AUGUST 3-5

PEND OREILLE RIVER, WASHINGTON
(BOUNDARY AND BOX CANYON RESERVOIRS)

<p>LONGEST SMALLEST MOST BONUS TAGGED FISH RAFFLE PRIZES, TOO</p>	➤	<p>MORE THAN \$10,000 IN CASH & PRIZES</p>
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For rules, regulations and registration, please visit
www.kalispeltribe.com/northern-pike

ONSITE REGISTRATION AT: Oldtown boat launch, Cusick boat launch & Metaline Waterfront Park



PROS/CONS OF ANGLING

Pros

- Public receptive of angling
- Public wants to be part of solution
- Can be financially beneficial to angler (e.g. bounties, tournaments)
- Special regulations have often been liberalized or rescinded to encourage harvest

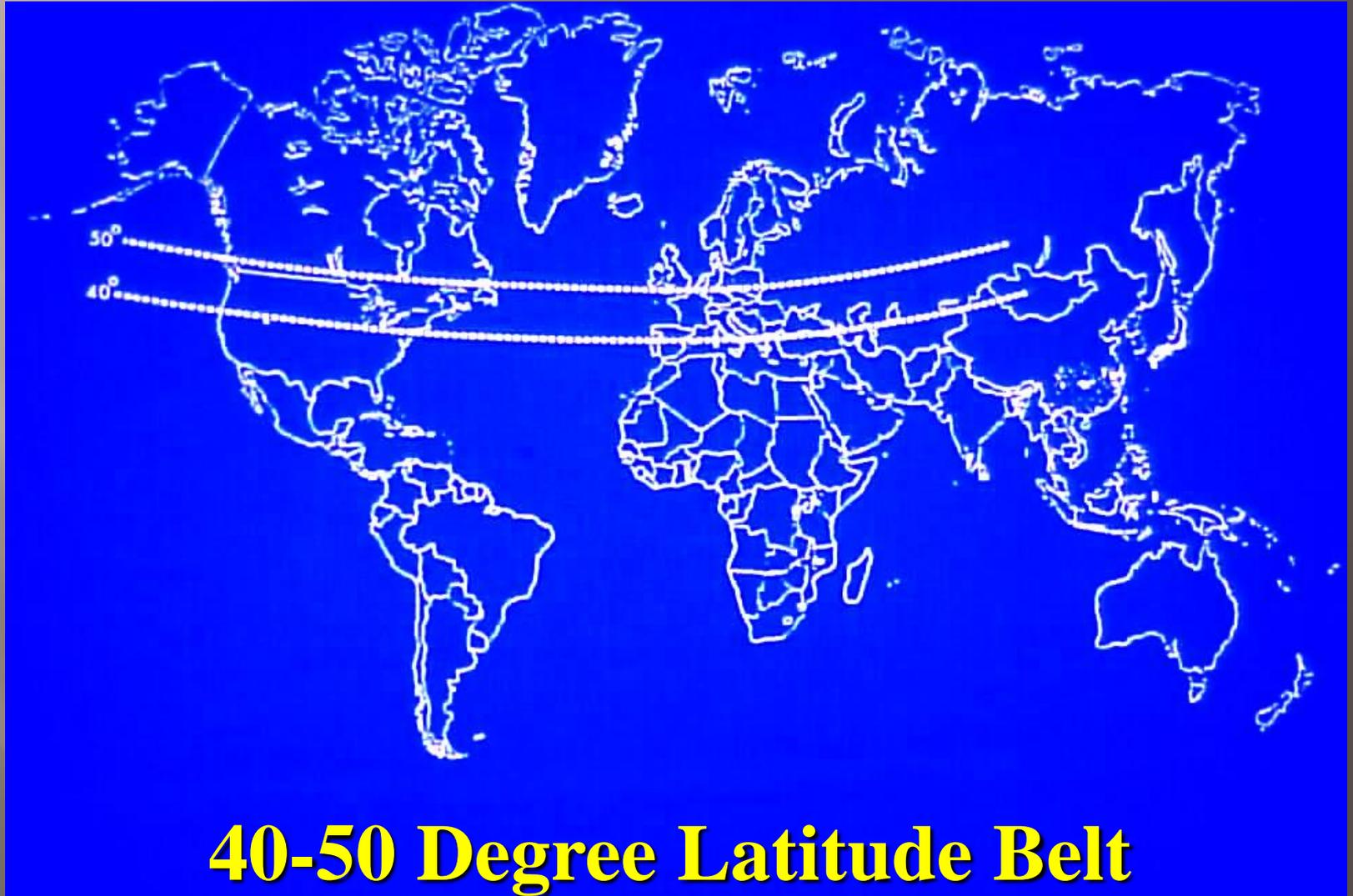
Cons

- Not effective to control

Detection and Monitoring



Terrestrial Invasive Species

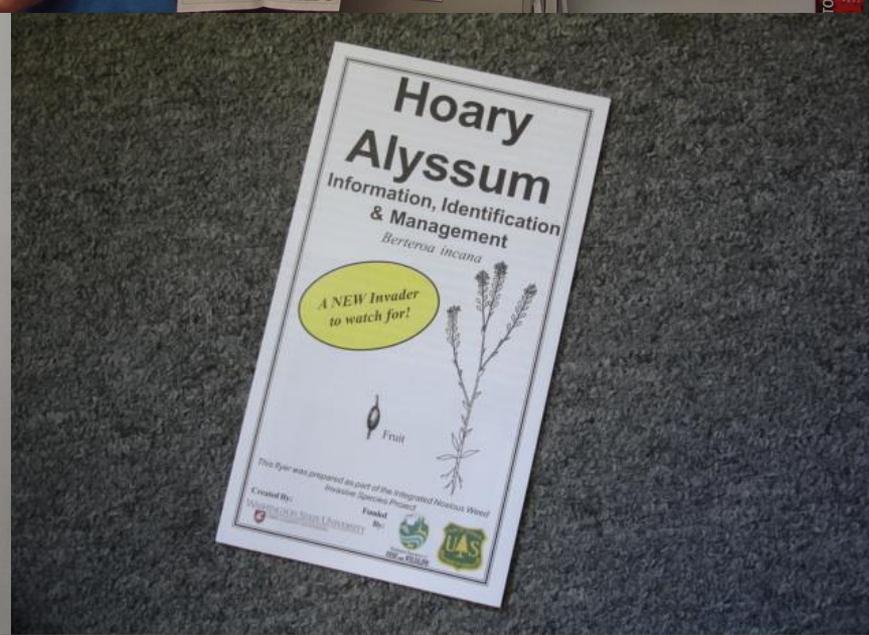


Weeds Replace Grasslands and are a Nuisance to Livestock & People



Prioritizing Weed Control

- ▣ Deciding on your goals.
- ▣ Understand the Problem & Why it Matters
- ▣ You must know what you have out there-ID
- ▣ Learn your noxious weeds- Booklets
- ▣ Learn how widespread they are
- ▣ Learn how much you have of each species and where they are!



Hoary alyssum

Berteroa incana



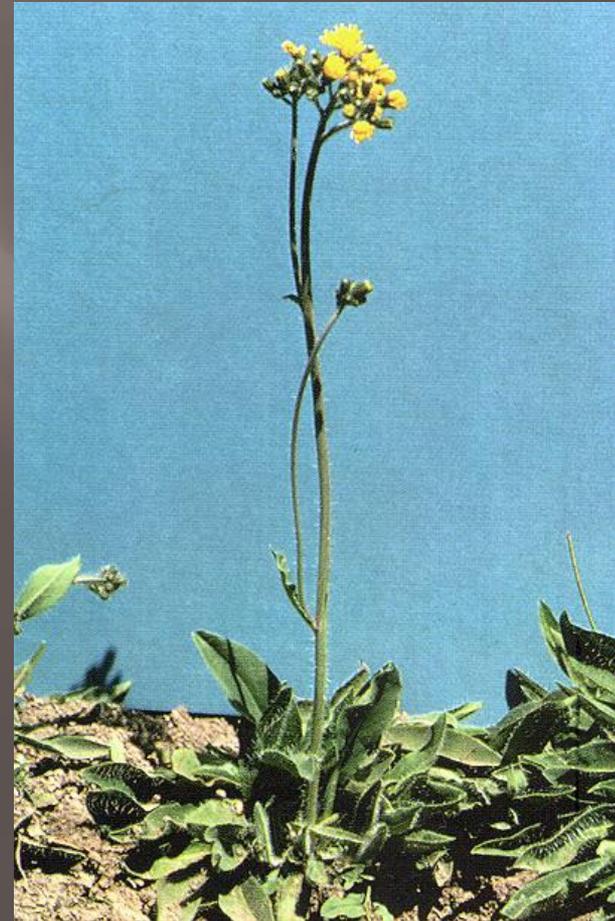


Hawkweeds

- ▣ Orange Hawkweed
Hieracium aurantiacum



- ▣ Meadow (Yellow) Hawkweed
Hieracium pratense





INTEGRATED WEED MANAGEMENT

- ▣ **Cultural Weed Management**
Plant competition and/or fertilization
- ▣ **Physical/Mechanical Weed**
Hand-pulling, tilling, mulching, burning, mowing
- ▣ **Biological Weed Management**
Weevils, flies, root borers, etc.
- ▣ **Chemical Weed Management**
Herbicide use to remove undesirable vegetation

Removal By Mowing



Prescribed Burns



Biological Treatment

- ▣ The intentional use of living organisms to suppress the population of a pest to an acceptable level.



Limitations of Biological Weed Suppression

- ▣ Can Take Years
- ▣ Subject to predators
- ▣ May not establish at site
- ▣ May not be readily available
- ▣ Do not eradicate weed populations

Chemical Applications



You Can Do Your Part by Spreading the Word

- ▣ Learn to Identify Invasive species
- ▣ Clean up your areas & encourage others to do likewise
- ▣ If you see an invasive, take action to get them controlled
- ▣ Be vigilant

Questions?

TRANSPORT OF
INVASIVE SPECIES
IN MONTANA IS
ILLEGAL

INCLUDING:

WOLVES
FEDERAL EMPLOYEES
LIBERALS