

Invasives

1. **DESCRIPTION:** Teams will test knowledge of invasive species found both locally (state) and nationally (nationals).

A TEAM OF UP TO: 2

APPROXIMATE TIME: 50 minutes

2. **EVENT PARAMETES/CONSTRUCTION:**

- a) Students are allowed to bring
 - i) One (1) unmodified state or national invasive species competition list.
 - ii) A two-sided 8.5"x11" page of student prepared notes
- b) No other resources, electronic devices or printed labels will be allowed.

*Note: Currently there is no field guide that includes all of the invasive species. In preparation for this exam students should consider preparing a resource notebook based on invasive species identified by their state or regional agencies (i.e., DNR, DOW, EPA, USDA, etc.)

3. **THE COMPETITION:**

- a. Each team will be given an answer sheet on which they will record answers to each section.
- b. The competition may be run as stations and/or as a PowerPoint presentation.
- c. Specimens/pictures will be lettered or numbered at each station. The event could include live and preserved specimens, skeletal material, recordings of songs, and slides or pictures of specimens.
- d. Participants should be able to do basic identification to the level indicated on the Official List. States may have a modified state or regional list. See your state web site. No more than 50% of the competition will require providing common or scientific names.
- e. Each specimen will have one or more questions accompanying it on some aspect of its life history, distribution, anatomy and physiology, reproduction, habitat characteristics, ecology, diet, behavior, history, control methods, laws and regulation.
- f. The ecology questions may pertain to any ecological aspect of the species, including invasive behavior, habitat, niche, species displacement, trophic level, or adaptive anatomy.

4. **SAMPLE QUESTIONS:**

- a. Describe the history of regulation of zebra mussels in Wisconsin.
- b. Which invasive plant is also a problem host for soybean aphids? (Common Buckthorn)
- c. Which genus of trees is threatened by the *Agilus* genus in America? (*Fraxinus*)

5. **SCORING:** The teams with the highest number of correct answers will be the winners. Selected questions may be used as tiebreakers.

RECOMMENDED RESOURCES:

There is no universal field guide to the invasive species of the United States. For State of Wisconsin Invasive see the following pages:

<http://dnr.wi.gov/invasives/>

<http://www.ipaw.org/>

http://www.uwgb.edu/biodiversity/biota/plants/invasive_species.htm

<http://www.mipn.org/>

For individual state pages go to:

<http://www.centerforplantconservation.org/invasives/links.html>

For general references

<http://www.invasivespeciesinfo.gov/unitedstates/>

http://www.defenders.org/programs_and_policy/science_and_economics/invasives/invasives_by_state/index.php

<http://www.centerforplantconservation.org/invasives/links.html>

**Wisconsin Invasive Species
Official list**

Animalia

Terrestrial

Insects

Adelges tsugae -Hemlock woolly adelgid
Aphis - Soybean Aphid
Agrilus - Emerald Ash Borer
Anoplophora glabripennis-Asian longhorned beetle
Halymorpha halys Brown Marmorated Stink Bug
Harmonia - Multicolored Asian Ladybeetle
Malacosoma - Tent Caterpillar
Porthetria - Gypsy Moth

Mammalia

Sus - Swine
domestica - Feral Domestic
scrofa - Russian Boar

Aquatics

Hypophthalmichthys sp. - Asian Carp
Osmerus - Rainbow Smelt
Neogobius - Round Goby
Petromyzon - Sea Lamprey
Orconectes - Rusty Crayfish
Procambarus clarkia Red swamp crayfish
Dreissena - Mussels
bugensis - Quagga
polymorpha - Zebra
Bythotrephes - Spiny Water Flea
Cercopagis - Fishhook Water Flea
Craspedacusta - Freshwater Jellyfish

Plantae

Alliaria - Garlic Mustard
Centaurea - Spotted Knapweed
Coronilla - Crown Vetch
Dipsacus - Cut-leaved Teasel
Daucus carota- Queen Anne's lace
Euphorbia - Leafy Spurge
Lonicera - Honeysuckle
x bella - Bell's
tatarica - Tartarian
morrowii - Morrow
maackii - Amur
Lythrum - Purple Loosestrife
Melilotus - White Sweet Clover
Myriophyllum - Water Milfoil

Pastinaca sativa Wild parsnip
Phalaris - Reed Canary Grass
Phragmites - Common Reed
Polygonum - Japanese Knotweed
Rhamnus - Buckthorn
 cathartica - Common
 frangula - Glossy
Robinia - Black Locust
Rosa multiflora Multiflora Rose
Typha - Cattail
 x glauca - Hybrid
 angustifolia - Narrow-leaved
Vinca - Common Periwinkle

Fungi

Ophiostoma-Dutch Elm disease
Sirococcus clavignenti-juglandacearum- Butternut canker
Batrachochytrium dendrobatidis –Chitrid
Ceratocystis fagacearum Oak wilt

Microbes

Myxobolus cerebralis -Whirling Disease

Virus

Flavivirus -West Nile virus
Novirhabdovirus -Viral Hemorrhagic Septicemia (VHS)