Most Unwanted AIS Poster

AIS Mini-Poster Project

PROJECT CHALLENGE: Design your own “MOST UNWANTED AIS” poster for an aquatic invasive species that is a threat to Montana lakes, rivers, ponds, and streams.

FIRST: Select ONE of the following to research. Check the box for the topic you selected.
- Asiatic clam (Corbicula fluminea)
- Chinese mystery snail (Cipangopaludina chinensis)
- New Zealand mudsnail (Potamopyrgus antipodarum)
- Quagga mussel (Dreissena rostiformis bugensis)
- Red-rim melania (Melanoides tuberculatus)
- Zebra mussel (Dreissena polymorpha)
- Virile crayfish (Orconectes virilis)
- Bloody red shrimp (Hemimysis anomala)
- Red swamp crayfish (Procambarus clarkii)
- Rusty crayfish (Orconectes rusticus)
- Spiny waterflea (Bythotrephes longimanus)
- Bighead carp (Hypophthalmichthys nobilis)
- Asian swamp eel (Monopterus albus)
- American Bullfrog (Lithobates catesbeianus)
- Northern pike (Esox lucius)
- Northern snakehead (Channa argus)
- Snapping turtle (Chelydra serpentina)
- Brazilian waterweed (Egeria densa)
- Curly-leaf pondweed (Potamogeton crispus)
- Didymo (Didymosphenia geminata)
- Eurasian watermilfoil (Myriophyllum spicatum)
- Flowering rush (Butomus umbellatus)
- Hydilla (Hydrilla verticillata)
- Parrot Feather Water-milfoil (Myriophyllum aquaticum)
- Yellowflag iris (Iris pseudacorus)
- Starry stonewort (Nitellopsis obtusa)

SECOND: Research your AIS topic, complete the AIS Poster Research Guide worksheet, and create a mini-poster on an 8.5” x 11” paper or Google Slide. Please include the following:
- Common name of the organism (and scientific name if it has one).
- Mug shot – A photo, which must be properly cited (see example below), or draw a sketch.
- What to Look For – Physical appearance and any other distinguishing characteristics.
- Modus operandi – Police jargon for “mode of operation.” What physical, chemical, and/or behavioral traits make it an invasive species.
- Last Known Location - Last know locations? Where could it be found in Montana?
- Hide out – What is its preferred habitat?
- Armed and dangerous? – How so? How does it harm the environment and/or economy?
- Tips for capture – Suggest weapons that can be used against it, as well as, ways to detect and prevent it.
- Contact – An agency or appropriate authority to contact if organism is found.
- Miscellaneous – At least two other unique facts that could help lead to its capture.

THIRD: Create a Poster Reference List
- At least two sources (ex. a website, book, or encyclopedia, etc.).
- Source material MUST have an author’s name or be from a reliable organization (.gov, .org, or .edu), otherwise do NOT use it.
- A.P.A. formatted. See provided formatting guide.
- Alphabetized.
- You must submit it separately from your poster.

Photograph of American bullfrog. (Alan D. Wills, 2006)
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**LAST:** Review your poster to make sure the following criteria are met:
- Typed OR neatly hand written.
- Limit the number of words. Not too wordy, nor too sparse!
- ‘Wow’ factor that engages the viewer and helps them to learn about your AIS topic!
- ‘Mug shot’ is sketched, or copied and pasted from the web source (but make sure you cite the source directly beneath the image and include the source in your Reference List).

**Poster Grading Rubric**
Use the following rubric as a guide as you complete your poster.

<table>
<thead>
<tr>
<th></th>
<th>Exceeds</th>
<th>Meets</th>
<th>Does Not Meet</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Content</strong></td>
<td>☐ Common and scientific name included</td>
<td>☐ Common name included</td>
<td>☐ Organism name not included</td>
</tr>
<tr>
<td></td>
<td>☐ Mugshot clearly depicts the organism</td>
<td>☐ Mugshot is included but the organism is difficult to see</td>
<td>☐ Mugshot was either inaccurate or not included</td>
</tr>
<tr>
<td></td>
<td>☐ Physical appearance and distinguishing traits are clearly identified in detail</td>
<td>☐ Physical appearance described</td>
<td>☐ Physical appearance vague or inaccurate</td>
</tr>
<tr>
<td></td>
<td>☐ Explains in detail why the species is invasive</td>
<td>☐ Briefly explains why the species is invasive</td>
<td>☐ Invasive traits unclear</td>
</tr>
<tr>
<td></td>
<td>☐ Hide out clearly identified</td>
<td>☐ Hide out identified</td>
<td>☐ Hide out not identified</td>
</tr>
<tr>
<td></td>
<td>☐ Impacts to the environment and economy described in detail</td>
<td>☐ Provides potential impacts</td>
<td>☐ Impacts unclear</td>
</tr>
<tr>
<td></td>
<td>☐ Accurate tips for detection and/or prevention provided</td>
<td>☐ Minimal tips for detection and/or prevention provided</td>
<td>☐ Detection and/or prevention tips not included</td>
</tr>
<tr>
<td></td>
<td>☐ Contact listed</td>
<td>☐ Contact listed</td>
<td>☐ Contact not listed</td>
</tr>
<tr>
<td></td>
<td>☐ Three or more unique facts included</td>
<td>☐ Two unique facts included</td>
<td>☐ Unique facts not included</td>
</tr>
<tr>
<td><strong>Format</strong></td>
<td>☐ Typed or artistically hand-written</td>
<td>☐ Neatly hand-written</td>
<td>☐ Writing messy or unclear</td>
</tr>
<tr>
<td></td>
<td>☐ Poster design elicits a ‘WOW’</td>
<td>☐ Basic poster design</td>
<td>☐ Text is too wordy</td>
</tr>
<tr>
<td></td>
<td>☐ Text is not too wordy or sparse</td>
<td>☐ Text is too wordy</td>
<td>☐ Text is too sparse</td>
</tr>
<tr>
<td><strong>Reference List</strong></td>
<td>☐ Three or more reliable sources provided in correct A.P.A. format</td>
<td>☐ Two sources provided in A.P.A. format</td>
<td>☐ Less than two sources provided or not in A.P.A format</td>
</tr>
<tr>
<td></td>
<td>☐ Mugshot properly cited and included in reference list</td>
<td>☐ Mugshot cited and included in reference list</td>
<td>☐ Mugshot not cited</td>
</tr>
</tbody>
</table>

**Comments:**
Most Unwanted AIS Poster

Name __________________________

AIS Poster Research Guide

Student Worksheet (3 of 5)

Online resources that you may use to find information about your AIS topic:


Montana Fish, Wildlife and Parks Aquatic Invasive Species website: http://fwp.mt.gov/fishAndWildlife/species/ais/

Yellowstone Coordinating Committee Aquatic Invasive Species Pocket Guide: https://docs.wixstatic.com/ugd/a0f00b_398521b0c8fc42acbc1226ea9c7a3110.pdf

Complete the following as you research your AIS topic:

Common name: __________________________ Scientific name: __________________________

Mug shot (Find a photo or create a sketch) Source/website: __________________________

Physical Description: __________________________

Other distinguishing (unique) characteristics: __________________________

Modus operandi (what makes it invasive): __________________________

Who/what it associates with: __________________________

Armed and dangerous?
How it harms the environment: __________________________

How it harms the economy: __________________________

Where it is found in Montana: __________________________

Hide out (preferred habitat): __________________________

Tips for capture: Weapons that can be used against it, as well as, ways to detect and prevent it: __________

Contact if found: __________________________

Miscellaneous (At least two other unique facts that could help lead to its capture):

1. __________________________

2. __________________________

References (record the websites that you get information from):

________________________

________________________

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A.P.A Referencing Guide
What follows is how to cite the most commonly used sources in APA format and how to make an in-text citation for each example.

**Website:**
Author last name, first initial OR organization's name. (Year of publication). *Title of document*. Retrieved from: URL

**Example of a person as author:**

**Example of organization as author:**

**Article in a magazine or journal:**
Author last name, first initial. (Year, month, day). *Title of article*. *Name of periodical*, issue number, pages. Retrieved from [database name].

**Example:**

**Book:**
Author last name, first initial. (Year of publication). *Title of work: Capital letter also for subtitle*. Location: Publisher.

**Example:**