MBSS Decontamination Procedures
for Boots and Equipment

Monitoring and Non-Tidal Assessment Division
Resource Assessment Service
Maryland Department of Natural Resources
Why decontaminate?
Helps prevent the introduction and spread of nuisance organisms and pathogens

Didymo
Chytrid fungus
Whirling disease

Ranaviruses
Largemouth bass virus
Avian influenza
Viral hemorrhagic septicemia
Statewide ban on felt-soled waders went into effect March 21, 2011, in Maryland.

Felt can retain and transfer organisms and pathogens at a higher rate than rubber.*

Decontaminate all boots and equipment that have come into contact with stream water

-Virkon Aquatic
  • 2% solution = 2 scoops per gallon of water
  • virucide/herbicide
  • designed for use in aquaculture facilities
  • 10 lb. tub is ~$100
  • powder is corrosive (eye and skin burns)

-10% Bleach solution (1 part bleach per 9 parts water)
  • disinfect equipment at least 50 yards from water body

-Dry to touch, then dry for another 48+ hours
Other alternative solutions that are effective...

<table>
<thead>
<tr>
<th>Disinfection Solution</th>
<th>Recommended Concentration</th>
<th>Dilution Formula</th>
<th>Minimum Exposure (Minutes)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Virkon® Aquatic Solution</td>
<td>1 % solution</td>
<td>10g per liter of water 1.3 oz./ gal (packets) 2.6 oz./ 2 gal (sprayer)</td>
<td>10</td>
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<tr>
<td>Chlorine Bleach</td>
<td>10% solution</td>
<td>100ml per liter of water 377 ml. / gal. 12.6 fl. oz. / gal. 1.6 cups / gal.</td>
<td>10</td>
</tr>
<tr>
<td>Lysol (or phenol-based product)</td>
<td>Full Strength</td>
<td>----</td>
<td>&gt; 3</td>
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<tr>
<td>Salt</td>
<td>5 %, 50 ppt., 71,323 µS/cm</td>
<td>0.6 cups / gal. 1.2 cups / 2 gal.</td>
<td>10-30</td>
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<tr>
<td>Ethanol</td>
<td>50%</td>
<td>959 ml per liter of water (for 95% grade)</td>
<td>&gt; 2</td>
</tr>
<tr>
<td>Hot Water</td>
<td>&gt;140°F (60°C)</td>
<td></td>
<td>3-10</td>
</tr>
</tbody>
</table>
Soak equipment in disinfectant
Clean water rinse after soak
A sprayer filled with cleaning agent is an easy and effective way to disinfect between sites. Take boots off before applying cleaning agent.
- Take boots off before applying cleaning agent

- Disinfect any area that came into contact with water from a stream, lake, etc.
Didymo

*Didymosphenia geminata*

- Occurs in the Gunpowder River, Savage River, Big Hunting Creek and North Branch Potomac River

- Spreads rapidly

- Covers substrate when in bloom

- Feels like wet wool (not slimy like most algae)
If you think you see Didymo...

• In a zip-top bag, place:
  – A sample from the center of the colony/mat with a small amount of stream water
  – A paper label with sample location & collection date in pencil
• Store on ice or in the refrigerator
• Call or email:

  Katherine Hanna  
  Maryland DNR  
  katherine.hanna@maryland.gov  
  410-260-8609

Sample must be received by DNR no more than 36 hours after collection