

# HACCP Plan

| <b>HACCP Step 1 - Activity Description</b>               |                                        |
|----------------------------------------------------------|----------------------------------------|
| <b>Facility:</b><br>Iowa Department of Natural Resources | <b>Site:</b><br>Statewide              |
| <b>Project Coordinator:</b><br>Jason Euchner             | <b>Project Description:</b><br>Netting |
| <b>Site Manager:</b><br>Fisheries biologist & technician |                                        |
| <b>Address:</b><br>1436 255th St.<br>Boone, IA 50036     |                                        |
| <b>Phone:</b><br>515-432-2823                            |                                        |

| <b>Project Description</b><br><b>(Who, What, Where, When, How &amp; Why)</b>                                                                                                                                                         |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Who: Fisheries management and research biologists & technicians.<br>What: Netting (passive & active)<br>When: Spring thru fall<br>Where: Statewide rivers and lakes<br>How: Passive & active nets<br>Why: To sample fish populations |

# HACCP Plan

## HACCP Step 2 - Potential Hazard Identification

**Vertebrates:**

Non native fish species (Asian carp, White perch, Round Goby, Ruffe)

**Invertebrates:**

Zebra Mussel, Quagga mussel, Rusty crawfish, Spiny water flea, New Zealand mudsnail

**Plants:**

Eurasian watermilfoil, Curly leaf pondweed, Brittle Naiad

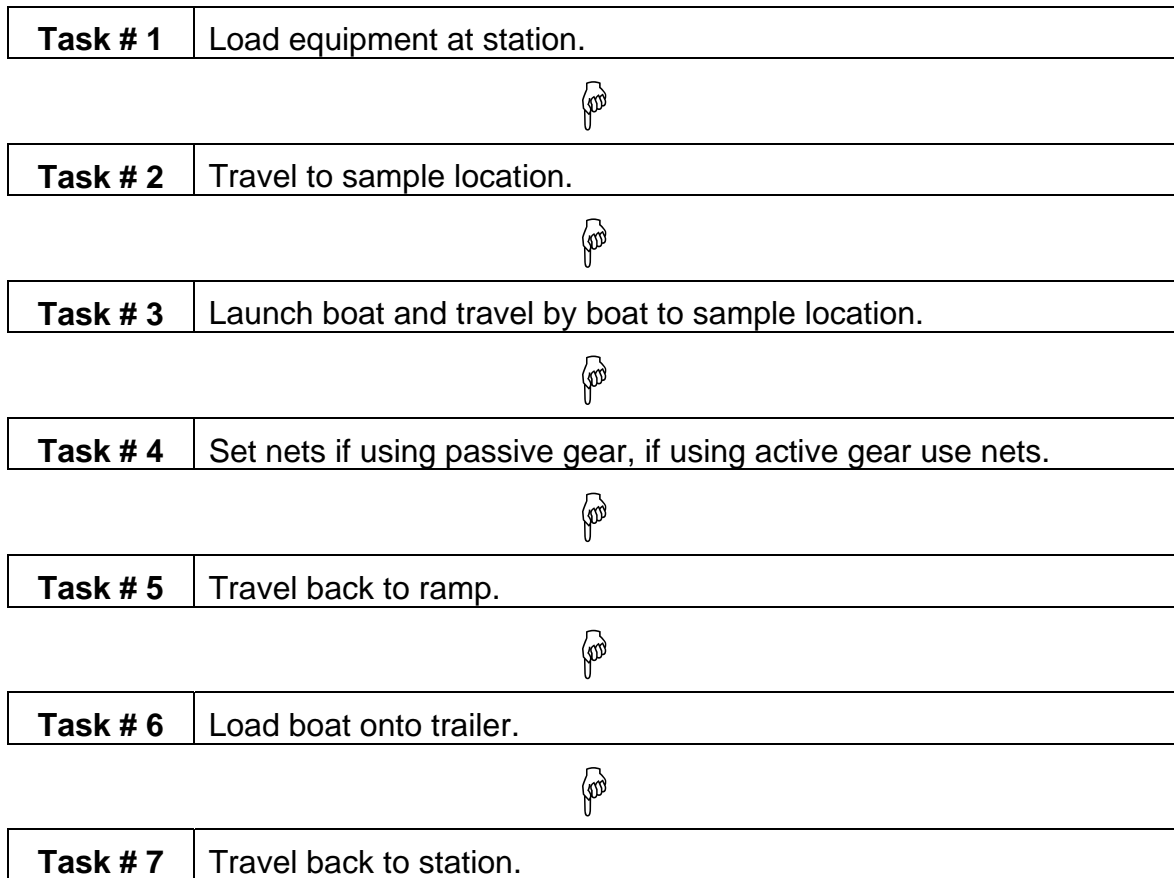
**Other Biologics:**

Largemouth bass virus (LMBV), Viral hemorrhagic septicemia (VHS)

**Others:**

# HACCP Plan

## HACCP Step 3 - Flow Diagram



# HACCP Plan

## HACCP Step 4 - Hazard Analysis

| Task                       | Hazard                                                                                            | Probable? | Justification              | Control Measures | CCP? |
|----------------------------|---------------------------------------------------------------------------------------------------|-----------|----------------------------|------------------|------|
| Load equipment at station. | Vertebrate: Non native fish species (Asian carp, White perch, Round Goby, Ruffe)                  | No        | Equipment should be clean. |                  | No   |
|                            | Invertebrate: Zebra Mussel, Quagga mussel, Rusty crawfish, Spiny water flea, New Zealand mudsnail | No        | Equipment should be clean. |                  | No   |
|                            | Plant: Eurasian watermilfoil, Curly leaf pondweed, Brittle Naiad                                  | No        | Equipment should be clean. |                  | No   |
|                            | Other Biologic: Largemouth bass virus (LMBV), Viral hemorrhagic septicemia (VHS)                  | No        | Equipment should be clean. |                  | No   |
| Travel to sample location. | Vertebrate: Non native fish species (Asian carp, White perch, Round Goby, Ruffe)                  | No        | Equipment should be clean. |                  | No   |
|                            | Invertebrate: Zebra Mussel, Quagga mussel, Rusty crawfish, Spiny water flea, New Zealand mudsnail | No        | Equipment should be clean. |                  | No   |
|                            | Plant: Eurasian watermilfoil, Curly leaf pondweed, Brittle Naiad                                  | No        | Equipment should be clean. |                  | No   |
|                            | Other Biologic: Largemouth                                                                        | No        | Equipment should           |                  | No   |

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|                                                                |                                                                                                   |    |                    |  |    |
|----------------------------------------------------------------|---------------------------------------------------------------------------------------------------|----|--------------------|--|----|
|                                                                | bass virus (LMBV), Viral hemorrhagic septicemia (VHS)                                             |    | be clean.          |  |    |
| Launch boat and travel by boat to sample location.             | Vertebrate: Non native fish species (Asian carp, White perch, Round Goby, Ruffe)                  | No | Staying in system. |  | No |
|                                                                | Invertebrate: Zebra Mussel, Quagga mussel, Rusty crawfish, Spiny water flea, New Zealand mudsnail | No | Staying in system. |  | No |
|                                                                | Plant: Eurasian watermilfoil, Curly leaf pondweed, Brittle Naiad                                  | No | Staying in system. |  | No |
|                                                                | Other Biologic: Largemouth bass virus (LMBV), Viral hemorrhagic septicemia (VHS)                  | No | Staying in system. |  | No |
| Set nets if using passive gear, if using active gear use nets. | Vertebrate: Non native fish species (Asian carp, White perch, Round Goby, Ruffe)                  | No | Staying in system. |  | No |
|                                                                | Invertebrate: Zebra Mussel, Quagga mussel, Rusty crawfish, Spiny water flea, New Zealand mudsnail | No | Staying in system. |  | No |
|                                                                | Plant: Eurasian watermilfoil, Curly leaf pondweed, Brittle Naiad                                  | No | Staying in system. |  | No |

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|                         |                                                                                                   |     |                                                   |                                                                                                                                     |     |
|-------------------------|---------------------------------------------------------------------------------------------------|-----|---------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------|-----|
|                         | Other Biologic: Largemouth bass virus (LMBV), Viral hemorrhagic septicemia (VHS)                  | No  | Staying in system.                                |                                                                                                                                     | No  |
| Travel back to ramp.    | Vertebrate: Non native fish species (Asian carp, White perch, Round Goby, Ruffe)                  | No  | Staying in system.                                |                                                                                                                                     | No  |
|                         | Invertebrate: Zebra Mussel, Quagga mussel, Rusty crawfish, Spiny water flea, New Zealand mudsnail | No  | Staying in system.                                |                                                                                                                                     | No  |
|                         | Plant: Eurasian watermilfoil, Curly leaf pondweed, Brittle Naiad                                  | No  | Staying in system.                                |                                                                                                                                     | No  |
|                         | Other Biologic: Largemouth bass virus (LMBV), Viral hemorrhagic septicemia (VHS)                  | No  | Staying in system.                                |                                                                                                                                     | No  |
| Load boat onto trailer. | Vertebrate: Non native fish species (Asian carp, White perch, Round Goby, Ruffe)                  | Yes | Possible to be in or on nets and other equipment. | Clean nets and equipment off when leaving area, pressure wash everything if in known infested area. Allow nets to dry before using. | Yes |
|                         | Invertebrate: Zebra Mussel, Quagga mussel, Rusty                                                  | Yes | Possible to be in or on nets and other            | Clean nets and equipment off when                                                                                                   | Yes |

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|                         |                                                                                                   |     |                                                     |                                                                                                                                     |     |
|-------------------------|---------------------------------------------------------------------------------------------------|-----|-----------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------|-----|
|                         | crawfish, Spiny water flea, New Zealand mudsnail                                                  |     | equipment.                                          | leaving area, pressure wash everything if in known infested area. Allow nets to dry before using.                                   |     |
|                         | Plant: Eurasian watermilfoil, Curly leaf pondweed, Brittle Naiad                                  | Yes | Possible to have fragments in nets or on equipment. | Clean nets and equipment off when leaving area, pressure wash everything if in known infested area. Allow nets to dry before using. | Yes |
|                         | Other Biologic: Largemouth bass virus (LMBV), Viral hemorrhagic septicemia (VHS)                  | Yes | Possible to be in or on nets and other equipment.   | Clean nets and equipment off when leaving area, pressure wash everything if in known infested area. Allow nets to dry before using. | Yes |
| Travel back to station. | Vertebrate: Non native fish species (Asian carp, White perch, Round Goby, Ruffe)                  | No  | Equipment should be clean.                          |                                                                                                                                     | No  |
|                         | Invertebrate: Zebra Mussel, Quagga mussel, Rusty crawfish, Spiny water flea, New Zealand mudsnail | No  | Equipment should be clean.                          |                                                                                                                                     | No  |

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|  |                                                                                  |    |                            |  |    |
|--|----------------------------------------------------------------------------------|----|----------------------------|--|----|
|  | Plant: Eurasian watermilfoil, Curly leaf pondweed, Brittle Naiad                 | No | Equipment should be clean. |  | No |
|  | Other Biologic: Largemouth bass virus (LMBV), Viral hemorrhagic septicemia (VHS) | No | Equipment should be clean. |  | No |

# HACCP Plan

## HACCP Step 5 - HACCP Plan

### Critical Control Point #1:

#### Task # 6: Load boat onto trailer.

**Significant Hazards:**

Vertebrate: Non native fish species (Asian carp, White perch, Round Goby, Ruffe)

**Control Measures:**

Clean nets and equipment off when leaving area, pressure wash everything if in known infested area. Drain bilge of boat.

**Limits for Control Measures:**

If in known infested system pressure wash nets and equipment.

**Monitoring: What?**

Presence of standing water, or mud on nets and equipment.

**Monitoring: How?**

Visual

**Monitoring: Frequency?**

Once

**Monitoring: Who?**

Crew

**Evaluation & Corrective Actions:**

Re wash all equipment and let it dry before using again.

**Supporting Documentation:**

### Critical Control Point #2:

#### Task # 6: Load boat onto trailer.

**Significant Hazards:**

Invertebrate: Zebra Mussel, Quagga mussel, Rusty crawfish, Spiny water flea, New Zealand mudsnail

**Control Measures:**

Clean nets and equipment off when leaving area, pressure wash everything if in known infested area. Drain bilge of boat.

**Limits for Control Measures:**

If in known infested system pressure wash nets and equipment.

**Monitoring: What?**

Presence of standing water, or mud on nets and equipment.

**Monitoring: How?**

Visual

**Monitoring: Frequency?**

Once

**Monitoring: Who?**

Crew

# HACCP Plan

|                                                                                                                                                              |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <p><b>Evaluation &amp; Corrective Actions:</b><br/>Re wash all equipment and let it dry before using again.</p>                                              |
| <p><b>Supporting Documentation:</b></p>                                                                                                                      |
|                                                                                                                                                              |
| <p><b>Critical Control Point #3:</b><br/><b>Task # 6: Load boat onto trailer.</b></p>                                                                        |
| <p><b>Significant Hazards:</b><br/>Plant: Eurasian watermilfoil, Curly leaf pondweed, Brittle Naiad</p>                                                      |
| <p><b>Control Measures:</b><br/>Clean nets and equipment off when leaving area, pressure wash everything if in known infested area. Drain bilge of boat.</p> |
| <p><b>Limits for Control Measures:</b><br/>If in known infested system pressure wash nets and equipment.</p>                                                 |
| <p><b>Monitoring: What?</b><br/>Presence of plant fragments, or mud on nets and equipment.</p>                                                               |
| <p><b>Monitoring: How?</b><br/>Visual</p>                                                                                                                    |
| <p><b>Monitoring: Frequency?</b><br/>Once</p>                                                                                                                |
| <p><b>Monitoring: Who?</b><br/>Crew</p>                                                                                                                      |
| <p><b>Evaluation &amp; Corrective Actions:</b><br/>Re wash all equipment and let it dry before using again.</p>                                              |
| <p><b>Supporting Documentation:</b></p>                                                                                                                      |
|                                                                                                                                                              |
| <p><b>Critical Control Point #4:</b><br/><b>Task # 6: Load boat onto trailer.</b></p>                                                                        |
| <p><b>Significant Hazards:</b><br/>Other Biologic: Largemouth bass virus (LMBV), Viral hemorrhagic septicemia (VHS)</p>                                      |
| <p><b>Control Measures:</b><br/>Clean nets and equipment off when leaving area, pressure wash everything if in known infested area. Drain bilge of boat.</p> |
| <p><b>Limits for Control Measures:</b><br/>If in known infested system pressure wash nets and equipment.</p>                                                 |
| <p><b>Monitoring: What?</b><br/>Presence of standing water, or mud on nets and equipment.</p>                                                                |
| <p><b>Monitoring: How?</b><br/>Visual</p>                                                                                                                    |
| <p><b>Monitoring: Frequency?</b></p>                                                                                                                         |

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|                                                                                                         |                             |
|---------------------------------------------------------------------------------------------------------|-----------------------------|
| Once                                                                                                    |                             |
| <b>Monitoring: Who?</b><br>Crew                                                                         |                             |
| <b>Evaluation &amp; Corrective Actions:</b><br>Re wash all equipment and let it dry before using again. |                             |
| <b>Supporting Documentation:</b>                                                                        |                             |
|                                                                                                         |                             |
|                                                                                                         |                             |
| <b>Facility:</b><br>Iowa Department of Natural Resources                                                | <b>Activity:</b><br>Netting |
| <b>Address:</b><br>1436 255th St.<br>Boone, IA 50036                                                    |                             |
| <b>Signature:</b>                                                                                       | <b>Date:</b>                |

# HACCP Plan

## HACCP Checklist: Netting

**Facility** Iowa Department of Natural Resources  
**Site** Statewide  
**Coordinator** Jason Euchner  
**Manager** Fisheries biologist & technician  
**Address** 1436 255th St., Boone, IA 50036

- Task # 1: Load equipment at station.**
- Task # 2: Travel to sample location.**
- Task # 3: Launch boat and travel by boat to sample location.**
- Task # 4: Set nets if using passive gear, if using active gear use nets.**
- Task # 5: Travel back to ramp.**
- Task # 6: Load boat onto trailer.**  
**CRITICAL CONTROL POINT**
  - Hazards were contained  
Hazards: Vertebrate: Non native fish species (Asian carp, White perch, Round Goby, Ruffe)
  - Control measures were implemented  
Control Measures: Clean nets and equipment off when leaving area, pressure wash everything if in known infested area.
  - Control limits were maintained  
Control Limits: If in known infested system pressure wash nets and equipment.
  - Corrective actions were (performed if necessary)  
Corrective Actions: Re wash all equipment and let it dry before using again.
- Hazards were contained  
Hazards: Invertebrate: Zebra Mussel, Quagga mussel, Rusty crawfish, Spiny water flea, New Zealand mudsnail
- Control measures were implemented

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Control Measures: Clean nets and equipment off when leaving area, pressure wash everything if in known infested area.

- Control limits were maintained  
Control Limits: If in known infested system pressure wash nets and equipment.
- Corrective actions were (performed if necessary)  
Corrective Actions: Re wash all equipment and let it dry before using again.
  
- Hazards were contained  
Hazards: Plant: Eurasian watermilfoil, Curly leaf pondweed, Brittle Naiad
- Control measures were implemented  
Control Measures: Clean nets and equipment off when leaving area, pressure wash everything if in known infested area.
- Control limits were maintained  
Control Limits: If in known infested system pressure wash nets and equipment.
- Corrective actions were (performed if necessary)  
Corrective Actions: Re wash all equipment and let it dry before using again.
  
- Hazards were contained  
Hazards: Other Biologic: Largemouth bass virus (LMBV), Viral hemorrhagic septicemia (VHS)
- Control measures were implemented  
Control Measures: Clean nets and equipment off when leaving area, pressure wash everything if in known infested area.
- Control limits were maintained  
Control Limits: If in known infested system pressure wash nets and equipment.
- Corrective actions were (performed if necessary)  
Corrective Actions: Re wash all equipment and let it dry before using again.
  
- Task # 7: Travel back to station.**

# HACCP Plan