

Transfer of Lake Ontario sea lamprey larvae into the Upper Great Lakes

HACCP Step 1 - Activity Description	
Facility: Marquette Biological Station Ludington Biological Station	Site: Great Lakes
Project Coordinator: Kasia Mullett Dennis Lavis	Project Description: Sea Lamprey Control
Site Manager:	
Address: 1924 Industrial Pkwy Marquette, MI 49855	
Phone: 906.226.1226	

Project Description (Who, What, Where, When, How & Why)
<p>The U.S. Fish and Wildlife Service, Marquette Biological Station is the U.S. control agent for the Great Lakes Fishery Commission's sea lamprey control program in the Great Lakes. Larval and metamorphosing sea lampreys are used in the program for a variety of studies that support control efforts. Such activities include studies of population growth, survival, and movement; efficacy of lampricides; and pheromone investigations. Because study animals can not always be collected in a tributary or lake basin where they are needed, lampreys are some times collected in a different stream or lake basin. Such transfers of animals from Lake Ontario drainages are of concern because of the presence of emergency and restricted diseases of the Great Lakes Model Program. Disease screening is conducted on animals proposed for transfer. Lampreys screened during 2002-2004 have been free of diseases of concern.</p>

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HACCP Step 2 - Potential Hazard Identification

Vertebrates:

Invertebrates:

Plants:

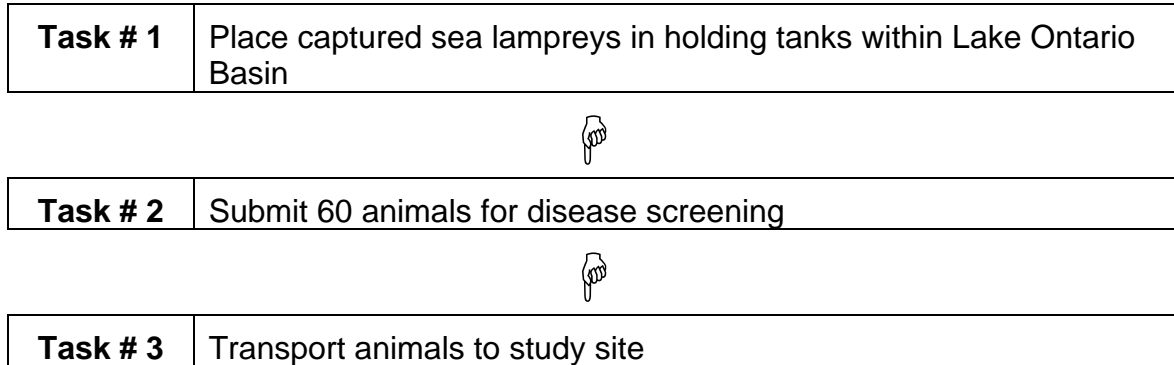
Other Biologics:

Emergency and restricted diseases of the Great Lakes Model Program

Others:

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HACCP Step 3 - Flow Diagram



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HACCP Step 4 - Hazard Analysis

Task	Hazard	Probable?	Justification	Control Measures	CCP?
Place captured sea lampreys in holding tanks within Lake Ontario Basin	Other Biologic: emergency and restricted diseases of the Great Lakes Model Program	No	Heterosporis and VHS have been found in Lake Ontario, though not in lampreys. Other diseases of concern are possible.	Hold lampreys in disease free water source within Lake Ontario basin until results of disease screening are obtained.	Yes
Submit 60 animals for disease screening	Other Biologic: emergency and restricted diseases of the Great Lakes Model Program	No	Heterosporis and VHS have been found in Lake Ontario, though not in lampreys. Other diseases of concern are possible.	Submit 60 lampreys for disease screening. Hold animals until results are obtained and representative of Fish Health Committee clears animals for transfer.	Yes
Transport animals to study site	Other Biologic: emergency and restricted diseases of the Great Lakes Model Program	No			No

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HACCP Step 5 - HACCP Plan

Critical Control Point #1:

Task # 1: Place captured sea lampreys in holding tanks within Lake Ontario Basin

Significant Hazards:

Other Biologic: Emergency and restricted diseases of the Great Lakes Model Program

Control Measures:

Hold lampreys in disease free water source within Lake Ontario basin until results of disease screening are obtained.

Limits for Control Measures:

Hold lampreys in disease free water within Lake Ontario basin until results of disease screening are obtained

Monitoring: What?

Fish Health

Monitoring: How?

Observe fish, monitor D.O., temperature,

Monitoring: Frequency?

Daily

Monitoring: Who?

Department of Fisheries and Oceans , Canada: contracted staff

Evaluation & Corrective Actions:

Destroy animals

Supporting Documentation:

Critical Control Point #2:

Task # 2: Submit 60 animals for disease screening

Significant Hazards:

Other Biologic: emergency and restricted diseases of the Great Lakes Model Program

Control Measures:

Limits for Control Measures:

Submit 60 animals for disease screening

Monitoring: What?

Emergency and restricted diseases of the Great Lakes Model Program

Monitoring: How?

Laboratory analysis

Monitoring: Frequency?

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Per sample, once	
Monitoring: Who? Department of Fisheries and Oceans, Canada; Contract staff, Dr. Mohamed Faisal (Michigan State University)	
Evaluation & Corrective Actions: Destroy animlas	
Supporting Documentation:	
Facility: Marquette Biological Station	Activity: Sea Lamprey Control - SMRT
Address: 1924 Industrial Pkwy Marquette, MI 49855	
Signature:	Date:

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HACCP Checklist:

Sea Lamprey Control - SMRT

Facility Marquette Biological Station

Site Great Lakes

Coordinator Michael Twohey

Manager

Address 1924 Industrial Pkwy, Marquette, MI 49855

- Task # 1: Place captured sea lampreys in holding tanks within Lake Ontario Basin**
CRITICAL CONTROL POINT
 - Hazards were contained
Hazards: Other Biologic: emergency and restricted diseases of the Great Lakes Model Program
 - Control measures were implemented
Control Measures: Hold lampreys in disease free water source within Lake Ontario basin until results of disease screening are obtained.
 - Control limits were maintained
Control Limits: Hold lampreys in disease free water within Lake Ontario basin until results of disease screening are obtained
 - Corrective actions were (performed if necessary)
Corrective Actions: Destroy animals

- Task # 2: Submit 60 animals for disease screening**
CRITICAL CONTROL POINT
 - Hazards were contained
Hazards: Other Biologic: emergency and restricted diseases of the Great Lakes Model Program
 - Control measures were implemented
Control Measures:
 - Control limits were maintained
Control Limits: Submit 60 animals for disease screening
 - Corrective actions were (performed if necessary)

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Corrective Actions: Destroy animals

- Task # 3: Transport animals to study site**