

HACCP Step 1 – Activity Description

Activity Description	
Facility: U.S. Fish & Wildlife Service/ Lower Great Lakes Fishery Resources Office	Site: Amherst, NY
Project Coordinator: Site Manager: Kofi Fynn-Aikins	Activity: Biological Sampling - Trawl net, seine net, trap net, gill net, minnow net, dip net, plankton net, bottom samplers, water samplers, associated gear, boating activity.
Address: 405 North French Rd., Ste. 120A Amherst, NY 14228	
Phone: (716) 691-5456	

Project Description i.e. Who; What; Where; When; How; Why
<p>The Lower Great Lakes Fishery Resources Office (LGLFRO) conducts various biological sampling operations in the Great Lakes basin, St. Lawrence River, and throughout Pennsylvania and New York. These projects occur year-round and through the winter. These projects support various programs including native species restoration, aquatic nuisance species monitoring and prevention, outreach and education, habitat restoration, GIS research, and collaborative work with federal, state, local and non-governmental partners. Various nets (i.e. trawl nets, seine nets, trap nets, gill nets, minnow nets, plankton nets, and dip nets) and other field equipment (i.e. electro-fishers, ponar samplers, Vandorn bottles, boots, waders, and water quality meters) are used throughout the year for these projects. Additional boat use occurs separately or in association with these projects.</p>

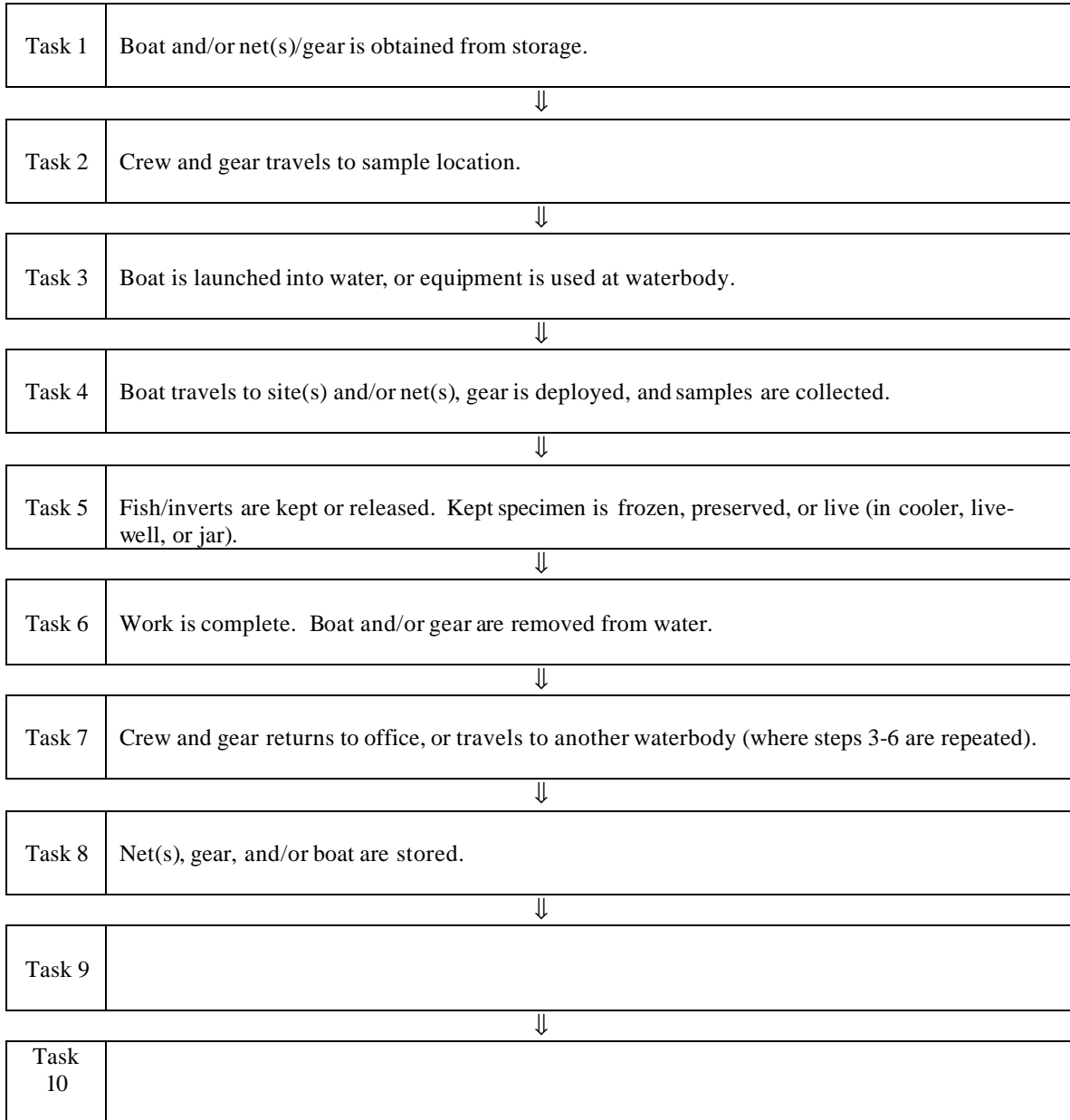
HACCP Step 2 – Identify Potential Hazards

(to be transferred to column 2 of HACCP Step 4 – Hazard Analysis Worksheet)

Hazards: Species Which May Potentially Be Moved/Introduced
Vertebrates: Fish including round goby, ruffe, Asian carp, rudd, white perch.
Invertebrates: Spiny waterflea, fishhook waterflea, Asian clam, zebra and quagga mussel adults and veligers, bloody red shrimp .
Plants: Eurasian watermilfoil, water chestnut, curly-leaf pondweed, hydrilla, common reed (<i>Phragmites</i>), purple loosestrife.
Other Biologics (e.g. disease, pathogen, parasite, genetics): Whirling disease, BKD, VHS
Others (e.g. construction materials, etc.): NA

HACCP Step 3 – Flow Diagram

Flow Diagram Outlining Sequential Tasks to Complete Activity/Project
Described in HACCP Step 1 – Activity Description
(to be transferred to column 1 of the HACCP Step 4 – Hazard Analysis Worksheet)



HACCP Step 4 - Hazard Analysis Worksheet

1 Tasks (from HACCP Step 3 - Flow Diagram)	2 Potential hazards identified in HACCP Step 2	3 Are any potential hazards probable? (yes/no)	4 Justify evaluation for column 3	5 What control measures can be applied to prevent undesirable results?	6 Is this task a critical control point? (yes/no)
Task 1 Boat and/or net(s)/gear is obtained from storage.	Vertebrates Round goby, ruffe, Asian carp, rudd, white perch.	NO	Species will not survive out of water		NO
	Invertebrates Spiny and fishhook waterfleas, Asian clam, zebra mussel adults and veligers, bloody red shrimp.	NO	Boat/gear was washed/disinfected after previous use. Check log.		NO
	Plants Eurasian watermilfoil, water chestnut, curly- leaf pondweed, hydrilla, common reed (<i>Phragmites</i>), purple loosestrife.	NO	Boat/gear was washed/disinfected after previous use. Check log.		NO
	Others VHS/other disease in collected specimens, bilge or other water	NO	Boat/gear was washed/disinfected after previous use. Check log.		NO

1 Tasks (from HACCP Step 3 - Flow Diagram)	2 Potential hazards identified in HACCP Step 2	3 Are any potential hazards probable? (yes/no)	4 Justify evaluation for column 3	5 What control measures can be applied to prevent undesirable results?	6 Is this task a critical control point? (yes/no)
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Task 2 Crew and gear travels to sample location.	Vertebrates	NO	Gear cleaned/inspected after previous use.		NO
	Invertebrates	NO	Gear cleaned/inspected after previous use.		NO
	Plants	NO	Gear cleaned/inspected after previous use.		NO
	Others	NO	Gear cleaned/inspected after previous use.		NO

1 Tasks (from HACCP Step 3 - Flow Diagram)	2 Potential hazards identified in HACCP Step 2	3 Are any potential hazards probable? (yes/no)	4 Justify evaluation for column 3	5 What control measures can be applied to prevent undesirable results?	6 Is this task a critical control point? (yes/no)
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Task 3 Boat is launched into water, or equipment is used at waterbody.	Vertebrates	NO	Gear cleaned/inspected after previous use. No species movement at this step.		NO
	Invertebrates	NO	Gear cleaned/inspected after previous use. No species movement at this step.		NO
	Plants	NO	Gear cleaned/inspected after previous use. No species movement at this step.		NO
	Others	NO	Gear cleaned/inspected after previous use. No species movement at this step.		NO

1 Tasks (from HACCP Step 3 - Flow Diagram)	2 Potential hazards identified in HACCP Step 2	3 Are any potential hazards probable? (yes/no)	4 Justify evaluation for column 3	5 What control measures can be applied to prevent undesirable results?	6 Is this task a critical control point? (yes/no)
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Task 4 Boat travels to site(s) and/or net(s), gear is deployed, and samples are collected.	Vertebrates Round goby, ruffe, Asian carp, rudd, white perch.	YES	AIS could be collected	Hazard controlled at subsequent step	NO
	Invertebrates Spiny and fishhook waterfleas, Asian clam, zebra mussel adults and veligers, bloody red shrimp.	YES	AIS could be collected	Hazard controlled at subsequent step	NO
	Plants Eurasian watermilfoil, water chestnut, curly- leaf pondweed, hydrilla, common reed (<i>Phragmites</i>), purple loosestrife.	YES	AIS could be collected	Hazard controlled at subsequent step	NO
	Others VHS/other disease in collected specimens, bilge or other water	YES	VHS or other disease could be picked up in samples/water.	Hazard controlled at subsequent step	NO

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Task 5 Fish/inverts are kept or released. Kept specimen is frozen, preserved, or live (in cooler, live-well, or jar).	Vertebrates Round goby, ruffe, Asian carp, rudd, white perch.	YES	Invasive species could be collected	Visually inspect catch and do not release invasive or unknown species	YES
	Invertebrates Spiny and fishhook waterfleas, Asian clam, zebra mussel adults and veligers, bloody red shrimp.	YES	Invasive species could be collected	Visually inspect catch and do not release invasive or unknown species	YES
	Plants Eurasian watermilfoil, water chestnut, curly-leaf pondweed, hydrilla, common reed (<i>Phragmites</i>), purple loosestrife.	YES	Invasive species could be collected	Visually inspect catch and do not release invasive or unknown species	YES
	Others VHS/other disease in collected specimens, bilge or other water	YES	VHS could be picked up in samples/water.	Do not release/transport live specimens or water from one water body to another.	NO

1 Tasks (from HACCP Step 3 - Flow Diagram)	2 Potential hazards identified in HACCP Step 2	3 Are any potential hazards probable? (yes/no)	4 Justify evaluation for column 3	5 What control measures can be applied to prevent undesirable results?	6 Is this task a critical control point? (yes/no)
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Task 6 Work is complete. Boat and/or gear are removed from water.	Vertebrates Round goby, ruffe, Asian carp, rudd, white perch.	YES	Small fish could remain in holding areas.	Visually inspect boat, trailer, gear/remove any visible material. Drain bilge at boat ramp. Apply Virkon spray in suspect areas.	YES
	Invertebrates Spiny and fishhook waterfleas, Asian clam, zebra mussel adults and veligers, bloody red shrimp.	YES	Invasive species could remain attached to boat/trailer/gear.	Visually inspect boat, trailer, gear/remove any visible material. Drain bilge at boat ramp. Apply Virkon spray in suspect areas.	YES
	Plants Eurasian watermilfoil, water chestnut, curly- leaf pondweed, hydrilla, common reed (<i>Phragmites</i>), purple loosestrife.	YES	Invasive species could remain attached to boat/trailer/gear.	Visually inspect boat, trailer, gear/remove any visible material. Drain bilge at boat ramp. Apply Virkon spray in suspect areas.	YES
	Others VHS/other disease in collected specimens, bilge or other water	YES	VHS could be present in water, live specimens.	Visually inspect boat, trailer, gear/remove any visible material. Drain bilge at boat ramp. Apply Virkon spray in suspect areas.	YES

1 Tasks (from HACCP Step 3 - Flow Diagram)	2 Potential hazards identified in HACCP Step 2	3 Are any potential hazards probable? (yes/no)	4 Justify evaluation for column 3	5 What control measures can be applied to prevent undesirable results?	6 Is this task a critical control point? (yes/no)
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Task 7 Crew and gear returns to office, or travels to another waterbody (where steps 3-6 are repeated).	Vertebrates	NO	Hazard controlled in Task 6.		NO
	Invertebrates	NO	Hazard controlled in Task 6.		NO
	Plants	NO	Hazard controlled in Task 6.		NO
	Others	NO	Hazard controlled in Task 6.		NO

1 Tasks (from HACCP Step 3 - Flow Diagram)	2 Potential hazards identified in HACCP Step 2	3 Are any potential hazards probable? (yes/no)	4 Justify evaluation for column 3	5 What control measures can be applied to prevent undesirable results?	6 Is this task a critical control point? (yes/no)
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Task 8 Net(s), gear, and/or boat are stored.	Vertebrates Round goby, ruffe, Asian carp, rudd, white perch.	Yes	Invasive species could be present from last use.	Thoroughly clean/rinse trailer, boat. Rinse all gear in Virkon bath or power-washer. Sign Step 5 Sheet.	Yes
	Invertebrates Spiny and fishhook waterfleas, Asian clam, zebra mussel adults and veligers, bloody red shrimp.	Yes	Invasive species could be present from last use.	Thoroughly clean/rinse trailer, boat. Rinse all gear in Virkon bath or use power-washer. Sign Step 5 Sheet.	Yes
	Plants Eurasian watermilfoil, water chestnut, curly- leaf pondweed, hydrilla, common reed (<i>Phragmites</i>), purple loosestrife.	Yes	Invasive species could be present from last use.	Thoroughly clean/rinse trailer, boat. Rinse all gear in Virkon bath or power-washer. Sign Step 5 Sheet.	Yes
	Others VHS/other disease in collected specimens, bilge or other water	Yes	VHS could be present in water, live specimens from last use.	Thoroughly clean/rinse trailer, boat. Rinse all gear in Virkon bath or power-washer. Sign Step 5 Sheet.	Yes

For additional pages, select entire page and copy to a new page.

HACCP Step 5 – HACCP Plan Form

HACCP Plan Form

(all CCP's or "yes's" from column 6 of HACCP Step 4 – Hazard Analysis Worksheet)

Critical Control Point (CCP)	Significant Hazard(s)	Limits for each Control Measure	Monitoring				Evaluation & Corrective Action(s) (if needed)	Supporting Documentation (if any)
			What	How	Frequency	Who		
<p><u>Task #5</u> Fish/inverts are kept or released. Kept specimen is frozen, preserved, or live (in cooler, live-well, or jar).</p>	Fish, plants, invertebrates, or VHS/diseases could have been picked up.	Catch is thoroughly examined for unknown or invasive species.	Catch	Visually	When fish are collected.	All crew	Do not release invasive or unknown species. Do not transport water from one watershed to another.	
<p><u>Task #6</u> Work is complete. Boat and/or gear are removed from water.</p>	Invertebrates, plants, or VHS/diseases could remain in gear, water, or on boat.	If traveling to new water body, boat/trailer/gear is examined and disinfected for ≤ 10min.	Boat/trailer/gear	Visually inspect, drain bilge, apply VIRKON spray ≤10min, rinse	Before traveling to each new waterbody.	All crew	Check off on HACCP data sheet.	See VIRKON documentation on reverse.
<p><u>Task #8</u> Net(s), gear, and boat are stored.</p>	Invasive species, VHS/diseases could remain.	Boat/trailer/gear are power-washed and disinfected for ≤ 10min.	Boat/trailer/gear	Visually inspect, drain bilge, rinse in VIRKON bath for ≤10min, rinse	After each return to the office.	All crew	Check off on HACCP data sheet.	Sign/date below. Keep sheet on clipboard for next crew to verify prior to use. See VIRKON documentation on reverse.

Facility: USFWS/Lower Great Lakes Fishery Resources Office

Activity: Biological Sampling

Address: 405 North French Rd., Suite 120A
Amherst, NY 14228

Signature:

Date:

HACCP Plan was followed.