

Gulf Sturgeon HACCP Plan (Hazard Analysis Critical Control Point)

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1) Activity Description

Facility: Warm Springs National Fish Hatchery	Site: Warm Springs National Fish Hatchery
Project Coordinator: Carlos Echevarria	Activity: Gulf Sturgeon for Research
Site Manager: Carlos Echevarria	
Address: 5308 Spring Street Warm Springs, GA 31830	
Phone: (706) 655-3382	

Project Description

i.e. Who; What; Where; How; Why

Warm Springs National Fish Hatchery receives Gulf sturgeon from other state and federal facilities. Sturgeon are brought to WSNFH on hauling trucks and transferred WSNFH holding units. Gulf sturgeon are used for cryopreservation of gametes, sterilization, transmitter implantation, culture and propagation.

2) Identify Potential Hazards

Hazards: Species which may potentially be moved/introduced

Vertebrates: None
Invertebrates: None
Plants: None
Other Biologics: bacteria, parasites, protozoans, fungus
Others: None

3) Flow Diagram

Step 1	Shorthnose sturgeon arrive in hauling tanks from another facility
Step 2	Sturgeon dip-netted from hauling tanks into quarantine tanks
Step 3	Implements utilized in fish transfer from hauling tank to holding tank disinfected with 600ppm Roccal for 30 minutes
Step 4	Animals held in quarantine for a minimum of 30 days
Step 5	Quarantine effluent disinfected with 300ppm chlorine
Step 6	Animals are periodically inspected by Fish Health Center personnel, pending results, approved for movement to other holding areas
Step 7	“Clean” animals moved to wetlab or ponds at WSRFC for study purposes
Step 8	Quarantine facility disinfected with 300ppm chlorine solution: contact time 60 minutes

4) Hazard Analysis Worksheet

(1) Harvest or Aquaculture Step	(2) Identify potential ANS hazards introduced or controlled at this step (1)	(3) Are any potential ANS hazards significant? (Yes/No)	(4) Justify your decisions for column 3	(5) What control measures can be applied to prevent the significant hazards	(6) Is this step a critical control point? (Yes/No)
(1) Gulf sturgeon arrive in hauling tank from another facility	Fish/other vert: various	Yes	Verts may accidentally be placed in hauling tanks	Visually inspect hauling tanks and remove unwanted verts	No
	Invertebrates: various	Yes	Inverts may accidentally be placed in hauling tanks	Visually inspect hauling tanks and remove unwanted inverts	No
	Plants: various	Yes	Plant material may accidentally be placed in hauling tanks	Visually inspect hauling tanks and remove unwanted plant material	No
	Other biologics: bacteria, parasites, protozoans, fungus	Yes	Fish or transport water may harbor ANS biologics	Dip-net fish from tanks to minimize water transfer	No
(2) Sturgeon dip-netted from hauling tank into quarantine tanks, minimizing water transfer	Fish/other vert: none	No	Reduced to acceptable risk in Step 1	NA	No
	Invertebrates: none	No	Reduced to acceptable risk in Step 1	NA	No
	Plants: none	No	Reduced to acceptable risk in Step 1	NA	No
	Other biologics: bacteria, parasites, protozoans, fungus	Yes	Fish or transport water may harbor ANS biologics	Dip-net fish from tanks to minimize water transfer	No
(3) Implements utilized in fish transfer disinfected	Fish/other vert: none	No	Reduced to acceptable risk in Step 1	NA	No
	Invertebrates: none	No	Reduced to acceptable risk in Step 1	NA	No
	Plants: none	No	Reduced to acceptable risk in Step 1	NA	No
	Other biologics: bacteria, parasites, protozoans, fungus	Yes	Fish or transport water may harbor ANS biologics	Disinfect implements in 600ppm Roccal for 30 minutes	No
(4) Animals held in quarantine for a minimum of 30 days	Fish/other vert: none	No	Reduced to acceptable risk in Step 1	NA	No
	Invertebrates: none	No	Reduced to acceptable risk in Step 1	NA	No
	Plants: none	No	Reduced to acceptable risk in Step 1	NA	No
	Other biologics: bacteria, parasites, protozoans, fungus	Yes	Fish or transport water may harbor ANS biologics	Therapeutically treat animals	Yes
(5) Qaurantine effluent disinfected	Fish/other vert: none	No	Reduced to acceptable risk in Step 1	NA	No
	Invertebrates: none	No	Reduced to acceptable risk in Step 1	NA	No
	Plants: none	No	Reduced to acceptable risk in Step 1	NA	No
	Other biologics: bacteria, parasites, protozoans, fungus	Yes	Effluent may contain biologics which could potentially enter "clean" hatchery water source	Disinfect effluent with 300ppm chlorine for 60 minutes	Yes
(6) Animals periodically inspected by Fish Health Center personnel, pending results, approved for movement to other holding areas	Fish/other vert: none	No	Reduced to acceptable risk in Step 1	NA	No
	Invertebrates: none	No	Reduced to acceptable risk in Step 1	NA	No
	Plants: none	No	Reduced to acceptable risk in Step 1	NA	No
	Other biologics: bacteria, parasites, protozoans, fungus	Yes	Fish must receive a clean fish health report before leaving quarantine system	Diagnostic evaluation by Fish Health Center personnel	Yes

4) Hazard Analysis Worksheet cont'd

(7) "Clean" animals moved to appropriate holding areas (raceways/ponds) at WSRFC for study purposes	Fish/other vert: none	No	Reduced to acceptable risk in Step 1	NA	No
	Invertebrates: none	No	Reduced to acceptable risk in Step 1	NA	No
	Plants: none	No	Reduced to acceptable risk in Step 1	NA	No
	Other biologics: none	No	Reduced to an acceptable level in step 6	NA	No
(8) Quarantine facility disinfected with 300ppm chlorine solution	Fish/other vert: none	No	Reduced to acceptable risk in Step 1	NA	No
	Invertebrates: none	No	Reduced to acceptable risk in Step 1	NA	No
	Plants: none	No	Reduced to acceptable risk in Step 1	NA	No
	Other biologics: bacteria, parasites, protozoans, fungus	Yes	Precautionary step to disinfect system before new animals arrive	Quarantine building disinfected with 300ppm chlorine solution	No

5) ANS-HACCP Plan Form

(1) Critical Control Point (CCP)	(2) Significant Hazard(s)	(3) Limits for each Control Measure	Monitoring				(8) Evaluation and Corrective Action(s) (if needed)	(9) Supporting Documentation (if any)
			(4) What	(5) How	(6) Frequency	(7) Who		
(4) Animals held in quarantine for a minimum of 30 days	Other biologics: bacteria, parasites, protozoans, fungus	Animals held in quarantine for a minimum of 30 days prior to transfer to other holding areas	Time	Days, Fish Health inspections	Upon arrival, prior to movement	Hatchery employee, Fish Health personnel	Prophylactic and therapeutic treatment of diseases, increase quarantine time	Quarantine building daily records
(5) Quarantine effluent disinfected	Other biologics: bacteria, parasites, protozoans, fungus	Effluent disinfected with 300ppm chlorine for 60 minutes	[] chlorine solution, time	Measure [] chlorine	Each time quarantine water is exchanged	Hatchery employee	Increase chlorine [] and/or contact time	Quarantine building daily records
(6) Animals periodically inspected by Fish Health Center personnel, pending results, approved for movement to other holding areas	Other biologics: bacteria, parasites, protozoans, fungus	Diagnostic evaluation by Fish Health Center personnel	bacteria, parasites, protozoans, fungus	Fish Health diagnostics	Upon arrival, prior to movement	Fish Health Center personnel	Therapeutic treatment of disease	Quarantine building daily records
Facility: Warm Springs National Fish Hatchery				Activity: Gulf Sturgeon				
Address: 5308 Spring Street Warm Springs, GA 31830								
Signature:				Date:				
HACCP Plan Was Followed								