

DRAFT

CLAM CHRONICLES – 2010

An account of activities associated with efforts to propagate, repatriate and monitor *Lampsilis higginsii* and other rare mussels in the Mississippi River, Minnesota

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2010 FIELD SEASON



Monitoring the Sturgeon Lake *Lampsilis higginsii* reintroduction site in Pool 3.

April 23, 2010: Five female *Epioblasma triquetra* and nine *Actinonaias ligamentina* were collected at Interstate Park on the St. Croix River to be used for propagation work.

May 10, 2010: Eight cages containing 200 logperch inoculated with larvae from five *Epioblasma triquetra* and eighteen cages containing 720 largemouth bass inoculated with *Actinonaias ligamentina* larvae were placed at the Houlton cage site (figure 1). Five Hundred smallmouth bass inoculated with *Actinonaias ligamentina* larvae were released into Upper Pool 2, Mississippi River at the Hidden Falls boat ramp.

May, 2010: Thirty closed bottom cages containing largemouth bass inoculated with *Lampsilis higginsii* larvae from the Prairie du Chien collection site were placed at a new site next to the Lock and Dam 7 dike (Figure 2).

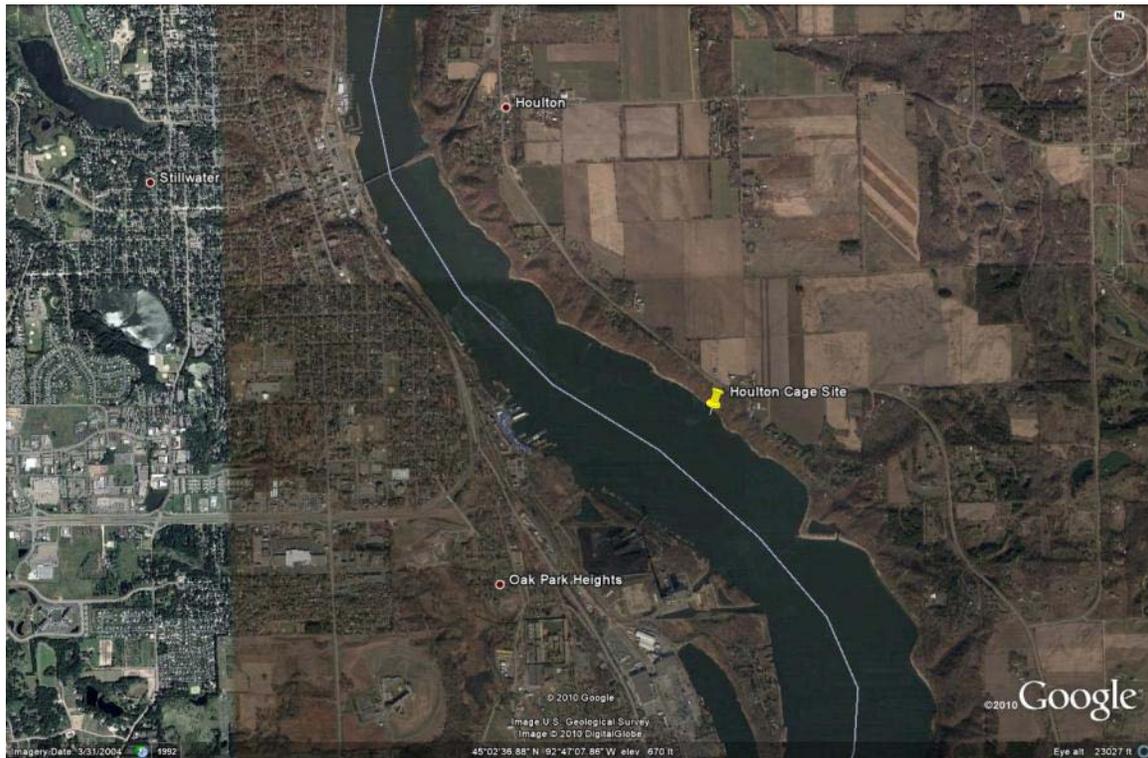


Figure 1. St. Croix River propagation cage site established in area between green dots.

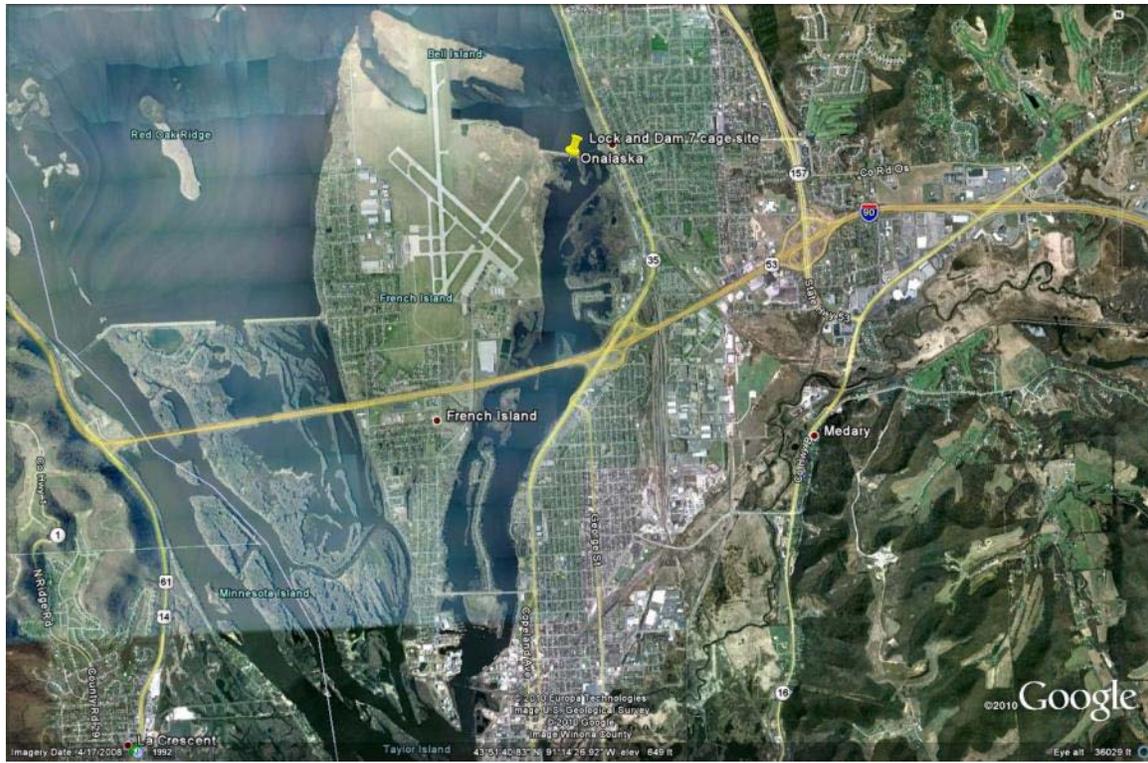


Figure 2. Cage site Lock and Dam 7 Dike'

June 3, 2010: Pool 6 water level management mussel corral experiment – See attached report.

June 9, 2010: Sturgeon Lake Pool 3, monitoring *Lampsilis higginsii* reintroduction site – See attached report.

July 2, 2010: Fish were released from propagation cages at Houlton on the St. Croix.

July 24, August 12 2010: Monitoring at Winter's Landing Essential Habitat Area – See attached report.

August 14, 2010: Upper Pool 4 Wisconsin Channel reintroduction site surveys – See attached report.

September 14-16, 2010: Cages at the Holton site were retrieved (Figure 3) and contents searched (Figure 4) to recover 6,477 live 2008 cohort *Lampsilis higginsii*. Each individual was marked with black superglue to identify it as an introduced individual for the purpose of monitoring for natural reproduction in the area of reintroduction (Figure 5). These sub adults were then released at three reintroduction sites in the Mississippi River above Lake Pepin (Table 1 and Figure 6).



Figure 3. Propagation cages are retrieved for assessment at the Houlton site.



Figure 4. *Lampsilis higginsii* are rinsed free of sediment and all zebra mussels removed



Figure 5. *Lampsilis higginsii* are marked with black superglue for monitoring purposes.

Site name	Number of sub adults placed
Hidden Falls – Upper Pool 2	1,900
Sturgeon Lake – Lower Pool 3	1,631
Wisconsin Channel – Upper Pool 4	2,946

Table 1. Number of *Lampsilis higginsii* placed at each of three reintroduction sites in 2010.

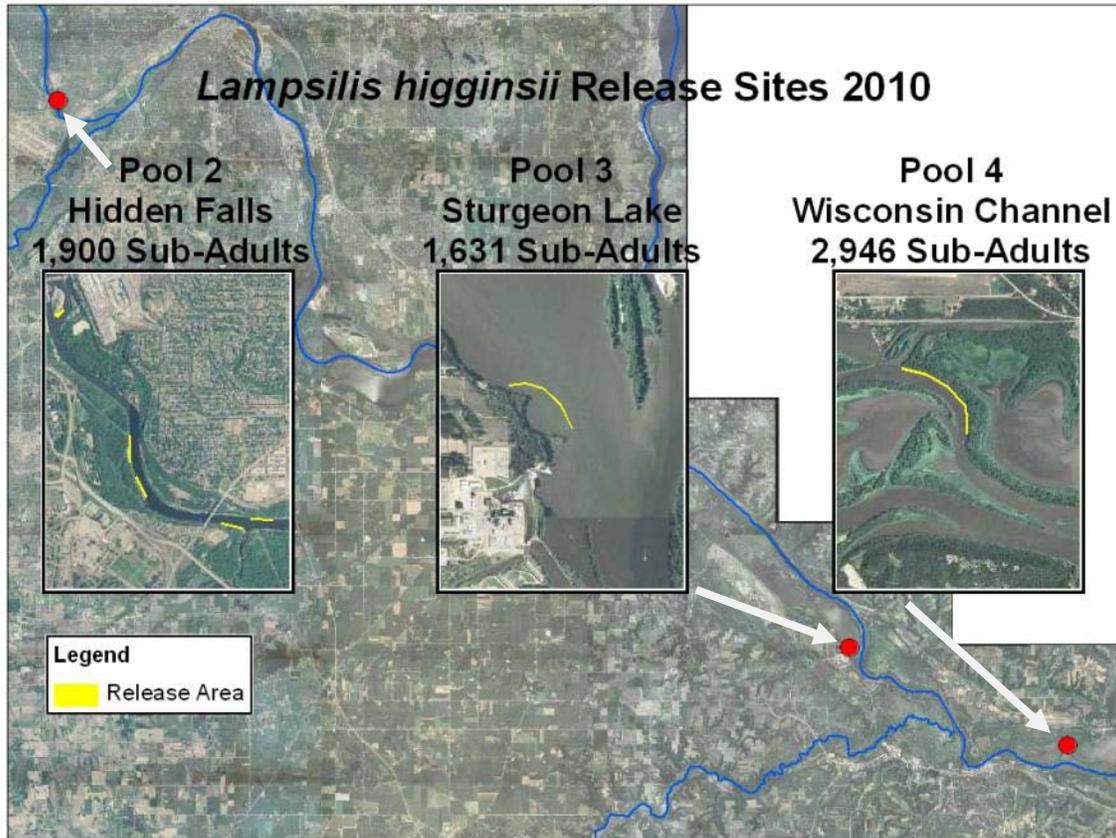


Figure 6. *Lampsilis higginsii* release sites in 2010.

Also retrieved were 1,826 *Actinonaias ligamentina* and 580 *Epioblasma triquetra* from 2009 propagation cages (Figures 7 and 8) that were released at the Hidden Falls site.



Figure 7. *Actinonaias ligamentina* marked and ready for release at reintroduction site.



Figure 8. *Epioblasma triquetra* from 2009 are ready for placement at the Hidden Falls reintroduction site.

November 17, 2010: One thousand channel catfish inoculated with *Megalonaias nervosa* were released into Upper Pool 2 at the Hidden Falls boat ramp.