

# Ganaraska River Spring Fishway Summaries 2012 -2015: Preliminary Highlights



**Prepared By:**

**Ganaraska Region Conservation Authority**

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The Ganaraska River fishway is managed by the Ontario Ministry of Natural Resources and Forestry (OMNRF), where they collect annual spring Rainbow Trout/Steelhead adult population estimates from mature fish migrating upstream to spawn. Adults have been enumerated utilizing an electronic fish counter (Pulsar Model 550) since 1987 with the assistance of the Ganaraska Fishway volunteers. Environmental variables were collected by the Ganaraska Region Conservation Authority, from a stream flow gauge at Sylvan Glen. A total population estimate is conducted by the OMNRF by modeling the relationship of Rainbow Trout counts with maximum river temperature (°C) and stream discharge (m<sup>3</sup>/s). The following figures highlight the number of adult Rainbow Trout observed/estimated at the fishway, and how environmental variables influence migration.

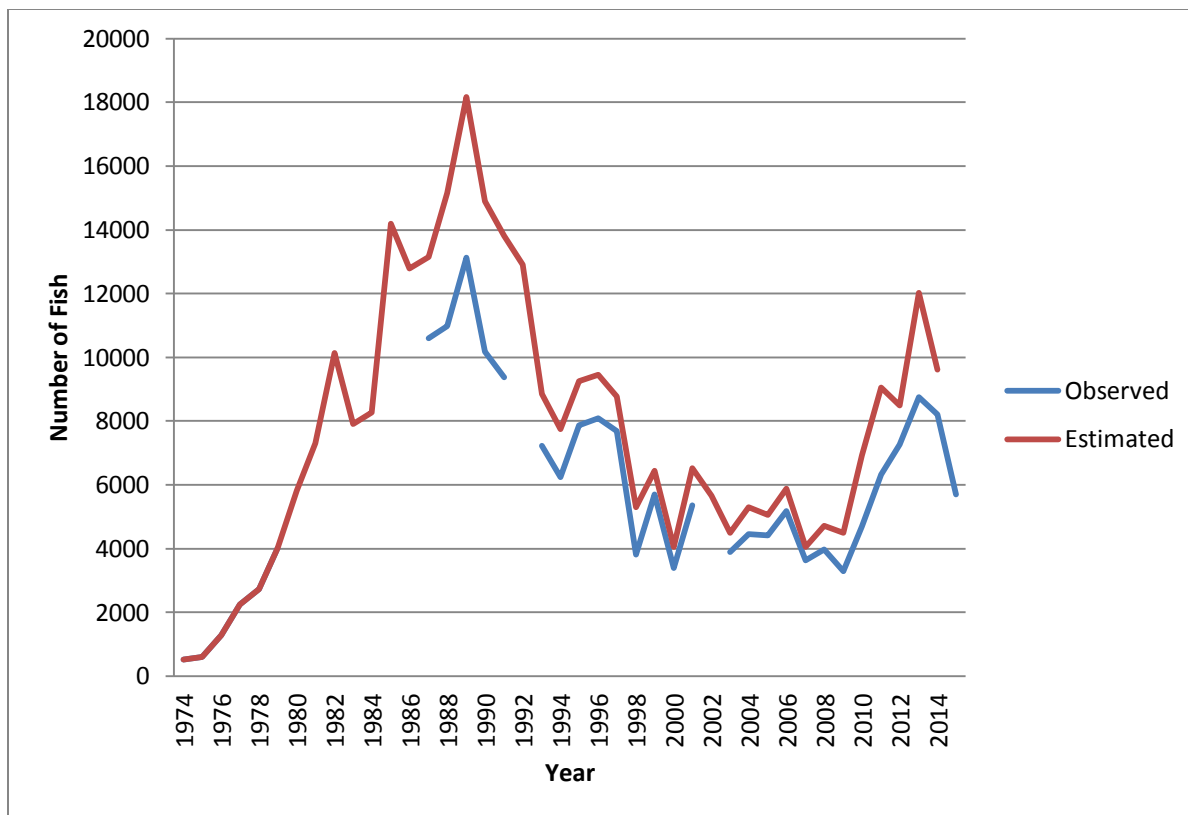


Figure 1. Ganaraska spring Rainbow Trout population estimate. Source: Ontario Ministry of Natural Resources and Forestry – Lake Ontario Management Unit.

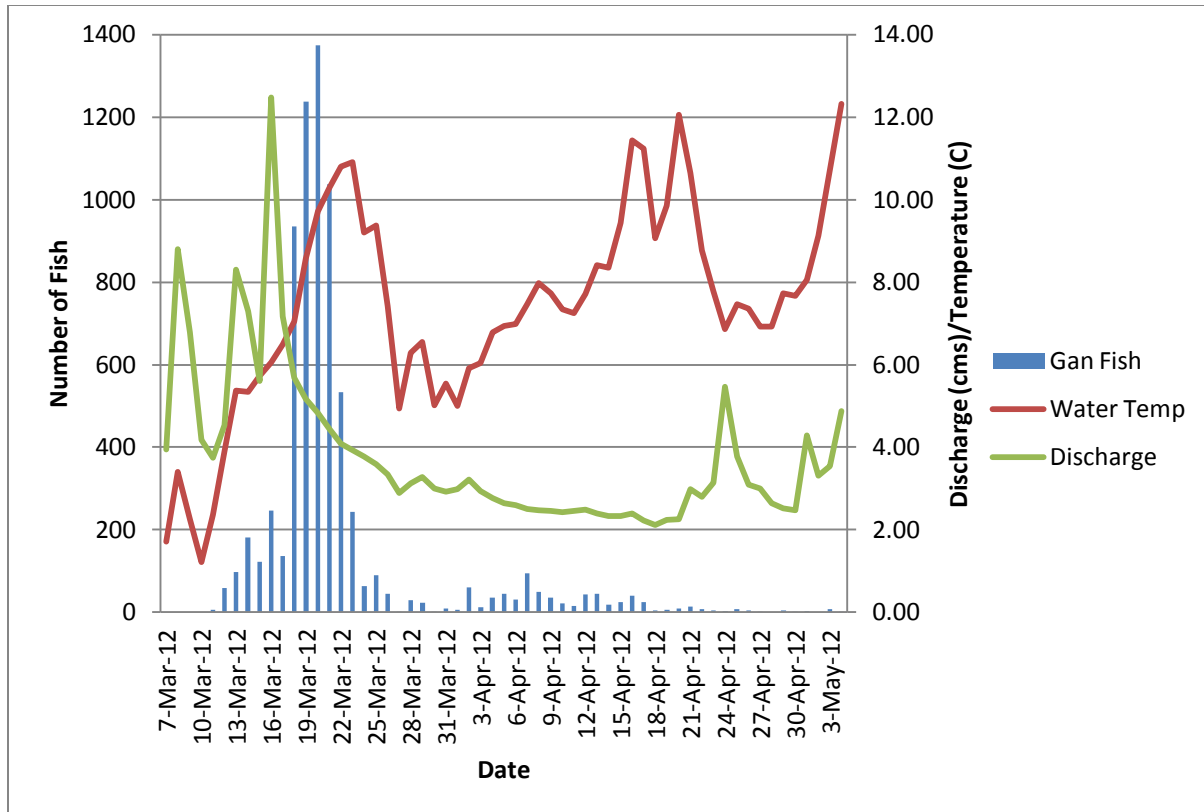


Figure 2. Ganaraska spring Rainbow Trout movement and environmental conditions in Spring 2012. Water temperature is daily average in degrees Celsius, and discharge is cubic meters per second. Adult Rainbow Trout Data: Ontario Ministry of Natural Resources – Lake Ontario Management Unit.

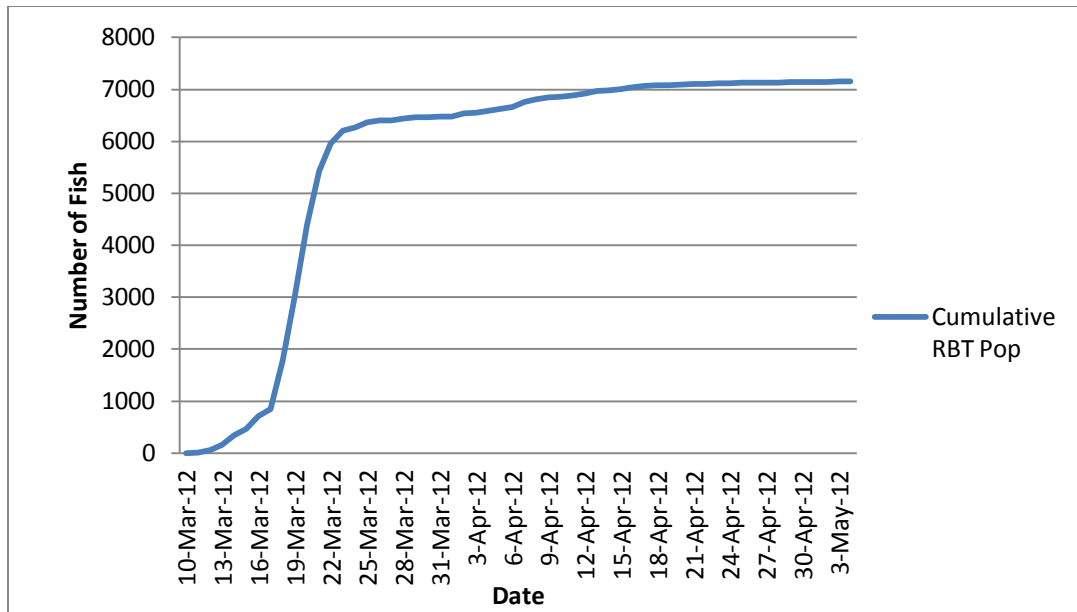


Figure 3. Cumulative population size for Rainbow Trout during spring 2012. Adult Rainbow Trout Data: Ontario Ministry of Natural Resources – Lake Ontario Management Unit.

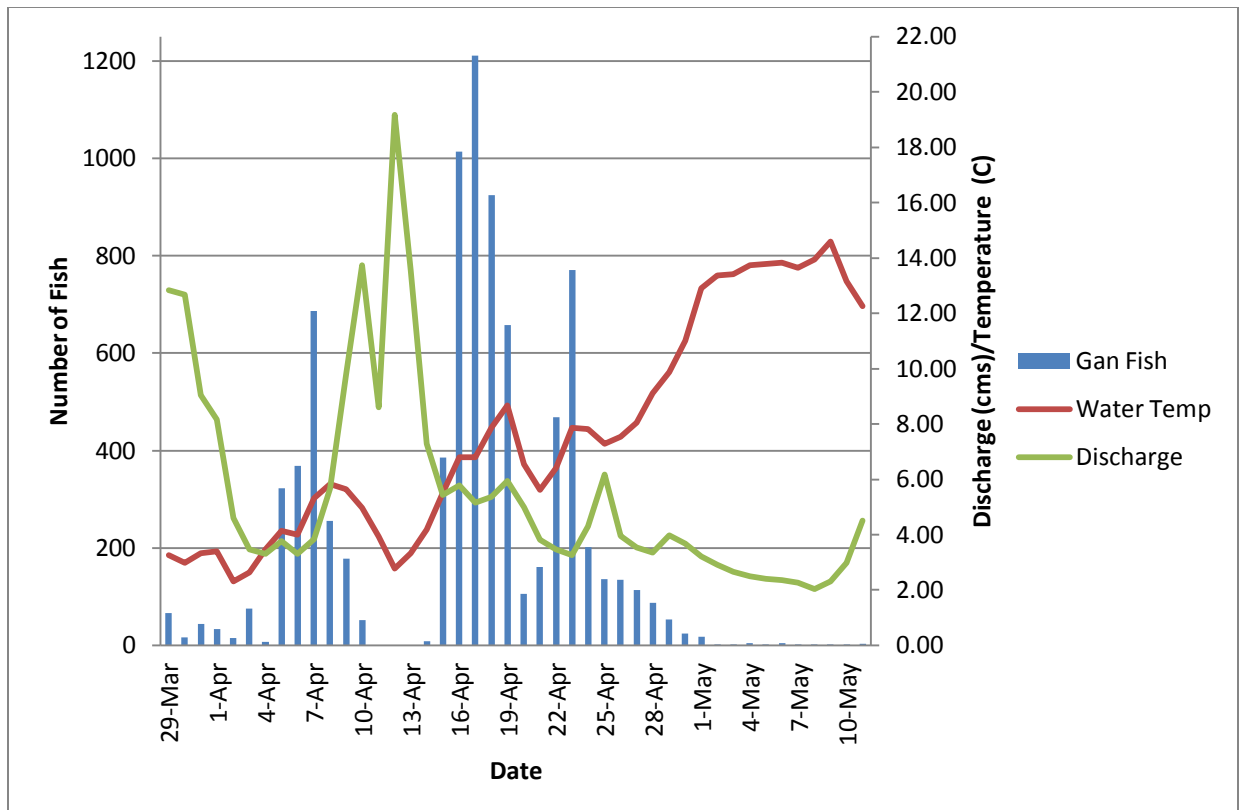


Figure 4. Ganaraska spring Rainbow Trout movement and environmental conditions in Spring 2013. Water temperature is daily average in degrees Celsius, and discharge is cubic meters per second. Adult Rainbow Trout Data: Ontario Ministry of Natural Resources – Lake Ontario Management Unit.

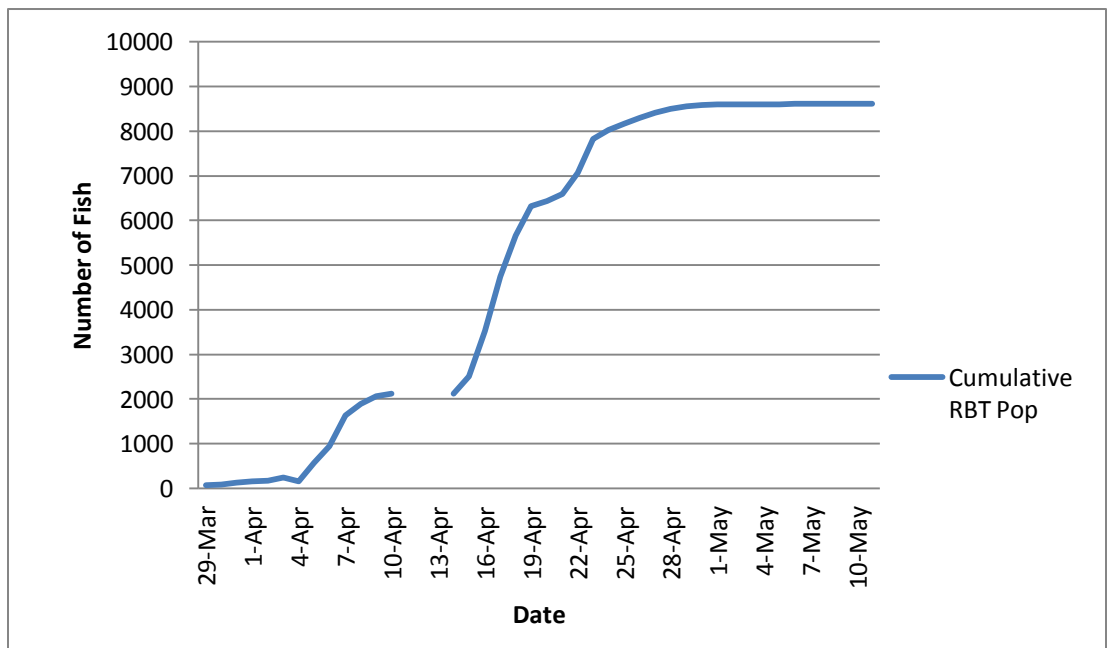


Figure 5. Cumulative population size for Rainbow Trout during spring 2013. Adult Rainbow Trout Data: Ontario Ministry of Natural Resources – Lake Ontario Management Unit.

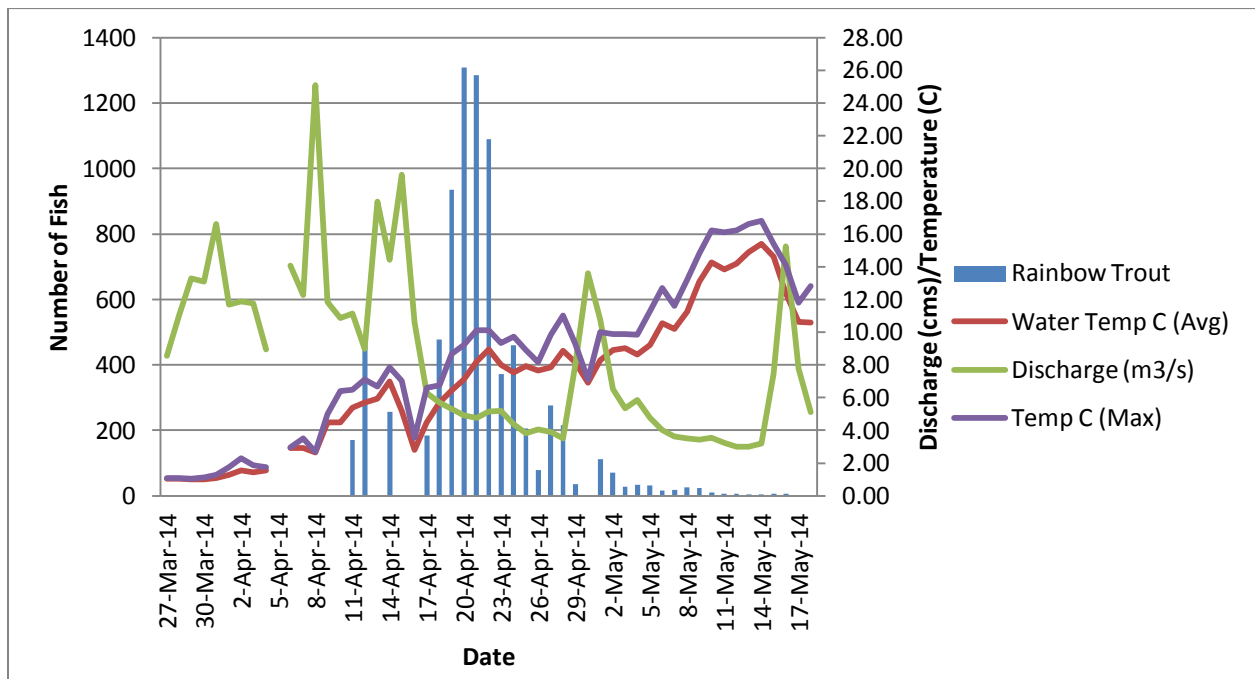


Figure 6. Ganaraska spring Rainbow Trout movement and environmental conditions in Spring 2014. Water temperature is daily average in degrees Celsius and daily maximum, and discharge is cubic meters per second. Adult Rainbow Trout Data: Ontario Ministry of Natural Resources – Lake Ontario Management Unit.

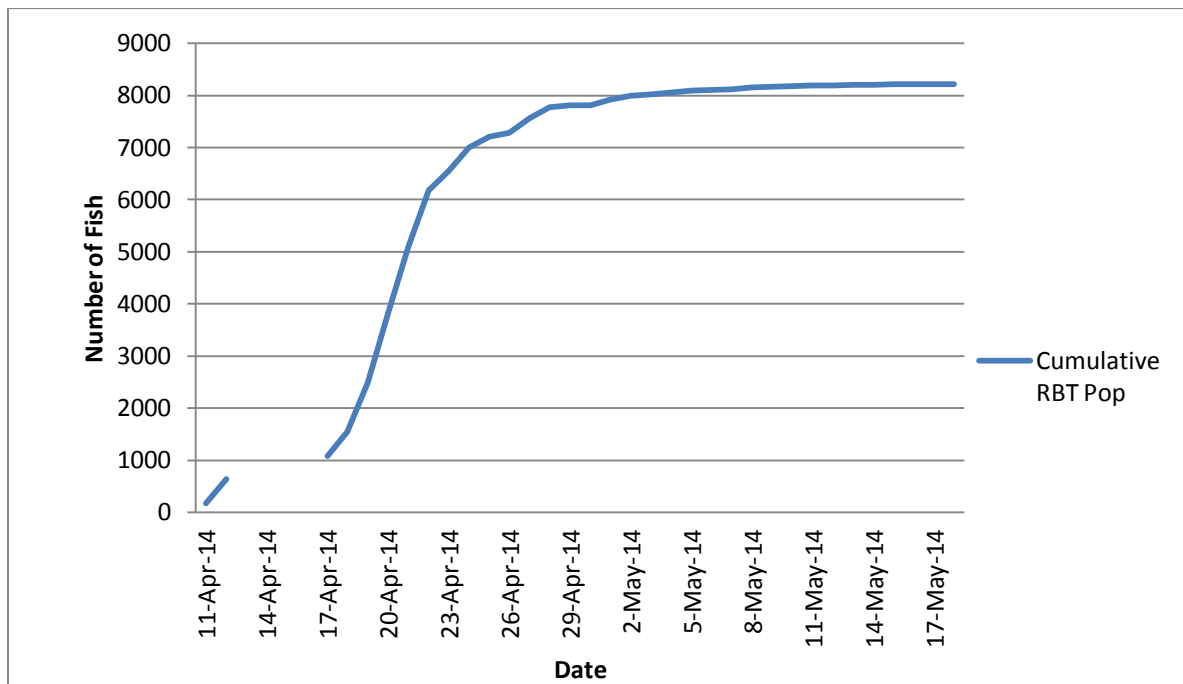


Figure 7. Cumulative population size for Rainbow Trout during spring 2014. Adult Rainbow Trout Data: Ontario Ministry of Natural Resources – Lake Ontario Management Unit.

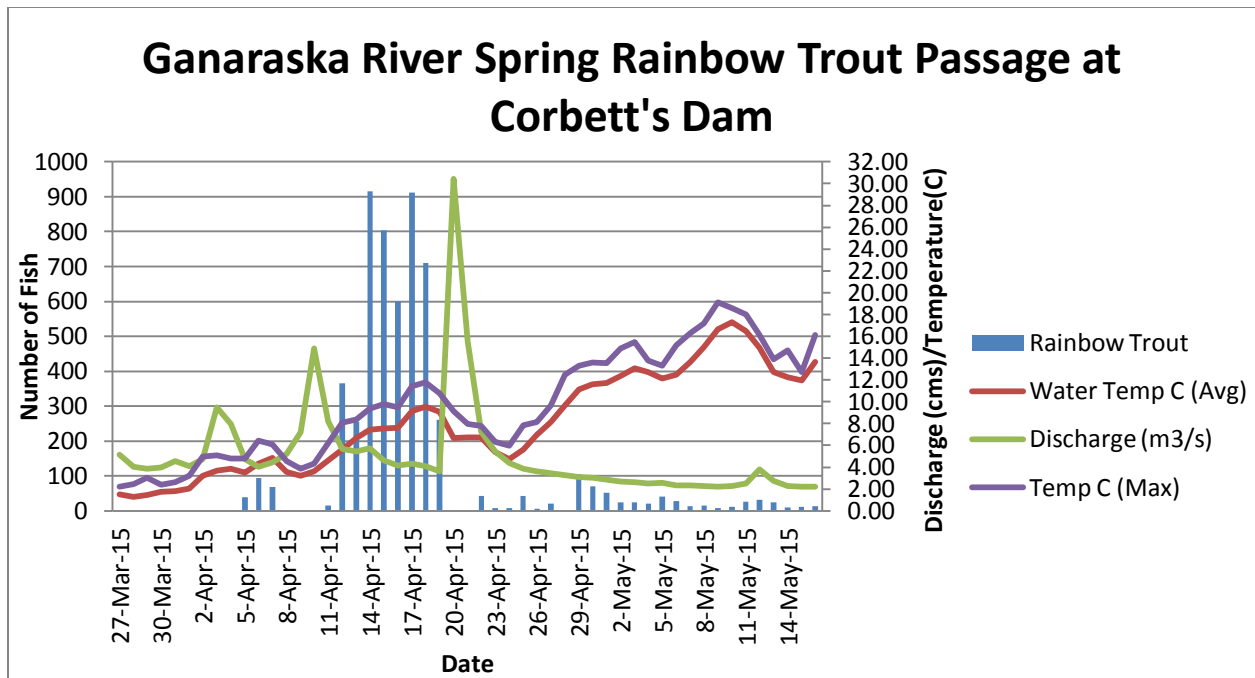


Figure 8. Ganaraska spring Rainbow Trout movement and environmental conditions in Spring 2015. Water temperature is daily average in degrees Celsius and daily maximum, and discharge is cubic meters per second. Adult Rainbow Trout Data: Ontario Ministry of Natural Resources and Forestry – Lake Ontario Management Unit.

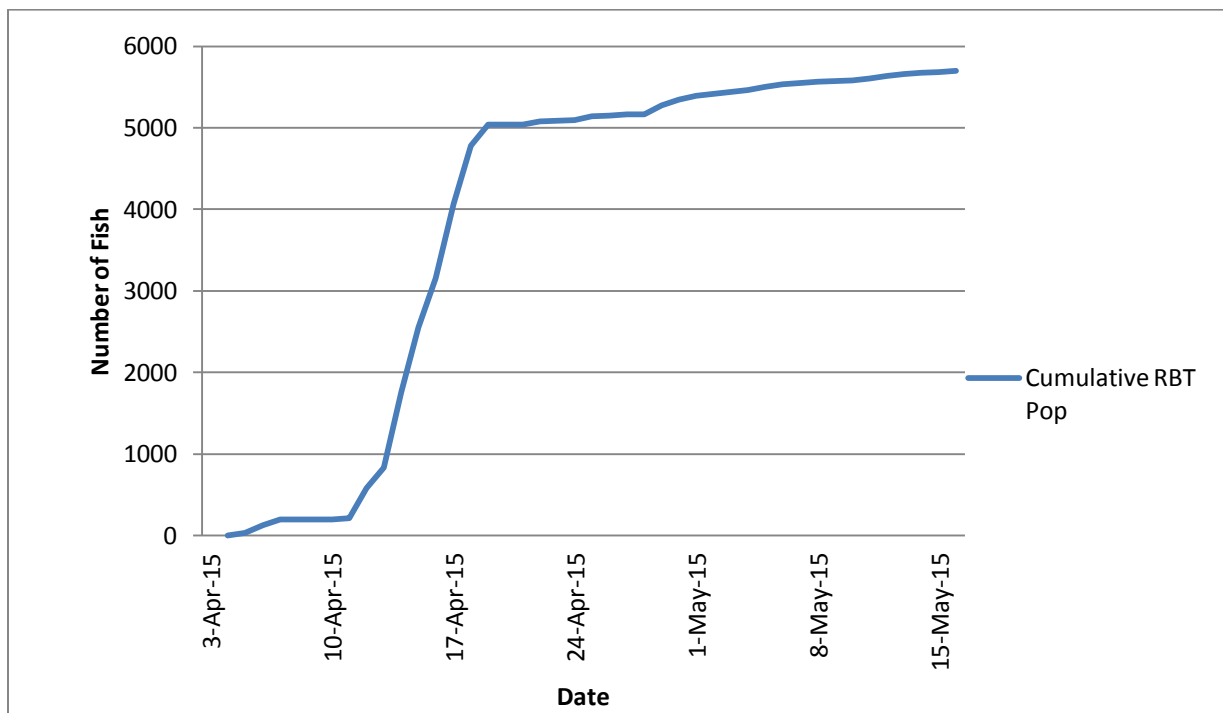


Figure 8. Cumulative population size for Rainbow Trout during spring 2015. Adult Rainbow Trout Data: Ontario Ministry of Natural Resources and Forestry – Lake Ontario Management Unit.

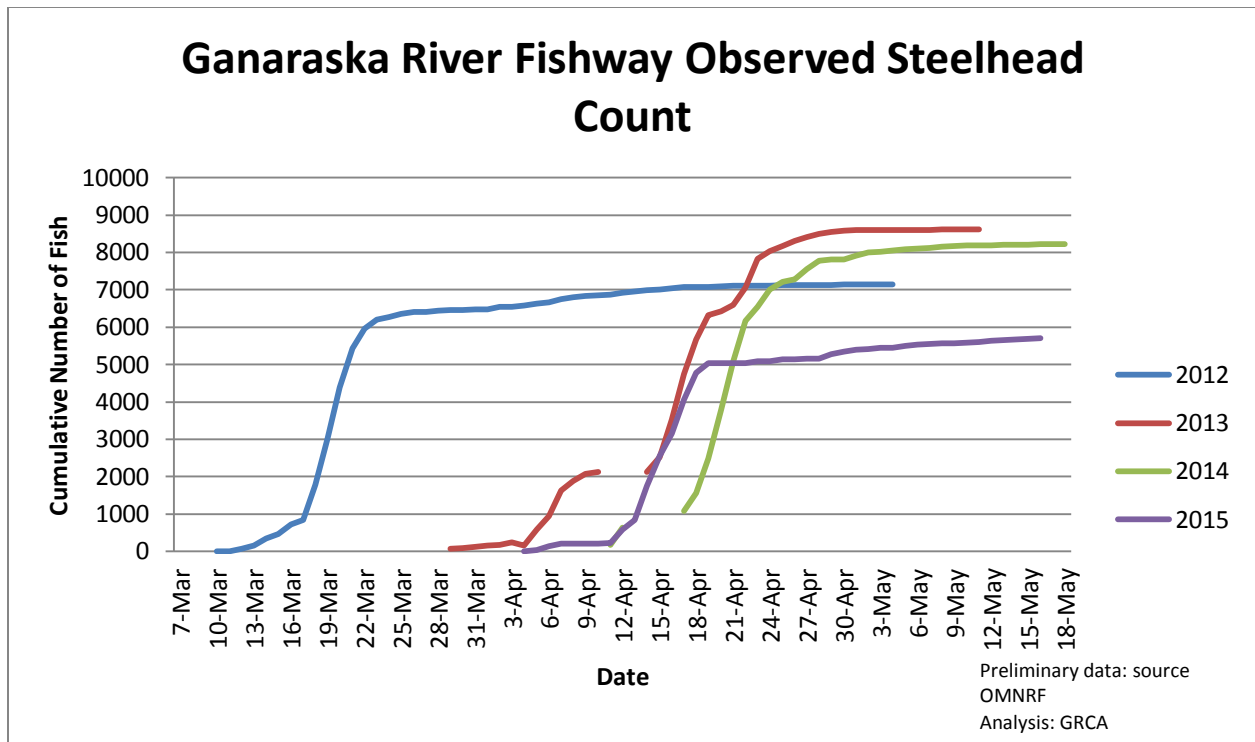


Figure 8. Cumulative population size for Rainbow Trout during spring 2012- 2015. Adult Rainbow Trout Data: Ontario Ministry of Natural Resources and Forestry – Lake Ontario Management Unit.