

# Fisheries Management in Swan Lake





Maine Department of Inland Fisheries & Wildlife Region B Fisheries – Wes Ashe, Jason Seiders, Scott Davis

## Swan Lake



- ~1,400 surface acres
- Average depth = 34 ft., Max depth = 87 ft.
- Above average water quality
- Oligotrophic low nutrient content & algal production
- Moderate development along perimeter



# Swan Lake - Current Regulations



### **Ice Fishing:**

- Open in January & February only
- 2 lines/angler
- Daily bag limit 2 salmon 14", 2 togue 18"



#### **Open Water Fishing:**

- Open April September
- Closed October December togue spawning
- Same daily bag limits



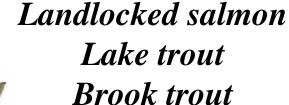
# Swan Lake – Stocking History



YEAR	BROOK TROUT	SALMON
2000	7450	850
2001	4100	850
2002	4100	850
2003	4100	850
2004	5320	850
2005	4100	0
2006	4100	0
2007	2285	600
2008	2200	500
2009	2250	600
2010	2350	600
2011	2350	600
2012	2400	600
2013	2500	600
2014	2500	600
2015	2000	600

## <u>Swan Lake – Fish Assemblage</u>





Rainbow smelt

Smallmouth bass

Largemouth bass

White perch

Yellow perch

Chain pickerel

White sucker

Brown bullhead

American eel

Pumpkinseed sunfish

Several minnow species









## **Togue & Salmon**



#### **Swan Lake Togue**

- -Stocked by MDIFW from 1971-1981
- -Population now wild & self-sustaining
- -Consume a variety of fish & insects



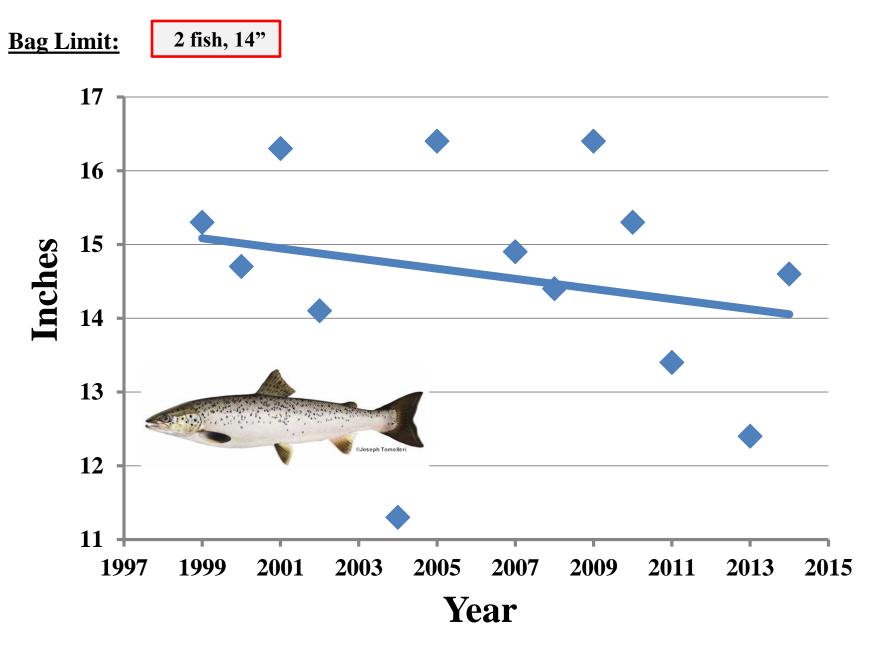
#### **Swan Lake Salmon**

- -Stocked by MDIFW since 1940
- -Stocking numbers have fluctuated
- -Population has few wild fish
- -Consume smelt almost exclusively



#### <u>Average Salmon Length – Volunteer Anglers</u>

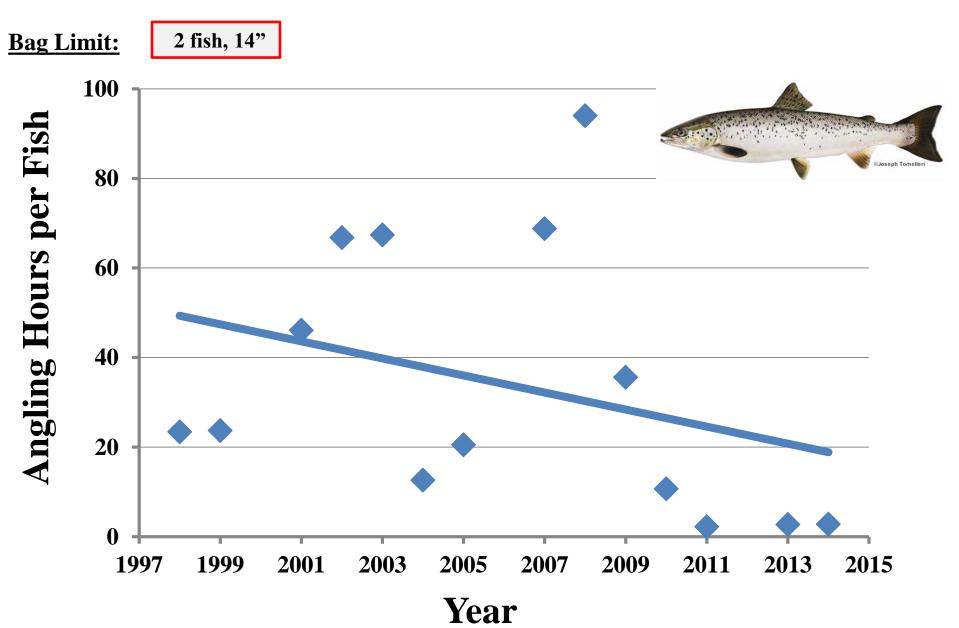




**Volunteer Anglers** 

#### Salmon Catch Rates - Volunteer Anglers

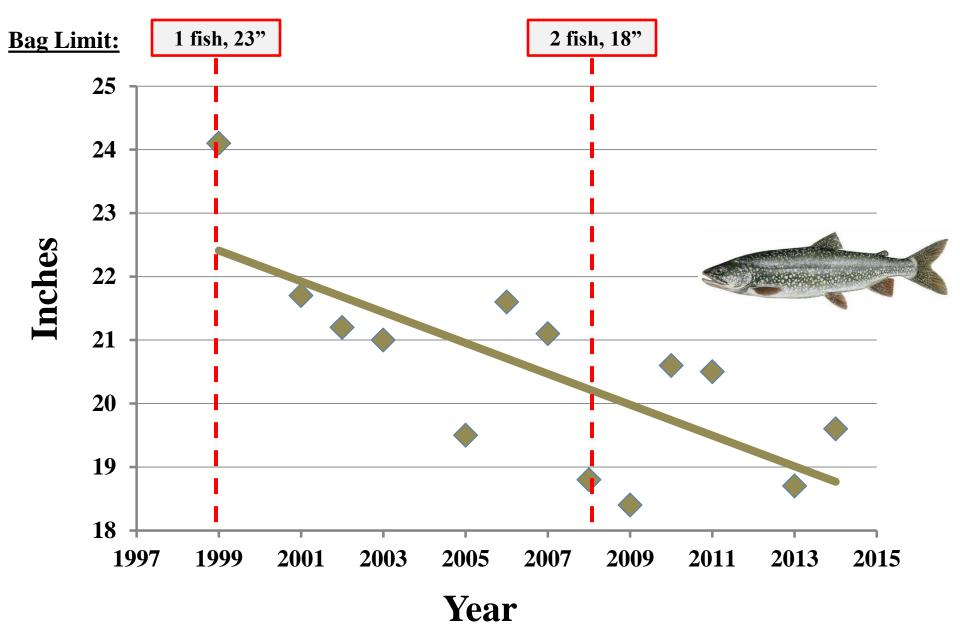




Volunteer Anglers

#### Average Togue Length - Volunteer Anglers

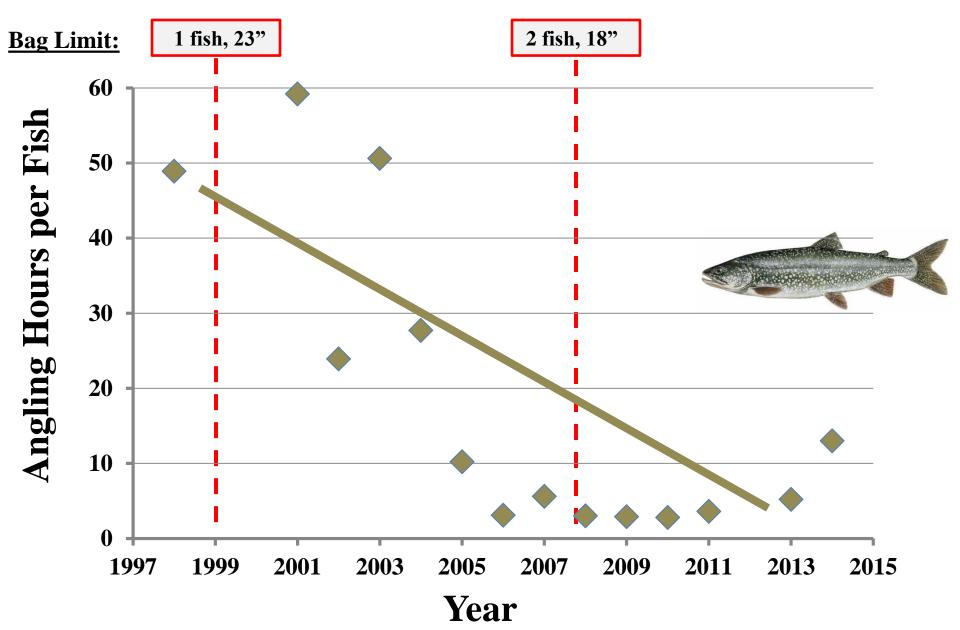




Volunteer Anglers

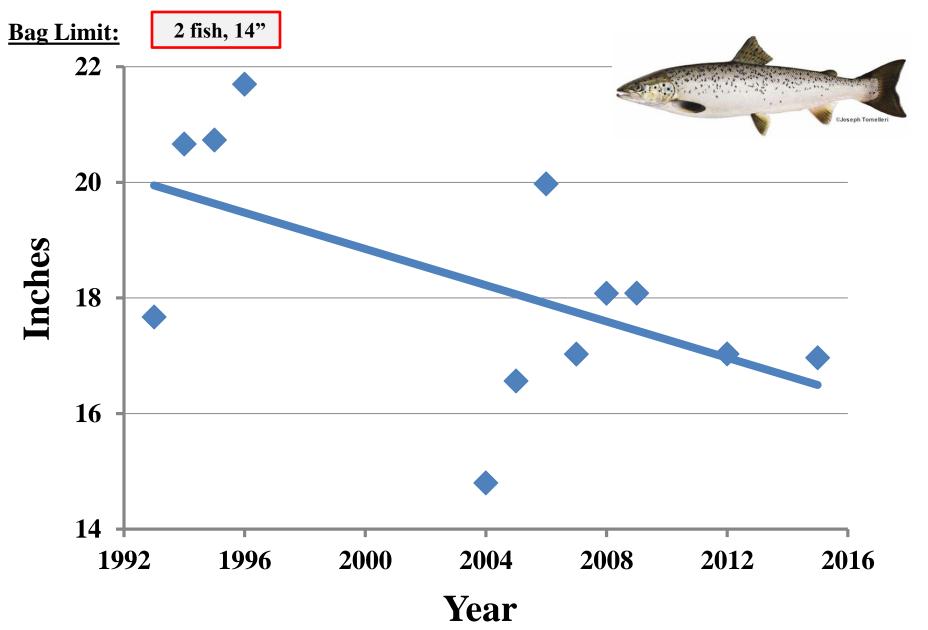
#### **Togue Catch Rates – Volunteer Anglers**





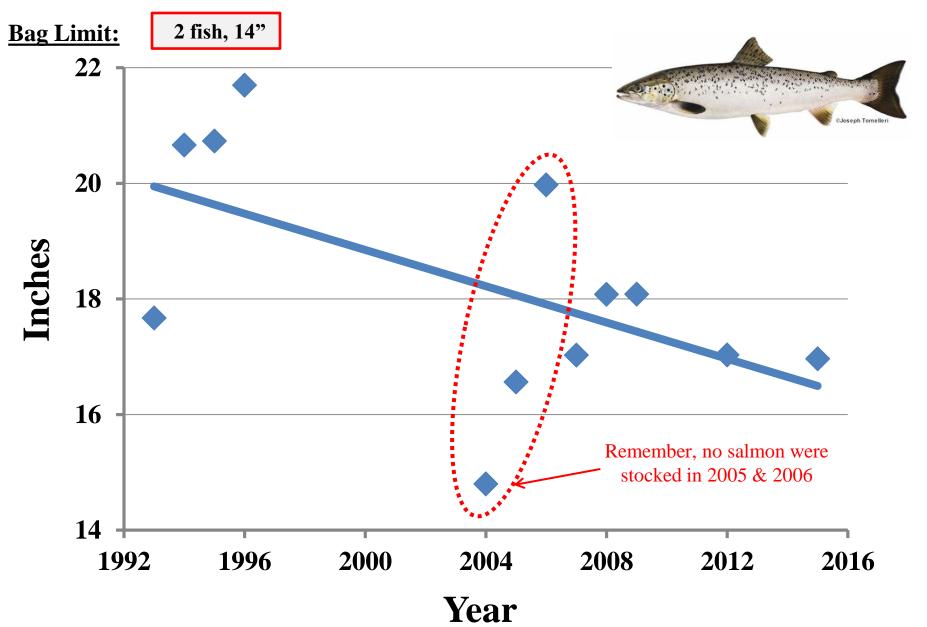
## **Average Salmon Length - Trapnetting**





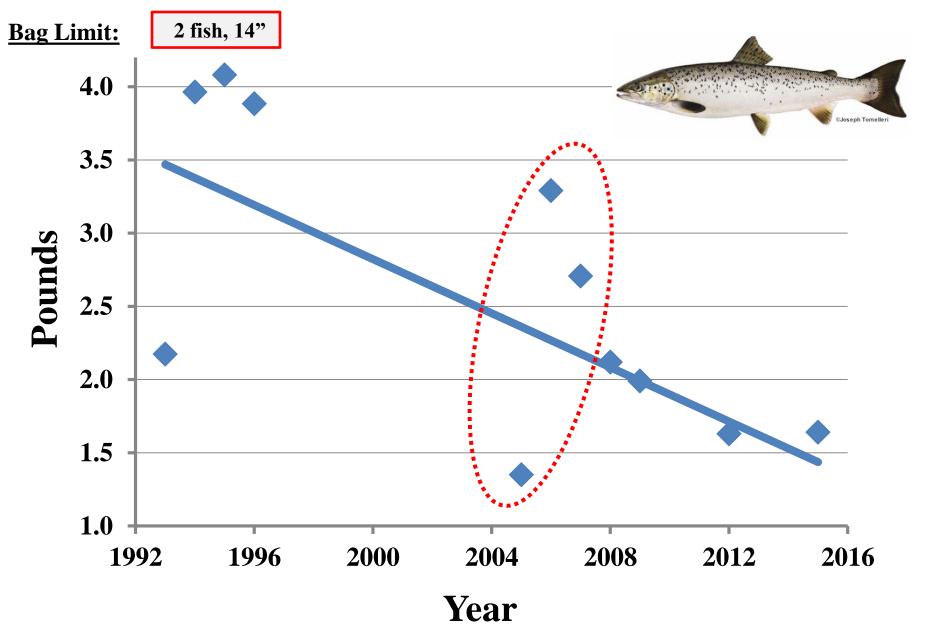
## **Average Salmon Length - Trapnetting**





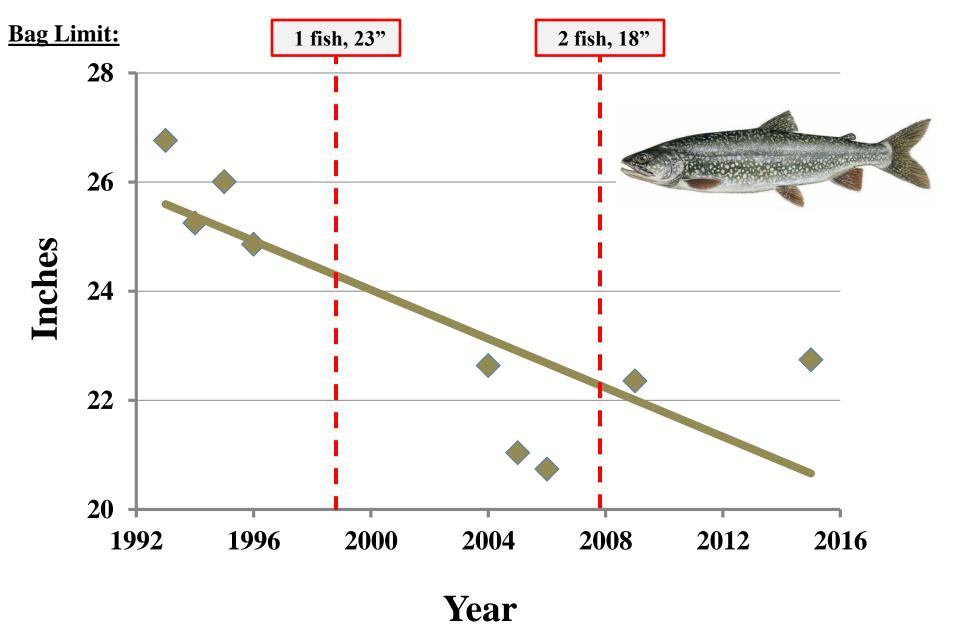
## **Average Salmon Weight - Trapnetting**





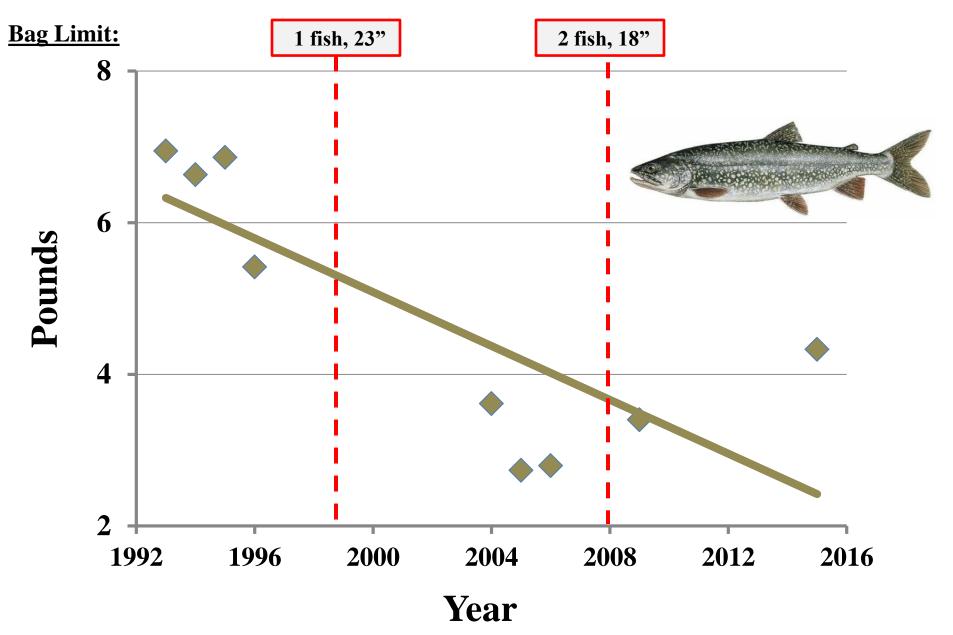
### **Average Togue Length - Trapnetting**





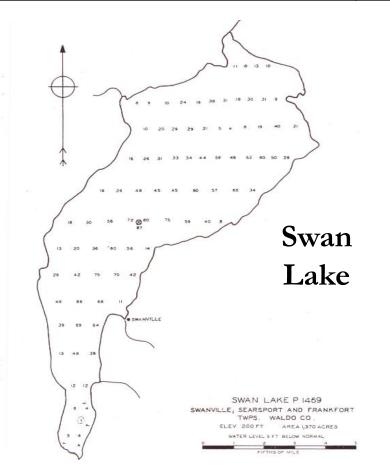
## **Average Togue Weight - Trapnetting**



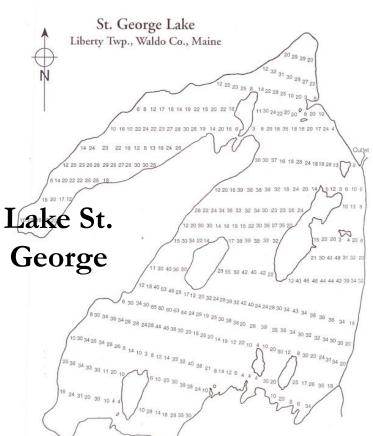


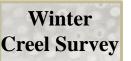


	Swan Lake - 2015	Lake St. George - 2014
Acreage	1388	1040



VS. Irak

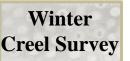






	Swan Lake - 2015	Lake St. George - 2014
Acreage	1388	1040
Ice Fishing Season	Jan & Feb	Jan & Feb

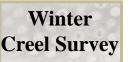






	Swan Lake - 2015	Lake St. George - 2014
Acreage	1388	1040
Ice Fishing Season	Jan & Feb	Jan & Feb
# of Anglers	843	2872

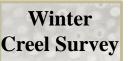






	Swan Lake - 2015	Lake St. George - 2014
Acreage	1388	1040
Ice Fishing Season	Jan & Feb	Jan & Feb
# of Anglers	843	2872
# of Parties	286	1053







	Swan Lake - 2015	Lake St. George - 2014
Acreage	1388	1040
Ice Fishing Season	Jan & Feb	Jan & Feb
# of Anglers	843	2872
# of Parties	286	1053
# of Brook Trout Harvested	33	435

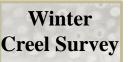






	Swan Lake - 2015	Lake St. George - 2014
Acreage	1388	1040
Ice Fishing Season	Jan & Feb	Jan & Feb
# of Anglers	843	2872
# of Parties	286	1053
# of Brook Trout Harvested	33	435
# of Salmon Harvested	23	168





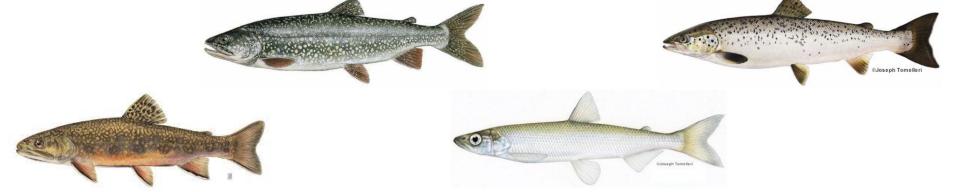


	Swan Lake - 2015	Lake St. George - 2014
Acreage	1388	1040
Ice Fishing Season	Jan & Feb	Jan & Feb
# of Anglers	843	2872
# of Parties	286	1053
# of Brook Trout Harvested	33	435
# of Salmon Harvested	23	168
# of Togue Harvested	73	

## **Summary**



- Salmon (& brook trout) are stocked at high densities, especially in a water w/ wild togue & sensitive rainbow smelt populations
- Volunteer angler data showed decline in salmon/togue size, and a dramatic increase in catch rates
- Trapnet data revealed a precipitous decline in salmon/togue size over past two decades
- Creel survey indicated low angler use and few salmon (or brook trout) harvested





## **Future Management**



- 1) Decrease salmon stocking number from 600 to 400
- 2) Extend ice fishing season to include March
- 3) Reduce brook trout stockings
  - Provide year-round brook trout program in Goose R.
- 4) Assess togue and salmon populations with more frequent trapnetting and creel surveys moving forward





# **Questions? Comments?**





Thank you.