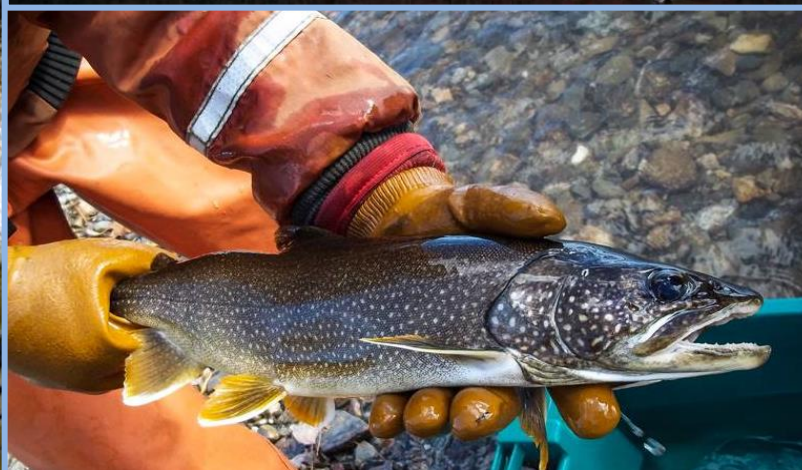
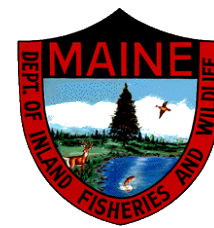




# Fisheries Management in Swan Lake



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    |

# Swan Lake – Fish Assemblage

*Landlocked salmon*

*Lake trout*

*Brook trout*

*Rainbow smelt*

Smallmouth bass

Largemouth bass

White perch

Yellow perch

Chain pickerel

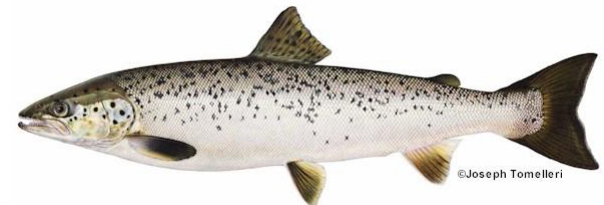
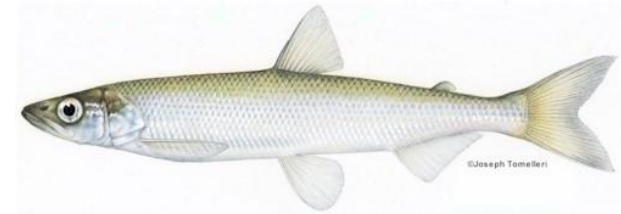
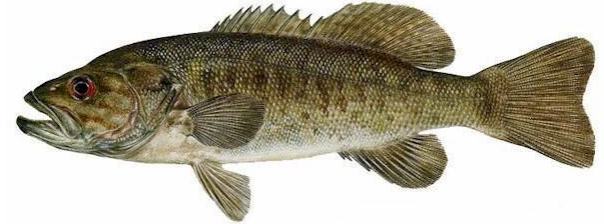
White sucker

Brown bullhead

American eel

Pumpkinseed sunfish

Several minnow species



**\*\*21 total fish 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**

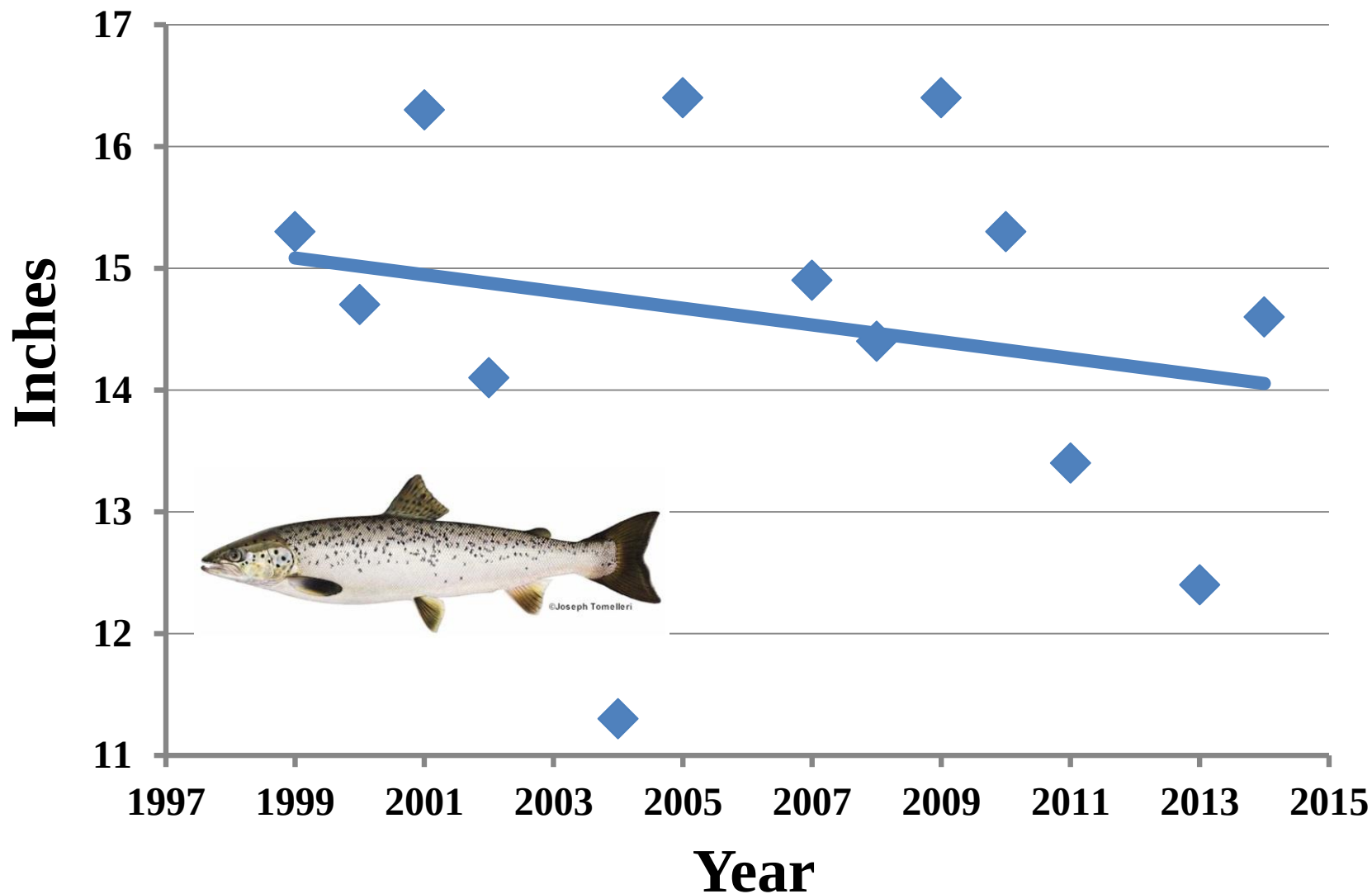
- Stocked by MDIFW since 1940
- Stocking numbers have fluctuated
- Population has few wild fish
- Consume smelt almost exclusively



# Average Salmon Length – Volunteer Anglers

Bag Limit:

2 fish, 14"

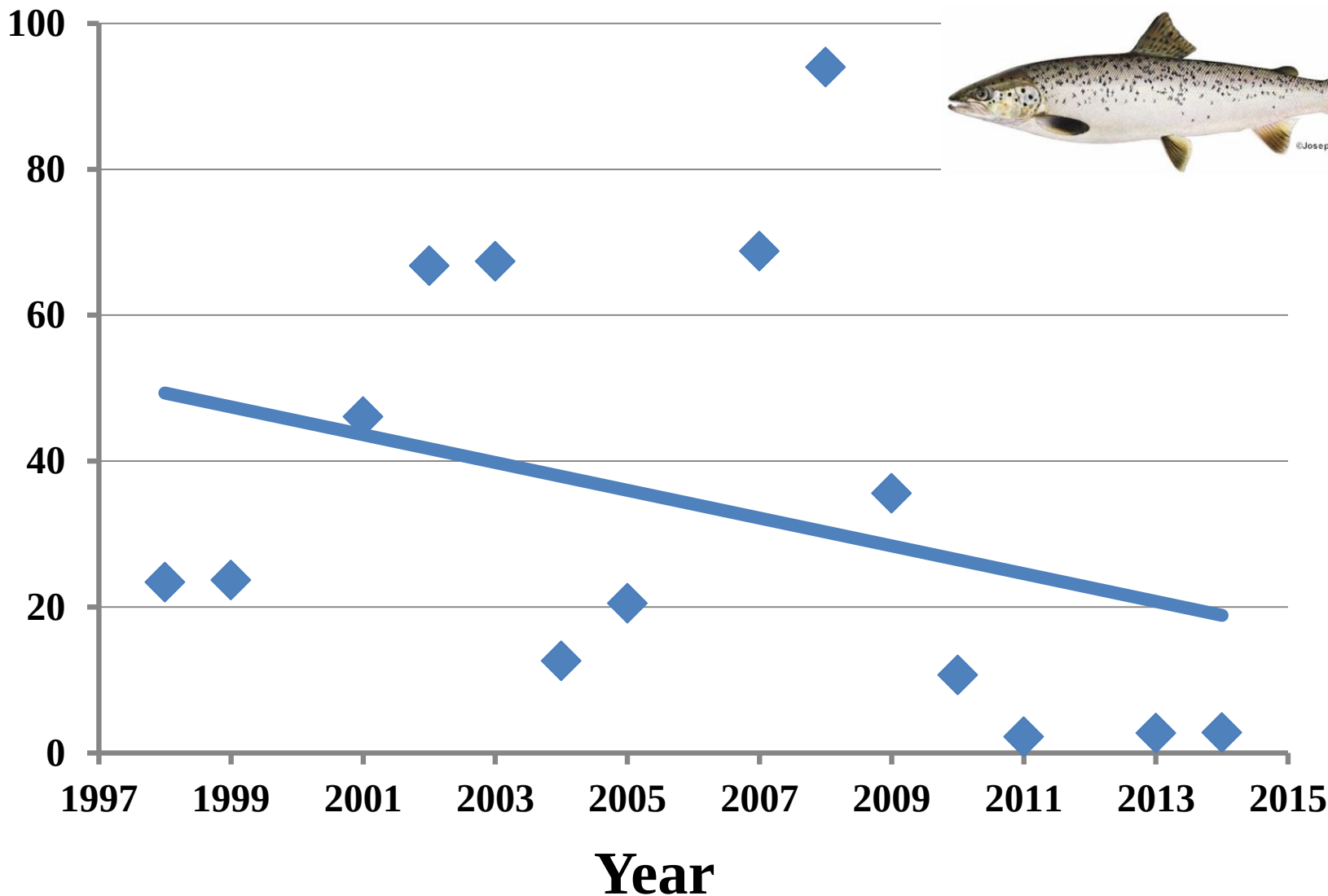


# Salmon Catch Rates – Volunteer Anglers

Bag Limit:

2 fish, 14"

Angling Hours per Fish



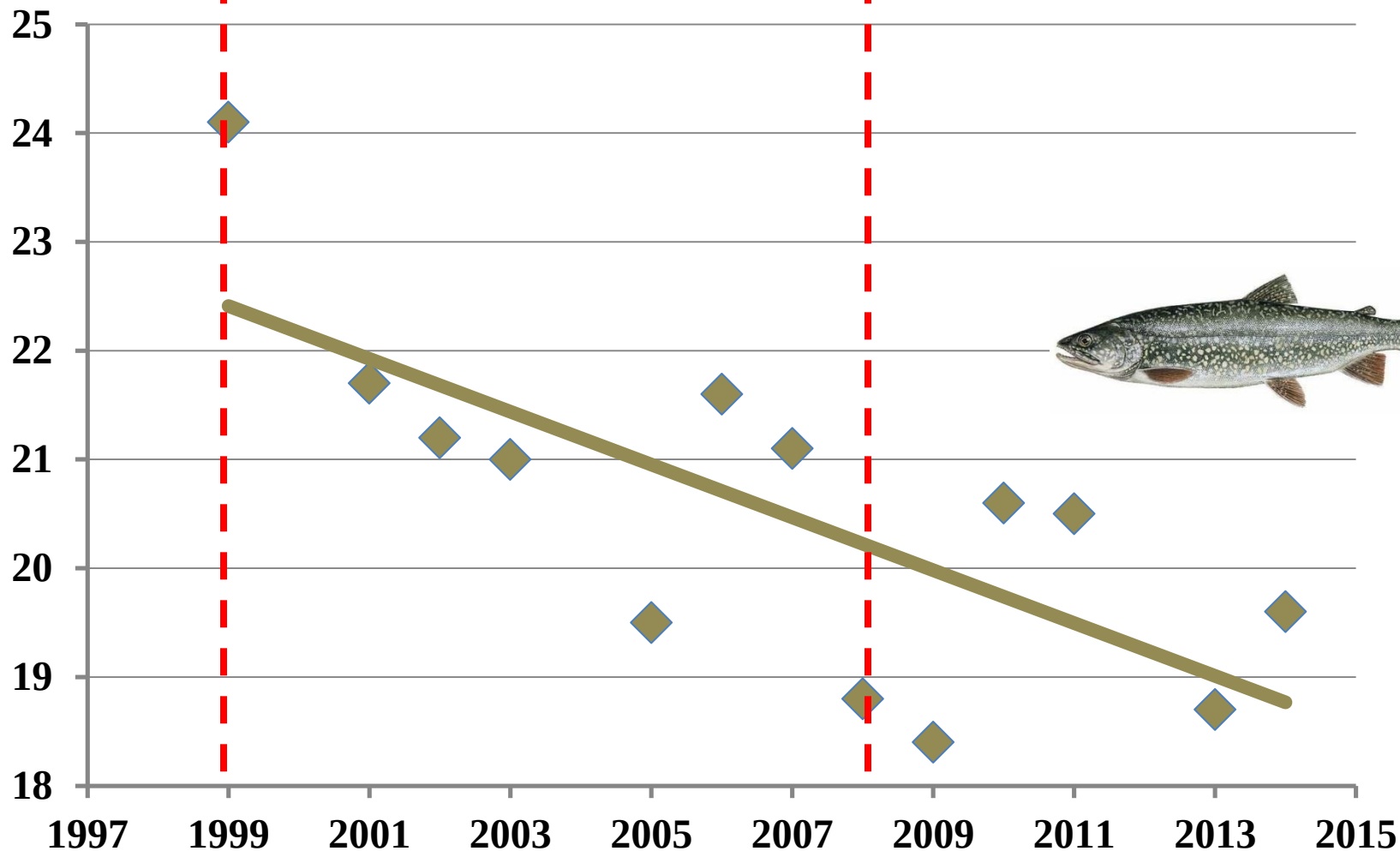
# Average Togue Length – Volunteer Anglers

Bag Limit:

1 fish, 23"

2 fish, 18"

Inches



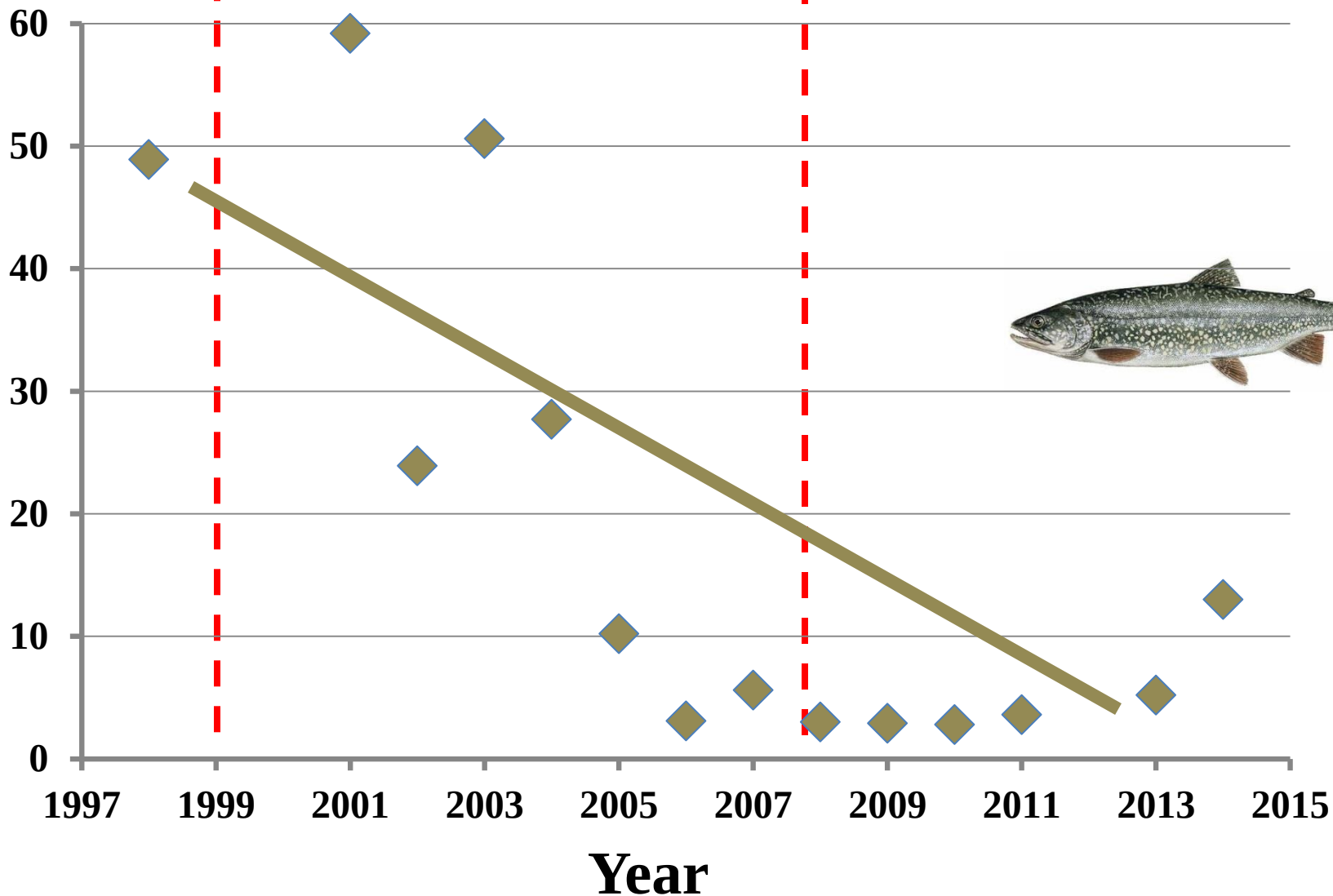
# Togue Catch Rates – Volunteer Anglers

Bag Limit:

1 fish, 23"

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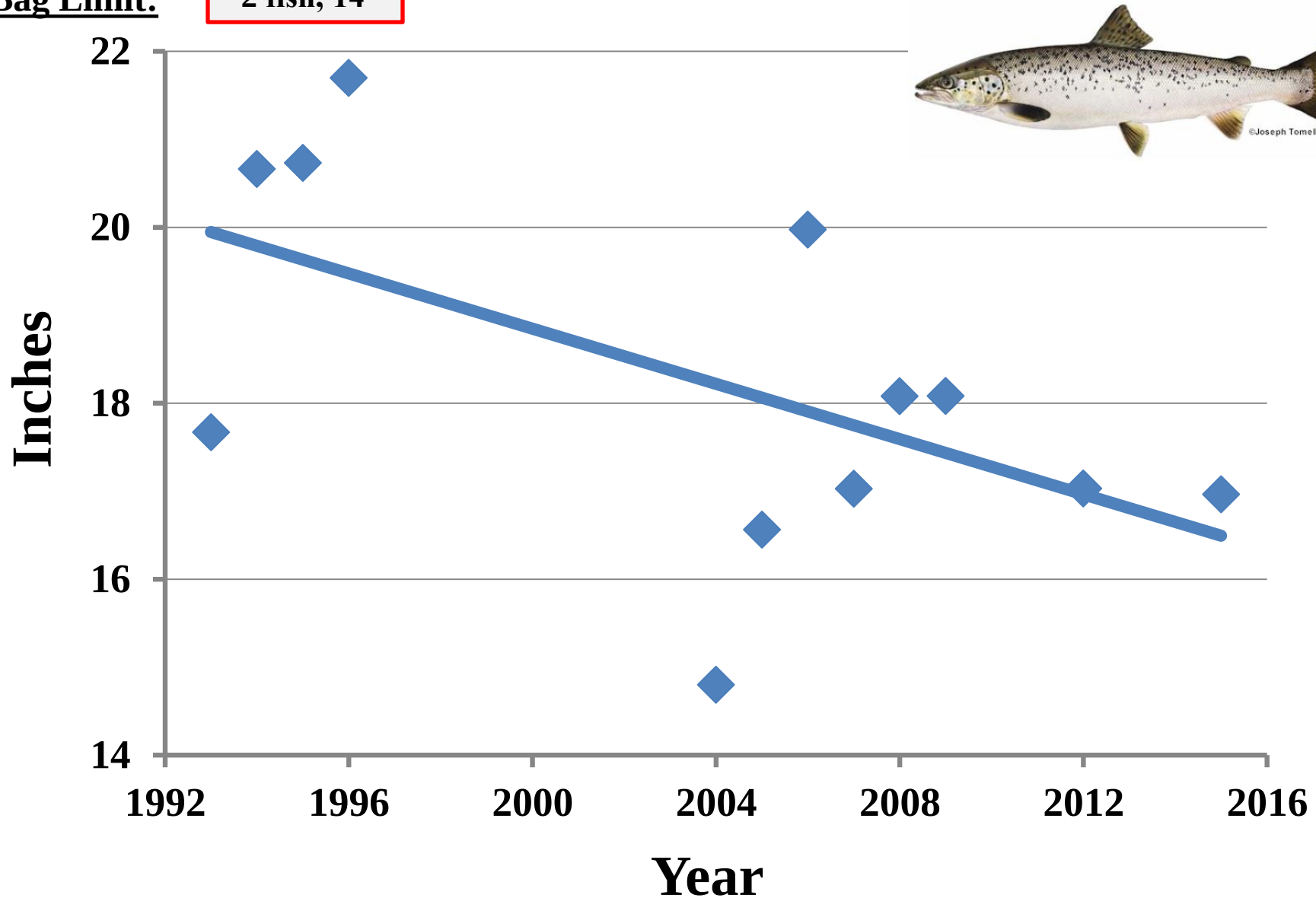
Angling Hours per Fish



# Average Salmon Length - Trapnetting

Bag Limit:

2 fish, 14"

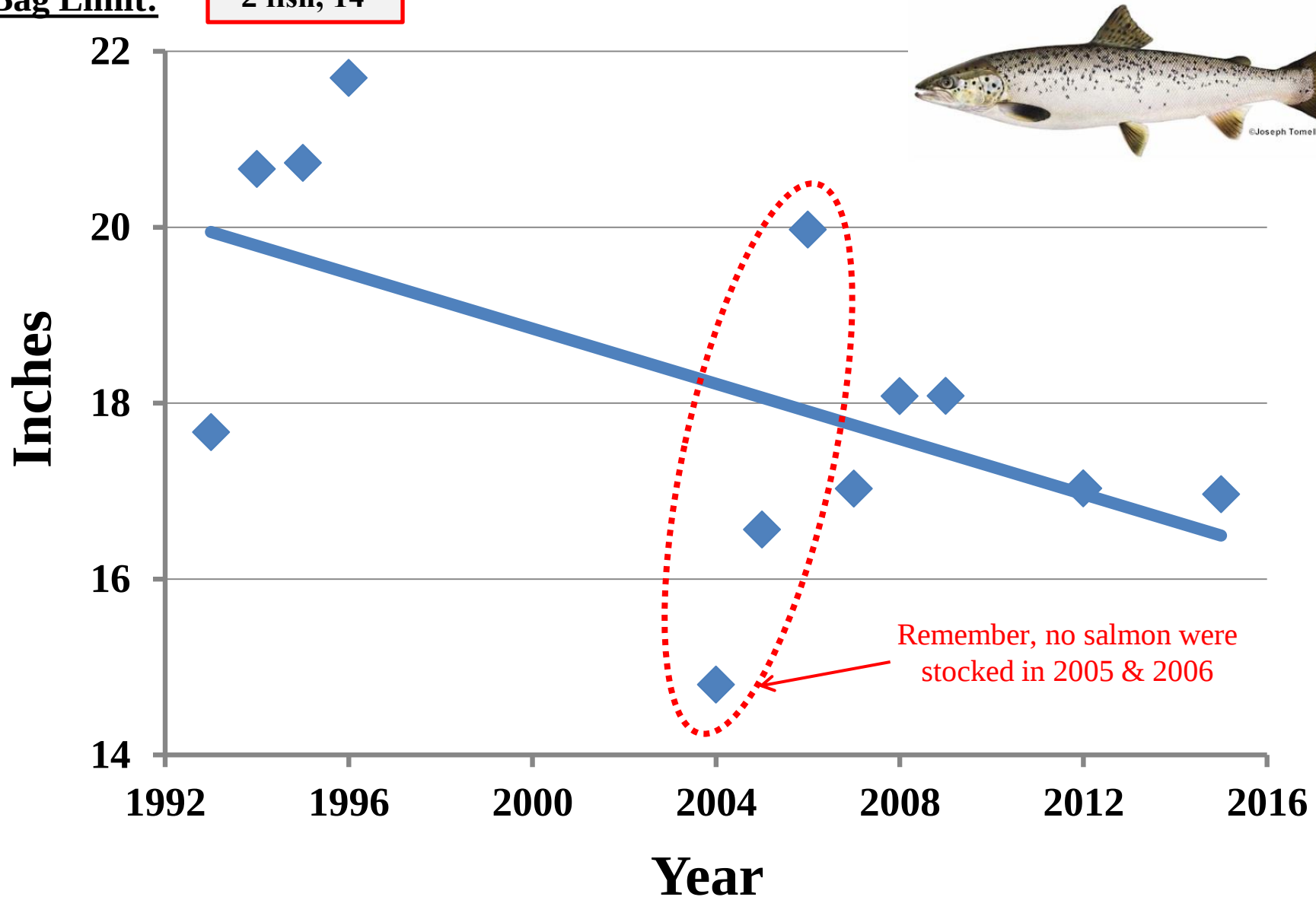


# Average Salmon Length - Trapnetting



Bag Limit:

2 fish, 14"

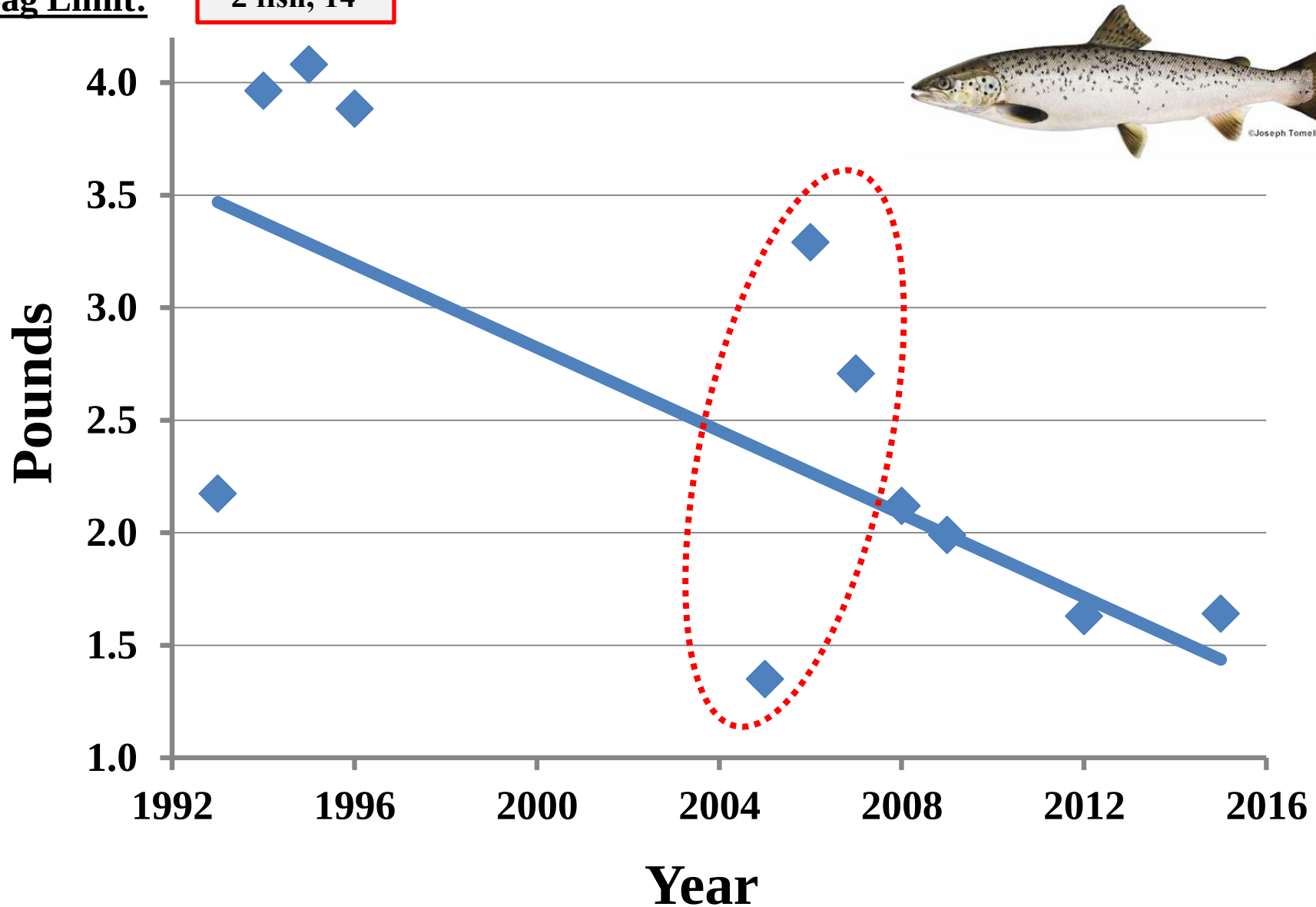


# Average Salmon Weight - Trapnetting



Bag Limit:

2 fish, 14"

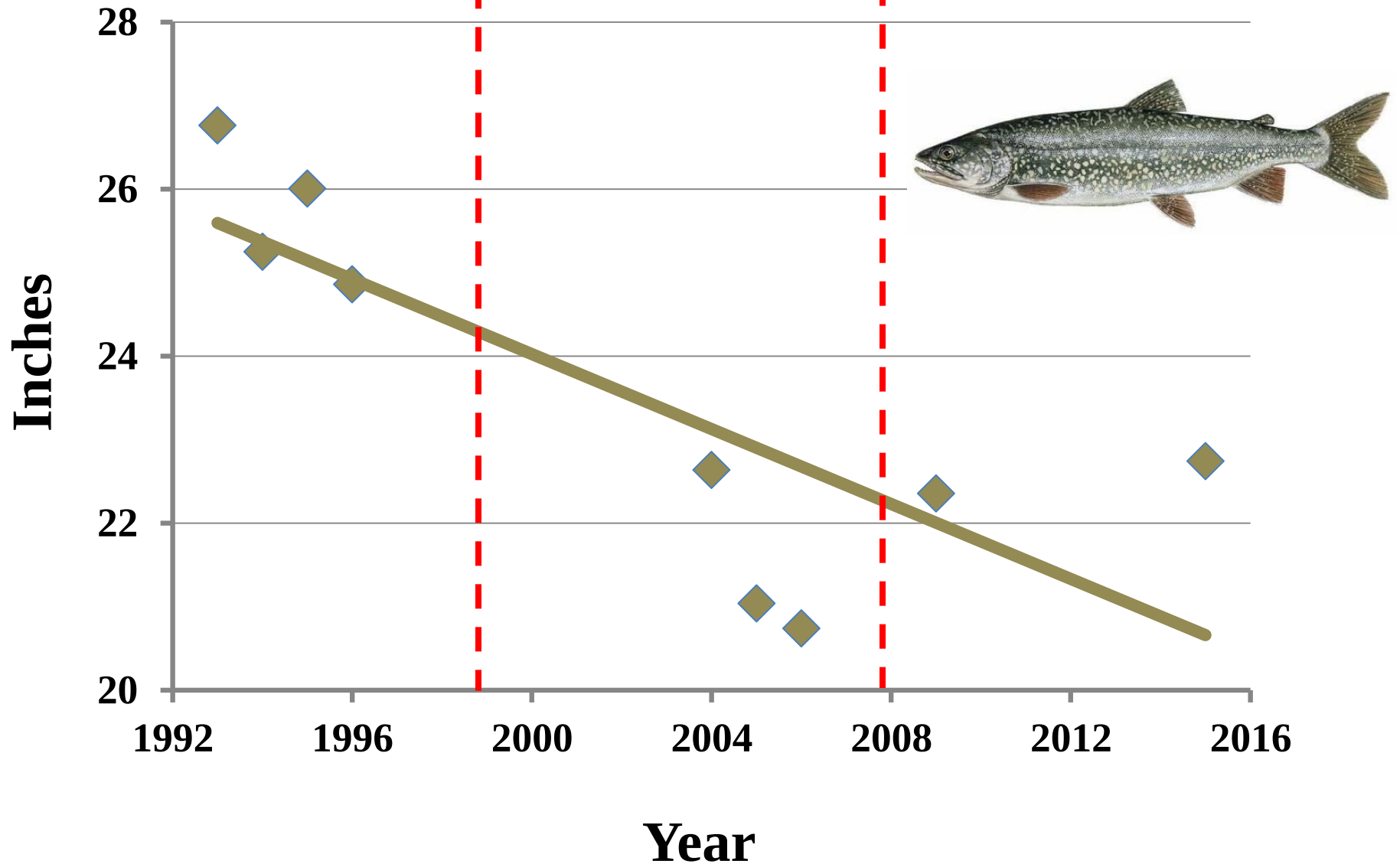


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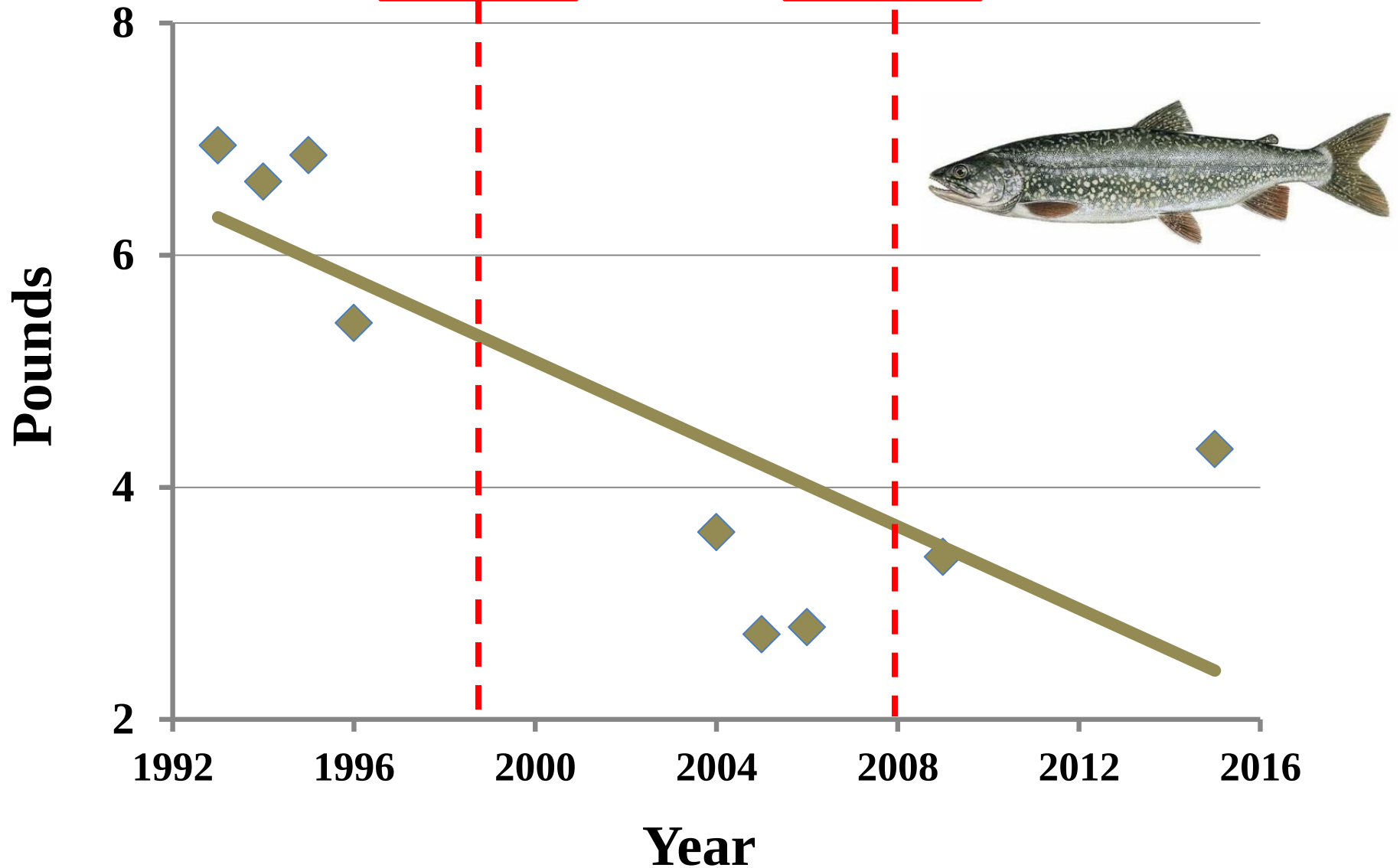


# Average Togue Weight - Trapnetting

Bag Limit:

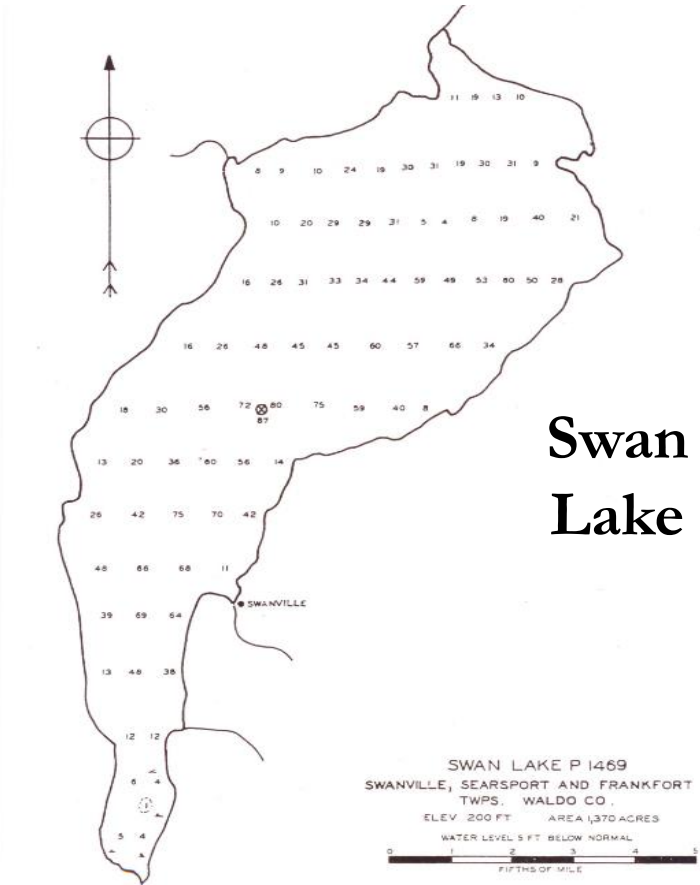
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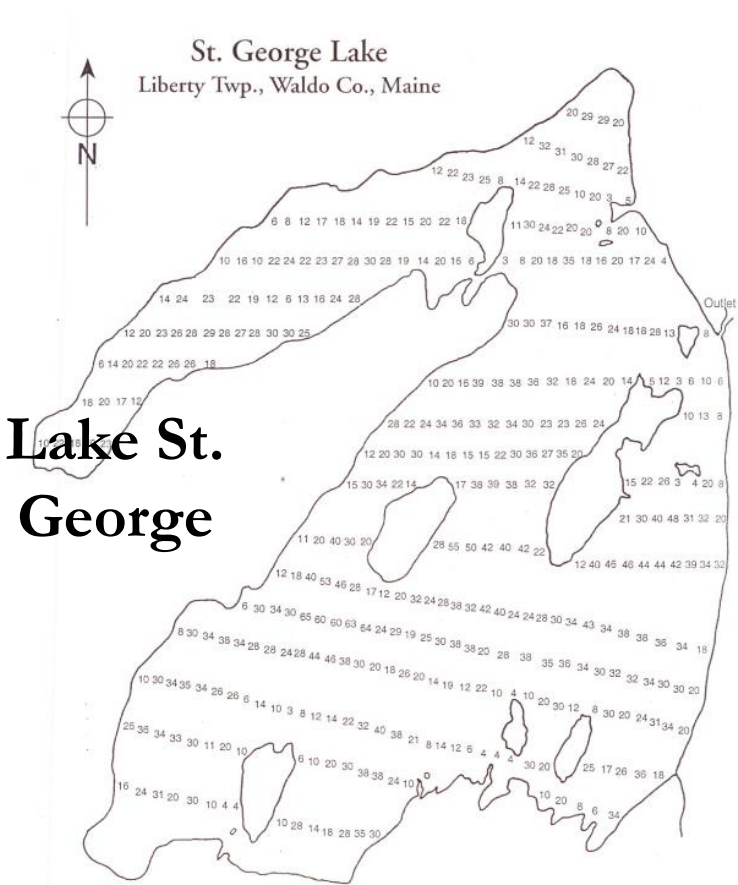


# Winter Creel Survey Results

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



VS.



# Winter Creel Survey Results



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



# Winter Creel Survey Results



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



# Winter Creel Survey Results



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



# Winter Creel Survey Results



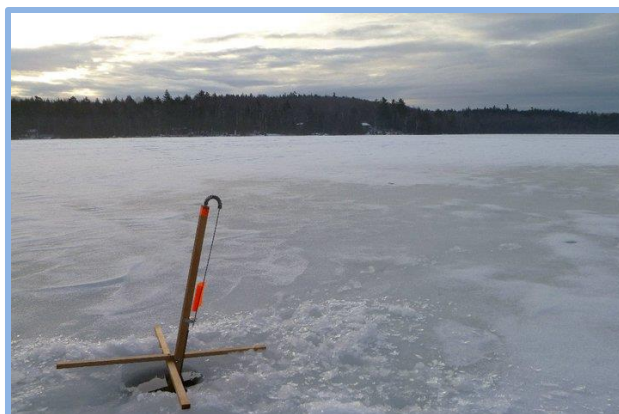
|                                   | Swan Lake - 2015 | Lake St. George - 2014 |
|-----------------------------------|------------------|------------------------|
| <b>Acreage</b>                    | 1388             | 1040                   |
| <b>Ice Fishing Season</b>         | Jan & Feb       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



# Winter Creel Survey Results



|                                   | Swan Lake - 2015 | Lake St. George - 2014 |
|-----------------------------------|------------------|------------------------|
| <b>Acreage</b>                    | 1388             | 1040                   |
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| <b># of Anglers</b>               | 843              | 2872                   |
| <b># of Parties</b>               | 286              | 1053                   |
| <b># of Brook Trout Harvested</b> | 33               | 435                    |
| <b># of Salmon Harvested</b>      | 23               | 168                    |



# Winter Creel Survey Results

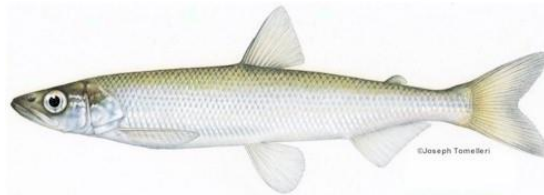
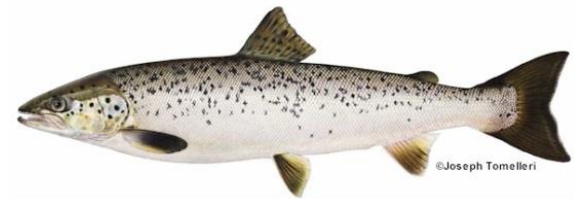


|                                   | Swan Lake - 2015 | Lake St. George - 2014 |
|-----------------------------------|------------------|------------------------|
| <b>Acreage</b>                    | 1388             | 1040                   |
| <b>Ice Fishing Season</b>         | Jan & Feb       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

# Summary

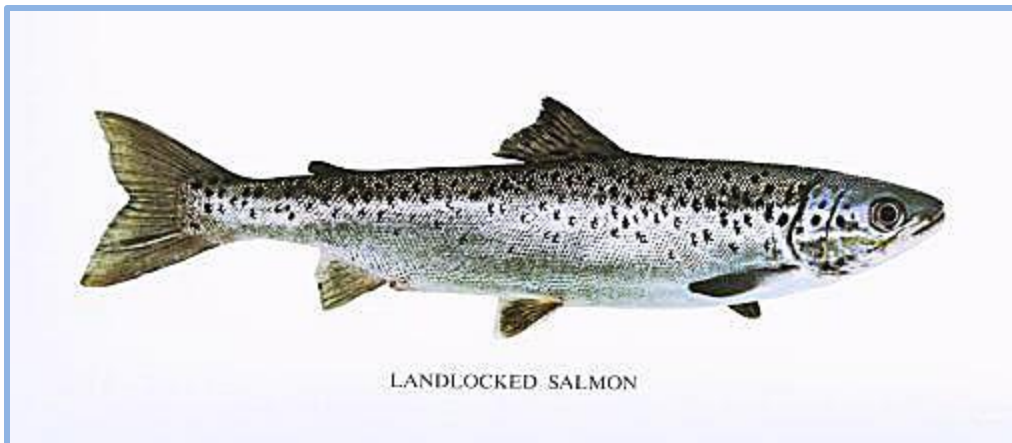


- Salmon (& brook trout) are stocked at high densities, especially in a water w/ wild togue & sensitive rainbow smelt populations
- Volunteer angler data showed decline in salmon/togue size, and a dramatic increase in catch rates
- Trapnet data revealed a precipitous decline in salmon/togue size over 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



**The End**

# Questions? Comments?



**Thank you.**