


## Northumberland Fisheries Museum


### The Lobster Stock Enhancement Research Project



*Pictou, Nova Scotia*

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November 5, 2008

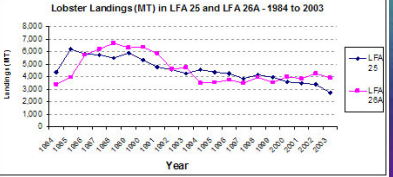
## Background Information: Lobster Fishing Area 26A



*There's no lobster out there. The volume is not there. The resource is in peril and we're going to have to do something.*



—Ron Cormier, MFU  
CBC News Online Sept. 3, 2004

Lobster Landings (MT) in LFA 25 and LFA 26A - 1984 to 2003





## Methods to Save Lobster Stock

- President of the Northumberland Fishermen's Association stated that action must be taken to save the fishery in LFA 26A
- Different ways to save the lobster stock
  - V-notching
  - "Window" females
  - Lobster hatcheries

## Lobster Hatchery Timeline

- In 2005, NFA partnered with NFM to construct the lobster hatchery
- Fishermen taking their future into their own hands

## Northumberland Fisheries Museum & Heritage Association

- Mission Statement:
 

*The mission of the Northumberland Fisheries Museum & Heritage Association is to bring awareness to the public as to the heritage and culture of the fishing industry, past and present, by collecting, preserving and displaying artifacts and educating the youth of the Northumberland Strait and Gulf area.*

## Northumberland Fisheries Museum





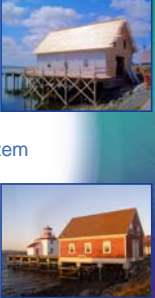

### Lobster Hatchery Timeline

- 2006
  - Discussion, partnerships, building begins...



### Lobster Hatchery Timeline

- 2007
  - Construction complete
  - First year of operation
- 2008
  - Second year of operation
  - Modifications to improve system
    - Improved aeration
    - Water flow alterations
    - New berried lobster tanks
    - Electric pump control
  - Increased production



### Hatchery Operations

- Recirculation System
  - Environmentally friendly
    - The same water is repeatedly filtered and sterilized
    - One pump and air blower in constant use
  - Larvae are handled only to be put into a tank and removed from the tank for release
  - Downfall: contamination / disease outbreak would affect entire system

### Hatchery Operations: Water System




Inlet Pipe

### Hatchery Operations



### Hatchery Operations





## The Release



## 2007 & 2008 Stage IV Releases



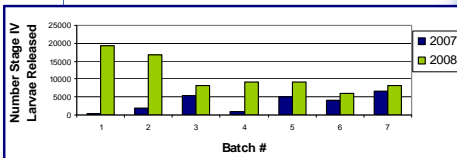
## Hatchery Stats

### 2007

- 30 berried lobsters
- 147 453 Stage Is
- 24 477 Stage IVs
- Overall survival rate: 16.6%
- Highest survival rate for a batch: 37.5%

### 2008

- 81 berried lobsters
- 274 198 Stage Is
- 77 006 Stage IVs
- Overall survival rate: 28.7%
- Highest survival rate for a batch: 44.2%



## Hatchery Challenges

- Larvae cannibalism
- Water turbulence / aeration
- Tank stocking densities
- Space restrictions
- Limited staff and time
- Power outages
- Water quality
  - Nutrient levels
- Unknown restocking results



## Future Research

- Monitoring release sites
  - Survival rates
  - Release location
- Increasing production
- Improving survival rates in hatchery
- Growing out past Stage IV



## Delilah the Blue Lobster



## Open to the Public

- 10,000 visitors in last two years
- Guided tours
- Outreach programs



## The End . . .

*Thank you! Questions?*

