

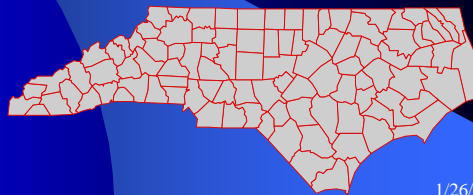
NORTH CAROLINA AQUACULTURE UPDATE 2009

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Dept. of Biological and Agricultural Engineering
North Carolina State University

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Molly Sandfoss, Skip Thompson
Marc Turano, Harry Daniels
NC Cooperative Extension

Debra Sloan, NCDA&CS



1/26/2010

Thank you to all of the farms and agencies that provided the data to us for this presentation!

This presentation will be posted
online at:

www.ncaquaculture.org

after the conference.



1/26/2010

Freshwater

- Trout (82)
- Catfish (22)
- Striped Bass (12)
- Tilapia (9)
- Freshwater Prawns (9)
- Crawfish (4)
- Southern Flounder (1)
- Yellow Perch (2)
- Sturgeon Caviar (1)
- Ornamentals (2)

2009 NORTH CAROLINA AQUACULTURE SPECIES



Keith Hairr & Dean Raynor
at an NC State Flounder
Workshop

Saltwater

- Clams & Oysters (237 leases)
- Soft Shell Crabs (300 shedders)
- Southern Flounder (1)
- Black Sea Bass (1)

1/26/2010

NORTH CAROLINA AQUACULTURE BY REGION

Cool and Coldwater
Flow-Through
Tank Production

Water Limited
Recirculating Tank
Production

Warmwater
Pond Production



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2009 NORTH CAROLINA CATFISH INDUSTRY

Catfish Farm



22 Food Fish Producers
1,830 Pond Acres
7,628,000 Pounds
Weighted Average Price = \$0.82



Farm Gate Value = \$6,247,332

1/26/2010

2009 NORTH CAROLINA CATFISH INDUSTRY

1 Fingerling Producer
4,000,000 fingerlings

Farm Gate Value
= \$400,000



Catfish FINGER-lings

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2009 NORTH CAROLINA CATFISH SALES & PROCESSING

1 Processor

Processed Value=
\$11,700,000



2009 NORTH CAROLINA FEEDS PRODUCTION

1 Mill

Producing 17.2 million
pounds of feed



Product Value= \$3,400,000



Carolina Fish Feeds , Greenville, NC

2009 NORTH CAROLINA CATFISH INDUSTRY VALUE

Farm Gate, Processed
Value Feed Milling
= \$21,747,332



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2009 NORTH CAROLINA CATFISH INDUSTRY GENERAL TRENDS

Fewer Farms (consolidation)
Slightly Less Acres of Production
High Production Intensity
Relatively Stable Industry Output
Stable Farmgate Pricing

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2009 NORTH CAROLINA HYBRID STRIPED BASS INDUSTRY*

12 Food Fish Producers

763 Pond Acres*

2,466,230 Pounds *

@ \$2.90 – \$3.20 / Pound

Farm Gate Value = \$9,064,700



Dr. Craig Sullivan
NC State University

* 12 Active and 11 Reporting production from 701 acres

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2009 NORTH CAROLINA HYBRID STRIPED BASS INDUSTRY

4 Hatcheries

4,950,000 Fingerlings
Produced

@ \$0.17 - \$0.40 each

Farm Gate Value = \$1,237,500



Moving & Grading Hybrid Bass Fingerlings

1/26/2010

2009 NORTH CAROLINA HYBRID STRIPED BASS INDUSTRY GENERAL TRENDS

Fewer Farms
More Farms Reporting this Year
Stable Acres of Production
Higher Production Intensity
Stable Output
Stable Farmgate Pricing

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2009 NORTH CAROLINA TILAPIA INDUSTRY STATUS

9 Growout Fish Barns*

967,140 Pounds

average price \$2.19/ lb.

Farm Gate Value

= \$2,143,483

*One is a new farm with no production
in 2009

\$2,309,136 (in 2008)



Dale Pridgen, Tilapia Farmer

1/26/2010

2009 NORTH CAROLINA TILAPIA INDUSTRY STATUS

4 Fingerling Barns

1,386,368 each

approx. \$0.60 each

Farm Gate Value

= \$831,208



Rick Jones, NCSU

1/26/2010

2009 NORTH CAROLINA TILAPIA INDUSTRY GENERAL TRENDS

More Farms have their Own Nursery

Existing Farms Restocked from Nurseries

Stable Production Intensity

Output is Stabilizing set for Growth

Stable Farmgate Pricing

One New Farm in 2009, One Being Built
in 2010

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2009 NORTH CAROLINA FLOUNDER INDUSTRY STATUS

1 Operation: Hatchery & Nursery
150,000 fingerlings produced

2 Growout Operations: One
freshwater, one brackish
14,000 lbs. combined
Farm Gate Value = \$56,000



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2009 NORTH CAROLINA FLOUNDER INDUSTRY GENERAL TRENDS

Continued Strong Interest

One New Large Farm Being Built in 2010

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2009 NORTH CAROLINA BLACK SEA BASS STATUS

1 R & D Operation at
UNC Wilmington. Project
Sponsor Carolina Black
Sea Bass



2,500 lbs Produced

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2009 NORTH CAROLINA YELLOW PERCH STATUS

2 Fingerling Growers
5 Acres of Production



400,000 Fish Sold (@\$.10 each)
Farm Gate Value = \$40,000

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2009 NORTH CAROLINA CRAWFISH INDUSTRY STATUS*

4 Active Growers
29 Acres

10,200 Pounds
\$3.50 / lb.

Farm Gate Value = \$35,700
Stable Industry



Crawfish

1/26/2010

2009 NORTH CAROLINA FRESHWATER PRAWNS STATUS

9 Growers Active
38 Acres
32,000 Pounds
30% frozen tails \$16 / lb.
70% whole fresh \$8 / lb.
Farm Gate Value =
\$256,000



Small Production Ponds



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2009 NORTH CAROLINA FRESHWATER PRAWNS STATUS

1 Nursery
390,000
Juveniles



Freshwater Prawns

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2009 NORTH CAROLINA PRAWN INDUSTRY GENERAL TRENDS

- * Continued Strong Interest
- * Good Coordination via Coop
- * Market Shift from Frozen Tails to Whole Fresh Product
- * One New Farm Built in 2009 will be in Production in 2010

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2009 NORTH CAROLINA CLAM & OYSTER INDUSTRY STATISTICS*

237 Leaseholders
1,844 Acres Planted
4,175 Bushels Clams
5,011 Bushels Oysters
Farm Gate Value = \$380,737



*data from July 1, 2008 – June 30, 2009

1/26/2010

2009 NORTH CAROLINA Blue Crab Shedding INDUSTRY STATISTICS

300 Active Permits
199,072 pounds
Farm Gate Value = \$1,139,527



crab molting



crab shedding tanks

1/26/2010

2009 NORTH CAROLINA SHELLFISH AND CRAB SHEDDING GENERAL TRENDS

- * Stable Clam Output
- * Reduced Oyster Output
- * More Crab Shedder, Slightly Less Output

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2009 NORTH CAROLINA TROUT INDUSTRY

40 Food Fish Producers (-1)

4,388,000 Pounds (+ 22%)

@ \$1.42 / Pound (- \$0.02)

Farm Gate Value = \$6,225,450 (+23%)

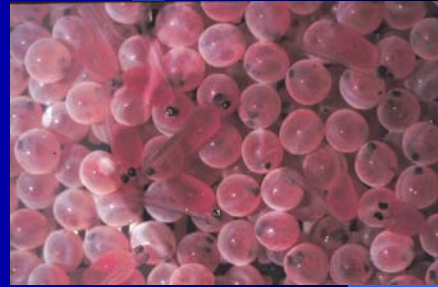


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2009 NORTH CAROLINA TROUT INDUSTRY

17 Hatcheries (-2)
9,454,500 Fingerlings (-1%)

@ \$0.08 each (nc)



“Eyed” Trout Eggs

Farm Gate Value = \$790,550

1/26/2010

2009 NORTH CAROLINA TROUT INDUSTRY

24 Fee Fishing
Operations (-2)

260,000 Pounds (-4.4%)

@ \$4.13 / Pound (+ \$0.33)



Farm Gate Value = \$1,074,250 (+3.9%)

**MORGAN MILL
TROUT FISHING
RESORTS**
SINCE 1983

RULES <ul style="list-style-type: none">HAVE FUNBE CAREFUL! WE ARE NOT RESPONSIBLE FOR ACCIDENTSDO NOT THROW ANY FISH BACKCOME BACK TO SEE US!	ADMISSION <p>\$1 PER PERSON GROUP RATES \$5.00</p> INCLUDES <ul style="list-style-type: none">POLES & BAITFISH CLEANED & ICED DOWN FREEFILLETING AVAILABLEPICNIC AREARESTROOMS
--	--

Please Pay Admission Before Fishing

RAINBOW TROUT
\$2.95 Lb. FISH OUT OR DIP OUT
TO CATCH FISH FASTER
USE WORMS \$2.25

THANK YOU
OWEN FAMILY
Open Year Round
Mon - Sat 8 Til 6 Sun Til 6
Closed Weekends Dec 1 Thru Mar 1

1/26/2010

2009 NORTH CAROLINA TROUT INDUSTRY STATUS

2 Processors (nc)

1,700,000 lbs (+6.25%)
(processed product)

Average Price
of Products

= \$5.17 / pound (+\$0.08)



Value Added Trout Products

Value = \$8,795,000 (+8%)

1/26/2010

2009 NORTH CAROLINA TROUT INDUSTRY IMPACT

Farm Gate and
Processed Product
Value = \$16,885,250

(+ \$1,860,400 ; +12.4%)



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2009 NORTH CAROLINA TROUT INDUSTRY GENERAL TRENDS

- * Recovery from the Drought
- * Recovered Output to Pre-Drought Levels
- * Higher Pricing

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2009 NORTH CAROLINA

Sturgeon (for caviar) **The LaPaz Group, LLC**
Happy Valley, NC



Starting with a gift by William
White to The NC State
College of Ag and Life Sciences

Managing Partner: Joe Doll

56% Ownership of LaPaz
+ \$3.8 million Gift

To complete the farm, conduct
research and training, and to bring
the company to profitability

1/26/2010

2009 NORTH CAROLINA

Sturgeon (for caviar)

The LaPaz Group



**Rick Jones, NC State
Graduate Research
Assistant**



Building 2



**Atlantic Sturgeon,
Russian Sturgeon
Siberian Sturgeon**

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2009 NORTH CAROLINA Aquaculture Operations and Farm Gate Value

146 Farms &
237 Shell Fish Leases
300 Crab Sheddors

Farm Gate = \$29,924,237

\$29,953,722 (in 2008; - < 0.1%)



1/26/2010

2009 NORTH CAROLINA Aquaculture Processors & Product Value

3 Processing Plants

Processed Product
Value = \$20,495,000

\$20,940,000 (in 2008; = -2.1%)



Sydney Seafood Market

1/26/2010

2009 NORTH CAROLINA Aquaculture Farm Gate, Processed Product and Feed Value

\$53,819,237

\$54,893,722 (in 2008; - <2%)

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2009 NORTH CAROLINA A New Research Facility

Marine Aquaculture Research Center



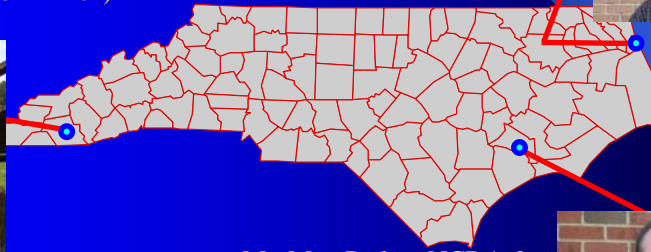
Made possible with a
generous gift from
Dr. IJ and Sue Won

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Business Planning & Permitting Assistance

Mr. William Small, NCDA & CS
Seafood Marketing
(252 331-4773)

Ms. Debra Sloan, NCDA & CS
Aquaculture Business Advisor
Western NC (828 524-1264)



Mr. Matt Parker, NCDA &
CS
NCCES
Aquaculture Economist
Craven County Ag Bldg.
(252 633-1477)



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Technical Assistance

Western NC Cooperative Extension Service

Mr. Skip Thompson
Area Aquaculture Agent
Waynesville, NC
(828 456-3575)



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Ms. Molly Sandfoss
Area Aquaculture Agent
Marion
(828 652-7121)



Dr. Jeff Hinshaw
Aquaculture Specialist
Fletcher, NC
(828 684-3562)



1/26/2010

Technical Assistance

Eastern NC Cooperative Extension Service



Mr. Steve Gabel
Area Aquaculture Agent
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Mr. Mike Frinsko
Area Aquaculture Agent
(252 448-9621)



Dr. David Green
Seafood Specialist
(252 222-6304)

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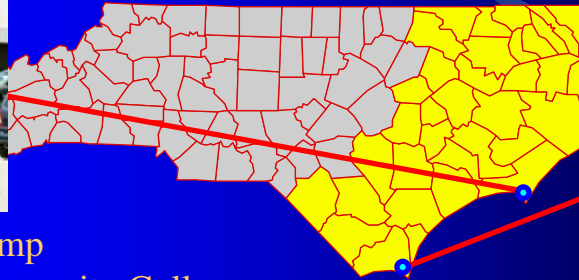
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Aquaculture Education

Eastern NC Community Colleges



Mr. Skip Kemp
Carteret Community College
(252 222-6114)



Dr. Doug Holland
Brunswick Community College
(910 755-7432)

NC STATE UNIVERSITY

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Campus Based Specialists



Dr. Tom Losordo
NC State, Raleigh
(919 515-6784)



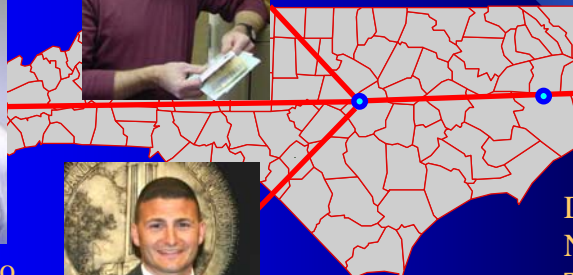
Mr. Dennis DeLong
NC Fish Barn, Raleigh
(919 513-2106)



Dr. Marc Turano
Sea Grant, NC State
(919 513-0122)



Dr. Harry Daniels
NC State, Raleigh
Tidewater Res. Stn
(919 515-4589)



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Aquaculture Research Personnel

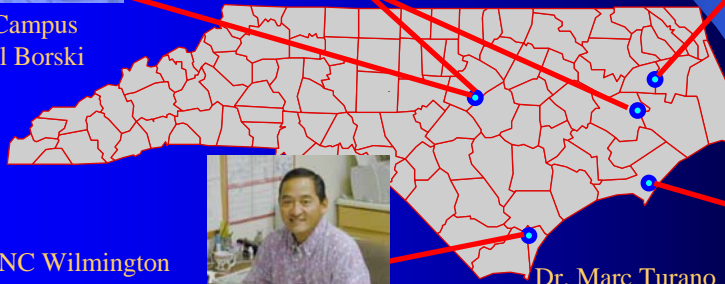
Dr. Harry Daniels
NC State, Raleigh
Tidewater Res. Stn



NC State Campus
Dr. Russell Borski



NC State Campus
Pamlico Field Lab
Dr. Craig Sullivan



UNC Wilmington
Dr. Wade Watanabe



Dr. Marc Turano
Marine Aquaculture
Research Center

NC STATE UNIVERSITY

NCSU College of Veterinary Medicine



Dr. Ed Noga



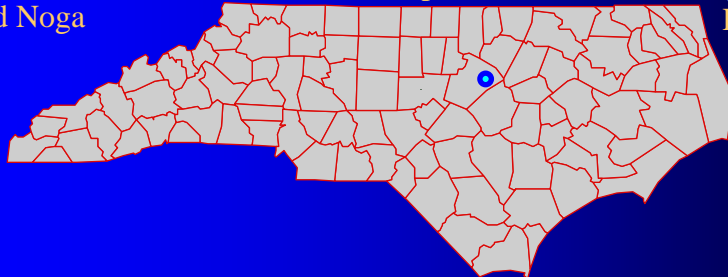
Dr. Michael Stoskopf



Dr. Jay Levine



Dr. Greg Lewbart



Dr. Craig Harms

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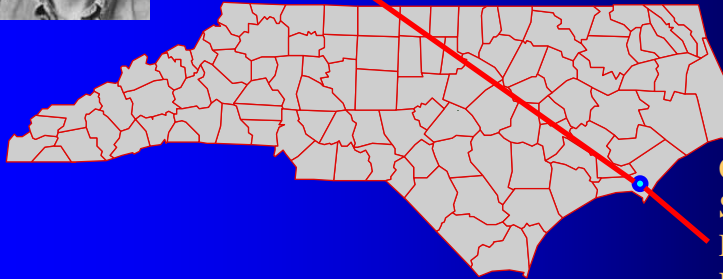
Aquaculture Research Personnel



Center for Marine Science & Technology, NCSU
Dr. David Eggleston
Professor
Center Director



CMAST, NCSU
Seafood Lab
Dr. David Green
Professor
Ext. Specialist



AQUACULTURE IN EDUCATION High Schools

Teaching Science
through Aquaculture



Mr. Barry Bey, Instructor & Student
South Brunswick High School

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A Public / Private Partnership for 21 Years

Major Sponsors

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