Welcome To
Innsbrook Fishing Club

Sign Up by Sending an Email to:
Innsbrookfishingclub@gmail.com
Or Follow Us on Facebook
Innsbrook Fishing Club - Group

Agenda

- Introductions
- Purpose of the Fishing Club
- Membership Activities
- Pond Boss Conference Info
- Dr. Brian Graeb, SDSU
- Q & A

Introductions

- Please share:
  - Name
  - Years at Innsbrook
  - Favorite Lake
  - Favorite Fishing Lure

- Please sign up on the membership list or send an email to:

  Innsbrookfishingclub@gmail.com

Purpose of Fishing Club

- Member Led Organization To Promote Fishing
- Improve The Fishing Quality And Experience
- Educational Resources For Property Owners
- Provide Manpower To Improve Habitat, Host Tournaments, Monitor Fish Stocks, Etc.
- Schedule Activities To Enhance Enjoyment By IBK Property Owners, Families, Friends And Guests.
- Create A Shared Resource Of Contacts And Knowledge Focused On Fisheries Management.

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2017 Fishing Club Activities

- **January 21 & March 4:** Fish Habitat Workshops
- **February 24:** Fishing Club Meeting
- **May 15 & 14:** MDC Electroshocking
- **May 27:** Memorial Weekend Fun Fishing Tourn.
- **August 5:** Club Meeting / Fish Cleaning Event
- **August 6 & 11:** Meanie Greenie Tournament
- **September 3:** Catch Keep, Clean & Cook Tourn.
- **October 10 -12:** Pond Boss Conference

Fish Habitat Work Days

MDC Electroshocking

MDC Reports

MISSOURI DEPARTMENT OF CONSERVATION

JERRY J. PRESLEY, Director

Central Fisheries Management District
1907 Hillcrest Drive
Columbia, Missouri 65201
(314) 882 - 9880

May 1, 1995

Hasciengs Chivetta Architect
Attn: Chris Chivetta
101 South Hanley
Suite 1700
Clayton, Missouri 63105

Dear Mr. Chivetta,

As we had discussed in our phone conversation on May 1, 1995, Phil Pitts and myself will be assisting with the management of the lake in Innsbrook Estates. The following is our recommendations for Innsbrook Estates Lake;

1) The largemouth bass population appears to still be stunted. Maintain the present 12 - 15 inch slot length limit. Try to encourage anglers to harvest small bass (< 12 inches in length).

2) Stock channel catfish at a rate of 10 per acre per year. The catfish stocked should be 8-10 inches in length to avoid being preyed upon by the larger bass.

3) Attempt to harvest some of the grass carp in order for some aquatic vegetation to become established.

4) Encourage anglers to record all fishing success and harvest information by species and length in inches.

I have inclosed some literature which may be helpful with the management of the lake. We will be contacting you to set up a day that we can sample the lake early this fall. Thanks again for allowing us to assist you in the management of Innsbrook Estates Lake. If you have any questions or comments, please feel free to contact Phil Pitts or myself at (314) 882-9880.

Sincerely,

Scott Vonev
Fisheries Assistant II

MDC Electroshocking Reports

- Alpine – 2017
- Audubon – 1997
- BellaMonte – 1999
- BlueHeron – 2000
- Charrette – 1998
- Foxfire – 1996
- Innsbrook – 1984, 1988, 1996
- Lucerne – 1978,1998, 2017
- Mitten – 1998
- Scheffborg – 1996
- Seebrook – 1998
- Silverfox – 1998
- Solitude – 1999
- St. Gallen – 1997
- Trinity – 1999
- Wanderfern – 1984, 1988, 1998
- White Oak – 2000
- Whitetail - 2000

If you would like a report, send an email to Innsbrookfishingclub@gmail.com

Memorial Weekend Tournament

Meanie Greenie Tournament

Catch It, Keep It and Clean It Tournament

Catch It, Keep It and Clean It Tournament

2018 Fishing Club Activities

- **March 3** Fishing Club Meeting
- **March 10 & 24** Fish Habitat Restoration Work Days
- **March TBD** Paddlefish Harvest, Alpine & Aspen
- **April 7** IBK Spring Property Owners Tournament
- **April** Bluegill Stocking in Hatchery Ponds
- **May TBD** MDC Electroshock Surveying
- **May 15 & 16** Herman Brothers Electroshock Harvest
- **May 26** Fishing Club Memorial Day Tournament
- **Summer 2018** Events TBD
- **October 6** IBK Fall Property Owners Tournament
- **October** Bluegill Hatchery Harvest & Restocking

Electroshock Harvest/Survey Ride Along

Two Days of Electroshock Surveys

May 15 and 16

Ride Along and Net	$100/person
Private Lake & Ride Along	$500

Fishing Club Dues

- Annual dues to help fund activities and improvements to lakes
- Dues Categories:

Children under 16 years of age	Free
Individual or Family	$25 per year
Sportfish Level	$50 per year
Lunker Level	$100 per year

- Mark Birchler, Treasurer

  761 Carman Meadows Drive

  Manchester, Missouri 63021

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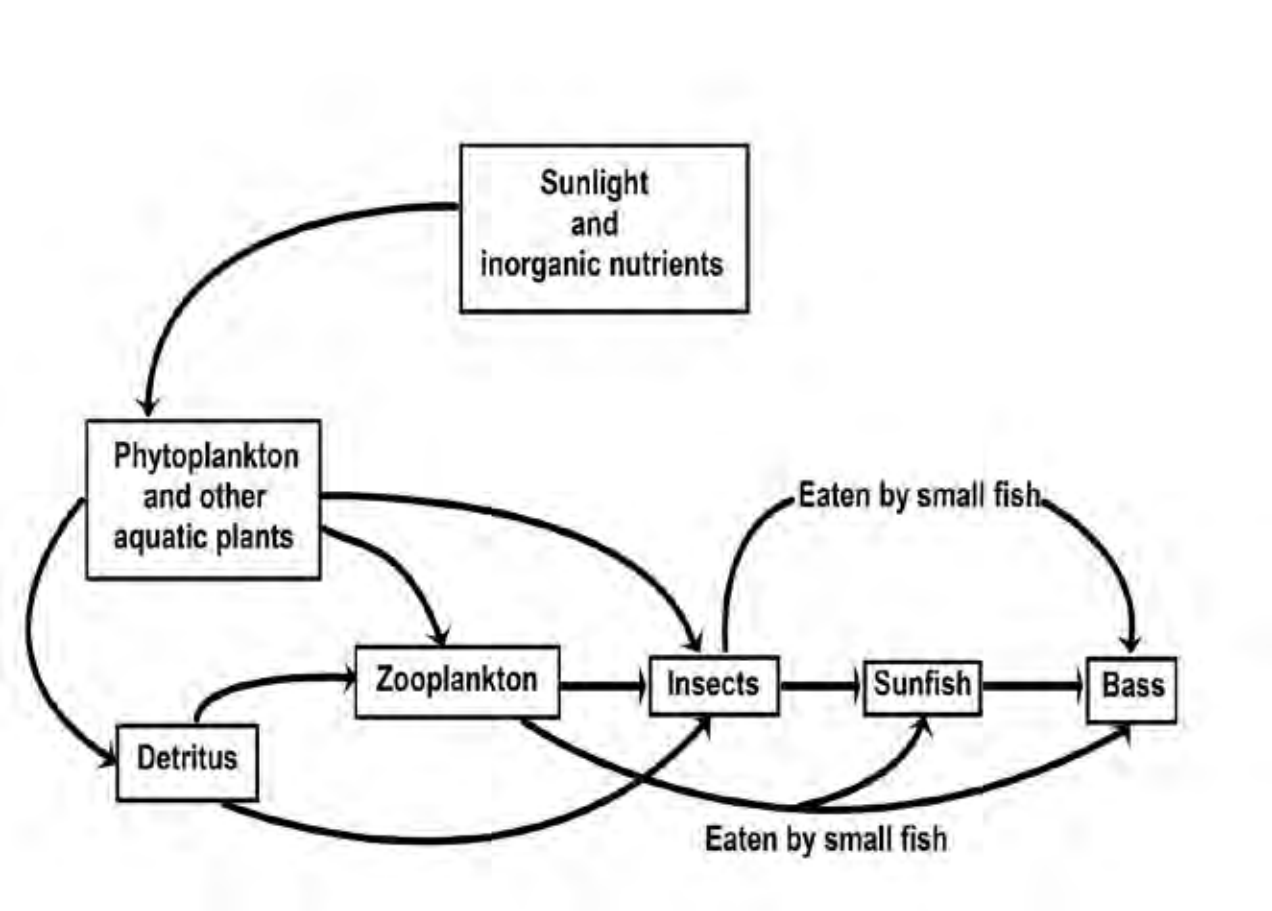
Water Chemistry for Pondmeisters: What to Know About Water for Good Decisions

Claude E. Boyd
Professor Emeritus
School of Fisheries, Aquaculture and Aquatic Sciences
Auburn University, Alabama 36849 USA


Sunlight
and
inorganic nutrients
Phytoplankton
and other
aquatic plants
Eaten by small fish
Zooplankton
Insects
Sunfish
Bass
Detritus
Eaten by small fish

Acceptable ranges for some water quality variables.		
	Ideal	Tolerable
pH	7.0 – 8.5	6 – 9
Electrical conductivity (mmhos/cm)	150 – 300	50 – 1,000
Total alkalinity (mg/L as $CaCO_3$)	50 – 150	50 – 500
Total hardness (mg/L as $CaCO_3$)	50 – 150	5 – 500
Secchi disk visibility (inches)	24 – 36	10 – 50
Calcium (mg/L)	20 – 60	5 – 300
Magnesium (mg/L)	2 – 20	1 – 100
Sodium (mg/L)	1 – 100	1 – 200
Potassium (mg/L)	2 – 25	0.5 – 50
Chloride (mg/L)	1 – 100	1 – 200
Sulfate (mg/L)	1 – 25	1 – 100

TROPHY BASS MANAGEMENT FROM THEN, UNTIL NOW, GROWING GIANT BASS

Michael P. Masser, Ph.D.
Professor and Head
Department of Wildlife and Fisheries Sciences
Texas A&M University

QUALITATIVE CATEGORIES (GABELHOUSE, 1984)

• STOCK	8-11 IN (0.5 – 0.8 LB)
• QUALITY	12-15 IN (0.9 – 2.0 LB)
• PREFERRED	16-19 IN (2.25 – 4.5 LB)
• MEMORABLE	20-24 IN (4.6 – 9.6 LB)
• TROPHY	24-26 IN+ (~9.6 LB)

“Trophy” = 74 - 80% of World Record Length

STATE RECORDS

- ALABAMA – 16 LB, 8 OZ 1987
- ARIZONA – 16 LB, 7 OZ 1997
- CALIFORNIA – 21 LB, 12 OZ 1991
- FLORIDA – 17 LB, 7 OZ 1986
- KENTUCKY – 13 LB, 10.4 OZ 1984
- LOUISIANA – 15.97 LB 1994
- MASSACHUSETTS – 15 LB, 8 OZ 1975
- MISSISSIPPI – 18 LB, 2.4 OZ 1992
- MISSOURI – 13 LB, 14 OZ 1961
- NEW MEXICO – 15LB, 13 OX 1995
- NORTH CAROLINA – 15 LB, 14 OZ 1991
- OKLAHOMA – 14 LB, 12.3 OZ 2012
- OHIO – 13 LB, 2 OZ 1976
- TENNESSEE – 15 LB, 2 OZ 2015
- TEXAS – 18 LB, 2.8 OZ 1992

HISTORY OF STOCKING PROTOCOLS

- BASS-BLUEGILL COMBINATION
- GEORGE BENNETT- ILLINOIS
- HOMER SWINGLE “GOD FATHER” OF POND STOCKING
- 10:1 BLUEGILL TO BASS
- GAME AND FISH AGENCIES STOCKED PONDS – 1952
- “ONE SIZE FITS ALL” – **FOR HARVEST NOT SPORT**

PROBLEMS SEEN IN TRADITIONAL STOCKING PROTOCOLS

- WHAT PROBLEMS DO YOU SEE IN NORTHERN CLIMATES?
  - STUNTED BLUEGILL AND POOR TO NO BASS RECRUITMENT
- WHAT PROBLEMS DO YOU SEE IN THE DEEP SOUTH (TX, AL, MS, FL, LA, ETC.)?
  - STUNTED OR CROWDED BASS (A FEW LARGE) AND RELATIVELY LARGE BLUEGILL
- WHY?

“TRADITIONAL” VERSUS “NON-TRADITIONAL” MANAGEMENT

TRADITIONAL:

- **BALANCED PONDS PRODUCE (FEW) TROPHY BASS**
- **FERTILIZED PONDS PRODUCE MORE TROPHY BASS**
- **BASS WITH FLORIDA GENES SOME MAY BECOME TROPHY SIZE**

NON-TRADITIONAL:

- **OPTIMIZING TROPHY PRODUCTION**
- **GROWING TROPHY BASS PREDICTABLY**

KEY TO BASS GROWTH

- **FOOD**
  - AND MORE FOOD
- **8-10 LBS OF LIVE FISH PER LB OF BASS**

Pond Food Chain

1 lbs

10 lbs

Zooplankton, Worms, Insects, Crustaceans, etc.

100 lbs

Plants – Algae and Macrophytes

1,000 lbs

Detritus - periphyton


Mouth size determines prey size

COMPREHENSIVE MANAGEMENT

INTEGRATE:

- POPULATION / COMMUNITY MANIPULATION
- HABITAT MANIPULATION
- HARVEST STRATEGIES

DIMENSIONS OF *NUTRITION*

- **Quantitatively Sustainable Forage**
- **Appropriate Size Distribution of Forage**
- **Availability of Forage**
- **Supplementation of Forage**
- **Supplemental Feeds**

MANAGEMENT OF *NUTRITION*

Objective: **Provide adequate food for all sizes of bass to ensure rapid growth.**

- **Establish Appropriate Prey Species (Forage)**
- **Foster Productivity of Prey**
- **Manage Prey Availability**
  - **Vegetation Control**
  - **Fall Drawdown?**
- **Supplementally Feed Prey Species**

MANAGEMENT OF *SIZE STRUCTURE*

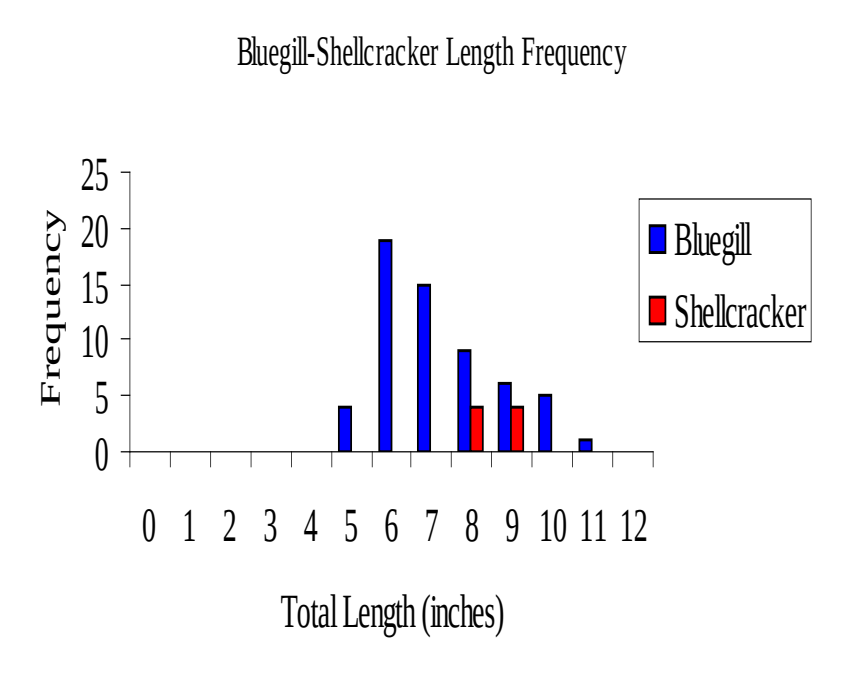
Objective: **Minimize intraspecific competition to ensure prey availability for all sizes of bass, and recruitment into trophy size range.**

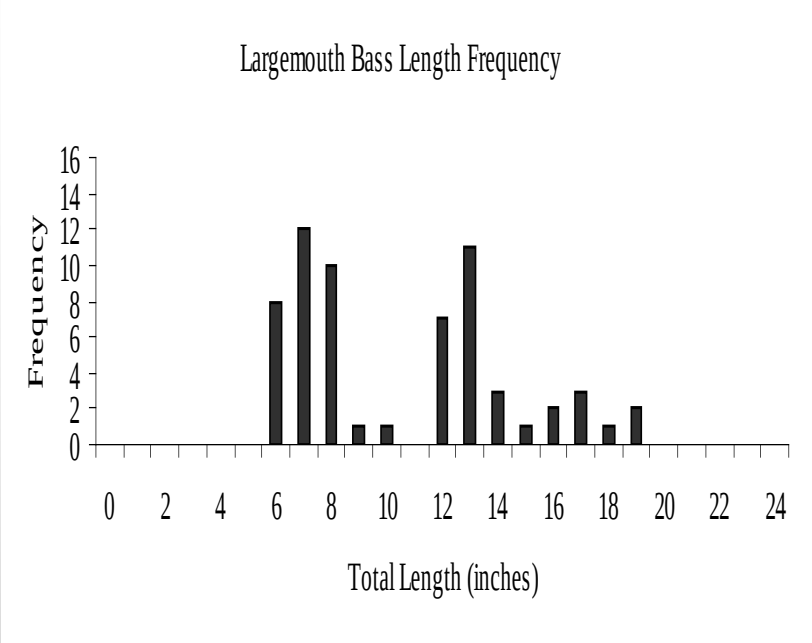
- **Remove all small males**
- **Impose Protected Slot Limits (16-24)**
- **Impose High Maximum Size Limits**
- **Assess Bass Condition Across the Length Range**
- **Release Trophy Bass and "Good" Sub-Trophy Bass**

BASS-BLUEGILL STOCKING RATES (NUMBERS/ACRE) AND RATIOS

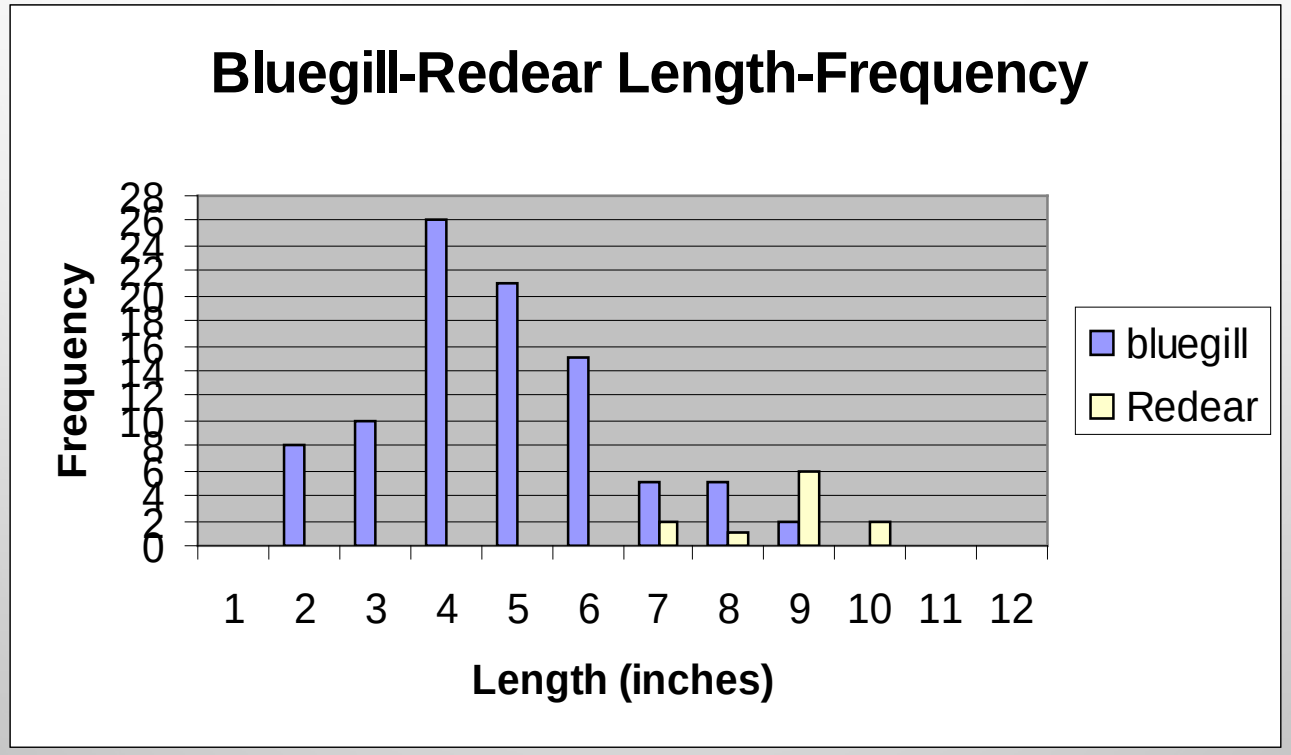
- 500 BLUEGILL 50 BASS 10:1
- 1,000 BLUEGILL 50 BASS 20:1
- 2,000 BLUEGILL 65 BASS 30:1

10:1 BLUEGILL TO BASS STOCKING RATIO

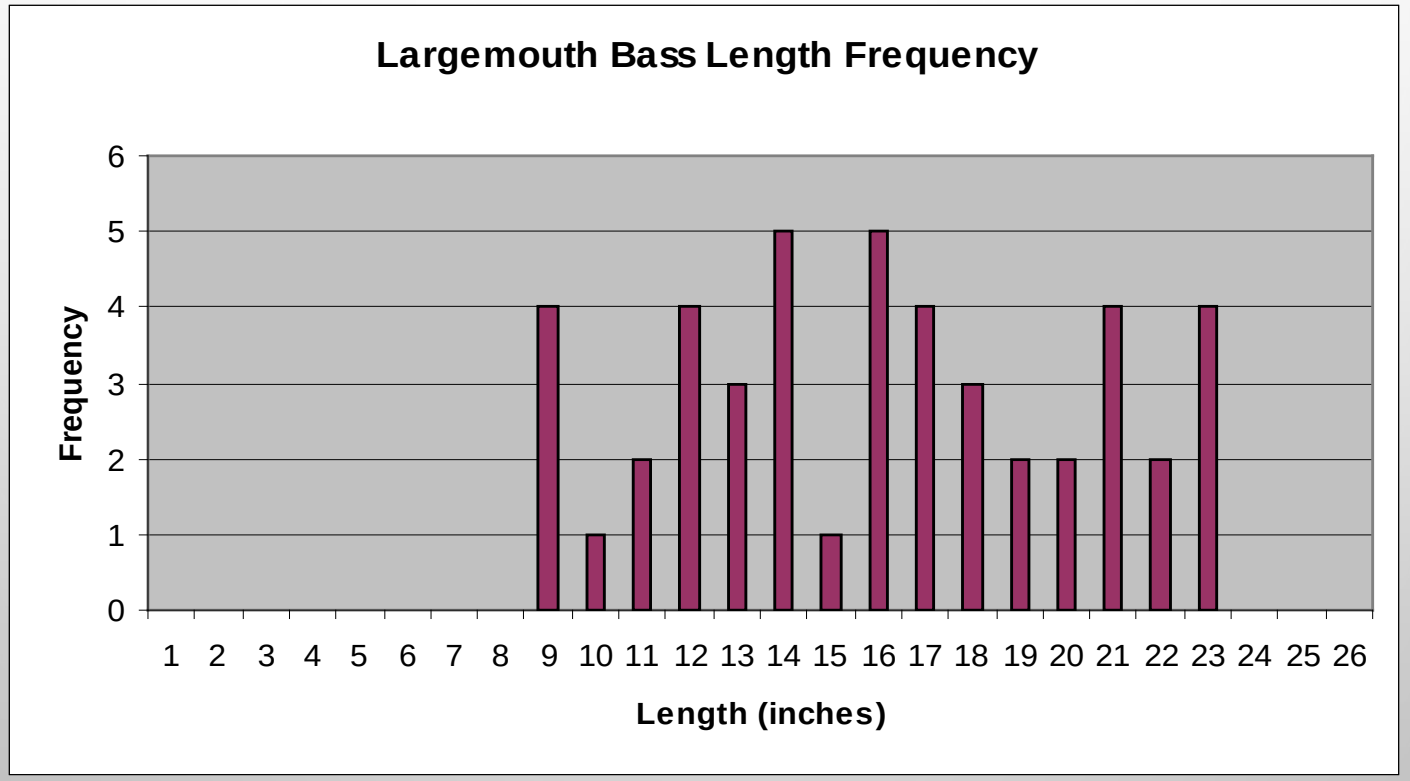




20:1 BLUEGILL-BASS STOCKING RATIO



20:1 BASS-BLUEGILL STOCKING RATIO



RESULTS OF STOCKING AT 20:1 OR HIGHER BLUEGILL-BASS RATIO

- BASS GROWTH CAN AVERAGE 2 POUNDS/YEAR
- INCREASE IN NUMBERS OF 3- TO 5-INCH BLUEGILL
- DECREASE IN BASS SPAWNING AND TENDENCY TO CROWD

AN INTEGRATED APPROACH TO TROPHY BASS MANAGEMENT

- **Integrate Population, Habitat and Harvest Management**
- **Recognize Geographic Variations Related to Climate and Water Quality**
- **Know (and Manipulate) Genetic Stocks**
- **Favor Females**
- **Diversify Forage and Make It Available**
- **Fertilize or Feed**
- **Thin Out Small Bass**
- **Protect Big Bass**
- **Assess Size Structure and Condition**
- **CAST, CAST, CAST**

“How do I stock my pond?”

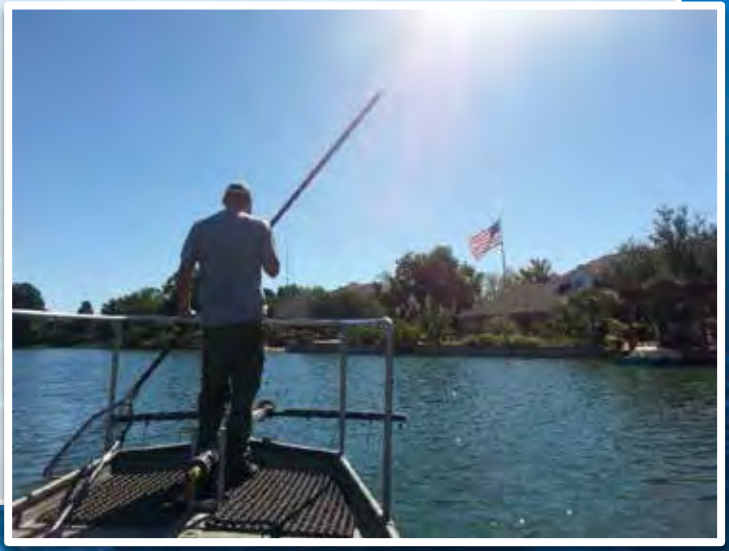
By Paul Dorsett
Fisheries Biologist
Territory leader

SOLITUDE
LAKE MANAGEMENT
Restoring Balance. Enhancing Beauty.

March 1, 2018

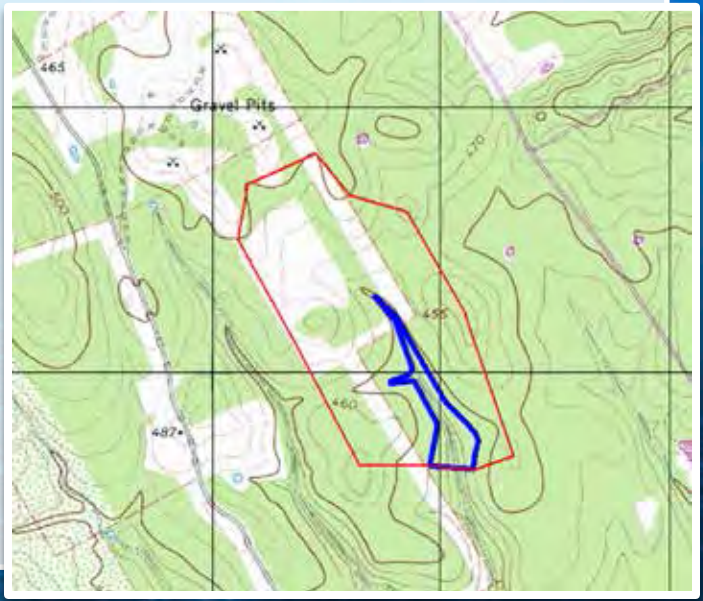
Stocking into an Existing Fishery

- Start by evaluating the fishery
- Consider the ABCs of Pond Management
  - A: Habitat
  - B: Food supply
  - C: Genetics
- Stock appropriate species and size



Stocking into a New or Reset Pond or Lake

- Verify that the pond is truly clean of other fish
- Evaluate watershed
- Consider resetting ponds upstream
- Expect explosive growth – when done right



Maximize Baitfish Production

- Growth
  - Feed
  - Fertilize
- Reproduction
  - Spawning structures, spawning beds, shoreline vegetation
  - Spawning habitat may be limiting in older lakes
- Protection
  - Provide habitat to protect from unwanted predators
  - Discourage unwanted predators

I want Hybrid Striped Bass

- Good choice in clear, deep ponds
- Can be stocked by themselves
- Require high protein feed relative to channel catfish
- Can be used to control overpopulated or unwanted species

I want Crappie

- Can be difficult to manage in ponds
- Limiting recruitment is essential
- Can be accomplished by stocking Hybrid Crappie in systems with established predators
- Addition of a few Hybrid Striped Bass can restore / maintain balance

I want Largemouth Bass

- Stock forage first
- Maximize minnow production before fingerling bass are added
- Consider genetic options to meet goals
- All female options
- Feed trained options

I DON'T WANT Weeds

- Grass Carp (White Amur) are a solution in some cases
- Most states require them to be sterile
- Most states require a permit and limited stocking
- Overstocking can be worse than understocking – you will have a carp problem rather than a weed problem

CREATING YOUR MANAGEMENT PLAN

Steven Bardin M.S.

Texas Pro Lake Management

KEY COMPONENTS

- Define Your Goals
- Summarize the History
- Plan to Determine What You Have
- Define Current and Future Issues/Limitations
- Identify Any Excess or Unused Resources
- Action Items to Implement
- Provide a Timeline to Revaluate Goals

All this done with TIME vs MONEY in mind

SETTING GOALS

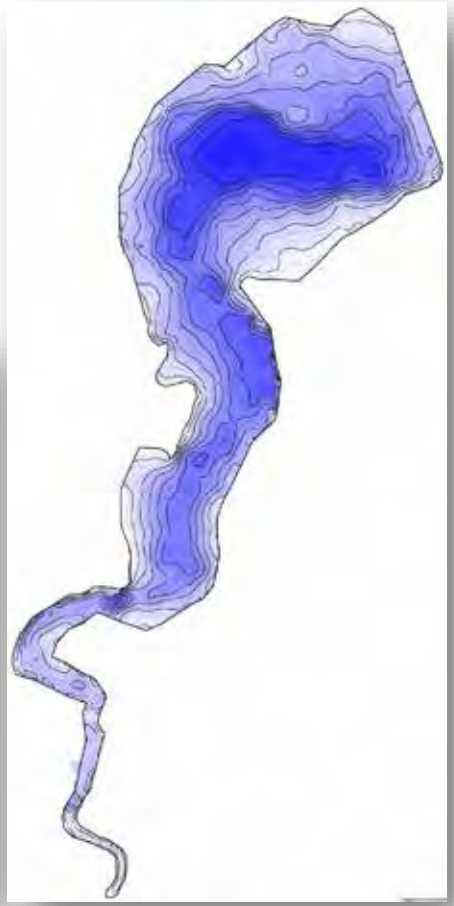
“Our Goal in 2017 is to begin to manage this example lake as a potential trophy largemouth bass fishery, with fish reaching in excess of 8 lbs within the next 5 years.”

HISTORY OF YOUR FISHERY

- Construction
- Stocking
- Management Practices

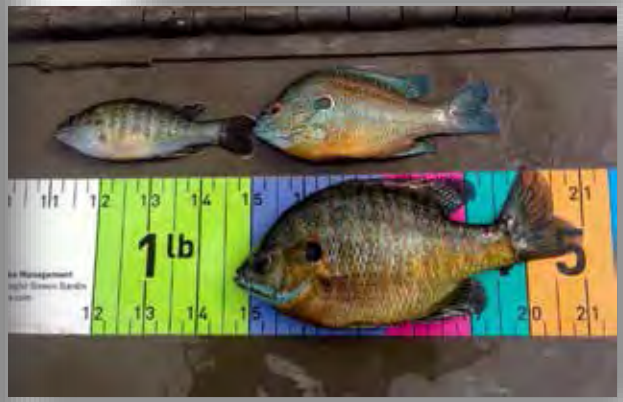
DEFINE WHAT YOU HAVE

- Size, Shape, Depth
  - 22 Surface acres
  - 8,250 ft of shoreline
  - Average depth 12 ft
  - Maximum depth 28 ft.

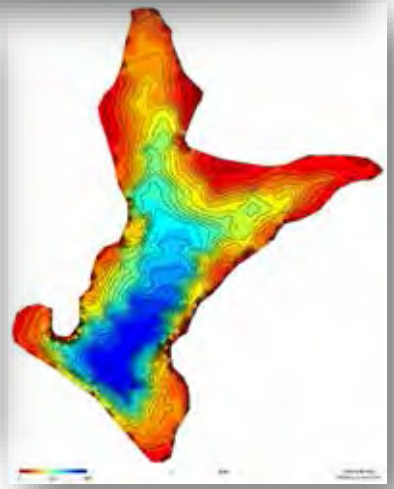


DEFINE WHAT YOU HAVE

- How will you sample fish?
- What data do you need?



IDENTIFY ISSUES/ LIMITATIONS



IDENTIFYING EXCESS RESOURCES

IMPLEMENTING NEW MANAGEMENT PRACTICES

REEVALUATE GOAL

Untangling Genetics for Pond Owners

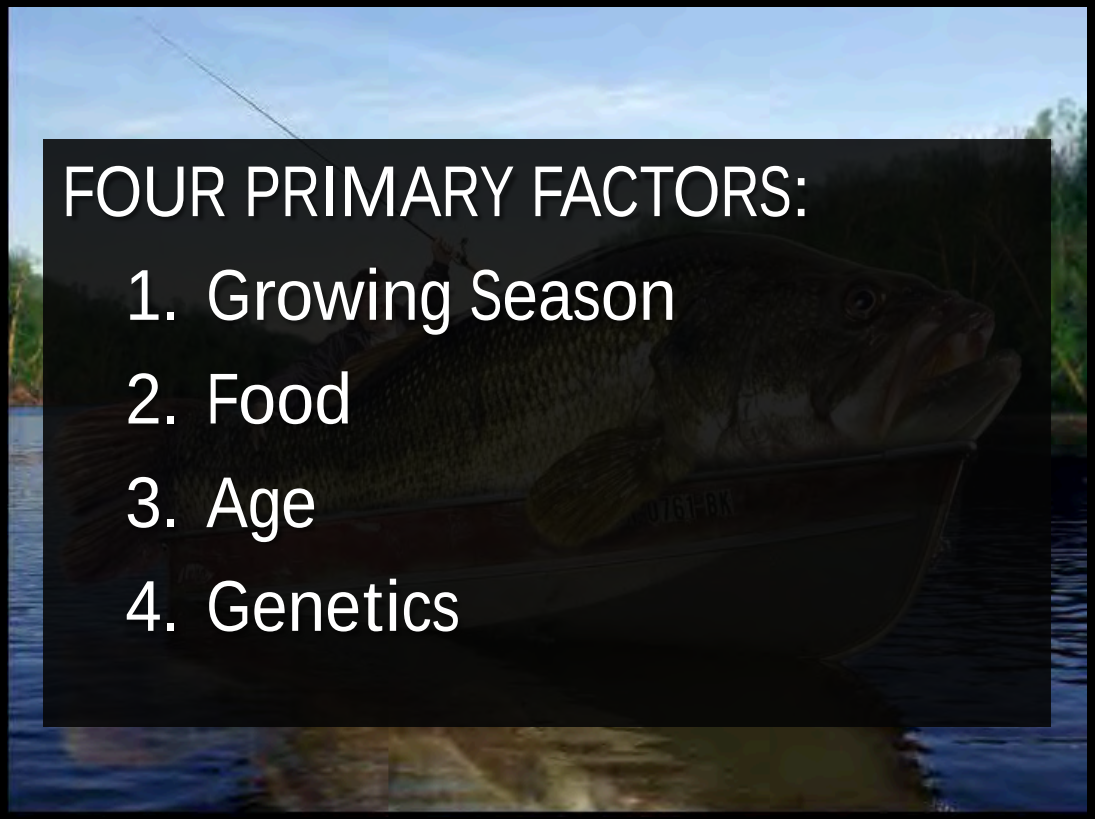
Dr. Wes Neal

Associate Extension Professor

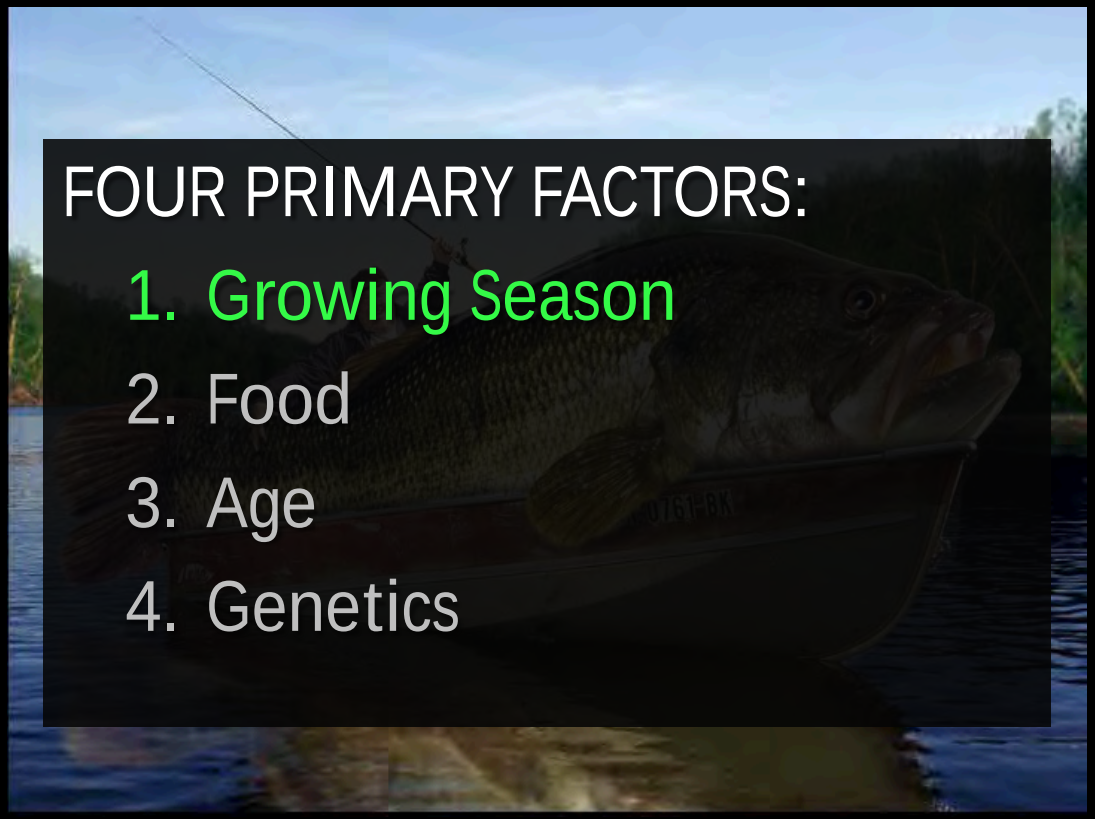
Mississippi State University

POND BOSS

What Determines Fish Size?



What Determines Fish Size?



Largemouth Bass Records

Take Home Message:
It's not practical to manage for growing season!

What Determines Fish Size?

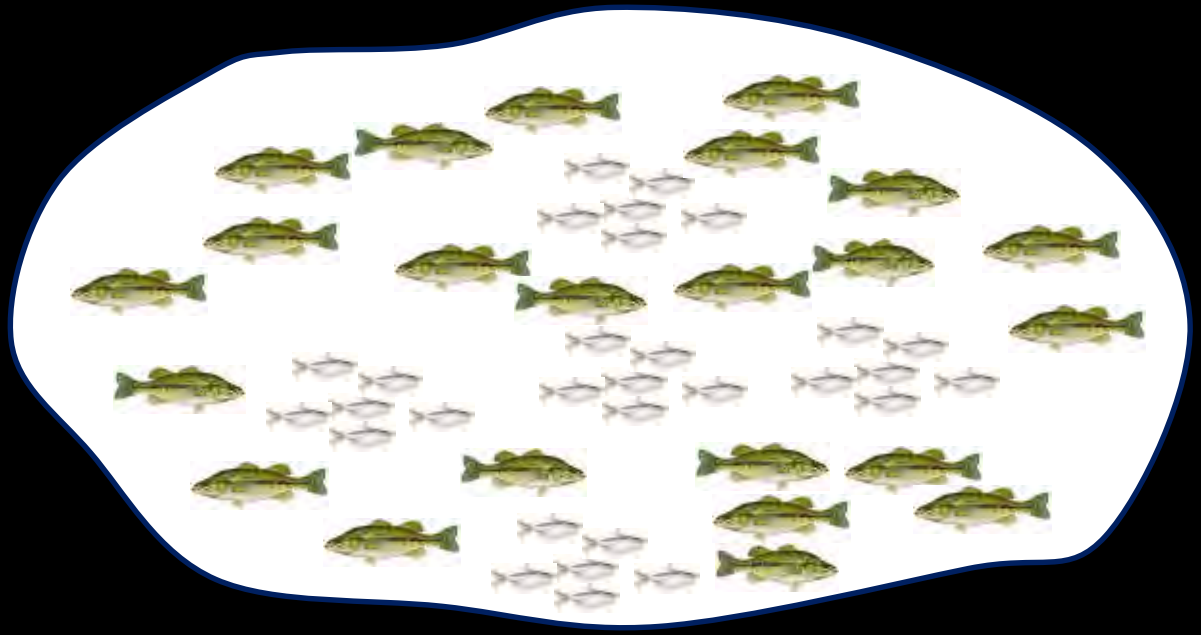
FOUR PRIMARY FACTORS:

1. Growing Season
2. Food
3. Age
4. Genetics

Fewer Fish = More Food

Reduce population size

- Fewer mouths mean more food per mouth



Fewer Fish = Bigger Fish

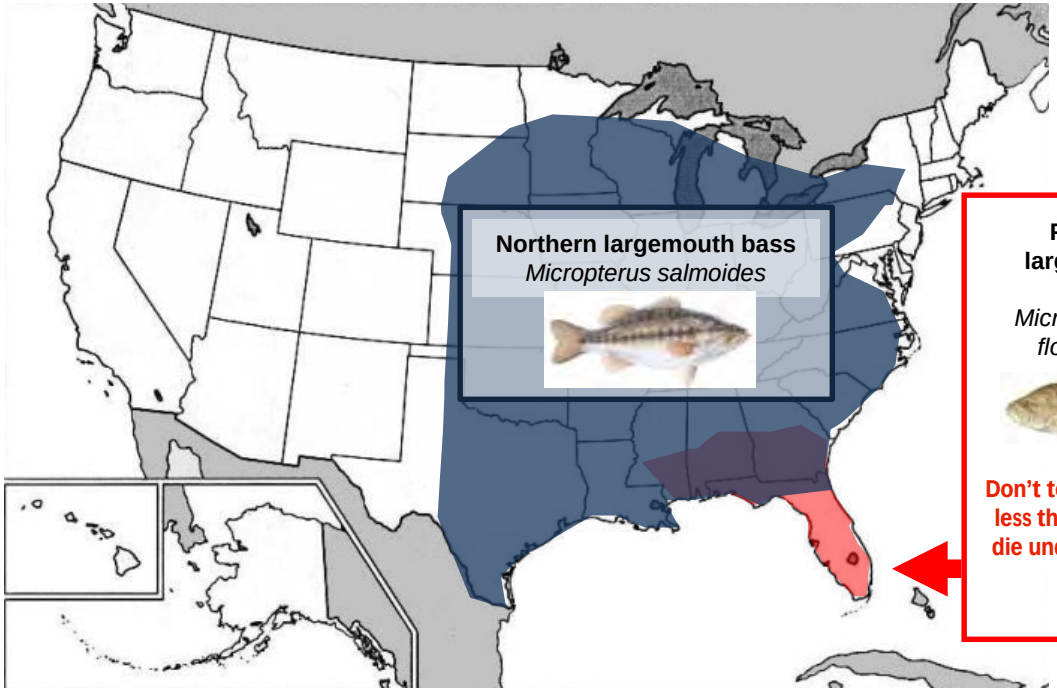
- Say a pond can support 100 pounds of bass/ac
  - This could be 100 one-pound bass
  - Or 50 two-pound bass
  - Or 10 ten-pound bass
  - Or some combination totaling the 100 pounds
- Key is to funnel weight into fewer, larger fish.
- This is really where pondmeisters should focus

What Determines Fish Size?

FOUR PRIMARY FACTORS:

1. Growing Season
2. Food
3. Age
4. Genetics

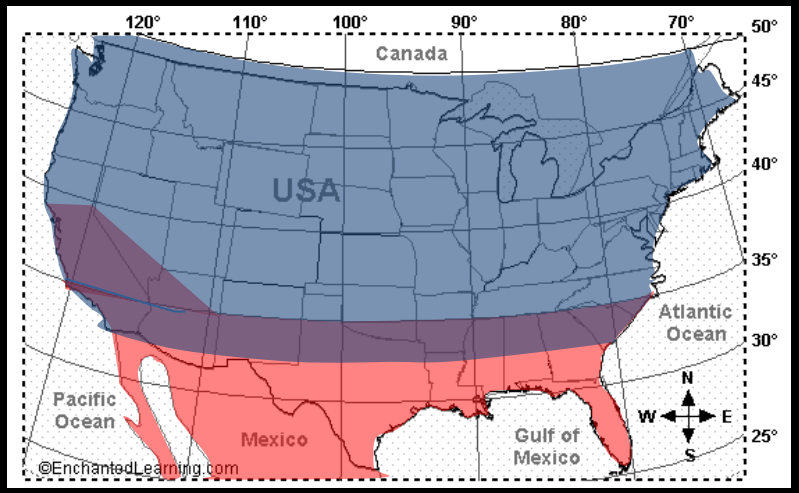
Largemouth Bass Distributions



Which Bass Strain is Better?

So which is the best?

- Again – less important to management than food and age!
- Above 35 N, northern bass grow at least as well and may be easier to catch! Florida bass die under ice.
- Definite growth advantage to Florida bass at latitudes lower than 35 N.



Bluegill Follow Similar Pattern

Inbreeding/reduction of gene pool

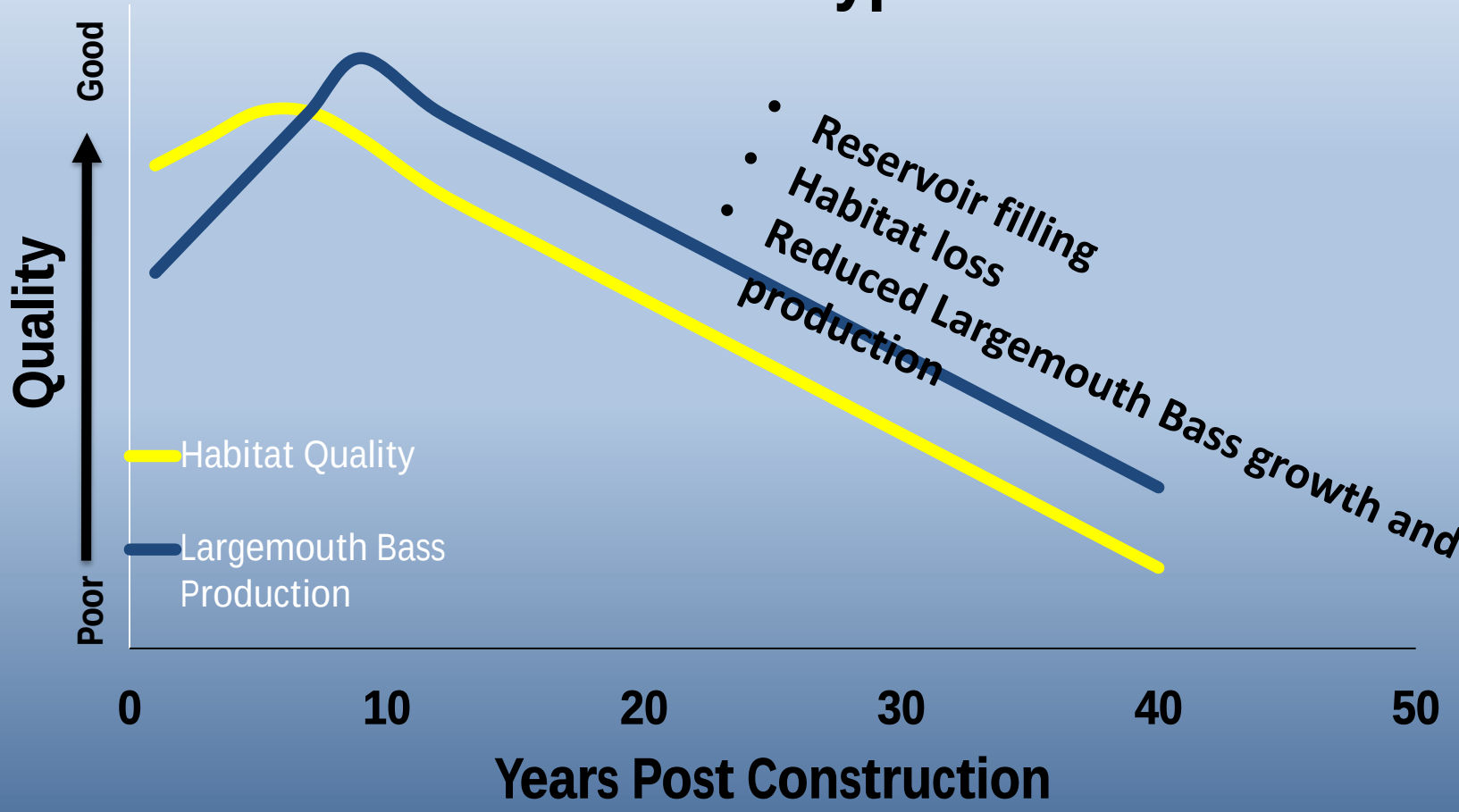
- Keep in mind that when you first stock your pond, you are likely buying fingerling bass that are the offspring of a handful of broodstock.
- It may be a good idea to refresh you gene pool occasionally by removing a few bass and stocking a few bass (adults) from a different source.
- This may expand the gene pool and help maintain higher growth rates.

Conclusions / Recommendations

1. ***Manage for <u>food</u> and <u>age</u> first!!!***
2. ***Selectively harvest males and small bass!***
3. Northern largemouth bass/bluegill above 35°N (+CA); Florida fish below 35°N; generally stay away from hybrid "F_1" bass
4. Refresh gene pool?

An Evidence-based Approach to Habitat Renovation in Aging Ponds and Lakes

Restoration Hypothesis



Towards a Predictive Framework for Habitat Enhancement

Chance Kirkeeng, Jason Breeggemann, and Graeb Lab at SDSU

South Dakota State University
Department of Natural Resource Management

Eagles Nest PRESERVE

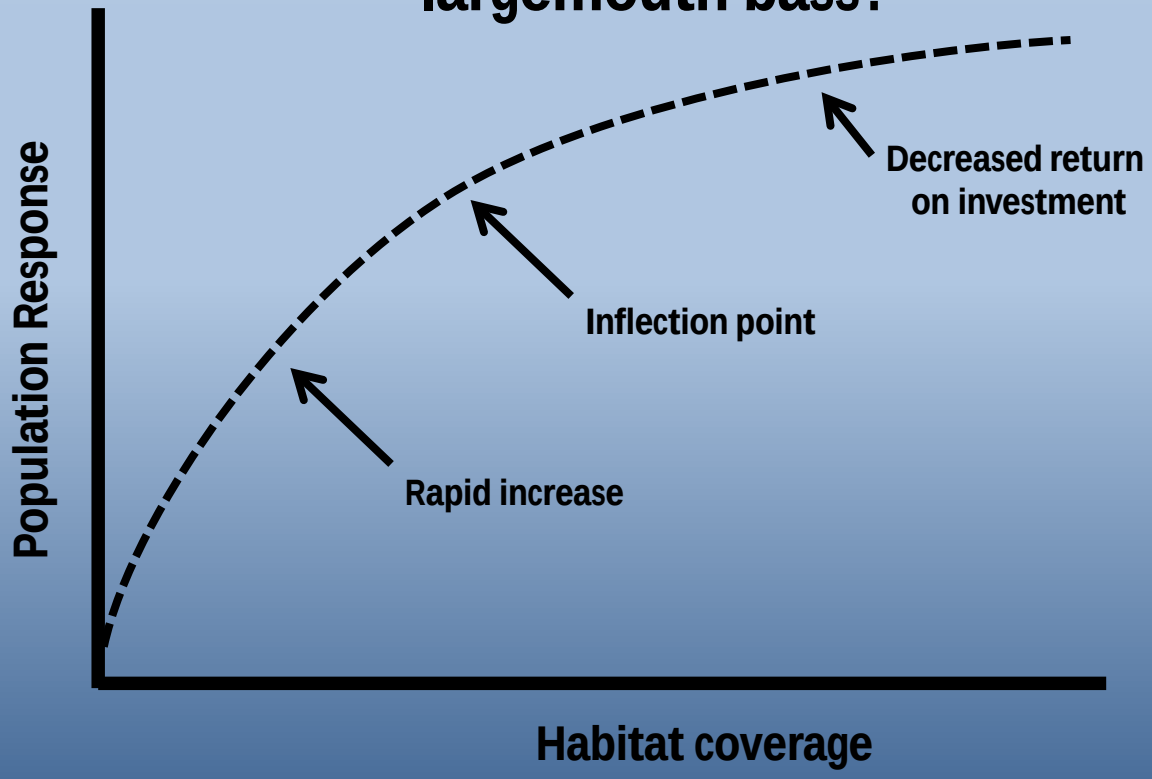
POND BOSS Magazine

Bob Lusk Outdoors

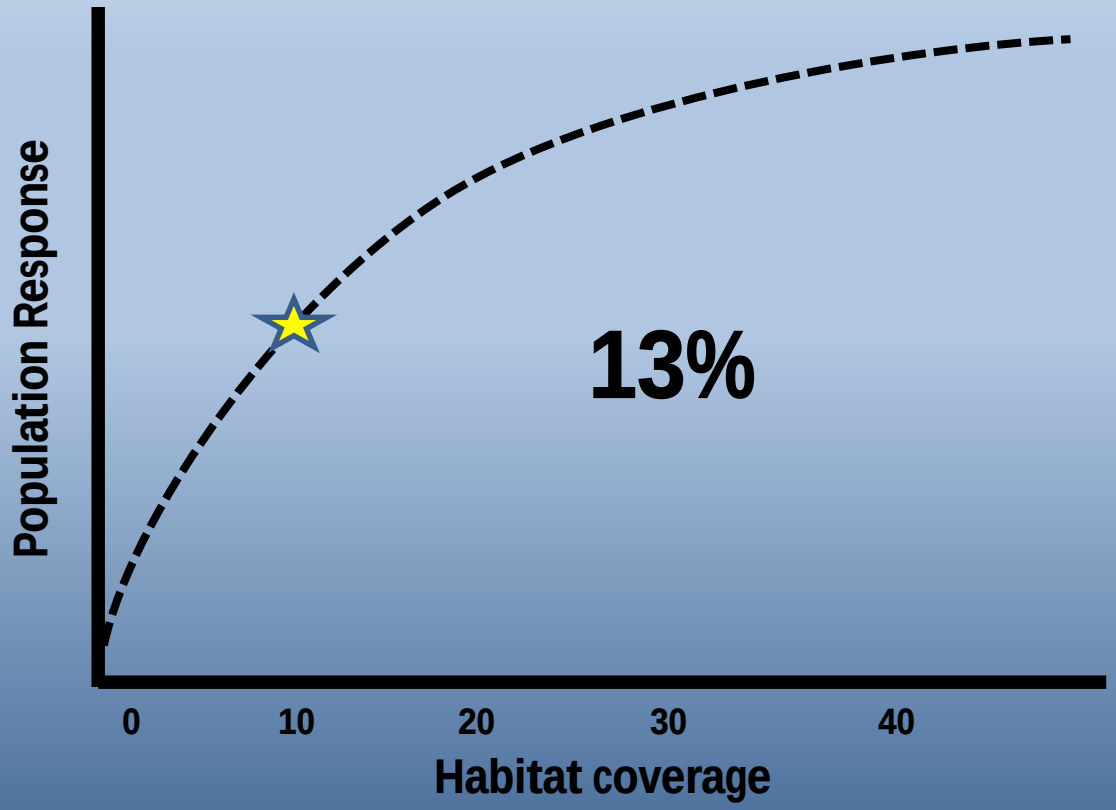
MOSSBACK FISH HABITAT™

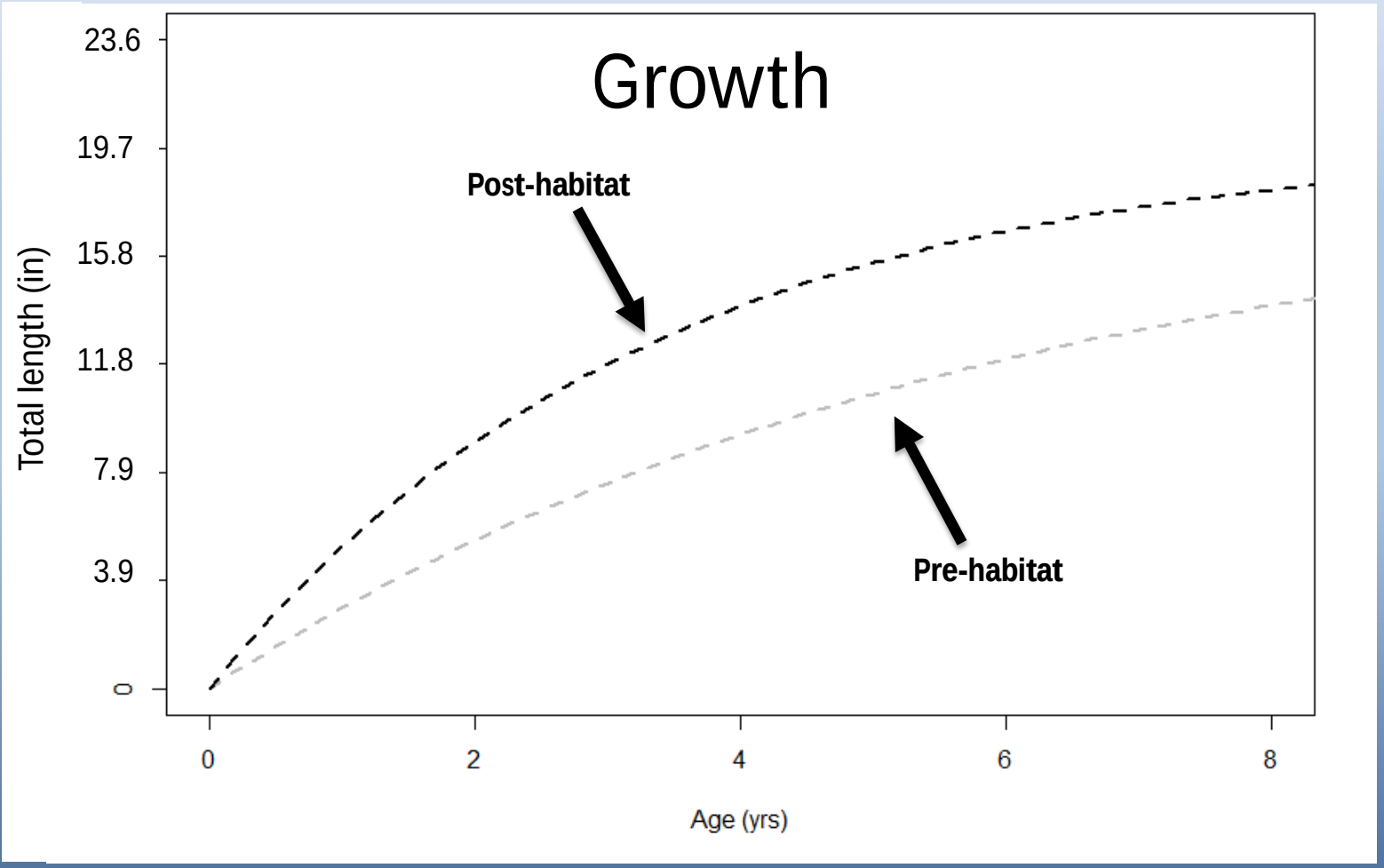
Theoretical Framework

How much habitat is needed to increase GROWTH of ADULT largemouth bass?



Habitat Curve




Growth
Post-habitat
Pre-habitat
Total length (in)
23.6
19.7
15.8
11.8
7.9
3.9
0
0
2
4
6
8
Age (yrs)

What Type of Habitat

Natural

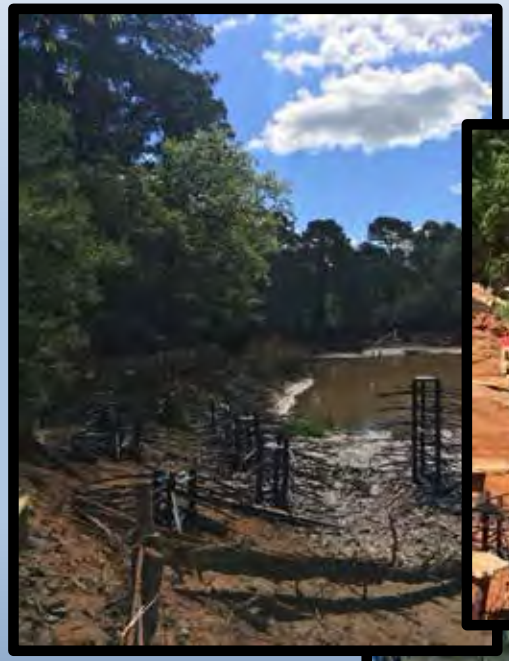
Artificial

Natural Habitat

- **Natural – Rock**
  - Pros
    - Permanent in nature
    - Contributes to habitat diversity
    - Fishability
  - Cons
    - Expensive
    - Labor intensive
    - Heavy equipment needed
- **Natural – Woody**
  - Pros
    - Readily available
    - Relatively inexpensive
    - Contributes to habitat diversity
  - Cons
    - Temporary in nature
    - Fishability
    - Contributes to sedimentation

Artificial Habitat

- Artificial Habitat
  - Pros
    - Longevity
    - Fishability
    - Predictability
  - Cons
    - Can be less economical than some natural depending on type



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INSERT BRIAN SLIDES HERE

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Welcome To
Innsbrook Fishing Club

Sign Up by Sending an Email to:
Innsbrookfishingclub@gmail.com
Or Follow Us on Facebook
Innsbrook Fishing Club - Group

Fish Habitat Restoration

- Natural Habitat Deteriorates Within 7 to 10 Years
- MDC Recommends 2 to 3 Areas Per Surface Acre
- Each Habitat Should Be Approximately 10 by 15 Feet
- Place In Water From 0 to 20 Feet Of Depth
- Potential Placement Along Dams/Roads
- Mark New Habitat With GPS Coordinates

Fish Habitat Restoration

- Lake Aspen
  - Along Road Between Aspensetter
  - Along Dam
- Aspensetter
  - Along Road
- Lake Alpine
  - Along Dam – East End