



Considerations For Fish Stocking

Michael Mounce – IDNR



Factors Affecting Stocking Decisions

- **Surface Area**
- **Carrying Capacity**
- **Desires of Owner(s)/Constituents**
- **Ability to Regulate Harvest**
- **Funding**
- **Ecological / Habitat / Water Quality**
- **Water Uses**



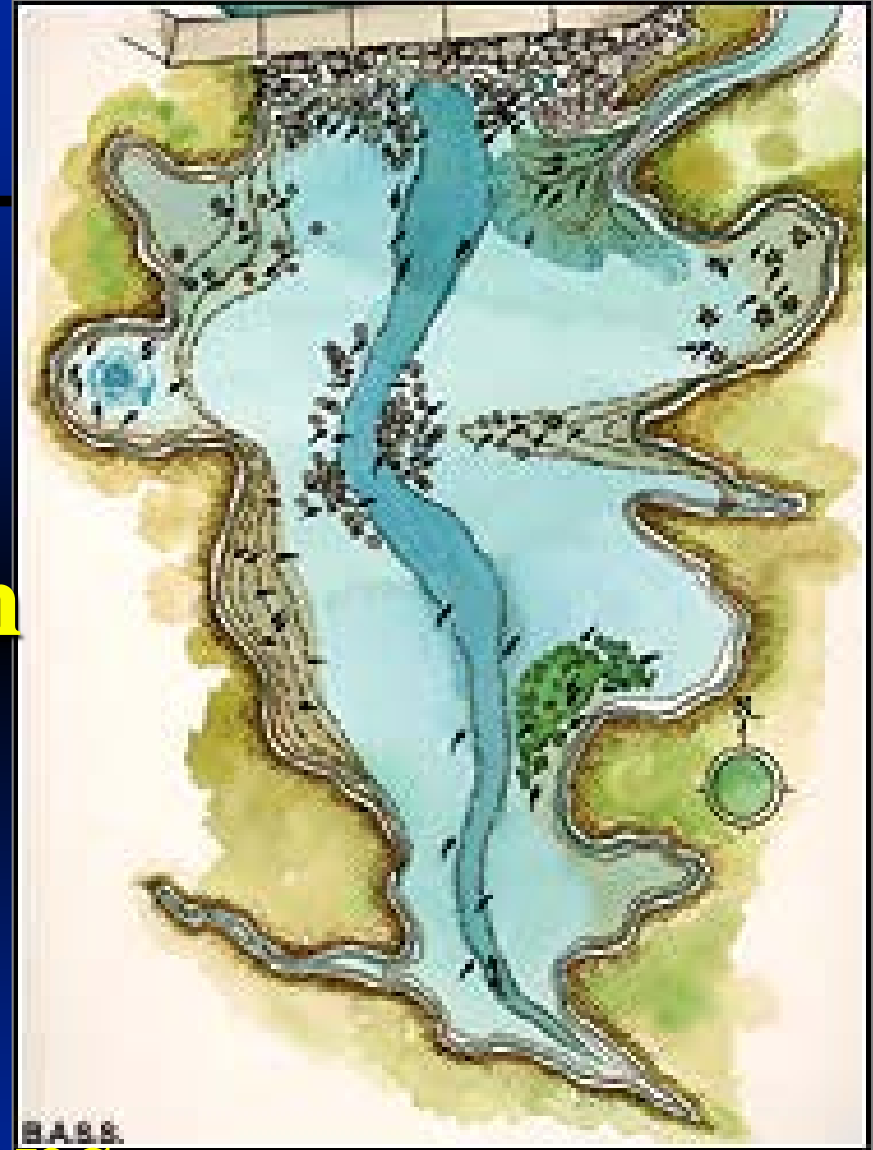
Factors Affecting Stocking Decisions

- **Surface Area**

Usually more important than depth

Often determines species diversity

Determines ability to manipulate populations



Factors Affecting Stocking Decisions

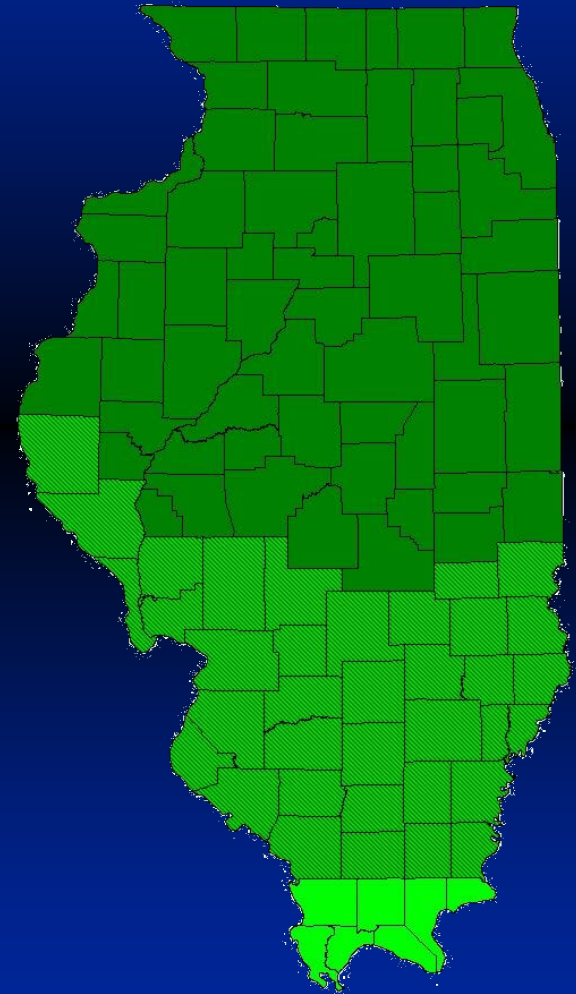
- **Carrying Capacity**

Fertility of Soil

Complexity of the Shape of the Waterbody

Supplemental Feeding

Fertilizers

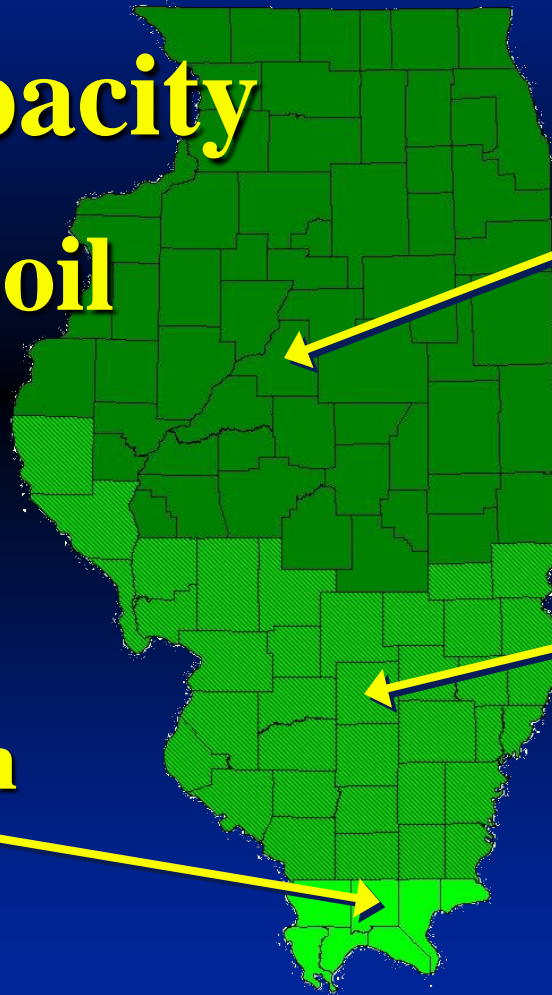


Factors Affecting Stocking Decisions

- **Carrying Capacity**

Fertility of Soil

Low <50 ppm



High >100 ppm

Mod. 50-100 ppm

Factors Affecting Stocking Decisions

- **Carrying Capacity**

Fertility of Soil

Low <50 ppm

25:75

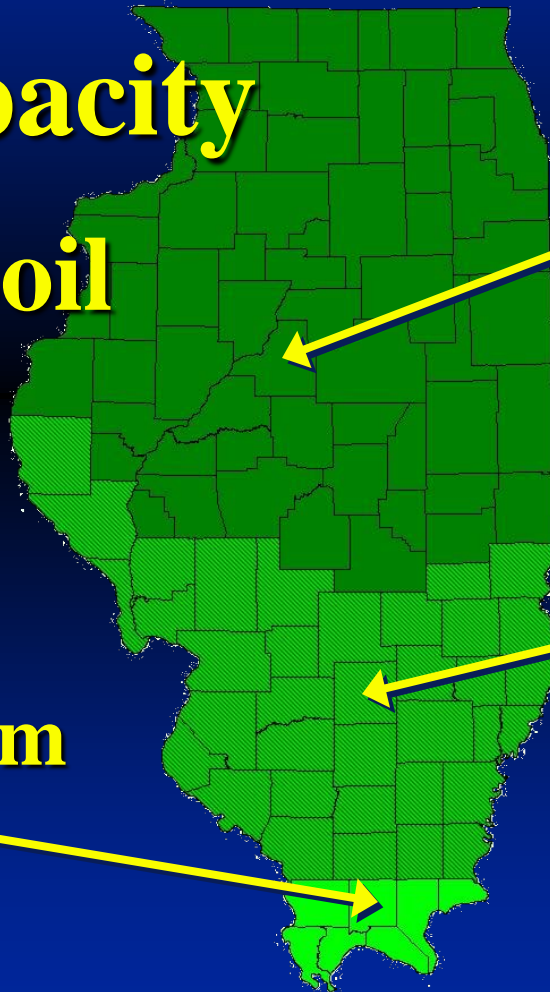
High >100 ppm

100:400

Mod. 50-100 ppm

50:200

Lbs. Bass : Lbs. Bluegill

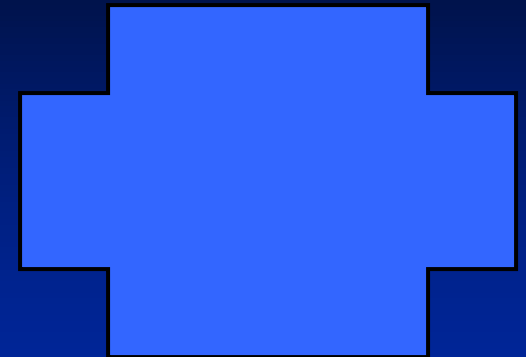
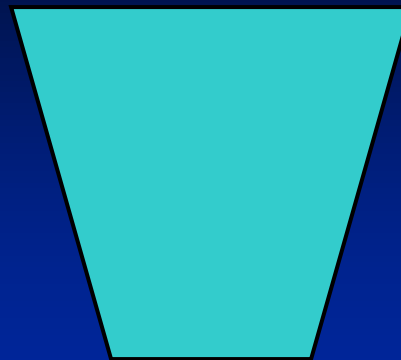
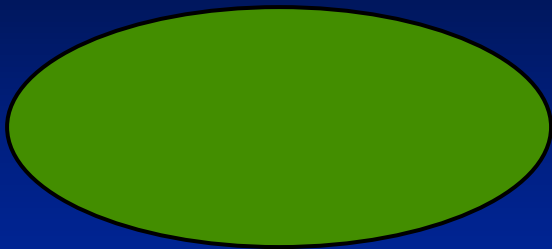
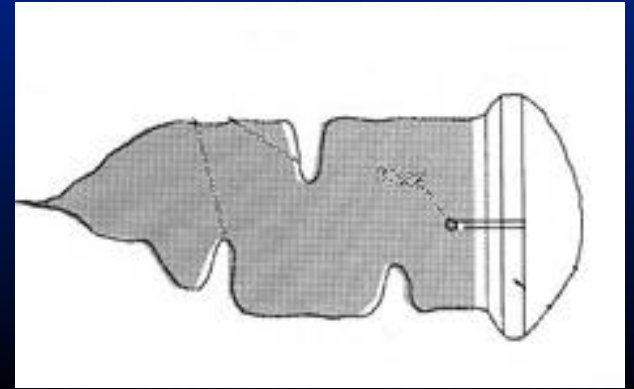


Factors Affecting Stocking Decisions

- **Carrying Capacity**

Fertility of Soil

**Complexity of the
Shape of the Waterbody**



Factors Affecting Stocking Decisions

- **Carrying Capacity**

Fertility of Soil

Complexity of the Shape of the Waterbody

Supplemental Feeding???

Fertilizers???

Factors Affecting Stocking Decisions

- **Desires of Owner(s) / Constituents**



Species preference

Size structure preference

Catch rates



Factors Affecting Stocking Decisions

- **Ability**

to

Regulate



Harvest

Factors Affecting Stocking Decisions



- **Funding**

Fish Purchases

Vegetation Management



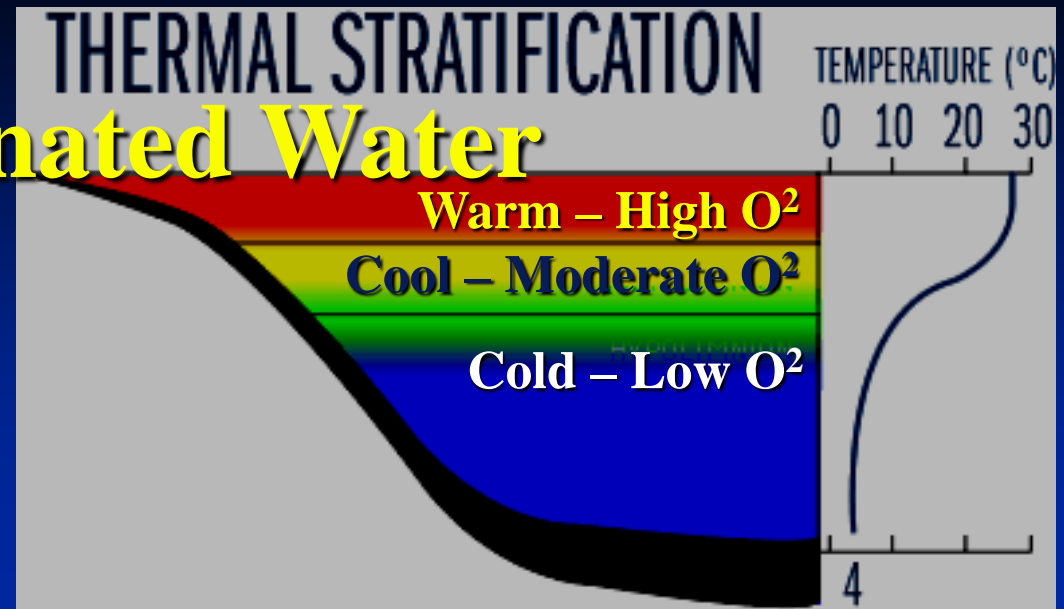
Factors Affecting Stocking Decisions

- **Habitat/Water Quality**
 - Endangered Species**
 - Aquatic plants**
 - Water clarity**
 - Cold - Oxygenated Water**



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Factors Affecting Stocking Decisions

- **Water Uses**

**Irrigation, bathing,
drinking**

(Grass carp vs. herbicides)



Sources for Fish

- **IDNR (Public Waterbodies Only)**

Sources for Fish

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- **County SWCDs (No Tax & Reduced Shipping)**

Sources for Fish

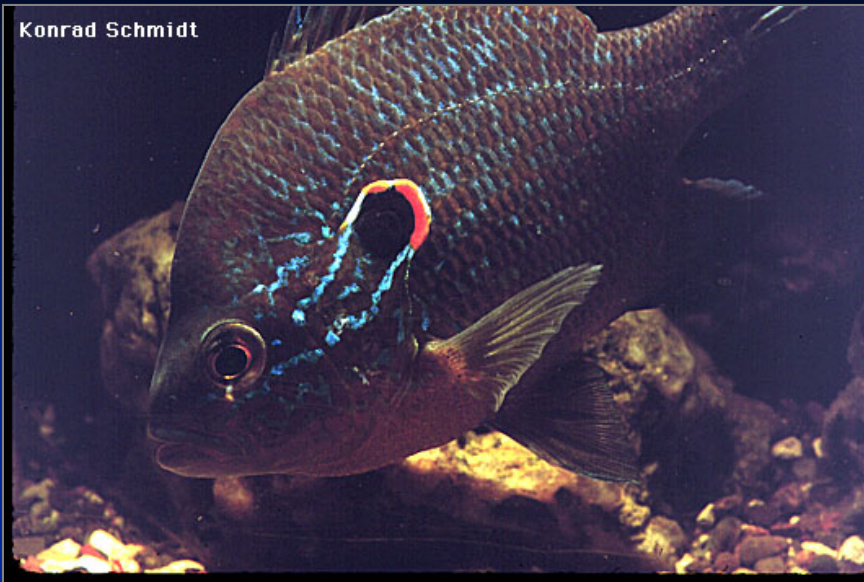
- IDNR (Public Waterbodies Only)
- County SWCDs (No Tax & Reduced Shipping)
- **Private Hatcheries**
(IDNR List, Wider Variety of Species)

Sources for Fish

- IDNR (New or Rehabilitated Only, LOW COST!)
- County SWCDs (No Tax & Reduced Shipping)
- Private Hatcheries (IDNR List, Wider Var. Spp.)
- **Friends/Local Waterbodies**

Sources for Fish

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- **Friends/Local Waterbodies**



Sources for Fish

- **Enhanced genetics?**
 - **Hybrid vigor**
 - **Outbreeding depression**

Reasons for Fish Stockings

- **Introductory**

New or Rehabilitated Waterbody

Enhancement of Species Composition

Reasons for Fish Stockings

- **Introductory**

 - New or Rehabilitated Waterbody

 - Enhancement of Species Composition

- **Corrective**

 - Following Fish Kills**

 - Over Harvest**

Stocking Rules for **New Ponds or Lakes**

- **Surface Area / Carrying Capacity**

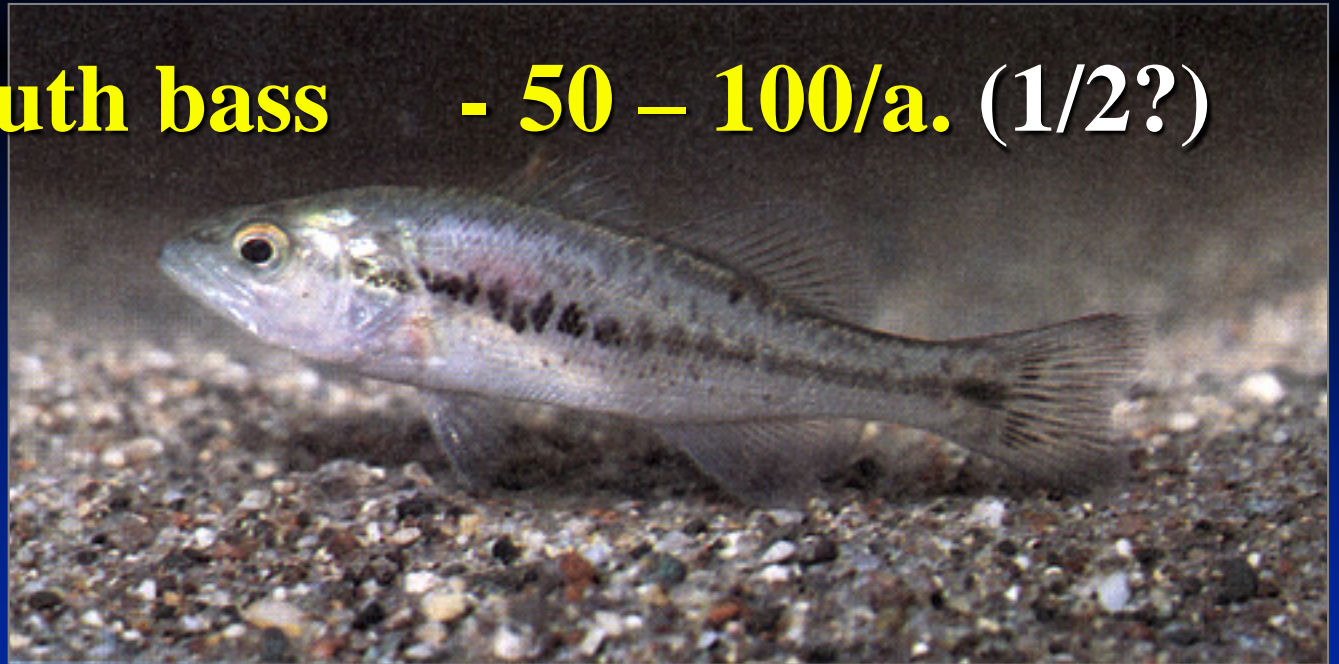
Stock Small Fingerlings!

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Largemouth bass - 50 – 100/a. (1/2?)



Stocking Rules for New Ponds or Lakes

• Surface Area / Carrying Capacity

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Bluegill - 400 – 1000/a. (1/4?)



Stocking Rules for New Ponds or Lakes

• Surface Area / Carrying Capacity

Stock Small Fingerlings!

Largemouth bass

- 50 – 100/a.

Bluegill

- 400 – 1000/a. (1/2)

Channel Catfish

- 50 – 100/a. (40/a)

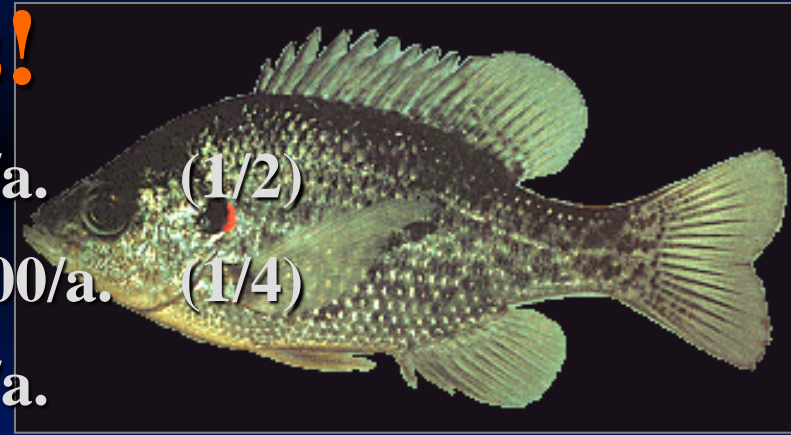


Stocking Rules for New Ponds or Lakes

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Largemouth bass	- 50 – 100/a.	(1/2)
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Redear Sunfish??? - 30:70 ratio (1:1?)

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Redear Sunfish???

- 30:70 ratio (1:1)



Breeder Fathead Minnows - 5 – 10 lbs./a.

Enhancement Stocking Rules

- **Desires of Owner(s)**

Enhancement

Surface Area/ Carrying Capacity

Walleye? - (8 inch) - 10 – 25/a. min.

Crappie? - (Fing./Lg.Ponds/fall > LMB spawn)- 5 – 10/a.

Hybrid Striped Bass?- Corrective

N. Pike/Muskie? (10-12inch) - 1 – 5/a.

Trout - (8-12 inch/Fall-Winter)- 25 – 100/a.

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Surface Area/ Carrying Capacity

Enhancement Stocking Rules

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Surface Area/ Carrying Capacity

Walleye? - (8 inch or 2 inch) - 10 – 25/a. min.



Difficult to catch

Enhancement Stocking Rules

- **Desires of Owner(s)**

Enhancement

Surface Area/ Carrying Capacity

Walleye? - (8 inch or 2 inch/Difficult) - 10 – 25/a. min.

Crappie? - (Fing./Lg.Ponds/fall < LMB spawn) - **5 – 10/a.**

Black crappie only - in small waters



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Dr. Don Beimborn



Corrective Stocking Factors

- **Population Imbalance**

Fish Kills (Largemouth bass, Grass carp)

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Over Harvest

Predators (Largemouth bass)

Lg. Bluegill

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**Unauthorized Stocking of Improper
Species???**

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 - Unauthorized Stocking of Improper Species???

 - Releasing Bait (“Minnows”)???**

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 - Excessive Abundance of Aquatic Plants**

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Largemouth bass (5 – 8 inch) - 50 – 75/a.



Corrective Stocking Rules

- **Population Imbalance**

Largemouth bass (5 – 8 inch) - 50 – 75/a.

Hybrid striped bass (2 – 6 inch) - 25 – 100/a.

MO - ?



Corrective Stocking Rules

- **Population Imbalance**

Largemouth bass (5 – 8 inch) - 50 – 75/a.

Hybrid striped bass (2 – 6 inch) - 25 - 100/a.

Walleye (8 inch or 2 inch) - 100/a. min.



Corrective Stocking Rules

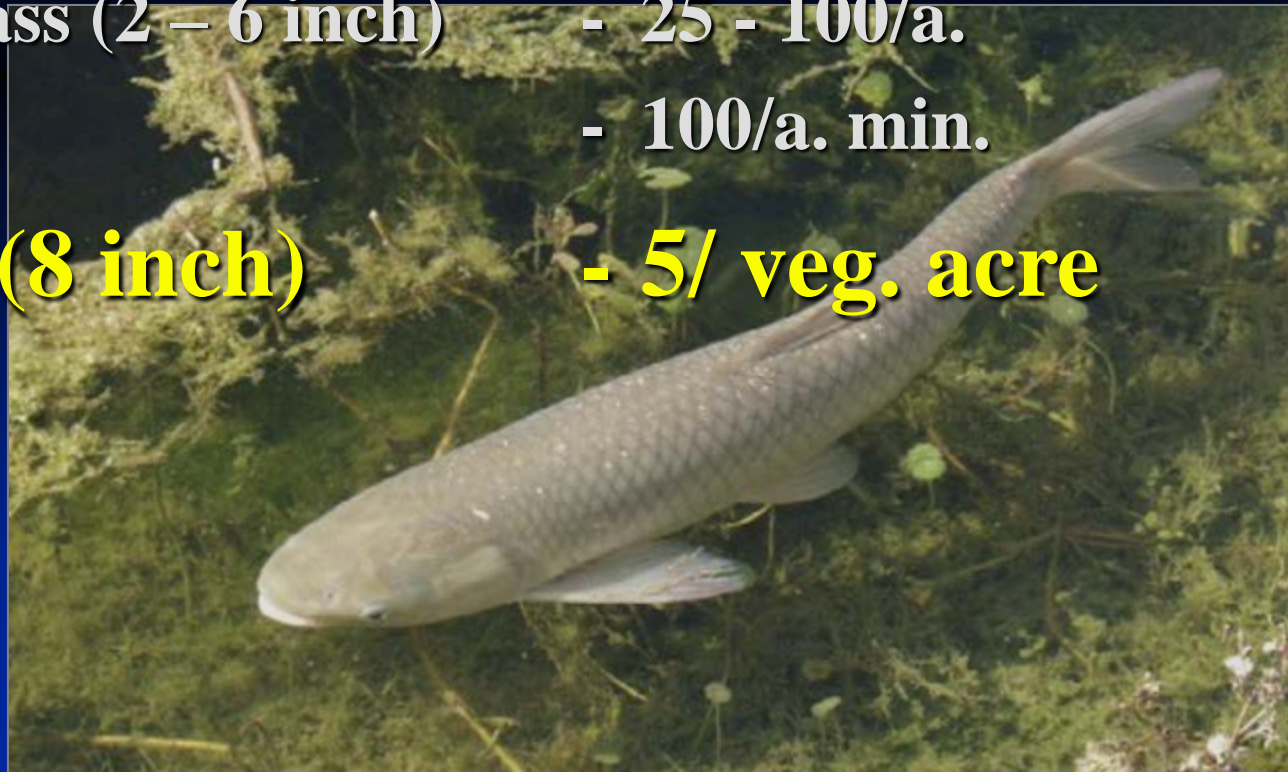
• Population Imbalance

Largemouth bass (5 – 8 inch) - 50 – 75/a.

Hybrid striped bass (2 – 6 inch) - 25 - 100/a.

Walleye (8 inch) - 100/a. min.

Grass Carp (8 inch) - 5/ veg. acre



Recommendations to Avoid the Need for Corrective Stocking

- **Contact & Get to Know Your IDNR District Fisheries Biologist**



Recommendations to Avoid the Need for Corrective Stocking

- Contact & Get to Know Your IDNR District Fisheries Biologist
- **Follow IDNR Stocking Recommendations**
(More, & Usually Less, Are Not Better!!!)

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- **Only Stock Fish from Known Sources**



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- **Do Not Release Bait**



Recommendations to Avoid the Need for Corrective Stocking

- Contact & Get to Know Your IDNR District Fisheries Biologist
- Follow IDNR Stocking Recommendations
- Only Stock Fish from Known Sources (dealers)
- Do Not Release Bait
- Practice Structured Harvest (LMB & BLG)

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• **Establish Desirable Aquatic Plants**





BASS

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