

FISHERY MANAGEMENT

**“ YOU CAN'T DELIVER A
GOOD FISHING PROGRAM
WITHOUT A GOOD FISHERY ”**



FISHERY MANAGEMENT

Three Key Ingredients for a Good Fishing Experience

- A Good Fishery
- Effective, Well-kept Tackle & Bait
- Experienced Instructors



FISHERY MANAGEMENT

What a Good Fishery Can Deliver

2017 BSA National Jamboree

- ▶ 36 Scouts on a dock at a time for 8 days → 2,200 Scouts
- ▶ Over 12,000 Fish Caught & Released
 - ▶ Every Scout Caught a Fish !
 - ▶ 45-minute Periods / 4 Options / 5 Species



BSA OUTDOOR PROGRAM VISION

- Deliver adventure, challenge, fun, and confidence building, while delivering new and exciting experiences.
- Leading to self-reliance, self-confidence, leadership, thus enhancing the traditional aims of Scouting.
- Fishing helps to entice youth to become Scouts



BSA FISHING PROGRAM VISION

Why Fishing?

FISHING SUPPORTS BSA'S KEY METHODS AND OBJECTIVES

- ▶ Outdoor Program
 - ▶ Age & Skills Appropriate
 - ▶ Angling Experience & Angler Education
 - ▶ Ideal for Achieving our Aims in Scouting



Boys' Life Survey Says!

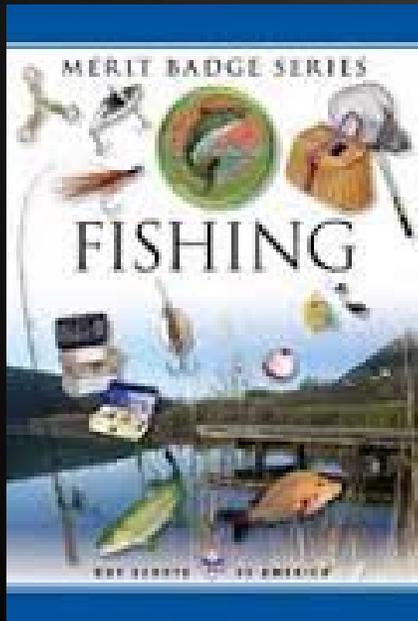
Fishing is very Popular with Scouts

- Fishing is Scout's 4th Most popular outdoor activity
- 83% of Boy's Life subscribers like to fish
- 71% of Cub Scouts are interested in learning to fish
- Only 35% go fishing with their Scout Unit – WHY?

An opportunity for improvement !



Fishing Merit Badge



- Among the top 10 non-required Merit Badges
- Over 30,000 Fishing Merit Badges per Year
- 2015 the 2 MILLIONth completed MB!
- One of the Original 57 Merit Badges

BSA CERTIFIED ANGLING INSTRUCTOR



- CAI Train the Trainer position
- CAI is a Fishing Program Advocate
- CAI is a Subject Expert and a Fishing Resource
- Develops & supports Council Fishing opportunities
- Helps deliver Fishing to all Scouts at all levels
- Official BSA Fishing Certification

BSA CERTIFIED ANGLING INSTRUCTOR VISION

- To increase the opportunity for scouts to learn how to fish and experience reasonably good results.
- Provide Fishing Program ideas and resource information for Councils, Packs, Troops, and Crews.
- Ensure Summer Camps offer a Quality Fishing Program, provide a good Fishery and have proper “Age Appropriate” Fishing gear.



SCOUT CAMP FISHERIES

- Most Scout Camps Fisheries are Poor
 - They offer Minimal Fishing Programing
 - Lakes & Ponds are not Managed for Fishing
 - No Focused Fishing Emphasis



GOOD FISHERIES WILL IMPROVE CAMP UTILIZATION

A GOOD FISHERY WILL

- IMPROVE YOUR SCOUTS SUMMER CAMP EXPERIENCE
 - HAVE MORE SCOUTS RETURN FOR THE FOLLOWING YEAR.
 - ATTRACT OUT OF COUNCIL SUMMER CAMP ATTENDANCE.
 - HELP KEEP YOUR UNITS FROM GOING OUT OF COUNCIL
 - ALLOW FOR A GREAT CUB SCOUT RECRUITMENT EVENT
 - INCREASE ATTENDANCE FOR SHORT TERM CAMPING.



RATE YOUR CAMP'S FISHING PROGRAM

Only a few BSA Camp Properties have a good Fishery

- Do Scouts have a good chance to catch a fish within 15 minutes?
- Is the fishery designed for Adults or for Scouts?
- Does the camp have a quality Stocking/restocking Program?
- Is the water quality well managed and are the fish healthy?
- Do Scouts have ample and safe access to the water?



RATE YOUR CAMP'S FISHERY

1 to 10

1 = No program - 10 = Excellent

Rating is based on the number of Scouts who will likely catch a fish

- You have a fair fishing lake but only a few fish (rate a "3")
- You have an average lake with sparse stocking (rate a "5")
- You have a great fishing area which is well stocked (rate a "10")



Look at the Catch Ratio and the Impact on Scout Participation

A Summer Camp with 400 Scouts per week and Varying Quality of Fisheries:
(5 weeks of camp)

Fishery (chance of catching a fish)	Fair 20%	Average 50%	Good 70%	Great 90%
Ratio of Scouts taking Fishing MB	1 – 40	1 – 20	1 – 15	1 - 10
# of Scouts in FMB class	10	20	30	40
# of Scouts Earning the Fishing MB	2 <small>(10)</small>	10 <small>(50)</small>	21 <small>(105)</small>	36 <small>(180)</small>

POND MANAGEMENT REQUIREMENTS

➤ WATER

➤ HABITAT

➤ FOOD CHAIN

➤ GENETICS

➤ HARVEST



HAPPY WATER

Basic water chemistry is essential to maintaining a healthy pond and ensuring a successful fish population.

- **Dissolved Oxygen** – most critical variable in the pond
- **pH or acidity** – below 7.0 is acidic to 14.0 which is alkaline
(Fish grow best between 6.5 and 9.0)
- **Aquatic vegetation control** – usually undesirable & needs to be controlled
(Early detection of overgrowth is best controlled by proper fertilization)
- **Water clarity vs. turbidity** which prevents light penetration and growth of beneficial phytoplankton which is the base of the food chain in ponds.

HABITAT

Habitat is the most important principle of management

As goes the Habitat, so goes what lives in it.

This includes their environment
and what they eat.



FOOD CHAIN

Lack of food equals stunted growth

- Grown-up fish are predators needing:
Smaller fish – Minnows – Insects etc.
- Minnows need aquatic plants and rocks:
for plankton – the key food for tiny fish.
- Also consider supplementing with commercial food.



GENETICS

All species strive to reproduce by selection of the fittest

- Manage your fishery by selecting healthy fish to meet your target outcome.
- Inventory your fish periodically to ensure their health.
- Healthy fish spawn higher quality babies.



HARVEST

Several factors determine when and what to harvest.

- When the fish population does not match the food supply then supplement the food or harvest some fish.
- If the size of the population is out of balance harvest the larger fish to allow for the younger to grow.
- If there are fish which are not the target species, harvest accordingly.



WATER QUALITY ?

State Fisheries Biologists

Managing Michigan's Wildlife:

A landowner's guide



This partnership was formed between both private and public organizations in order to address private lands wildlife issues. Individuals share resources, information, and expertise. This landowner's guide has been a combined effort between these groups working towards one goal: Natural Resources Education. We hope this guide provides you the knowledge and the motivation to make positive changes for our environment.

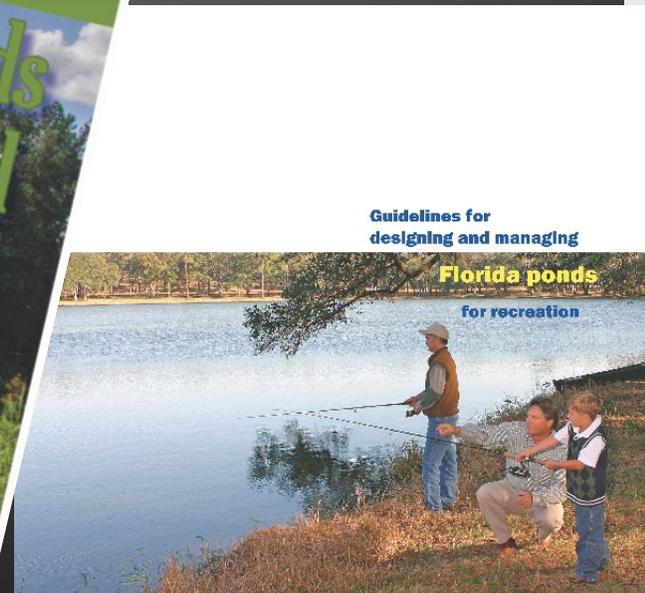
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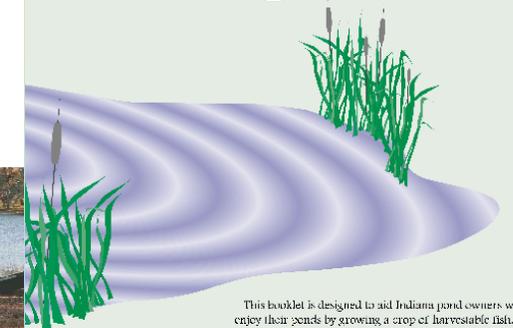
Michigan Department of Natural Resources


Kelly Siciliano Carter

Michigan Department of Natural Resources and
Michigan State University



Indiana Fish Pond Management



This booklet is designed to aid Indiana pond owners who wish to enjoy their ponds by growing a crop of harvestable fish.

Naturally, not every aspect of private pond management can be covered. From construction and fish stocking to diagnosing your pond's problems to techniques of management, we have attempted to present basic information you need for developing and maintaining a good fish pond. Some aspects require detailed or additional information, and you may wish to contact a district fisheries biologist or go to your local library for more information.

Private pond management is far from being an absolute science. However, by basing an active management program on proven principles and guidelines, you can expect to make the most of the fishing potential your pond offers.

Presented by



Indiana Department of
Natural Resources



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317 232-4080



Florida Fish and Wildlife
Conservation Commission
MyFWC.com

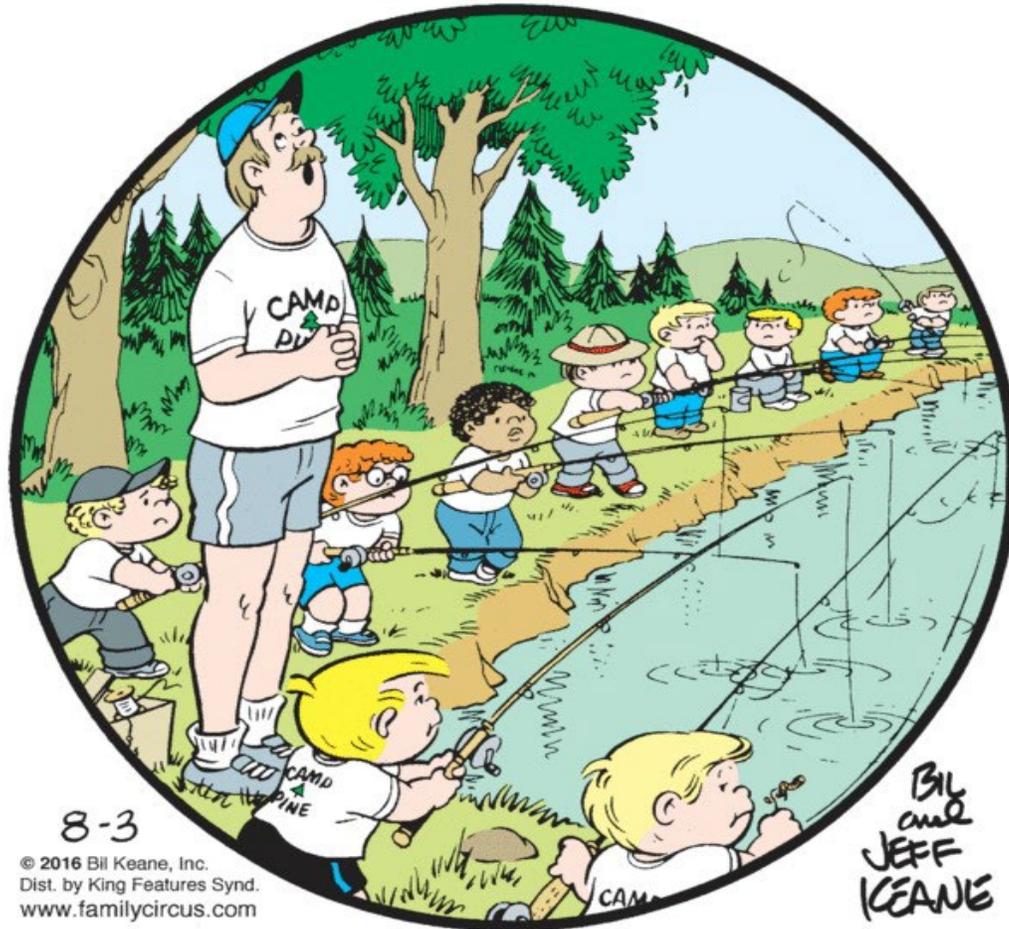


Florida Fish and Wildlife
Conservation Commission
MyFWC.com

MAKING SPIDER BLOCK FISH ATTRACTORS



PLEASE PREVENT THIS



8-3

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BILL
and
JEFF
KEANE

**“Please, Lord, just ONE fish?
One bite? A nibble?”**

YOUR CAMPS FISHING PROGRAM PRIORITIES

- Fisheries Development – build, expand & manage
- Fishing Equipment – age & skill appropriate
 - Tackle Maintenance – repairing & replacement
 - Qualified Instructors – CAIs



BENEFITS OF A PROSPEROUS FISHING PROGRAM

DEVELOP A BLUEGILL POND FOR SUCCESS

- Cub Scouts – Learn Fishing Basics and have Fun
- Younger Scouts, 11-13 take Fishing Merit Badge
- Older Scouts, 14-17 take Fly Fishing Merit Badge
- Venturing Scouts, explore Fishing Adventures





BADEN POWELL IGFA HALL OF FAME

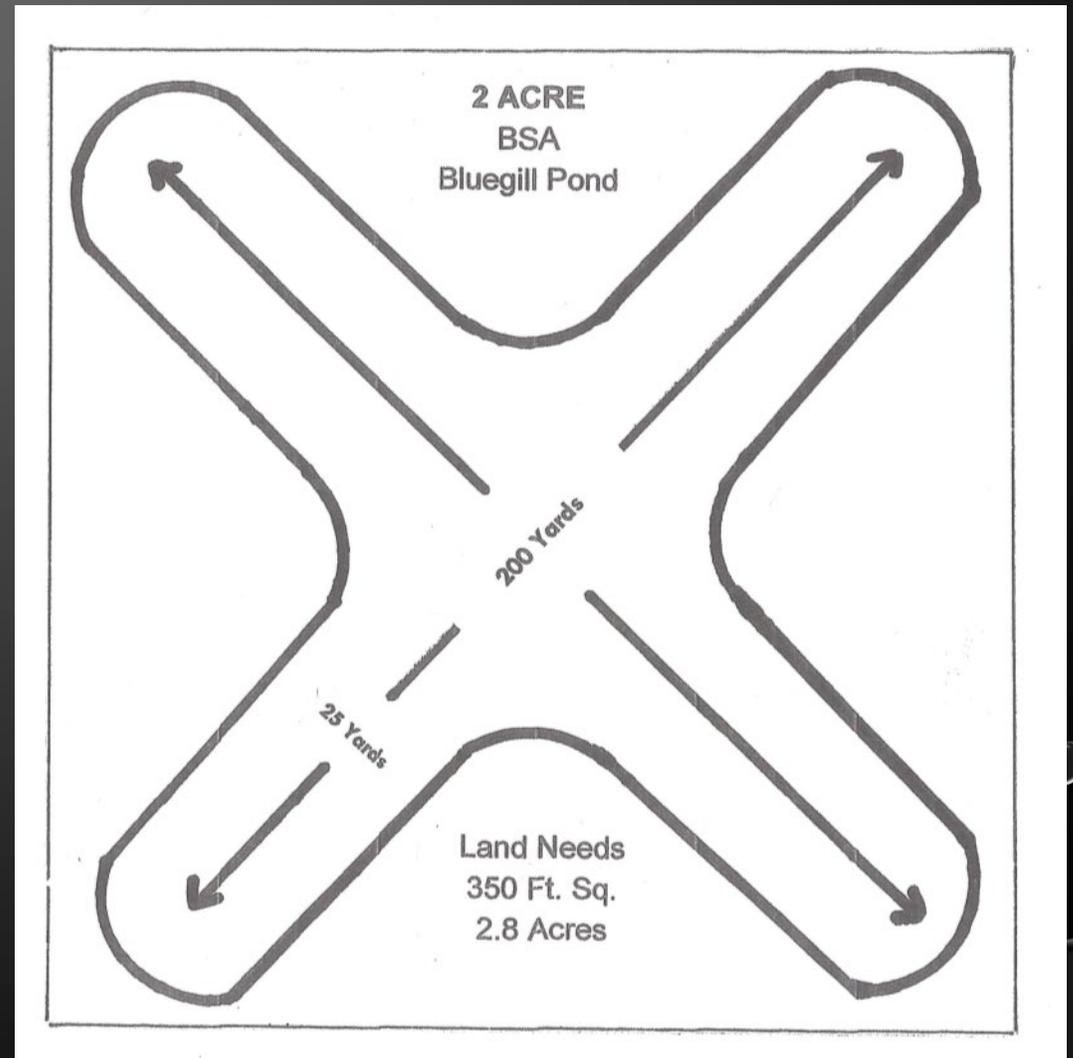


- LORD BADEN - POWELL - WAS AN AVID FISHERMAN
- *"EVERY SCOUT OUGHT TO BE ABLE TO FISH IN ORDER TO GET FOOD FOR HIMSELF."*
- HE BELIEVED FISHING, ESPECIALLY FLY-FISHING, TAUGHT SCOUTS TO BE PATIENT, CONSERVATION-MINDED AND TO LOVE NATURE.
- HE WAS A PIONEER OF "CATCH AND RELEASE" FISHING.
- *"WHEN YOU CATCH YOUR FISH, DO AS I DO - ONLY KEEP THOSE YOU SPECIALLY WANT FOR FOOD; PUT BACK THE OTHERS THE MOMENT YOU HAVE LANDED THEM."*
- IN 2002 BADEN POWELL WAS INDUCTED INTO THE INTERNATIONAL GAME FISH ASSOCIATION'S FISHING HALL OF FAME

IF YOUR SCOUT LAKES & PONDS
ARE MANAGED FOR BOATING &
SWIMMING

HERE IS AN ALTERNATIVE

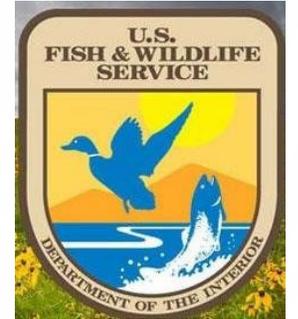
A BLUEGILL POND



BSA FISHING PARTNERS QUIPPED TO HELP YOU



TAKEMEFISHING.org



www.arenet.org



AREA

Founded 1994

Aquatic Resources Education Association