

focus on *Fish & Wildlife*

Hot spots for walleye fishing

Fisheries biologists identify lakes teeming with walleye

Walleyes are the most sought after stocked fish by Indiana anglers, according to an angler survey conducted by the Division of Fish and Wildlife. The survey indicates that of the nine fish species stocked by the division, walleye is No. 1, preferred for its excellent taste and food value.

Unfortunately, while the walleye is native to Indiana, its natural distribution has been limited. As a result, the Division of Fish and Wildlife stocks certain natural lakes and impoundments to provide quality fishing opportunities for walleye.

One of the earliest recorded walleye stockings dates back to 1891. During the '30s, fishing enthusiasts annually placed 15-20 million fry (recently hatched walleyes) in Indiana waters. Modern day management efforts began in 1970.

Since natural reproduction is very limited and contributes little to walleye fishing, state biologists use both walleye fry and fingerlings to stock several lakes and rivers with walleye and hybrid walleye. Stocking efforts have centered on increasing anglers' harvest and improving anglers' perceptions of Indiana walleye fishing.

Each April biologists collect walleye eggs from mature fish at Brookville Lake. This egg collection supplies Indiana's entire walleye program. Biologists seek some 30 million green eggs and, during the past two years, have exceeded the goal by 3 million to 5 million eggs. These eggs result in about 17 million walleye fry, one million 1-2 inch fingerlings and

60,000 hybrid walleye fingerlings for stocking.

In selected lakes, biologists stock walleye at densities of 2,000-3,000 fry per acre or 100 fingerlings per acre. Experimental river stockings of walleye are stocked at densities of 50 fingerlings per acre.

Walleye Stocking

The Division of Fish and Wildlife currently stocks nine impoundments, six natural lakes and one river with walleye or hybrid walleye. Fisheries technicians have conducted creel surveys by interviewing anglers on selected lakes. The creel surveys have documented good walleye fishing at Brookville, Monroe, Cagle's Mill, Kokomo, Clear, Bass, Maxinkuckee, Sullivan and Pike lakes.

Fisheries biologists have also developed quality walleye fishing in the tailwaters below dams at Monroe, Salamonie, Mississinewa, Cagle's Mill, and Freeman lakes. The St. Joseph River in St. Joseph and Elkhart counties is stocked in Indiana with Michigan-raised walleyes. Recent concerns about fish genetics in St. Joseph River motivated the cooperative walleye stocking with Michigan.



Walleye Rules

Anglers have a 14-inch minimum size limit on walleyes. The 14-inch minimum went into effect in 1996 because anglers were catching and keeping stocked walleye before they could reach their growth potential.

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Topics this issue. . .

Migratory bird hunters have new license requirement

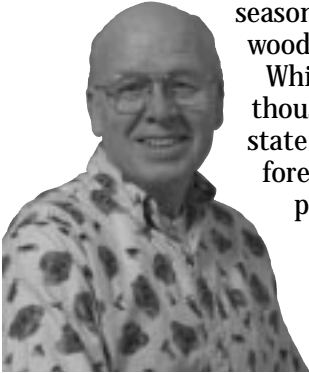
New fishing & hunting rules go into effect

Volunteer aids state's peregrine falcon work

Unwanted exotic species infiltrate Indiana waters

Director of *Fish & Wildlife*

As the summer winds down, sportsmen and women look to the fall for a new season of hunting. The 1998-'99 hunting season begins soon with the opening of squirrel season, August 15. Hunters will head to Indiana's woodlands for prime squirrel hunting.



Gary Doxtater
DFW Director

While the Department of Natural Resources provides thousands of acres of public hunting land through state Fish and Wildlife areas, state reservoirs and state forests, millions of acres of habitat are controlled by private owners. About 97 percent of Indiana is privately owned, so Hoosier sportsmen and women rely on private landowners for hunting, trapping and fishing access.

Recognizing the barrier that liability places between farmers and outdoor enthusiasts, Dick Mercier, president of the Indiana Sportsmen's Roundtable, asked Indiana lawmakers to strengthen the law that is already in place protecting landowners from liability.

A new law passed by the Indiana legislature this year should help make it easier for responsible hunters to gain access from private land owners. The law strengthens liability protection for landowners who allow people on their land to pursue hunting, fishing or trapping and who do not charge for that access.

Farmers who might otherwise welcome responsible hunters on their land are often concerned about liability – so concerned that they simply refuse to allow anyone on their land. We have all heard stories of property owners being sued by a hunter who fell out of a tree stand.

Indiana law now states that landowners do not assume responsibility or incur liability for injury to people using their land for hunting, fishing or trapping, and that conservationists using private land do not have assurances that the premises are safe for such activities.

Even with this strengthened legal protection, landowners who give permission must still alert sportsmen and women about any known hazards present on the property. Hunters need to be informed of dangerous situations, such as open wells, aggressive dogs or livestock, of which the landowner is aware.

The law, however, does not protect landowners who charge for access to their land. If a landowner leases hunting rights to the land, the property owner takes on a business relationship with the hunter and as such falls under the same responsibility that a business has for its customers.

Allowing hunters, anglers and trappers on private land can be beneficial to landowners as well as sportsmen. Responsible hunters and trappers can help manage wildlife populations on the land to minimize crop damage and property destruction. Active sportsmen can also watch for signs of trespassers and alert landowners of poachers.

Fear of liability should no longer stand in the way of landowners developing strong, beneficial relationships with ethical, reliable sportsmen. ♡

Division Mission

*“To manage fish
and wildlife for
present and future
generations, balancing ecological,
recreational and economic benefits.”*



Focus on Fish & Wildlife is a quarterly publication from the Indiana Department of Natural Resources Division of Fish and Wildlife. *Focus on Fish & Wildlife* seeks to educate sportsmen and women, conservationists, wildlife recreationists and all Hoosiers on topics related to the management of Indiana's fish and wildlife resources.

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Visit the DNR
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website:

www.dnr.state.in.us/fishwild/index.html



Walleye lakes continued

Fishermen were catching many 1- and 2-year-old walleyes that were only 8 to 12 inches long.

To provide an opportunity for the fish to grow larger, fisheries biologists proposed the 14-inch minimum size. Sport fishermen led the call for the size limit. Almost half of the anglers questioned in a 1994 state-wide angler survey supported or strongly supported a minimum length limit for walleye.

The 14-inch minimum length limit applies to all waters except the St. Joseph River in St. Joseph and Elkhart counties, the Ohio River and Sullivan Lake.

The St. Joe has a 15-inch minimum size limit to duplicate Michigan's walleye regulations on the river. Since the St. Joseph River originates in Michigan on its path to Lake Michigan, flows through parts of Indiana then returns to Michigan, Indiana fisheries biologists decided one size limit throughout the river provided uniformity in fishing rules and is easier for anglers to follow.

Anglers in all Indiana waters may

keep up to six walleye or combination of walleye, sauger or saugeye (a hybrid walleye produced by crossing a female walleye with a male sauger).

The following waterways offer sport fishermen with quality walleye opportunities:

Brookville Lake

A 5,260-acre, flood-control reservoir, Brookville Lake consistently provides some of Indiana's best walleye fishing. Anglers harvest some 6,000 to 7,000 walleye annually from Brookville. Most are 14-15 inches long, but creel surveys document 24-29 inch walleye in catches. Best fishing is in May and June.

Brookville Lake is located in Franklin and Union counties on Highway 101 approximately 30 miles south of Richmond and 50 miles northwest of Cincinnati. A fee is charged to launch boats, but the lake has no restrictions on outboard motor size. The reservoir has been stocked 24 consecutive years, and annual fry stockings have exceeded 10 million the past 10 years.

Monroe Lake

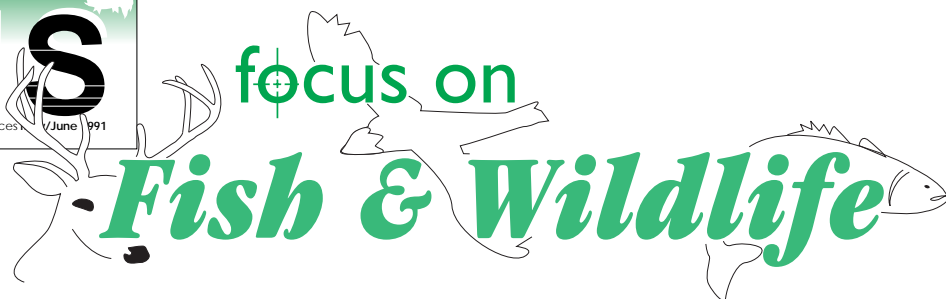
Monroe Lake has also developed into one of the best Indiana walleye fisheries. In 1994, 3,816 walleye were harvested, and 6,400 more were caught and released. Average length was 16.6 inches while the largest walleye harvested measured 28 inches long. More than 7,000 pounds of walleye were harvested.

Monroe Lake is the state's largest reservoir at 10,750 acres and is accessible from State Roads 37, 46 and 50. The reservoir is located in Brown and Monroe counties about 50 miles south of Indianapolis and 10 miles southeast of Bloomington. A daily permit fee is charged.

There is no limit on outboard motor size. The lake has been stocked with fingerlings the past 10 years at a density averaging 49 fish per acre.

Cagle's Mill Lake

A creel survey in 1996 at Cagle's Mill indicated that anglers caught some 4,300 walleye. The catch-and-release total of 2,563 fish >pg 4



Welcome to
Focus on Fish & Wildlife.

This expanded newsletter replaces the Division of Fish and Wildlife's FOCUS newsletter.

The major change for *Focus on Fish & Wildlife* is the number of pages. Originally four pages, the publication has been expanded to 12 pages to provide more information on more topics. The newsletter is still free and will be published on a quarterly basis.

The newsletter will highlight outdoor sports activities, the people involved, and the management and science of Indiana's resources. It will continue to alert sportsmen and women of upcoming reserved hunts and natural resources issues. *Focus on Fish & Wildlife* will also offer a friendly forum to answer frequently asked questions of the division.

In this issue, division fisheries biologists have

selected some of the best walleye fishing locations in Indiana. Future issues will include fisheries surveying techniques, big river fishing and Indiana's growing trout-salmon fishing in northern Indiana.

For hunters and trappers, the migratory game bird Harvest Information Program – HIP – is outlined in this issue. Indiana deer herds, the skill of trapping and hunter education will be upcoming topics in *Focus on Fish & Wildlife*. Everyone should enjoy articles on mushroom hunting, wildlife watching and the life history of various native species.

If you have comments on the new format or have story ideas, please write to *Focus on Fish & Wildlife*, Division of Fish and Wildlife, 402 W. Washington St., Room W273, Indianapolis, IN 46204. ♦

Walleye lakes continued

exceeded the number harvested, which totaled 1,742. The average size of walleye harvested was 15.2 inches, while the largest walleye observed in the catch was 21.8 inches long. April fishing seems to be the best time to pursue walleye at Cagle's Mill Lake.

This 1,400-acre flood-control reservoir, located in Putnam and Owen counties off I-70 about halfway between Indianapolis and Terre Haute, has been stocked with more than 4 million fry each of the past four years, from 1994-'97. A small fee is charged for boat launching, and outboard motors are permitted.

Kokomo Lake

This 484-acre impoundment is located three miles east of Kokomo in Howard County. Anglers harvested 821 walleye in 1996 and caught and released some 790 additional fish. Average length was 15.3 inches. Boat launching is free, and outboard motors are permitted.

Clear Lake

Anglers on Clear Lake consistently catch fish 12-13 inch long with fish measuring 26 inches long caught occasionally. The lake has been stocked for 15 consecutive years from 1983 to 1997 with two-inch long fingerlings.

Clear Lake is an 800-acre natural lake located five miles east of Fremont off State Road 120 in Steuben County. The lake has free public access, and outboard motors are permitted.

Maxinkuckee Lake

Maxinkuckee, Indiana's second largest natural lake at 1,854 acres, has its best walleye fishing in June and July with an average size caught at 15.1 inches. In 1996, Maxinkuckee anglers harvested 3,198 walleye and released an additional 2,848, making the 1996 creel survey the highest ever documented at the lake. The survey also indicated that more than a third of the lake's anglers were pursuing walleye.

Maxinkuckee Lake is located at the town of Culver near State Roads 10 and 17 in Marshall County. Public access is free, but parking spaces are limited. Outboard motors are permitted. Maxinkuckee has been stocked with two-inch fingerlings (100 fish per acre) the last seven years.



Bass Lake

The number of walleye caught per acre was high at Bass Lake during the summer of 1992, but average size was only at 12 inches long. In 1996, the catch was 1.2 fish per acre with an average size of 14 inches. Highest harvest occurred in July, and 23 percent of the anglers targeted walleye. The largest walleye observed in the anglers' catches was 21 inches.

The 1,345-acre natural lake is located about six miles south of Knox off U.S. 35 and State Road 10 in Starke County. Bass Lake offers free public access, and outboard motors are permitted.

The lake has been stocked 10 consecutive years with 2-4 million fry annually.

Sullivan and Pike Lakes

Relatively large populations of hybrid walleye have been developed at Sullivan and Pike lakes. Creel surveys documented harvests of 1,562 hybrid walleye at Sullivan and 1,464 at Pike. Harvest per acre was 3.3 fish per hour at Sullivan and 6.4 fish per hour at Pike.

The best months to catch walleye at Pike Lake are April and May.

Starting in 1995 at Sullivan and in 1996 at Pike Lake, walleye have been

stocked instead of hybrids to see if walleye can provide the same level of fishing as the hybrids.

Sullivan Lake, a 461-acre impoundment, is located in Sullivan County east of Sullivan, Ind. A fee is charged for public access, and outboard motors are permitted.

Pike Lake is a 228-acre natural lake located within the city limits of Warsaw in Kosciusko County with free public access.

Tailwater Fishing

Outstanding walleye fishing has developed below the dams at Monroe, Salamonie, Mississinewa and Freeman lakes. Good tailwater fishing is also developing at Cagle's Mill following three consecutive high density stockings in the reservoir basin. Wall-

eye concentrations occur at the tailwaters during March and April. Most of the fish are 15-20 inches long, but some up to 29 inches long have been caught. The tailwaters provide anglers good opportunities for shore fishing for walleye. Some of the largest walleye caught each year in Indiana come from the tailwaters.

Fishery biologists believe few potential walleye lakes remain in the state. Most lakes believed capable of providing walleye fishing have already been stocked and evaluated. Biologists believe walleye fishing in natural lakes and impoundments can be improved through size limits. In addition, biologists believe that rivers may represent the next opportunity to increase walleye fishing significantly in the Hoosier state.

Biologists have already stocked Elkhart County's St. Joseph River with 60,000 fingerling walleye each year from 1995 to 1997. Annual sampling shows high first-summer survival of the stocked fingerlings, and good fishing is expected. ♡

prepared by Gary Hudson, north region fishery supervisor and Jed Pearson, district 3 fishery biologist.

Deer bag limits reduced in 67 counties

Hunters call for fewer deer tags for antlerless deer

Department of Natural Resources wildlife managers established the county bag limits for antlerless deer for the 1998 deer hunting season after several meetings with deer hunters earlier this year.

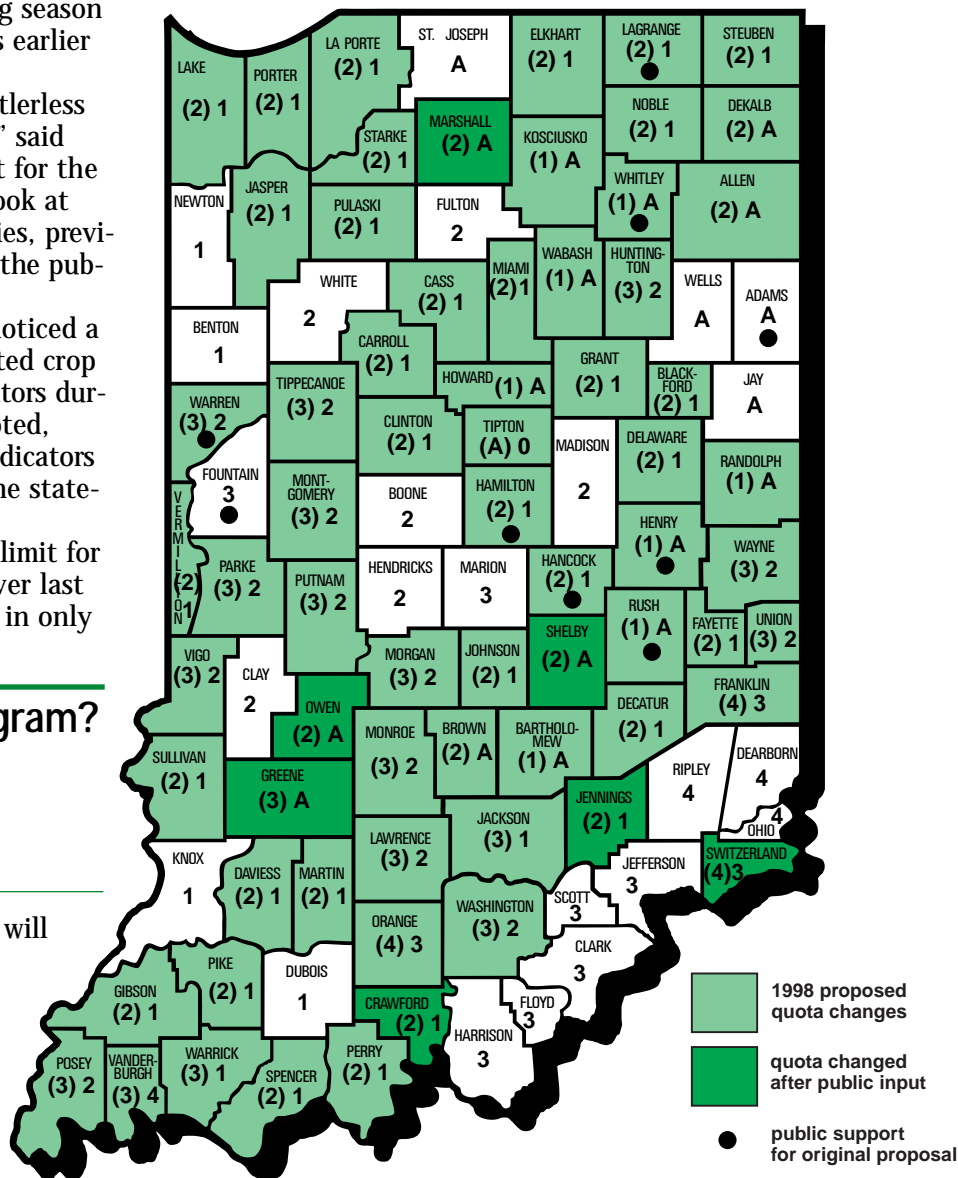
“Each county’s bag limit for bonus antlerless deer is based on many different factors,” said Jim Mitchell, deer management biologist for the DNR Division of Fish and Wildlife. “We look at crop depredation problems in the counties, previous years’ deer harvests and input from the public interested in deer management.”

DNR district wildlife biologists have noticed a marked drop in the number of deer-related crop depredation complaints from farm operators during the past couple of years. Mitchell noted, “Fewer depredation reports and other indicators are a clear signal that efforts to lower the statewide deer population are succeeding.”

As a result, the DNR reduced the bag limit for antlerless deer in 67 Indiana counties over last year’s limits and increased the bag limit in only one county, Vanderburgh.

1998 Bonus Antlerless Deer County Bag Limits

Last years quotas are in ().



For counties designated as “A”: You may use a bonus county license to take one antlerless deer during the periods of Nov. 26 through Nov. 29 (last four days of firearms season) and Dec. 5 through Jan. 3 (muzzleloader and late archery seasons).

Questions on the Deer Program?

Call the Deer Hotline

812/334-3795

(Mon.-Fri., 8:30 a.m.-4 p.m.)

The antlerless deer program this year will operate similar to last year. Statewide, deer hunters are allowed to take up to four bonus antlerless deer – does or immature bucks – beginning with firearms deer season and continuing through late archery season. You must have a bonus deer license for each antlerless deer harvested and must follow individual county bag limits and restrictions.

Each county has a designated antlerless deer bag limit between one to four deer. For counties marked “A,” you may take one antlerless deer during the periods of Nov. 26 through Nov. 29 and Dec. 5 through Jan. 3. You may use any equipment that is legal during the season in which you are hunting.

If you are hunting in a county that has a bag limit of one antlerless deer, you may harvest up to three additional antlerless deer in other counties provided you do not exceed the antlerless limit for each county in which you hunt.

As in the past, the DNR does not allow you to use bonus antlerless licenses on most Fish and Wildlife areas and some state reservoirs. These areas receive sufficient

hunting pressure to keep deer numbers stabilized. You should check with individual public property managers before hunting.

Sportsmen and women who own or lease farmland for farming purposes are not required to buy bonus antlerless deer licenses to take antlerless deer on their own property. However, they must follow the statewide and county bag limits for antlerless deer and other deer regulations.

Additional regulations on deer hunting can be found in the “1998-99 Indiana Hunting and Trapping Guide” available at sporting goods stores and DNR properties. ♦

Harvest Information Program

Hunters pursuing migratory game birds

Call 1-800-WETLAND



Wood Duck
Aix sponsa

Wood ducks have been spotted in the state at increasing levels by waterfowl biologists. For the 1996-'97 migration, biologists reported winter wood duck numbers at 15 percent higher than the 15 year average in Indiana.

Wood ducks use Indiana as nesting habitat. During winter months, the ducks migrate to the Gulf and South Atlantic states.



Giant Canada Goose
Branta canadensis

This large-bodied bird is distinguished by its long black neck and head, gray body and white check patch of feathers.

Resident giant Canada geese can be seen throughout Indiana in most metropolitan areas. Indiana's resident flock was established in the '60s when goose populations were at an all time low.

Fall hunting focuses on resident and migrant flocks traveling through Indiana. Annually, close to 30,000 geese stop in Indiana during migration.



Coot
Fulica americana

While the coot does not have webbed feet, the bird moves through the water similar to ducks. Often feeding with ducks, coots eat aquatic plants and are excellent swimmers.

The coot has a plump, slate-gray body and black head.



Mourning Dove
Zenaida macroura

Found softly cooing in rural settings, the mourning dove is a sleek bird with a small head and long pointed tail. The dove has grayish-brown feathers on its back and purplish-buff on its underside.

Swift in flight, the bird provides a challenge to dove hunters in Indiana. Hunting began in Indiana in the early '80s after biologists determined that the activity would have little impact on dove populations.

New license requirement applies to migratory bird hunters

Bird hunters in Indiana must head for the telephone before heading afield to hunt migratory birds. All licensed hunters in Indiana pursuing mourning doves, woodcock, snipe, ducks, geese, coots or gallinules must register with the Harvest Information Program, commonly called HIP. The program is part of the U.S. Fish and Wildlife Service's national efforts to manage migratory game birds.

To register with HIP, you simply call 1-800-WETLAND (1-800-938-5263) and answer a few questions regarding your previous year's hunting success. Through a computerized system, you are asked for your hunting license type and number, name, address and date of birth.

After answering the brief survey, you are given a unique identification number that should be written on the back of your hunting license in the space provided. Lifetime license holders and youth hunters can write the number on a piece of paper and carry it with them when hunting migratory birds. The certification is valid throughout 1998-'99 hunting season.

Hunters who are not required to purchase an Indiana hunting license are exempt from registering with HIP.

The U.S. Fish and Wildlife Service developed the Harvest Information Program to provide a better database of migratory bird harvest. The federal wildlife agency will use the database to better survey sportsmen and women who pursue migratory birds.

"Better surveys will, in turn, help improve management and contribute to the well-being of migratory game bird popula-

tions," said Melody Hartman, Indiana's waterfowl biologist.

"Participation in this program will ultimately benefit the management of migratory bird populations and help ensure the hunting tradition for years to come."

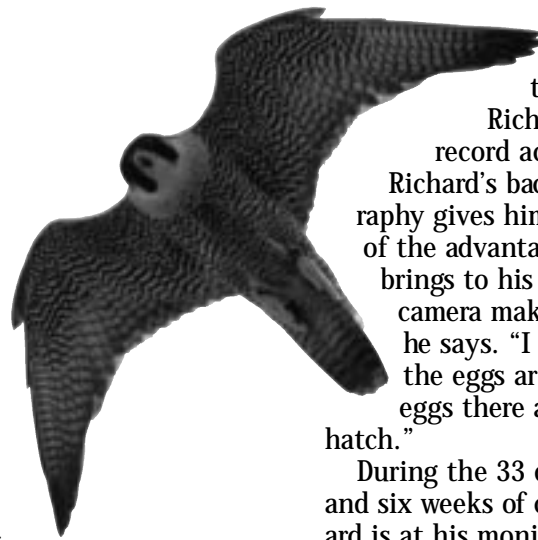
Prior to HIP, the FWS conducted national waterfowl harvest surveys. The hunter survey was sent only to waterfowl hunters and was fairly good at estimating annual waterfowl harvest. However, the waterfowl survey was also used to estimate the harvests of coots, woodcock, snipe, sora rails, gallinules, white-winged doves, band-tailed pigeons and sandhill cranes.

In order to improve the harvest estimates of these "minor" species, HIP questions were designed to identify different types of hunters. As a result, the FWS will be able to conduct separate surveys that target five different hunter groups including waterfowl, mourning doves, white-winged doves and band-tailed pigeons, coots, gallinules, rails and snipe, sandhill cranes, and woodcock.

Indiana is among several states requiring bird hunters to call a telephone registration system. Other states electronically register bird hunters when they purchase a small game license. A few states require an additional permit; the permit requests the information from the hunters.

Indiana's HIP registration is an annual requirement, and you will need to register again next year for the 1999-'00 migratory game bird hunting season. ♦





Volunteer watches falcons **Richard Kinnett**

Richard Kinnett's love of birds began with a high school biology class. "To get an A, I had to identify 50 birds," Kinnett said. "Before that assignment, a bird was just a bird. After it, I was hooked. I also got my A."

Richard's birding continued through 28 years of working for Citizen's Gas & Coke Utility and two military tours. "While on military leave, I was chasing birds, not women," he said smiling. "Much of my spare time today is spent adding birds to my life list and checking out sightings on the Audubon hotline."

Eventually, Richard's avian interest led to his involvement with Indiana's peregrine falcon reintroduction project.

"John Castrale, the wildlife biologist in charge of the peregrine falcon

project, gave a program at an Audubon chapter meeting. He asked for peregrine patrol volunteers, and I decided to give it a try," Kinnett said.

That try almost ended on the first day, Kinnett recalled. "I spent four and a half hours watching a bird that barely moved. I thought there would be more action. I was debating whether I wanted to come for a second day when I overheard someone mention that our objective is to be there for the birds if they need us.

"After hearing that, I realized that I could help these endangered birds, so I returned the next day." Since that first day in 1991, Richard has clocked more than 3,000 volunteer hours for the falcons.

Project leader John Castrale notes, "I have never encountered anyone more dedicated to a single project than Richard. His detailed notes give us excellent information about the parent/chick relationship and other life history details. His willingness to check out reports of injured falcons and to record data on the chicks from hatching to fledging allows DNR biologists to turn their attention toward other activities."

Now retired, Richard devotes hundreds of hours each spring to the falcons in Indianapolis. His peregrine quest begins each January as he checks on the adult birds and keeps his eyes open for their nesting site.

This year, as in two previous nesting seasons, the peregrines chose a nestbox placed on the roof of Market Tower on the Indianapolis downtown circle. Once the nest site is found, Richard's work begins in earnest. A closed-circuit camera mounted in

the nest box allows Richard to observe and record activities in the nest. Richard's background in photography gives him an understanding of the advantages the camera brings to his work. "Having the camera makes my job easier," he says. "I know exactly when the eggs are laid, how many eggs there are and when they hatch."

During the 33 days of incubation and six weeks of chick growth, Richard is at his monitoring station located in Market Tower's attic area. His recorded observations reflect numerous facts, such as how often the young are fed, which parent feeds them and what they are fed.

Years of birding experience aid Kinnett in identifying prey species. "One of the adults strips most of the feathers off the prey before feeding it to the chicks," he says. "That can make identification a challenge." With bits and pieces of information, such as beak shape and tail length, Richard is able to reconstruct most of the bird species.

Before the peregrine chicks fledge or take their first flight, Richard is present when Castrale and other biologists place leg bands on the birds and examine the birds.

When the chicks are ready to fly, they follow a regular schedule, according to the volunteer bird watcher.

"They start by perching on the edge of the nestbox and then move out to the building ledge." At this point, the chicks do not return to the box, so Richard moves outside to monitor their progress.

The chicks spend three to five days moving up and down the ledge before they attempt their first flight. Fledging can be dangerous for young birds. A chick can flutter down to the ground or to a lower floor's ledge on its first flight. Richard and nine assistants keep an almost round-the-clock vigil when fledging nears.

"In the last four years, I have only had to rescue two of the young chicks. Most of the time, they don't need our help. But we are here in case they do." >pg 11



Richard Kinnett monitors nesting peregrine falcons from Indianapolis' monument circle. Kinnett has helped the DNR for 7 years.

New regulations go into effect

Fish & wildlife rules updated

Before launching a bass boat or putting on hunter orange, Indiana sportsmen and women need to know the updates to hunting and fishing regulations that became effective in June.

The regulation updates reflect an effort by the Division of Fish and Wildlife to improve conditions for natural resources while responding to hunters, anglers and all Hoosiers. With input from outdoor enthusiasts, the division continually reviews state regulations on fish and wildlife management.

Listed are the updated regulations affecting most hunters and anglers. For a complete list of updates, contact the Division of Fish and Wildlife's Indianapolis office at 317/232-4080.

The *1998-'99 Indiana Hunting & Trapping Guide* contains the new regulations for hunting and trapping in Indiana. The new fishing rules will be in next year's state fishing guide. Guides are available from sporting goods stores, discount stores and most DNR properties.

Bass

The new minimum size limit for all bass taken from rivers and streams is 12 inches. A 14-inch minimum size is in effect for all bass taken from lakes including Lake Michigan.

Bag limits for bass have also changed. The bass daily bag limit is five fish statewide and includes any combination of large-mouth, smallmouth and spotted bass. A three bass daily limit is now in effect on Lake Michigan.

Specialized bass size and bag limits are also in effect at certain waters. Consult the Indiana Fishing for specifics.

Trout/salmon

Anglers on Lake Michigan and its tributaries now have a 14-inch size minimum for trout and salmon. The daily bag limit remains at five fish of any combination of trout and salmon with no more than two lake trout. Lake Michigan anglers cannot possess more than a single day's bag limit of trout and salmon while fishing on the lake.

Closed areas

Anglers in northern Indiana must be aware of no fishing areas on the Little Calumet River and the St. Joseph River. The East Branch of the Little Calumet River is closed to fishing within 100 feet above and below the Linde Dam (Prax Air) within Porter County.

The East Raceway of the St. Joseph River in South Bend is now closed year-round 100 feet from its entrance and exit. Also, fishing is prohibited 100 feet from the entrances and exits of the fish ladders located at the South Bend dam and the Uniroyal dam. Anglers may not fish from a boat within 200 feet downstream from the South Bend dam or between the Uniroyal dam and the St. Rd. 331 bridge.

Paddlefish

Paddlefish may only be taken from the Ohio River, and anglers are restricted to a two fish daily catch limit. Sorting of paddlefish catch is prohibited. Once an angler catches two paddlefish, he must stop fishing for paddlefish.

Deer

The division designated additional metropolitan areas as urban deer zones. The new areas include the following:

- Lafayette-Tippecanoe County north of St. Rd. 28.
- Gary-Lake County north of U.S.30.
- Crown Point-Lake County within the corporate limits of Crown Point.
- Chesterton-Porter County north of U.S. 94.
- Michigan City-LaPorte County north of U.S. 94.
- Madison-Jefferson County bounded on the east by U.S. 421, on the north and west by St. Rd. 62 and on the south by St. Rd. 56.

Urban deer zones allow bowhunters to harvest two extra antlerless deer in the zones during regular deer hunting season. Hunters must follow local ordinances and purchase an extra archery license for each deer harvested.

Muskie

A new muskellunge size limit has been approved. Anglers may keep muskies and tiger muskies 36 inches or longer.

Opossum and raccoon

Dog running season for opossums and raccoons has been shortened by 10 days. The new season is from noon, Feb. 15, to noon, Oct. 14 each year.

Squirrel

Squirrel season has been expanded a month in southern Indiana. The new squirrel seasons are from Aug. 15 to Dec. 31 north of U.S. 40 and Aug. 15 to Jan. 31 south of U.S. 40. Southern Indiana squirrel hunters must continue to wear hunter orange during the January squirrel season.

Endangered species

The black rail and the Virginia rail have been added to Indiana's endangered species list. ♡

Exotic aquatics

Undesirable foreign species outcompete native species for food and habitat

Novelty or nuisance, curiosity or culprit. No matter what one's opinion may be about exotic species, imported species continue to challenge the natural order of the aquatic environment.

Every major aquatic ecosystem in Indiana has exotics of one form or another. Some species, such as carp and Eurasian watermilfoil, have made a permanent footprint on the ecology of Indiana lakes. The occasional appearance of a bala shark or piranha in a public lake stimulates conversations about illegal releases into Indiana's aquatic scene.

Exotic newcomers, such as zebra mussels and Eurasian watermilfoil, are examples where the unforeseen effects of an accidental introduction can impact ecosystems beyond the release point.

Zebra mussels, Eurasian watermilfoil, sea lamprey and round goby are all now considered to be undesired residents of Indiana waters. The following provides a brief description of each exotic species:

Eurasian Watermilfoil

This aquatic weed was accidentally introduced from Europe and reached Midwestern states between 1950 and 1980. Eurasian watermilfoil spreads to new waters primarily by boats and waterbirds. Fragments of this exotic can cling to boats and trailers. Mechanical clearing for beaches, docks and landing creates thousands of new stem fragments. Success at spreading and reproducing is aided by fragmentations and underground runners. Removal of native vegetation creates perfect habitat for the Eurasian watermilfoil to invade. However, this exotic has had difficulty becoming established in lakes with well established populations of native plants. The plant's floating canopy of vegetation can crowd out important native water plants in a lake.

Zebra Mussels

Zebra mussels were not present in Indiana 10 years ago but now can be found in waters of about 25 percent of Indiana's counties. The small black and white striped shelled mussel is most prevalent in the natural lakes of north eastern and north central Indiana, the Ohio River and Lake Michigan.

Attaching to surfaces using special "byssal threads," zebra mussels colonize on any available hard surface from docks and boat hulls to native mollusks and trash. As a result, the zebra mussel has required some industrial companies that use surface water to spend money removing the mussel from water intake structures and retrofitting control measures.

The zebra mussel feeds by filtering about one quart of water each day through its system. Dense populations in Lake Erie reportedly filter the entire water contents of the western basin once every week.

One female can produce a million eggs in a spawning season and live to be 2 or 3 years old. Microscopic free swimming larvae are called "veligers."

Sea Lamprey

The sea lamprey took nearly 100 years to invade Lake Erie from Lake Ontario; but in the following 25 years, it spread throughout the Great Lakes, explosively developing large populations except in warmer Lake Erie. Catastrophic populations developed in Lakes Huron, Michigan and Superior, which decimated or contributed to the decline of lake trout and whitefish in the 1940s and 1950s. Reproducing populations of the sea lamprey existed in the three upper Great Lakes by 1947.

With a suction cup mouth, adult sea lamprey attach to deep water fish, especially lake trout and chubs, for food. This attachment allows them to hitchhike to other areas easily.

The largest and most predaceous



Zebra mussels cling to a soft drink can.

of all its relatives, the sea lamprey attains an average length of nearly 3 feet, has two large eyes, seven pairs of gill openings with a short head that ends in a large sucking disc.

The sea lamprey spawns in streams, and migrating adults can manage rapids easily by alternately swimming and attaching to stones. The lamprey is capable of overcoming nearly vertical barriers of 5-6 feet by creeping the face with its suckorial disc.

Round Goby

Native to the Black and Caspian seas of Europe, the round goby has a large head resembling a tadpole. The fish is an extremely territorial bottom dwelling fish, which grows up to 10 inches long. Fisheries biologists first discovered the round goby in Lake St. Clair in 1990 and determined that the species was introduced through ballast water from transoceanic ships. The goby thrives very well in the southern tip of Lake Michigan and has moved into the Mississippi River watershed. The round goby often takes over prime spawning sites traditionally used by native species. ♡

prepared by **Randy Lang**, fishery staff specialist

Programs of *Fish & Wildlife*

Reserved hunt deadlines are here

The Division of Fish and Wildlife provides prime hunting opportunities through reserved hunts. DFW offers reserved hunts for dove, deer and pheasant. Application cards are in the "1998-99 Indiana Hunting Guide," available from sporting goods stores, discount stores and many DNR properties.

Mourning Dove Hunts Deadline: Aug. 4

Seven DNR properties offer reserved dove hunts. The hunts will take place the first two days of mourning dove season, typically Sept. 1-2. Season dates are announced after approval from the U.S. Fish and Wildlife Service.

Properties are Hardy Lake State Recreation Area; Minnehaha, Pigeon River and Winamac Fish and Wildlife areas; Huntington, Mississinewa and Salamonie lakes.

Military/Refuge Deer Deadline: Aug. 21

Six federal properties offer reserved deer hunts. Hunters may apply for firearms or archery reserved

hunts. Hunting dates are announced later.

The properties are Atterbury Reserved Forces Training Area (Camp Atterbury), Jefferson Proving Ground, Crane Naval Surface Warfare Center, Indiana Army Ammunition Plant, Newport Army Ammunition Plant (Newport Chemical Depot) and Muscatatuck National Wildlife Refuge.

Pheasant Hunts Deadline: Sept. 28

DFW's game bird habitat areas offer reserved opportunities for pheasant hunting. Tracts in Jasper, Benton, Newton and White counties will be open.

A reserved pheasant youth hunt is also offered on Nov. 27. Youth hunters under the age of 18 may apply for the youth hunt.

FWA Deer Hunts Deadline: Oct. 9

Three Fish and Wildlife areas offer reserved deer hunting opportunities. Splinter Ridge, Tri-County and Winamac FWA will host reserved hunts on the opening day of firearms season, Nov. 14. ♦



Indiana State Fair visitors learn about natural resources from DNR naturalists. Wildlife presentations are featured at the DNR Backyard Theater.

Wildlife learning at the State Fair

The DNR presents the Backyard Theater at the Indiana State Fair in the wildlife display area behind the DNR Building:

Aug. 12: Jim Mahoney, The Fox Show; Hardy Lake Interpreters, The Reptile Kingdom.

Aug. 13: 4-H Shooting Sports, Firearm Safety In The Home; Indiana Bowhunters Association, Bowhunting.

Aug. 14: Darrel Smith, The Mountain Lion Show; Patoka Lake Interpreters, The Turtle & Toad Jamboree.

Aug. 15: Wild Game Cookout, A free taste of Indiana's bountiful fish & wildlife resources. Compliments of Hoosier conservation groups.

Aug. 16: Lieber State Recreation Area Staff, Smokey Bear Party.

Aug. 17: The Royal River Company, Fly Fishing Demon-

stration; Scott Pet Products, Friends Afield Bird Dog Demonstration.

Aug. 18: A Best Wildlife Removal, Trapping Nuisance Wildlife; John Dwiggin, Wildlife Calling.

Aug. 19: DNR Division of Entomology, Butterfly Gardening; Indiana Falconry Association, The Art Of Falconry.

Aug. 20: GoFishIN, Fish Cleaning Demonstration; Fly Masters of Indianapolis, Casting and Tying Demonstration.

Aug. 21: Hardy Lake Interpreters, Hunters In The Night: Evening Owl Program; Fort Harrison State Park Naturalists, Nature At Night Campfire Program.

Aug. 22: Canda Overley Worman, Wild Animals As Pets. ♦

Richard Kinnett continued



Kinnett records the progress of peregrine chicks by watching a camera mounted in the nestbox.

Richard's enthusiasm for Indiana's peregrine falcons makes him an effective ambassador for wildlife conservation and the division's efforts with endangered wildlife. In honor of Kinnett's efforts, the male peregrine in Indianapolis was named "Kinney." In addition, in May, Citizen's Gas & Coke Utility presented him with the company's 1998 Silver C.H.I.P. award for his efforts.

"The best part of this job is the satisfaction I feel knowing that I'm helping these birds. I plan on monitoring these falcons as long as I am able."

For information on endangered species, call the Division of Fish and Wildlife at 317/232-4080. ♦

prepared by Kathy Quimbach, information specialist for the Endangered Wildlife Program



Division of Fish and Wildlife
 Department of Natural Resources
 402 W. Washington St., Room W273
 Indianapolis, IN 46204
 317/232-4080

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Calendars are available after Aug. 1 from the Division of Fish and Wildlife for \$8 each. Send your name, complete address and check to DNR Calendar Sales, 402 W. Washington St., Room W160, Indianapolis, IN 46204. Allow 3 to 4 weeks for delivery.

Proceeds from the calendar go to Indiana's Fish and Wildlife Fund, which is used to protect and manage fish and wildlife resources in Indiana.