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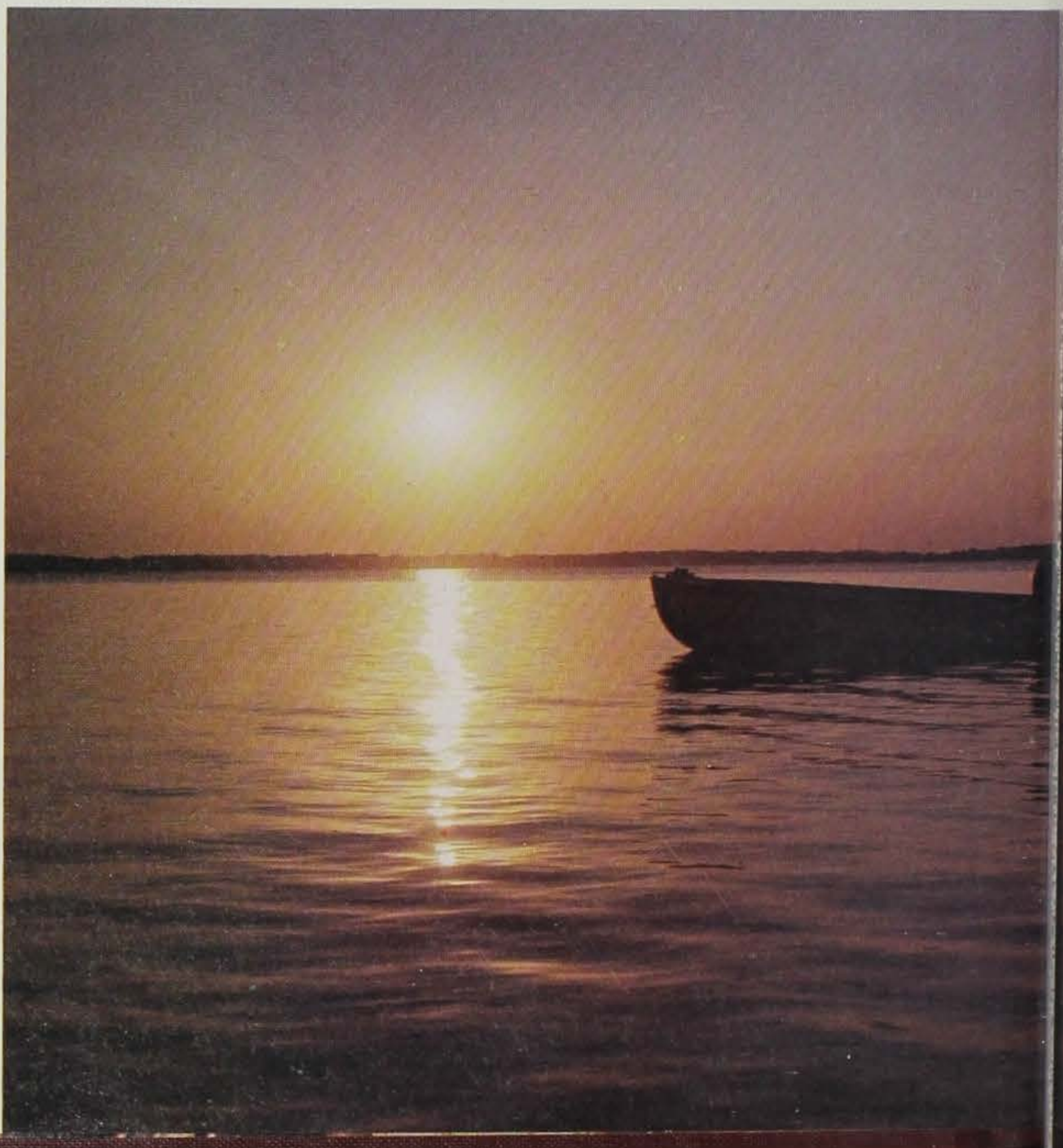
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*"Spring has sprung,
The grass has riz;
I wonder where
Good fishing is."*

1975 FISHING FORECAST

Photo by Ken Formanek



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ALL GOOD FISHERMEN realize the key to fishing success is effort and patience. The following information is presented in an effort to improve your catch by directing your efforts to some of Iowa's better fishing holes.

Iowa's fishery biologists spend much of their time "test netting" lakes and streams to determine if the fish populations are good or need improving. Information obtained during these surveys and interviews with fishermen is used to maintain and improve Iowa's sport fishing. The information contained in this article is the best available for predicting fishing success this spring. It is presented in the hope it may shorten your wait between bites.

Fishing Forecast

NORTHWEST AND NORTH CENTRAL IOWA

BY FLOYD THOMPSON

District Supervisor



Some of the values that nature has provided to northwest and north central Iowans in the form of natural lakes will soon be recognized in the form of another season of fishing. With winter kills in some lakes and streams behind us, we look forward to some of nature's most relaxing pastime, fishing.*

Recent changes in fishing regulations, the opening of the walleye and northern pike seasons on a continual basis in all natural lakes except those in Cerro Gordo and Dickinson counties, should be a bonanza to many fishermen. Many waters falling into this new area for the first time carry sizeable populations of walleye and northern.

In the past it has been legal to take these fish in rivers and streams on a statewide basis and has proven fruitful for many a fisherman. Offered the opportunity to fish in most of the natural lakes will no doubt increase the popularity of early and continued fishing throughout the season.

The general overall outlook for the 1975 season is very promising. In fact it is quite possible that a new state record for walleye could be established this spring. The best early fishing will be for both northern and walleye in the rivers and streams; the so-called hot spots will be in the Des Moines River, from Rutland downstream to Lehigh. In the Raccoon River from Sac City to Jefferson and in the Little Sioux, the area around and below Linn Grove. Lakes offering the best opportunity in this category will be Storm, Lost Island and North Twin Lakes. The Okobojis, Big Spirit and Clear Lake will make their good offering on and after May 3rd. Black Hawk (Sac county) and Five Island (Palo Alto county) will also offer good walleye fishing early.

The best northern fishing will be found in Browns Lake (Woodbury county), Storm (Buena Vista county), Trumbull (Clay county), Ingham Lake in (Emmet county) will also contribute to the good northern fishery.

Bullhead, one of the natural lakes most sought after species will continue to be caught in great numbers. Big and Little Spirit, Silver, and East Okoboji (Dickinson county), Five Island and Lost Island (Palo Alto county), Black Hawk (Sac county), Clear Lake (Cerro Gordo county) and Crystal (Hancock county) will offer continued success throughout the season.

Crappie will prevail best in Clear Lake, North Twin, Storm and Black Hawk Lakes. Perch fishing will be limited to Big Spirit, Clear Lake and the Okobojis with Ingham Lake (Emmet county) offering good early season success. Smallmouth bass will provide good success in Big Spirit and West Okoboji with best times being the last two weeks in May and during August and September. Good silver (white) bass fishing will be found in Clear and Storm Lakes and again May, September and October providing the best times to fish for them. Yellow bass fishing will be best in Clear and Black Hawk Lakes, with spring and early fall angling the better time to pursue them.

Certainly we should not overlook the potential that channel catfish offer to fishermen in the natural lakes. Several lakes contribute good catfishing during the summer months. North Twin, Storm, Black Hawk and East Okoboji are no doubt the best catfishing lakes. We also should mention here that the Little Sioux, both the East and West Fork Des Moines Rivers are well populated with channels and will fill many angler's creel.

Largemouth bass are found in many of the northwest Iowa waters with Silver Lake (Worth county), Center Lake and Little Spirit (Dickinson county) offering the best opportunity for success.

For trophy fish, the musky in Clear and West Okoboji are now reaching a population where a number of them are caught each season. Biologists feel that a new record can be set because of their observations in collecting brood fish for hatcheries.

Our intention here is to forecast the best possibilities for good fishing in the upcoming season. The fact that we did not mention all waters does not mean to say that fishing in other waters would be less productive. We have good to excellent fishing in several of the County Board areas; also in other public waters or privately owned waters managed by the Conservation Commission.

*At the time of this writing, several areas mentioned above had undergone heavy winter fish kills. Check with District Office at Spirit Lake for information pertaining to these areas.

Fishing Forecast

NORTHEAST IOWA



BY DON BONNEAU
Supervisor of Fisheries Management

Trout

All of Iowa's trout fishing is contained in the cool spring fed streams of nine northeast Iowa counties. Fifty streams are stocked with approximately 30,000 catchable trout each year. The rainbow and brown trout that are stocked weigh 1/3 - 1/2 pound each and are stocked the first of April through the middle of October.

The majority of trout streams are on private property with the landowner granting the sportsmen the right of access for fishing purposes. Portions of several streams are owned and managed by the state and provide excellent fishing. These streams include:

STREAM	LENGTH OWNED	COUNTY
Big and Little Paint Creeks	6 Miles	Allamakee
Coon Creek	6 Miles	Winneshiek
North and South Bear Creeks	8 Miles	Winneshiek
Richmond Springs	2 Miles	Delaware
Trout Run	1 Mile	Winneshiek
Sny McGill and North Cedar Creeks	10 Miles	Clayton
Big Mill Creek	1 Mile	Jackson
French Creek	1 Mile	Allamakee
Turkey River	1 Mile	Clayton

For a free copy of the IOWA TROUT FISHING GUIDE showing designated streams in the trout counties, write to the Iowa Conservation Commission, 300 Fourth Street, Des Moines, Iowa 50319.

A lunker brown trout meets his match.

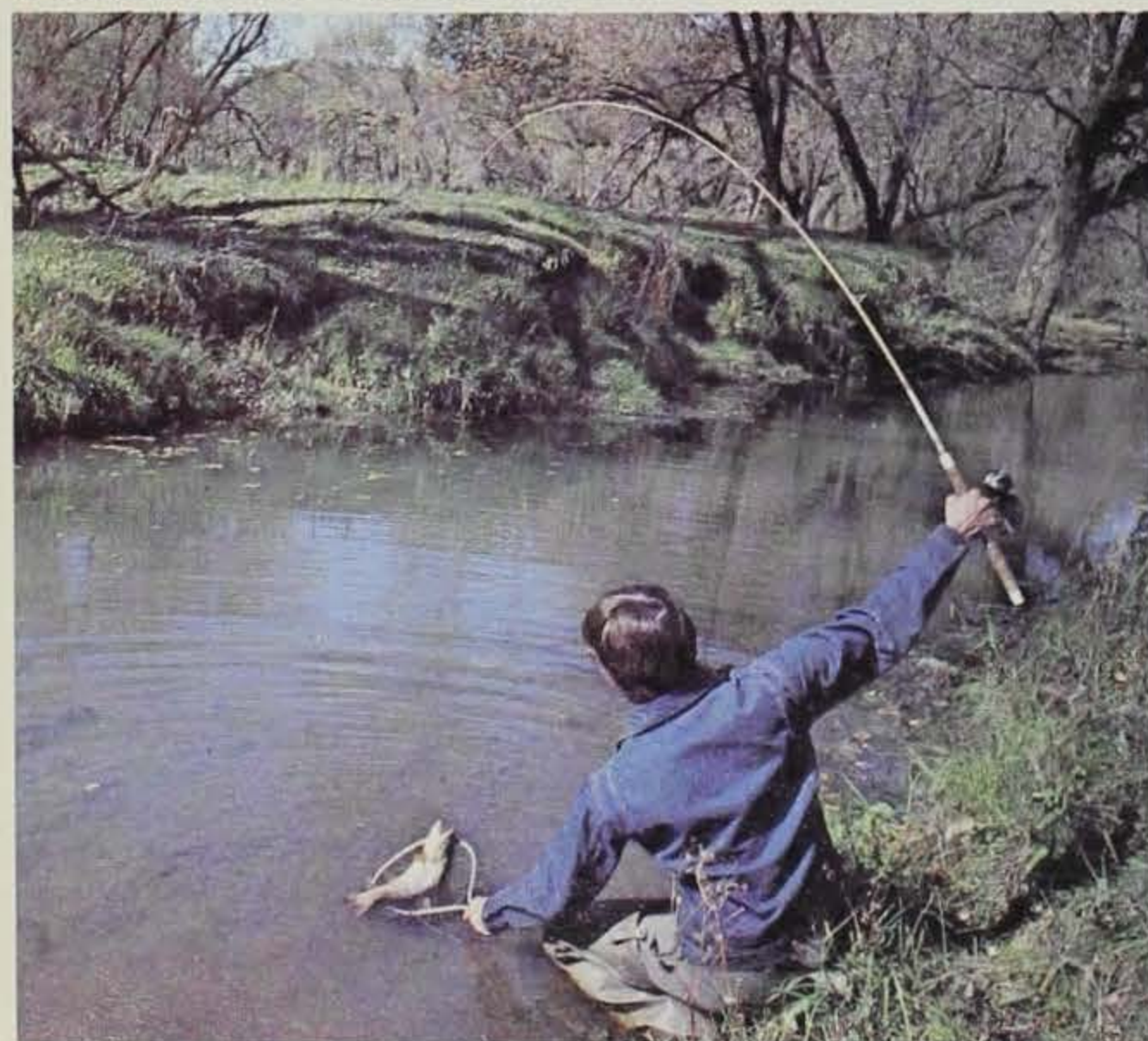


Photo by Jerry Leonard

Walleye and Sauger

The Mississippi River provides some of the finest walleye and sauger fishing in Iowa. Early spring walleye fishing (March and April) is good below nearly all the navigation dams. Generally, the fishing success for these species is better below the more northern dams.

Late spring, summer and fall walleye fishing in the Mississippi River is generally best on or slightly below wing dams. These heavily rip-rapped structures provide ideal habitat for walleye. Fishing wing dams is generally done by trolling over or near them or by anchoring the boat just upstream and casting down, thus retrieving the lure up and over the dam. Numerous white bass and an occasional northern pike will also be caught using these methods. Spinners, minnow-type lures and lead-heads are the best baits. Several major rivers in northeast Iowa also provide fine walleye angling. The Cedar River in the Manchester, Delhi area is an example.

Channel Catfish

Streams are abundant in northeast Iowa and all contain excellent channel catfish populations. In fact, channel catfish are probably the most abundant game fish in these waters. Fish sampling this past summer in the Cedar River indicated a good channel catfish population below Charles City. Channel catfish sampled ranged in size from 1 to 10 pounds. During last summer's fish sampling, survey nets set overnight caught 100 fish that weighed 150 pounds. Sampling below Cedar Falls indicates a similarly high catfish population.

Several lakes in northeast Iowa also contain good populations of catfish. These include: Lake Meyer, Winneshiek county and Hickory Hills, Black Hawk county.

Continued Page 9

Smallmouth fishing is available in many N.E. Iowa rivers.

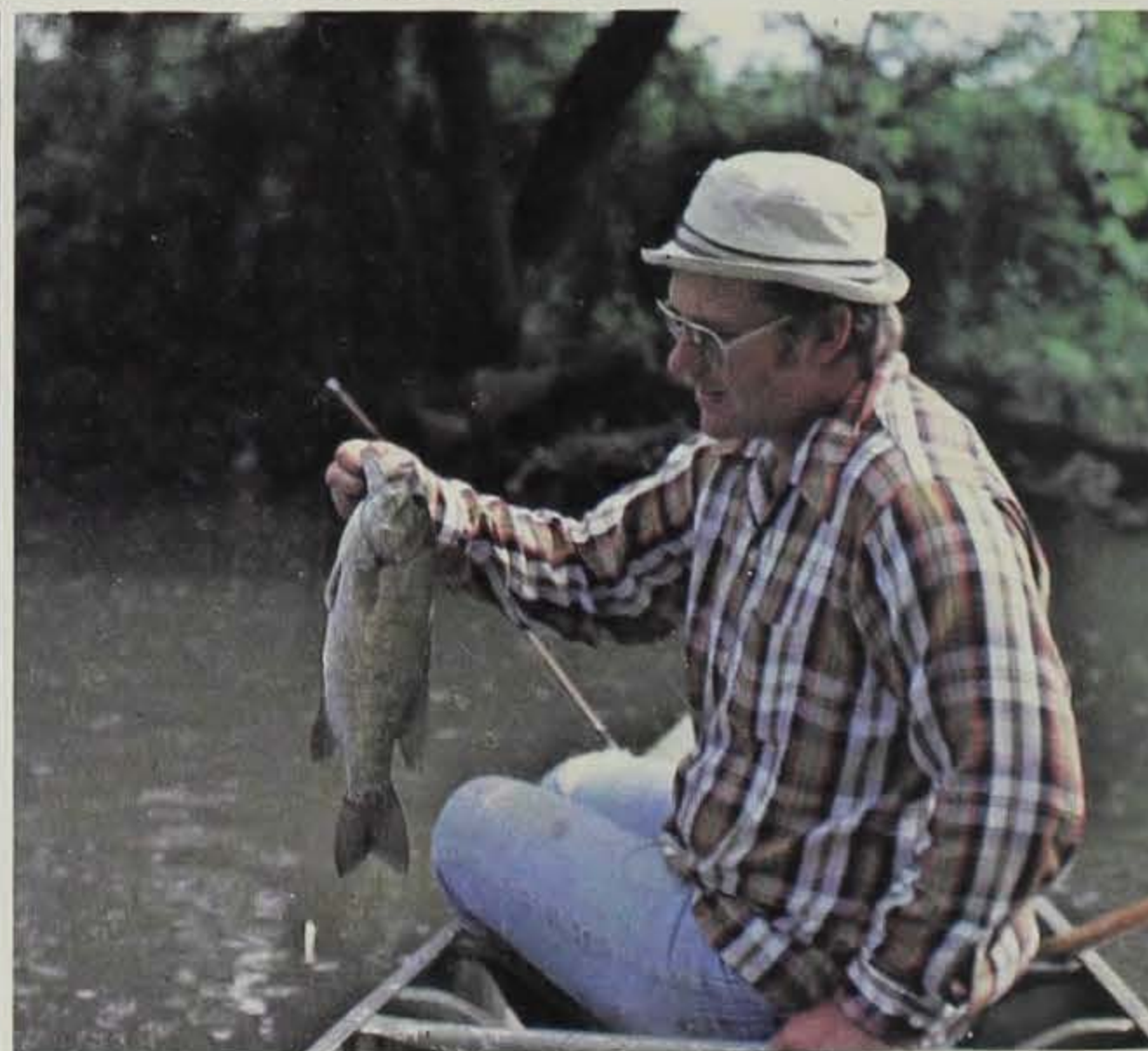
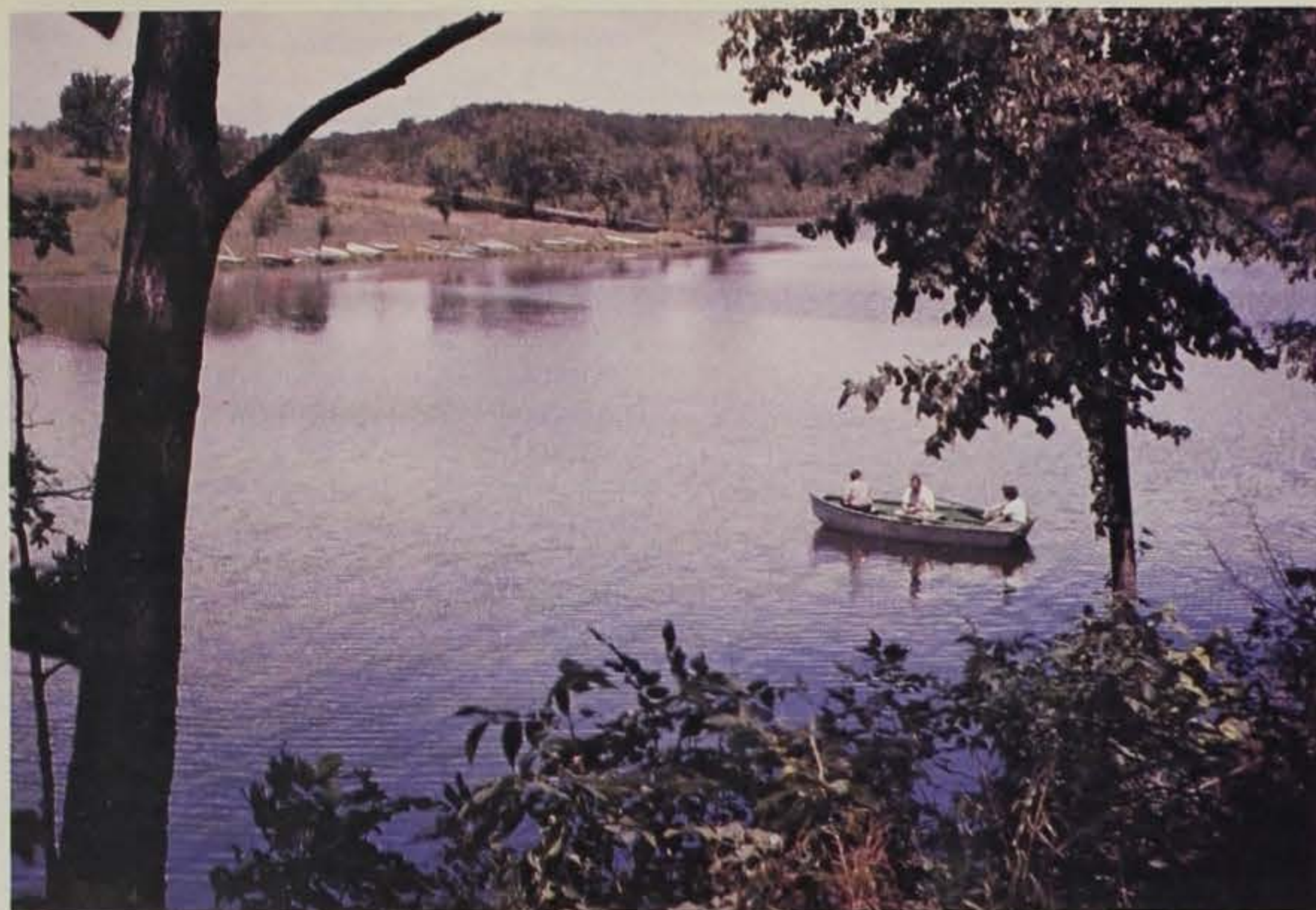


Photo by Bob DeCook



Conservation Commission Photo

Fishing Forecast

SOUTHWEST IOWA

BY MARION CONOVER

District Supervisor



Southwest Iowa, with its streams, rivers and man-made lakes will provide plenty of good fishing this year. Generally this area is home for the channel cat, bass, bluegill and crappie. All are favorites of fishermen and 1975 looks like a good year for these fish.

If catfishing is your pleasure you have already missed a portion of the best season to catch "old whiskers." Channel catfish go on a feeding spree immediately following ice out and lasting for about six weeks. Decaying fish, having died during the winter and frozen in the ice, attract their appetites. Naturally, sour fish of any kind is the best bait now.

If you miss this early fishing, you don't have to wait until next spring to catch catfish. Following a dead period of catfishing during the June and early July spawning season, there begins in mid July a two month hot weather catfishing season lasting into September. Just about any catfish bait can be successful as the channels stuff themselves following their spawning fast.

The daily catch limit for catfish is eight with sixteen allowed in possession. The

following SW district lakes host high populations of catfish and provide the best chance for success;

Mormon Trail - Adair county, Don Williams - Boone county,

Cold Springs - Cass county, DeSoto Bend - Harrison county,

Lake Manawa and Arrowhead - Pottawattamie county, Manteno - Shelby county, and Hickory Grove - Story county

When water levels are right don't overlook the Nishnabotna, Des Moines, Raccoon, and Grand Rivers. They're full of catfish.

The best crappie fishing is just at hand. In southwest Iowa waters this means all of May and about two weeks in June. During this time period small jigs or minnows will readily take crappie along rock or gravel shorelines and reefs where they concentrate during spawning activity. Beginning in early June and following spawning, crappie become harder to locate and catch as they move to cooler deeper water. Mid-summer crappie angling is generally unproductive, although some fortunate fishermen catch ample numbers from deep water snags and brush piles. As the water cools in the fall, crappie again move shoreward where they are more readily located and caught.

There is no catch or possession limit for crappie, but remember to keep only those fish you will use. Seven district lakes stand out as best crappie fishing bets;

Meadow and Mormon Trail - Adair county, Anita and Cold Springs - Cass county, Viking - Montgomery county, Big Creek -

Polk county, Prairie Rose - Shelby county, and Red Rock Reservoir - Marion county. The crappie populations in Cold Springs and Big Creek have only recently developed, but show promise of becoming good crappie lakes this year. Test netting in Red Rock indicates it contains an excellent population of large crappie (1 pound). The key to successful fishing is spring runoff. Turbid water reduces catch success, but there remains the possibility you might be pleasantly surprised.

There isn't a fish in southwest Iowa waters more cooperative to anglers than the scrappy bluegill. It seems he's a willing partner to any fishing venture. Small jigs, spinners, flies, or worms work best when fished with light tackle. He too moves toward cooler water during mid summer, so a boat may be helpful in locating the best hot weather fishing locations.

Again no catch or possession limit applies. Nice size bluegill are found in the following eight lakes;

Meadow and Mormon Trail - Adair county, Anita - Cass county, Viking - Montgomery county, Arrowhead-Pottawattamie county, Prairie Rose - Shelby county, Hickory Grove - Story county, and Three Fires - Taylor county.

Unlike the cooperative bluegill, old bucketmouth bass can sometimes be downright obstinate in his behavior. After ice out Mr. Bass can be found in shallow water areas during warm weather spells. Shallow water areas warm fast and provide the water temperature most comfortable to bass at the time. During daylight summer hours you'll find bass in deep water near brush or other structures.

The daily catch limit for bass is five, with ten allowed in possession. Some district lakes have a 14-inch minimum size limit, so abide by that regulation on lakes where posted. Highest bass populations exist in the following lakes;

Meadow - Adair county, Anita - Cass county, Nine Eagles - Decatur county, DeSoto Bend - Harrison county, Mariposa - Jasper county, Big Creek - Polk county, Arrowhead - Pottawattamie county, Prairie Rose - Shelby county and Three Fires - Taylor county.

Red Rock Reservoir in the past few years has produced excellent largemouth bass angling during high water periods. Fishing the clear water areas located in the upper bays have brought the best results. Red Rock also has good populations of large crappie, catfish and bullheads. White bass have been on the increase too.

Six district lakes were renovated of undesirable fish populations in 1974. The rehabilitated lakes are Bays Branch - Guthrie county, Glenwood Lake - Mills county, Pilot Grove - Montgomery county, Easter Lake - Polk county, Walnut Creek Marsh - Ringgold county and Green Valley - Union county. The lakes have been restocked and are full of water, but good fishing will not develop until the fish grow to catchable size; about 1976. □

Fishing Forecast

SOUTHEAST IOWA



**By
Dale
Stufflebeam**
District Supervisor

Looking ahead to spring and summer fishing in southeast Iowa this year we can expect excellent fishing in several areas. Early in the spring it will be walleyes and sauger on the Mississippi, later on it will be time for catfish, bass and bluegill. The man-made lakes and farm ponds in this area look to be in good shape for the most part. To highlight the season, it looks like another great year for crappies at Rathbun.

Rathbun Reservoir has an excellent population of big crappie that has already contributed to many successful fishing trips. Other species (largemouth bass, channel catfish, white bass and walleyes) are also in good numbers to satisfy the angler who is partial to these species of fish. Rathbun Reservoir also offers an opportunity to add a muskie or ocean striped bass to your stringer. Fishing in southeast Iowa's other major impoundment, Coralville, will be poor for the next two or three years. The reservoir was inadvertently drained this winter. A fish stocking program is planned but many of the fish will not be of acceptable size for at least two years.

The improved water quality of the Des Moines River below Red Rock Dam offers an excellent fishing opportunity. Walleye, northern pike and crappie fishing below the reservoir has been a real bonus to fishermen these last few years.

The Mississippi River has a great deal of good aquatic habitat available for fish of many kinds. The tail waters of the navigation dams provide very good walleye and sauger fishing, especially in the spring. The backwater bays and side channels provide good fishing for panfish, largemouth bass and channel catfish.

Southeast Iowa's lakes and streams offer some of the states best angling for channel catfish. Nearly all major streams have good populations and stocking programs have made some of our man-made lakes

catfishing hotspots. Following are areas considered the best according to a fish sampling survey conducted by Commission Biologists:

Lake Wapello - Davis county, Lake Keomah - Mahaska county,

Lake Macbride - Johnson county, Hannen Lake - Benton county,

Iowa Lake - Iowa county, Diamond Lake - Poweshiek county,

Otter Creek Lake - Tama county, Central Lake - Jones county,

Kent Park Lake - Johnson county and Lake Darling - Washington county.

Best stream catfishing includes the Skunk, Des Moines, Cedar, Iowa, Wapsipinicon Rivers and pools 14-19 on the Mississippi River.

Many southeast Iowa lakes have very good populations of bluegill and crappie to offer the angler. The lakes seem to remain consistently good for these panfish year after year and many fishermen take bucketfuls away when they're hitting. The following lakes look good for '75:

Lake Wapello - Davis county, Lake Keomah - Mahaska county,

Red Haw - Lucas county, Lake Macbride - Johnson county,

Hannen - Benton county, Iowa Lake - Iowa county, Otter Creek Lake - Tama county,

Union Grove - Tama county, Lake Geode - Henry county, Lake Odessa - Louisa county,

Central Lake - Jones county, Kent Park Lake - Johnson county and Diamond Lake - Poweshiek county.

Lunker largemouth bass can be found all across southeast Iowa. Farm ponds seem to produce big bass all summer long but many huge largemouths will be caught in these lakes in 1975:

Lake Wapello - Davis county, Rathbun - Appanoose county,

Keomah - Mahaska county, Lake Darling - Washington county,

Lake Odessa - Louisa county, Hannen Lake - Benton county,

Iowa Lake - Iowa county, Otter Creek Lake - Tama county, and

Union Grove Lake - Tama county.

Southeast Iowa also has three lakes that have good populations of bullheads. Union Grove - Tama county, Kent Park Lake - Johnson county, and Lake of the Hills - Scott county.

Walleye fishing can be very good in the Mississippi river below the dams 17, 18 and 19. The walleyes, along with sauger and white bass, make spring spawning runs and group up below the dams where fishermen find the action fast, especially in early spring. Rathbun Reservoir will provide some walleye action this spring as well. Fishermen usually catch walleyes along the rock areas and near the dam.

The above discussion of Iowa's fishing spots and tips on angling methods and bait will help you get your bait near the fish you're after. Now if they'll just cooperate . . .

Crappie fishing at Rathbun is hot for fishermen of all ages.



Photo by Wayne Lonning

PFD's: Check them NOW!

Photos by Jerry Leonard

By James E. Horan

Boating Safety Coordinator

FISHING, sailing, pleasure cruising, water skiing, canoeing—they're all fun and they all involve boating of one type or another. Chances are you're aware that at least one Coast Guard approved personal flotation device (PFD) for each person on board is required. But that's not the end of your PFD responsibilities. You can't just throw some old World War II life jacket in your boat and expect it to do the job. In the first place the flotation may have become destroyed through deterioration and in the second place if it doesn't have a Coast Guard approved tag or stamp on it, you can still get in hot water.

Here's what you must do to be safe and legal. First, obtain only PFDs which have a Coast Guard approved label permanently attached to the PFD. This should also tell you something about any PFDs you may already have—the Coast Guard approval label must be legible at all times. Wind, water, and sun will bleach out and rot certain materials so keep them dry and check them often.

Another condition of Coast Guard approval is that the flotation be serviceable. For example, some devices have kapok filled plastic bags as flotation. Sitting, standing, kneeling, or otherwise applying undue pressure will puncture these bags allowing air to escape and water to enter. If you have some old ones that feel lopsided or heavy out of proportion to their size, they have probably soaked up lots of water and are unsafe. Check this type of PFD whether buoyant cushion, buoyant vest, or life preserver by simply squeezing firmly. If you hear air escaping throw the whole thing away—it's no good. Remember, kapok filled plastic bags provide good buoyancy only when no air can escape, so check them often. If your PFDs have foam as flotation, air loss is not a problem.

You should now check all the material other than the flotation and Coast Guard approval label such as all cloth surfaces, webbing, and buckles. They must be serviceable at all times, which means no rips, tears, cuts, missing straps or buckler, or cigarette burns.

As a matter of fact, you should always perform this same check when purchasing new PFDs also. When your life is dependent upon someone else's quality control it's best to check first. Check them again periodically during and at the end of the season, immediately throwing away all unsafe devices.

Remember to be "Coast Guard approved", your PFD must meet the above requirements at all times while in use. □



Kapok filled PFDs should be checked for air leaks.

Torn straps, rips or burn holes make PFDs unsafe.



WILDFIRES IN IOWA

BY ROY HATCHER,

Protection & Utilization Forester

Each year uncontrolled wildfires in rural areas damage or destroy many acres of timberland, cropland, and wildlife cover, as well as personal property. Since man is the cause of most wildfires, everyone has a part in preventing them. We can be more careful ourselves, and wherever we are and whatever position we are in, we can influence others to use more care with fires. Many wildfires are started accidentally by farmers and homeowners in rural areas when burning debris. Under the right conditions such fires can spread rapidly to other property, to the woods, and to croplands. Debris burning and railroad fires are the two major causes of wildfires in the State of Iowa. The Forestry Section of the Iowa Conservation Commission has set up a wildfire reporting system with the fire departments in Iowa since 1941. This information is used by the fire departments and the Conservation Commission in helping to establish a more effective wildfire prevention program.

Wildfire Statistics

- 1941 - 1965: Average Size 31.81 acres
791 Fires
25,165 Acres Burned
- 1966 - 1973: Average Size 22.07 acres
1,710 Fires
37,743 Acres Burned
- 1941 - 1973: Average Size 25.15 acres
2,501 Fires
62,908 Acres Burned
Average number of fires per year—78
- 1974: Average Size 7.7 acres
123 Fires
947.75 Acres Burned

Causes of Wildfires in Order of Importance:

- | | | |
|-----------------|------------|-----------|
| *Debris burning | Incendiary | Hunters |
| *Railroad | Children | Campers |
| Smoking | Machinery | Lightning |
- *Major Causes

The decade of the 70's promises to be one dedicated to halting and reversing the long decline in the quality of the American environment. Wildfire prevention and control is an important part in this effort. Fewer and smaller wildfires mean less air and water pollution. Fewer and smaller wildfires mean a more beautiful natural environment. We need the help of the entire public in order to keep our wildfires under control. **HELP KEEP IOWA GREEN!** □





Fishing Forecast NORTHEAST IOWA (Continued from Page 4)

Northern Pike

The Mississippi river and its large tributaries in northeast Iowa contain fair to good population of northern pike. The best pike fishing however is probably found in pool 9 of the Mississippi River. Past netting in this pool by fisheries biologists indicate it contains an abundant pike population. Nets set overnight in early April will catch 10 to 50 pike each. During this period the northerns are extremely active and as the water temperature approaches 45 degrees F. they spawn. It is during and shortly after spawning that fishing success for northerns is the best.

Don't forget the large tributaries to the Mississippi if you are out for a trophy northern pike. Iowa's state record was caught from the Cedar River near Cedar Falls. The fish weighed 25 pounds.

Smallmouth bass

Nearly all of Iowa's stream fishing for smallmouth bass is limited to several streams in northeast Iowa. The better smallmouth bass fishing can be found in the Upper Iowa River (primarily Howard and Winneshiek counties); the Turkey River above Elkader and the Voga River in Fayette and Clayton counties. Summer sampling of the Cedar River in Floyd and Mitchell counties indicate the river contains numerous smallmouth bass one pound in size and enough 2 - 3 pound bass to keep angling interesting.

Largemouth Bass

Bass fishing (largemouth), although not as abundant as in southern Iowa, is important to sport fishing of several areas in northeast Iowa. The Mississippi River, again contributes the majority of habitat available to this species in northeast Iowa. The "stump beds" found in many of the pools are probably one of the best habitats for bass found in the river.

Several impoundments in northeast Iowa also will provide fine angling for bass this spring. These include:

Lake Meyer, Winneshiek county

Hickory Hills, Black Hawk county and Sweets Marsh (segment B)

A word of caution if your spring fishing takes you to Sweets Marsh, confine your fishing effort to segment B. Segment A was renovated because of a large rough fish population. The fishing in segment A should be excellent in 2 - 3 years.

White Bass

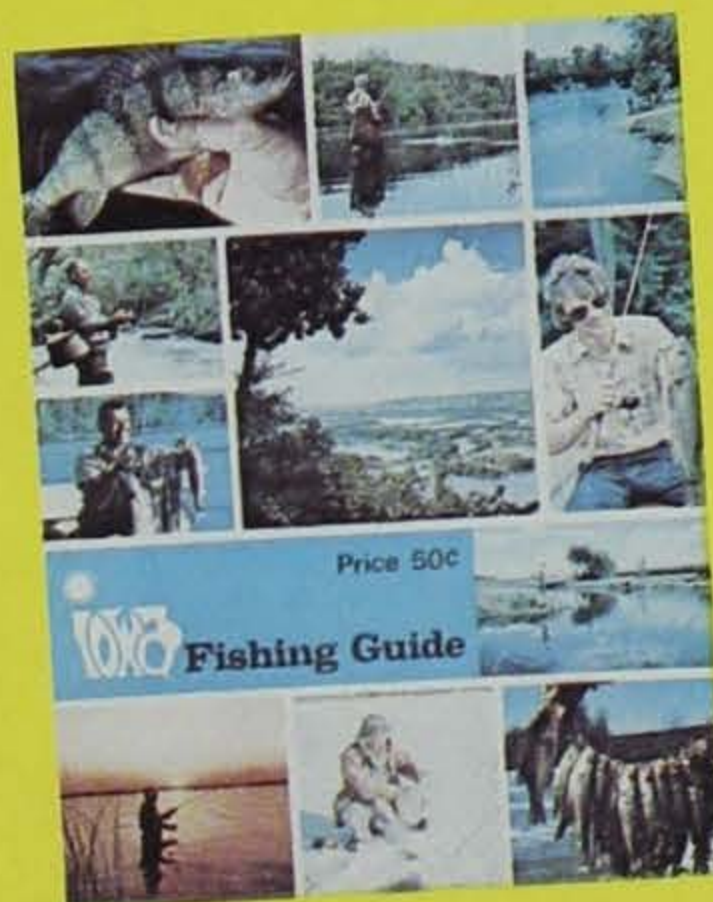
One of the more exciting fresh water fisheries is the white bass. This species is native to the Mississippi River and larger tributaries. The fish reach a maximum weight of approximately 3 pounds. At present the major fishery for this species is in the Mississippi River, especially in the tailwater of navigation dams and near wing dams. In the summer watch for schools of the fish thrashing the top of quiet water areas. The thrashing is due to their feeding activity. During these frantic periods (many times lasting only several seconds) the white bass is extremely vulnerable to the angler. Silver spoons, leadheads and minnow shaped lures cast into a foraging school of white bass will provide excitement that's hard to beat.

Panfish

The Mississippi River along Iowa's border is a top producer for crappie, bluegill and, in the more northern pools, yellow perch. Sampling on the river indicates it contains abundant populations of panfish of good size. There is definitely no doubt these fish are present in your favorite fishing area. The key is finding the schools of spawning fish in the spring. Search the shallow areas for bluegill and the submerged timbered or dead fall areas for crappie.

Because these species spawn in extremely shallow areas watch the pool level fluctuation. A stable or slightly expanding pool during spawning is advantageous. Decreases in pool levels may pull spawning adults from spawning areas.

Sweets Marsh (segment B) will also provide fine bluegill angling this spring. Sampling indicates it contains a good population of 9 - 11 inch bluegill. For example, a 10 inch bluegill will generally weigh in excess of 1 pound. □



New Fishing Guide Available

A new and very informative booklet which hopefully will shorten the time between bites for Iowa anglers is now available from the Iowa Conservation Commission for only 50c a copy. The 32-page color-illustrated publication is jam-packed with valuable information for the Iowa angler.



Prescribed burning every three to five years improves habitat for bobwhite, cottontails and other wildlife creatures.

SET IT AFIRE!

By Charles C. Schwartz
Wildlife Research Biologist

Controlled burning is a valuable tool in wildlife management.



Photos by

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IOWA CONSERVATION

Fire moving across the Iowa landscape to most people represents an agent of destruction that eliminates wildlife habitat and in some cases, the wildlife itself. Fire, whether accidentally started or intentionally set, is an important ecological force within a plant community. To the uninformed, fire would seem to have little or no value in wildlife management. Public education programs in the past have stressed the "Smokey the Bear" philosophy of fire control. Basically this attitude toward fire is sound. Unplanned or indiscriminant fires in natural areas are usually more destructive than beneficial. However, controlled burning used wisely is a valuable tool in both forestry and wildlife management.

Animal ecologists have found that the very presence of some species of wildlife and abundant populations of others depends to some extent on whether fire is used in some way in their environment. Wildlife biologists who have studied the effects of fire on wildlife, find it an important tool in maintaining or developing habitat essential to some species of wildlife.

To understand the role controlled burning plays in habitat maintenance or development, it is first important to understand habitat requirements for the species of wildlife being managed. Most types of farm game are associated with early stages of plant succession. Plant succession is an orderly process that occurs on an area over time. It begins with pioneer stages of plant growth that are gradually replaced by a series of more mature plant communities until a relatively stable community develops which is in balance with local conditions. In southern Iowa, for example, a plowed field left idle is soon invaded by several species of annual grasses and weeds. In a few years these annuals are replaced by more permanent species of perennial grasses and forbs. This stage of plant succession may last for two to ten years depending upon the fertility of the soil and other factors. Eventually woody species of brush and trees begin to colonize the area. Finally the area is invaded by hardwood trees mainly oak and hickory. If left undisturbed the area will develop into a stable oak-hickory forest. This final stage of plant succession is called the climax community and may take between 100-150 years to develop.

Abundant populations of farm game are dependent on these early stages in plant succession. These habitat types provide abundant food and cover plus safe nesting and roosting sites. The latter stages of plant succession (brush community) provide winter cover areas and daytime loafing sites plus safe travel lanes between cover types. Large areas of climax timber are of little value to farm game.

There are several natural and man-made disturbances that set back or maintain a plant community in early stages of plant succession. The most apparent disturbance in Iowa is agriculture. Row crop farming is essentially a pioneer stage in plant



Fire is a naturally occurring force that maintains plant communities in early stages of succession.

succession. The native annual grasses and weeds are replaced with cultivated varieties. Hay production and pasture land are intermediate stages in plant succession. Perennial grasses and legumes are maintained by mowing or grazing. Agricultural practices that maintain early stages of plant succession are not always compatible with wildlife production. Large expanses of row crops do produce an abundance of seed like their wild counterparts, but they provide little nesting cover. Cultivated hay and pasture can provide nesting habitat, but early mowing and grazing destroys protective cover and too often the nesting hen.

On wildlife areas where wildlife production is the primary goal, agricultural practices can be modified to compliment game production. Fall plowing which buries waste grain is kept to a minimum. Hay mowing is eliminated or delayed until after the major production season. Grazing, where it occurs, can be controlled.

Many units of land on game management areas do not lend themselves to farming. Steep slopes and thin or poor soils must be managed with techniques other than farming or natural succession will continue until the area is no longer suitable habitat for upland wildlife. Prescribed burning is a technique that maintains early stages of plant succession, recycles nutrients and reduces excessive litter accumulation.

Most controlled burning is done during the dormant season in the months of February and March. Fires are usually of low intensity, consume most of the litter and top-kill hardwood brush that has invaded the area. Sites to be managed with fire are placed on a 3 to 5 year burning cycle. Studies on ground nesting birds, primarily the

bobwhite, indicate that nest densities are greatest 2 to 5 years after a burn. After this, changes in the plant community plus excessive litter buildup reduce the habitat quality. Since ground nesting birds construct their nest bowl from dead vegetation and litter near the nest site, there is little or no use the first season after the burn. For this reason annual burning is not a desirable management practice. Annual burning of roadside ditches in most cases is detrimental to wildlife production particularly in areas where nesting cover of any type is in short supply.

Burned fields do provide some valuable wildlife habitat the same year. Young game birds live on a diet almost exclusively of insects. Pheasant and quail chicks need areas with high insect populations that are easy to catch. Newly burned fields have no ground litter to obstruct chick movement and make excellent brooding and feeding areas. In addition to this, seeds produced are readily available during the fall and winter. With no litter or duff accumulation, seeds fall on bare ground and are easily found by foraging birds. Seeds dropped in thick litter are soon covered and are not available.

Brush that is top killed by fire usually resprouts the following year. Studies have shown that these sprouts are higher in protein and phosphorous than unburned stems. This high protein forage is available to deer and cottontails and provides needed nutrients.

The Iowa Conservation Commission is currently involved in prescribed burning programs on several state wildlife areas. This technique is a cheap management tool that enables wildlife biologists to create and maintain high quality habitat for our upland wildlife. □

Improve Your Chances WILD TURKEY



By Jack Coffey, Wildlife Management Biologist

Photography by the Author

I YELPED ONCE AGAIN on the "world champion" cedar box call and again the old ridge rattler gobbled back at the lovesick hen notes. The gobbler was only about 75 yards away, but he wouldn't approach closer. I thought to myself, "He probably doesn't want to cross the small creek which separated us." Waiting what seemed an eternity, actually closer to four or five minutes, and hands trembling, I again struck the magic notes on the call — Ke-e-elp - kelp - kelp - kelp, ke-e-elp - kelp - kelp - kelp. Before the call was completed he roared right back, his gobble echoing through the oaks, but still he was as far away as before. He was used to having the hen come to him and I was trying to insult him by making him come to me. My heart was pounding in my ears as I waited to make another call. He gobbled, taking me by surprise, but he sounded closer. Was he coming or had he merely turned toward me making him sound closer?

April 26, 1975, will be a morning anticipated by many hunters for it marks the beginning of the 1975 turkey hunting season in Iowa. Hunters, many of whom have never seen or heard a wild turkey, will have the opportunity to match wits with this elusive quarry. Wild turkeys are considered by some experienced hunters to be one of the

toughest trophies to take on the North American continent. Many have hunted turkeys for several years without lugging this wily old bird from the forest.

The first Iowa turkey season was held in 1974. It was quite successful as 450 Iowa hunters harvested 117 wild gobblers during the 16 day split season. This year the number of issued licenses was expanded to 825 permits.

Aside from his license and weapon, the turkey hunter should provide himself with several other "essential" aids. Camouflage clothing, turkey calls, head nets and patience are all required. You'll notice I said turkey calls as a self-respecting turkey hunter expects to step one foot into the forest with only one call. He'll probably have several, none of which quite sounds to him to exactly reproduce the lovesick call of the mating hen turkey. Turkey call manufacturers oblige the hunter by producing several dozen different calls, all of which are guaranteed to produce results. One type of call is made from the wing bone of turkey, several others utilize a wooden stick rubbed against slate or cedar wood. Cedar box calls produce good sounds by rubbing a cedar wood striker across walnut or other woods. Several different types of mouth calls utilize a rubber diaphragm stretched thinly across a frame.

For the beginner, the cedar box is probably the easiest to learn to use consistently to produce the hen yelps. Many experienced hunters prefer the mouth calls because they allow free use of both hands, but these calls require considerably more practice to become proficient.

A small bag should be used to carry your call into the forest. It protects the call from rainfall and dew and reduces chances for making a squeak on the call at an inopportune moment. Also, moisture on the call can result in "unturkey-like" sounds.

Camouflage clothing is a must from head to toe. Turkeys have remarkable vision and can detect movement eight times greater than humans. Slow deliberate movements coupled with camouflage clothing give the hunter the necessary edge for getting old Tom into shooting range. Some type of camouflage is also required on exposed flesh such as hands and face. Skin seems to almost shine in the first rays of sunlight streaking through the forest tree tops. Some hunters use a camouflage grease paint or burnt cork on both hands and face. Others wear gloves and a head net. Because light is usually poor in the first few hours, I cut eye holes in my head net for better vision. Some hunters break out the lenses of inexpensive sunglasses and sew these into the head net.

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This lets the eyeholes move as you turn your head but it also reduces side vision.

Most hunters use size #4, #5, or #6 shot. This allows a shot at the head and neck with a reasonably good chance of having a solid pattern up to 35 - 40 yards and having pellets reach a vital spot. Turkeys are next to impossible to bring down with a body shot. A well placed head shot though will drop them solidly.

My technique for stalking the birds involves first scouting an area for fresh turkey signs. Fresh scratchings in the leaves or droppings indicate recent turkey use. Large bare areas, 1 to 2 feet in diameter, under oak trees where the leaves are raked away show where turkeys search for acorns, one of their favorite foods. Also, you may find a strutting area where some old gobbler has taken up residence in an attempt to attract a hen. You can tell these places by signs where he dragged his wing tips while displaying.

The next favorable morning be in the forest near a selected area before the first touch of light, usually about 45 minutes before sunrise. As song birds awaken and start to stir and chatter, turkeys fly down from their roosts high up in trees. Sometimes the whosh-whosh-whosh of the wing beat is audible.

When old Tom decides to gobble he gives you the direction of his location. I normally take off walking toward him as fast as possible without creating a disturbance. I may stop and listen for another gobble if I don't have a very good fix. By moving to another spot you can sometimes triangulate his location. Turkeys are sometimes stimulated to gobble by loud noises and some hunters carry a crow call for this purpose. Turkey gobbles are deceptive, sometimes they sound as if the bird is less than 50 yards away when in fact he is $\frac{1}{4}$ mile across the hollow. Other times he may sound $\frac{1}{2}$ mile away and is only over the ridge. This can be learned only through experience and is one reason why a few pre-season trips are helpful.

After you are fairly certain of his location, try to sneak within 100-150 yards. It is critical that you move into his hearing range without giving him cause for alarm. If he suspects anything, he probably will never respond. This is tough to do because you are trying to get into range of the call which is not any louder than a snap of a branch by a misplaced foot.

When you have approached as close as you dare, look around for any existing cover to crawl behind. There won't be any, but look around anyway, you might be lucky. A forest with 10 million trees and you feel as if you're in the middle of the Sahara Desert. I carry a small pair of garden snippers with me with which I can cut a few small twigs to stick in the ground. Sitting with my back against a tree and 3 or 4 small branches stuck around

in the front and side of me, I'm fairly well camouflaged.

Give the forest a chance to return to its normal sounds and make your first call. With trembling hands it will probably sound like a turkey with laryngitis. However, don't be discouraged as there is considerable variation between calls of individual turkeys. Wait 4 or 5 minutes before calling again. By now you either will have started to calm down or you will have lost all cool. If you are real lucky, old Tom will gobble back and come-a-strutting. The first thing you'll see is what appears to be a snowball bouncing toward you in the trees. It's the old birds head as he drains the blood from it and displays his best. Usually he'll sneak around to the side or behind trying to get a peak at the attractive hen which you are portraying. The trick is to spot him before he spots you. Normally when you first catch sight of him, he is standing completely in the open as if he materialized from nowhere. But don't blow it now and make a sudden movement raising your gun. You'll never get a shot, he'll disappear as quickly as he appeared. Instead, wait until he walks behind a tree or bush and slowly raise your gun and wait until he reappears.

If old Tom doesn't respond or come to your call right away, have patience. Sometimes a wary old bird will take an hour to make his appearance. Remember, he is in no hurry and if you are, turkey hunting is not for you. Usually though, if I can't get a turkey to gobble back of if he hasn't shown himself within $\frac{1}{2}$ hour from my first call I give up and try for another bird.

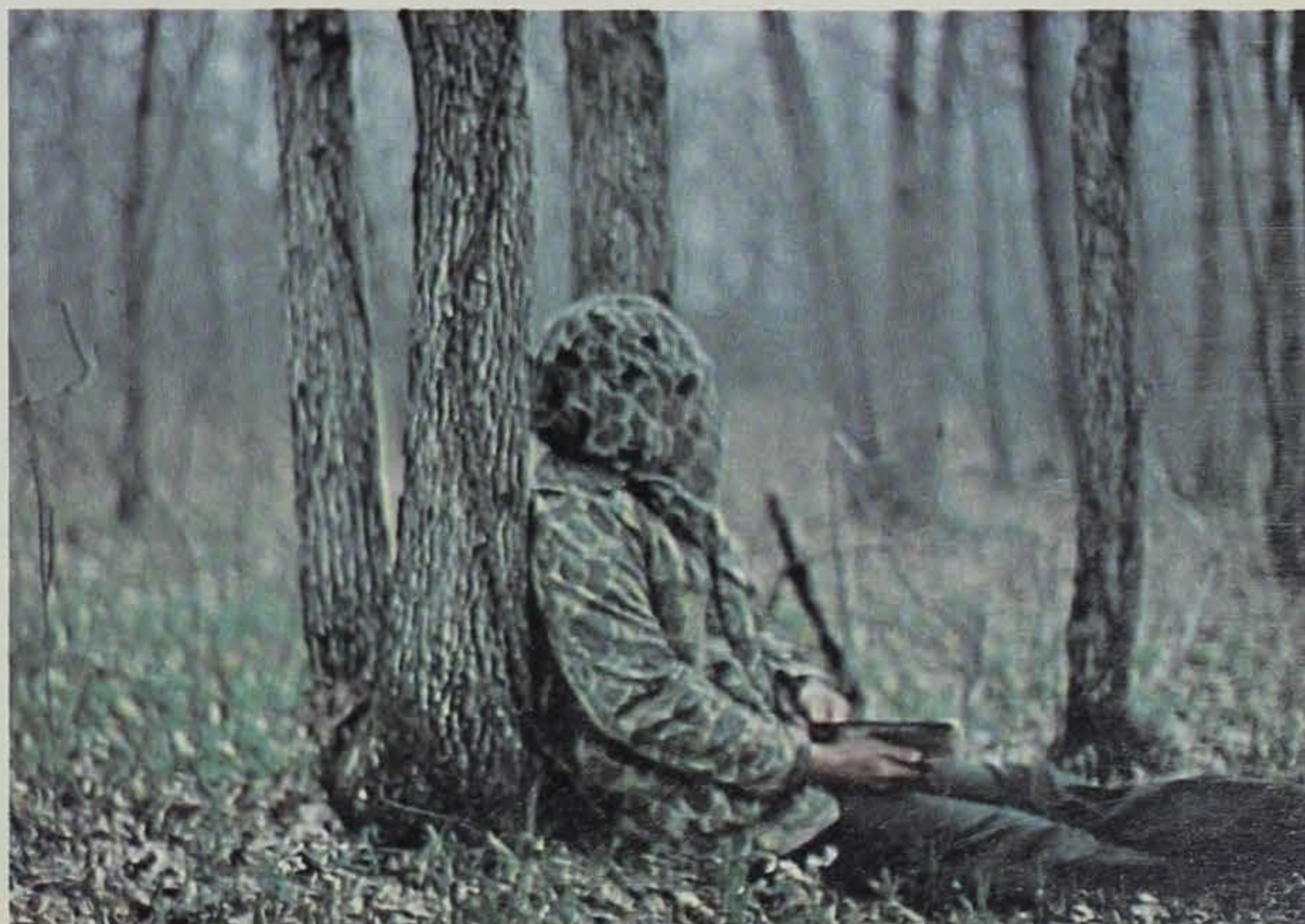
Gobblers are usually most responsive the first few hours of daylight. Some hunters, if they haven't done any good by 8:00 or 9:00,

will move to an area they have scouted out as a feeding area with the hopes of finding a jake, a yearling male turkey. Male turkeys do not breed their first year and small groups of jakes may sometimes be found in these feeding areas. Breeding males actually eat very little during the mating season. Special effort must be taken here to recognize the beard, only 2 to 4 inches long on jakes, as hens may be feeding in the same area. Usually a Tom turkey will look coal black in appearance as opposed to a hen whose brownish color nearly camouflages with the leafy forest floor.

A few pre-season scouting trips can pay high dividends. Although each hunting zone contains State forest lands open to public hunting, many private timbers surrounding State forests also contain good numbers of turkey. By visiting with the landowners, you may be able to get permission to hunt his land and get away from the competition on public lands. Any hunter who has had an old Tom coming to his call, then seen him run away unexpectedly and a few moments later heard human footsteps, knows what I'm referring to. Also, pre-season trips will give you a chance to sharpen your calling skills and possibly get a few pictures. It can be almost as exciting as the actual hunt.

How did my turkey hunting experience turn out which I told you about at the beginning of this article? Well, the old gobbler did cross the creek and he did circle around behind me, he did sneak up to me, he did spot me and he did, with a warning "pert," melt back into the oaks without me ever having a chance to fire a shot. Disappointed? Only for a few days, for you see I was one of the 117 successful hunters during the 1974 season. □

Camouflage and patience are two important factors in success.



Iowa Fish Diseases

BY VERNON SPYKERMAN
Fisheries Biologist



Catfish are susceptible to a particular viral disease.



Bacterial infections sometimes destroy fins.



Parasites sometimes cause blotches on the fish's body.

FISH, LIKE ALL OTHER ANIMALS, are subject to a variety of diseases. Among others, fish suffer from parasitic, bacterial, viral, environmental and nutritional diseases. Under natural conditions it is unlikely a severe outbreak of these diseases will occur. Only on occasion will fishermen see a large number of dead fish at one time and these deaths are generally due to pollution or "environmental disease" as it is classified. More commonly fishermen will see fish infected with one or more parasites and in general these parasites are not endangering the individual fish or the fish population.

The real problem with fish diseases occurs when fish are crowded and reared under unnatural conditions. In a natural environment, fish population densities aren't high enough to allow the easy spread of a contagious disease. In fish hatcheries, on the other hand, many times more fish are held in a given volume of water than under natural conditions. Just the fact a very large number of fish are held in close proximity to each other allows for an explosive situation to exist. Should a disease infestation occur where fish are being held in large numbers, massive fish mortalities may occur within a matter of days or even hours. This is why Iowa's fish hatchery personnel must constantly be alert for any signs of disease and be able to act quickly if a disease outbreak should occur. The diseases most commonly a problem to our hatcheries can be classified as parasitic, bacterial, and viral.

PARASITIC DISEASES

Parasitism is a common occurrence among nearly all animals and exists in nearly every major animal group. Parasites by themselves seldom cause a direct lethal effect. However, they can harm fish in a number of ways: by damaging tissue through their feeding action, by blockage of gills or other organs, or by diverting a major part of the food supply. Frequently the most serious harm parasites cause is stress which reduces the fish's resistance to more serious infections.

Parasites, particularly protozoans, are capable of building up tremendous populations in a very short time if conditions favor their existence. A majority of the protozoans which parasitize fish are found on the gills and body of the fish. Here they may damage tissue or block gill respiration.

Flukes or trematode worms may parasitize fish either externally or internally. The flukes which parasitize fish externally cause the most problems for fish producers. The adult fluke attaches to a fish either on the gills or on the body and begins to reproduce. By attaching to the fish, these flukes can cause serious wounds and also lower the resistance of the fish to secondary infections.

Flukes which parasitize fish internally are really not a serious problem to fish culturists but probably are of importance to fishermen. Larval flukes appear as yellowish cysts in the flesh. Fishermen often become concerned when these cysts are present and refer to the fish as "grubby." If practical, these cysts can be removed from the flesh and the fish will be edible after cooking.

Small, parasitic crustaceans can be a serious problem in hatcheries. Parasitic copepods generally harm fish by inflicting wounds where they attach to the fish's body. After the copepod has attached to the fish, and as it continues to grow, the wound will get larger, opening the way for secondary infections of protozoans or bacteria.

BACTERIAL DISEASES

Bacteria are minute, unicellular, plant-like microscopic organisms. These organisms are very common in almost all soil, water and air. In fact, the bacteria which harm fish are commonly found in the water and even on the fish itself without the fish showing signs of disease. In general, three conditions must occur before the bacteria will become numerous enough to harm the fish. First, the bacteria must be able to get into the body of the fish. Sometimes this occurs at the wound of

another parasite. Second, the bacteria must be able to multiply in the tissue of the fish. The tissue must provide the bacteria with the right nutrients, atmospheric conditions, and temperature. Third, the bacteria must be able to damage the fish tissue. Most commonly this is done by diffusion of bacterial chemicals which in turn destroy the tissue cells of the fish.

The bacterial infection may be either internal or limited to the external surface of the fish. Internally the bacteria multiply in the blood vessels and internal organs and gradually destroy them. Fish with internal infections may show such symptoms as protruding eyes, swollen abdomen or bloody areas within the body cavity or beneath the skin.

In the case of an external infection, the bacteria are limited to the external surface of the fish and gradually work deeper into the flesh. Many times the fish will have bloody wounds where the skin has been eroded away exposing the flesh below it. Also, the bacteria may infect the fins and completely destroy them.

Bacteria pose a serious threat to fish producers simply because many bacterial infections are not readily identifiable and may cause many deaths in a short period of time. For the fisherman who catches a fish with symptoms like those described above, the fish can be eaten after cooking. However it would be best to cut away infected areas or discard the entire fish in extreme cases. Generally, a very sick fish will not be caught on hook and line anyway.

VIRAL DISEASE

Viruses are submicroscopic bodies which are usually very much smaller than the smallest bacteria known. A virus must occupy a living cell.

Actually there are very few viral diseases of warm water fish known or suspect at the present time. One of the few is a disease called lymphocystis. This viral infection causes a wart-like growth on the external surface of the fish. In Iowa, this disease seems to be most commonly found on the walleye. Many people become alarmed when they see these growths on fish but the disease is seldom if ever fatal to the fish and does not affect its edibility.

A viral disease in channel catfish is far more serious than lymphocystis and it can greatly affect the hatchery production of channel catfish. Since all viral diseases are extremely difficult to stop or control, great caution is taken to avoid introduction of this disease to our catfish hatcheries.

There are five major viral diseases of cold water fish (trout and salmon). Fortunately, these diseases have never been found in our three state trout hatcheries. These diseases can be spread easily when infected fish are transported from one area to another and frequently this happens in states which rely on fish produced in other states. Since trout for Iowa's program are produced almost entirely by our own trout hatcheries, the chance of importing one of these diseases is remote.

Iowa's fish hatcheries are not far removed from the typical Iowa livestock producer. Just as the Iowa livestock producer must face inclement weather, dietary problems, and diseases so must Iowa's fish hatchery personnel. Just as the livestock producer struggles to make a profit, Iowa's fish hatcheries struggle to make a profit for Iowa anglers by producing the fish needed to provide good fishing. Hopefully these fish will continue to be produced to maintain the excellent fishery resources we have in Iowa.

Author's Note: The photographs accompanying this article were provided through the courtesy of Thomas L. Wellborn, Jr., Extension Wildlife and Fisheries Department, Mississippi State University. □

FROM THE WARDEN'S DIARY



By
Rex Emerson,
Law Enforcement Supervisor

STEPPING QUIETLY out of the car with my clipboard in hand and being careful not to slam the car door, I checked the wind velocity and the time. It was 45 minutes before sunrise. Time to start one of my annual wildlife counts. This was a rooster pheasant crowing count. It sure is hard to pick a morning this time of the year when the wind isn't blowing. On this count we make ten stops a mile apart and count all the rooster pheasants that crow during a two minute period. All other game is also counted on these routes. This is just one of the many counts that we make during the year. From these counts the Conservation Commission will determine a guideline for setting hunting seasons. We can't tell just how many pheasants are in the state, but they indicate if the population is up or down.

The last of April is the mating season for much of the wildlife. The rooster pheasant has picked out a small area for his little kingdom. Early in the mornings he will crow about every two minutes, trying to attract some hens. If I had slammed the car door they would have crowed more than usual and would have made an incorrect count. A rooster will average about 4 or 5 hens in his harem. If another rooster gets too close, the fight is on, and they are vicious fighters. I have seen them fight until one actually gets mortally wounded. One rooster pheasant for about 8 hens would be sufficient if they were equally distributed. Too many roosters would cause an excessive amount of fighting and many of the eggs would not be fertile. This is the reason it is important that we have a hunting season on the rooster pheasants.

After the count was totaled and a stop was made for some bacon and eggs, I picked up the boat and headed for the river. The water is still a little too cold for catfish to be biting very well. Going downstream the motor was running just fast enough to keep the boat in close to shore so I could see any lines that might be tied to the bank. As I went around a fallen tree I could see a man and a woman fishing with rods and reels. When the lady fisherman looked up and saw me she dropped the fish pole like the handle had suddenly gotten hot. After tying the boat to the roots of a tree I asked to see their fishing licenses. The lady informed me that she wasn't fishing. It seemed that her husband (who had a license) had two fish poles and she was just holding one for him. She was downright upset when she got a citation to go see the judge for fishing without a license.

CLASSROOM CORNER



By **Curt Powell,**
Administrator, Conservation Education Center

SPRING IS DISCOVERY TIME for many people in Iowa. There is so much to see and do. Winter's mat of snow has covered the land for so long, it makes one wonder if earth can rejuvenate itself. Can it?

A casual stroll through a city park, state park, woodland area or wildlife area will show that earth indeed has brought forth life that has been lying dormant all winter. You can truly discover and see the wonders of nature all about you.

Dutchman's breeches are named for their obvious resemblance to a pair of baggy breeches hanging upside down. It generally is found growing in the woods and flowers from April into June. A picture of this wild flower may be found on the back cover.

Dutchman's breeches and all other plants play an important part in the balance of nature. Green plants differ from all other things on earth in that they make and provide food on which all other animals depend. They are energy producing organisms. From them certain animals obtain food which they turn into protein and they in turn are eaten by other animals which utilize the protein. It is important to help young people understand the interdependence of living things by observation and investigation of the part plants play in the balance of nature. Would you say that a field excursion would help in this?

Some of the questions one might ask are: 1. Are the needs of wild plants different from domestic plants; 2. which plants provide food for human and animal uses; 3. How many different plants were found on your field trip; 4. Are all of the plants native to the area; and, 5. Which creatures might use specific plants? There are just a few questions you might have in building a lesson plan for your young people.

Why not write to us for our free booklet **WORKING WITH CHILDREN IN THE OUTDOORS?** It gives many helpful hints and suggestions about projects and things to do with young people. Request the booklet from us at the Conservation Education Center, Route 1, Box 138C, Guthrie Center, Iowa, 50115.

Down the river were some illegal lines that had to be cut. Someone had attached them to tree limbs that were hanging out over the river. Bank lines are legal in the rivers south of Highway 30 if they are attached to the bank with the owner's name and address on them. Each fisherman may have five bank lines with a total of no more than fifteen hooks, and they must be checked at least every 24 hours.

About a mile down the river I saw a line coming out into the river from someplace up on the bank. I tied up the boat and crawled up the high bank. There was a rod and reel laying on the ground. About twenty feet from the rod was a car with a woman sitting in it. She said she didn't have a fishing license and she wasn't fishing. Her gentleman friend had left that pole there. It seemed that he had another pole and had gone down the river to another spot. I walked down the river and

found the old gentleman about a quarter of a mile from the car. When he was told that either his lady friend was fishing without a license, or he wasn't in attendance of the fish pole up there by the car he had to think about that for a little while. He said, "Well, she---well, I---no, she---. Oh, give me the ticket." When fishing with pole and line, one must be in attendance of his lines at all times. Two fishing poles may be used by each fisherman with no more than two hooks on each one.

* * * * *

There were a few nice fish caught today. When the water warms up it should get a lot better. But you don't always have to catch a lot of fish to enjoy yourself on a nice sunshiny spring day. I've heard it said, and I'm sure it's true, fishing (providing you have a license) is one way to loaf without feeling guilty. □

