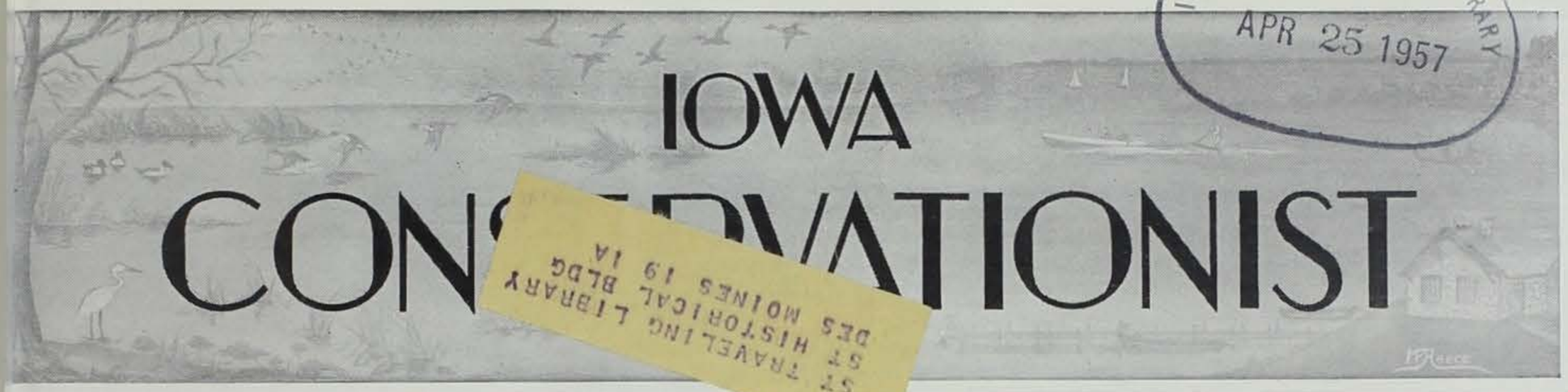


IOWA CONSERVATIONIST

olume 16 April, 195[illegible] Number 4

THE LAKES' WALLEYE PROSPECTS

THE NORTHERN PIKE STORY

Tom Moen
Fisheries Biologist
State Conservation Commission

Old *Esox lucius* is known by any common names—some of em with a sulphurous tinge— it this lean and lanky member the pike family has been offially dubbed "the northern pike". hether you know him by this mmon name, or by jackfish, ckerel, snake, or the Chippewas' *-no-shay,* he is a fish to be reected.

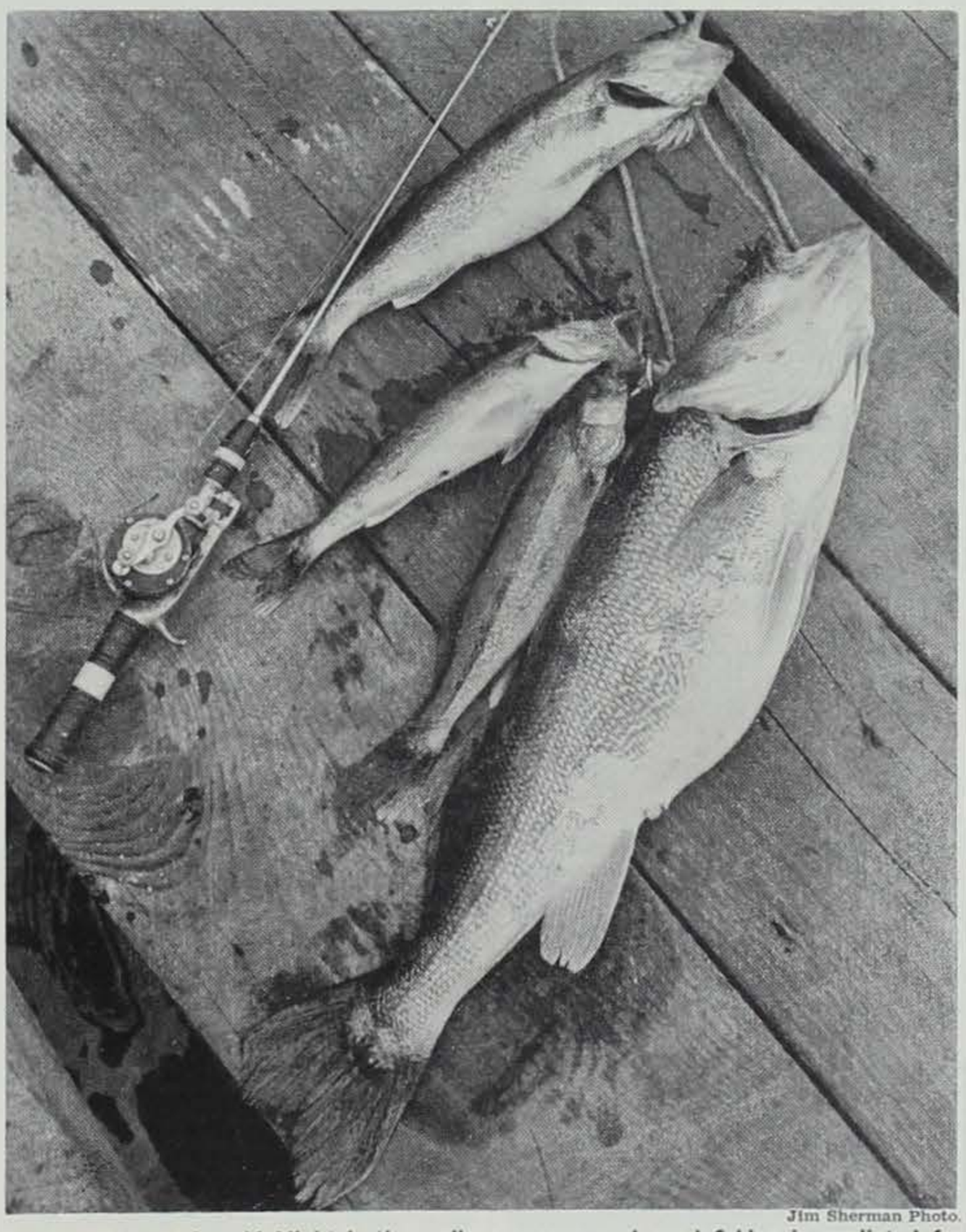
Iowa anglers sometimes mistake e northern for a pickerel, and shermen may insist that they ve caught muskies when they ve actually caught odd-colored rthern pike. There is probably ss than one chance in a million, wever, that you will catch either true pickerel or a musky in Iowa aters. If you're interested in beming more familiar with the fferences in these three members the pike family, study your py of "Iowa Fish and Fishing".

Long History

The northern pike has had a ng history as one of the world's vorite game fish. Our old friend aak Walton devoted an entire apter in the "The Compleat ngler" to this species, concluding e chapter with a note on roast ke, which he thought was "... o good for any but anglers and nest men". Harriet Carlander, her "History of Fish and Fishg in the Upper Mississippi iver", notes that pike (presumly northerns, but not always) ere mentioned in many of the rliest reports of angling in the ississippi.

In my own mind, the most imrtant feature of the northern's story is that the species has own a vast decline in abundance nce the time of our grandparents. his decline is typical of many rms that have failed to maintin their original abundance. At resent, it is often difficult to find northern pike in the streams and vers that once contained thou-

(Continued on page 126)



Jim Sherman Photo.

Next month's outdoor highlight is the walleye season, and good fishing is predicted for several natural lakes. The 15-inchers are superb eating and are sporty on light tackle. Walleyes like the 9-pound walloper above are sporty on almost anything.

SPRING—AND THE LITTERBUGS HATCH AGAIN

When the warm spring winds blow over the land and the average Iowan turns his face to the open road, the Litterbug comes along.

He doesn't add much to the general feeling of vernal vim, though. He cramps the style of a million picnics and is about as welcome on the highway as sugar in the gas tank.

Not that the Litterbug is always a bad sort. May be pretty normal and likeable, in fact. It's his spoor that's bothersome: the empty cans, broken glass, torn sacks, candy wrappers and other signs of his passing.

He's found almost anywhere that's worth visiting, and in the wildest corners of America he can get under your skin as no chigger or mosquito ever could.

Take that park ranger at Grand Canyon, a stolid, long-suffering man who has hardened to anything that fire, flood or Washington could throw at him. In the week that we knew him—in the full,

(Continued on page 125)

E. T. Rose
Fisheries Biologist
State Conservation Commission

Every nation in the world has had its share of forecasters of coming events — prophets who either base their statements on past records or upon some extra-sensory perception.

Sometimes we biologists are accused of using the ouija board, crystal ball or some sixth sense to obtain the messages that emanate from the laboratory. Actually, such predictions are based solely upon results of netting surveys, knowledge of available food supplies, and past census records.

This is particularly true of any predictions concerning that wily favorite, the walleye pike.

Small Lakes

Any forecast of walleye fishing can be made only for waters in which the fish are found. Most of the natural lakes have some walleyes. However, the winter of 1955-56 was severe and many walleyes perished in some of the shallow lakes. These have all been restocked, but yearling walleyes are usually too small to interest the inveterate pike fisherman. Although this year's walleye potential has been reduced somewhat, prospects are still good in some of the smaller lakes. Ingham Lake in Emmet County is a distinct possibility; it has a good walleye population now and shouldn't be overlooked. They won't be lunkers but there's lots of 17-inchers that have developed since the first fry stocking in 1953. There is no excess of food in this lake, and the pike should be hungry.

Also, Lost Island Lake at Ruthven could be a bonanza this year. It has a tremendous population of walleyes as indicated by electric shocking surveys and seining. They've fed on little bullheads so long that a dark artificial plug of spinner-fly combination may be very tempting to them. Local anglers cast chubs or frogs from shore out to likely-looking shoal areas and have good success, especially in autumn.

Big Lakes

Black Hawk had some excellent

(Continued on page 127)

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THE WATER CURE FOR SICK LAND

John Madson

Parts of southwest Iowa, stunned by drought for several seasons, and torn by erosion for decades, are finding a measure of relief for their land problems.

Erosion has always been a headache in the rolling loess hills above the Missouri River's floodplain where some farm creeks have cut gorges up to sixty feet deep. Heavy rains sweep away countless tons of topsoil, deepen these canyons, and swallow entire bridges as their approaches are undermined. In Pottawattamie County, 57 bridges were once replaced after a single heavy downpour.

Such alluvial chaos may be on the way out in some areas. Engineers in Fremont, Mills and other southwestern counties are throwing special check dams across deep, eroding ravines, impounding water runoff and allowing the wounds of erosion to heal rapidly.

* * * * * * * * * * *

Fremont County alone has 80 of these impoundments, most of which appear to be large roadside farm ponds. In each case a broad, elevated road bed serves as the dam and a short steel bridge spans a concrete spillway. Beside the road is a large pond that may be nearly forty feet deep—a drowned gulley that had been a running sore on the landscape.

Best Solution

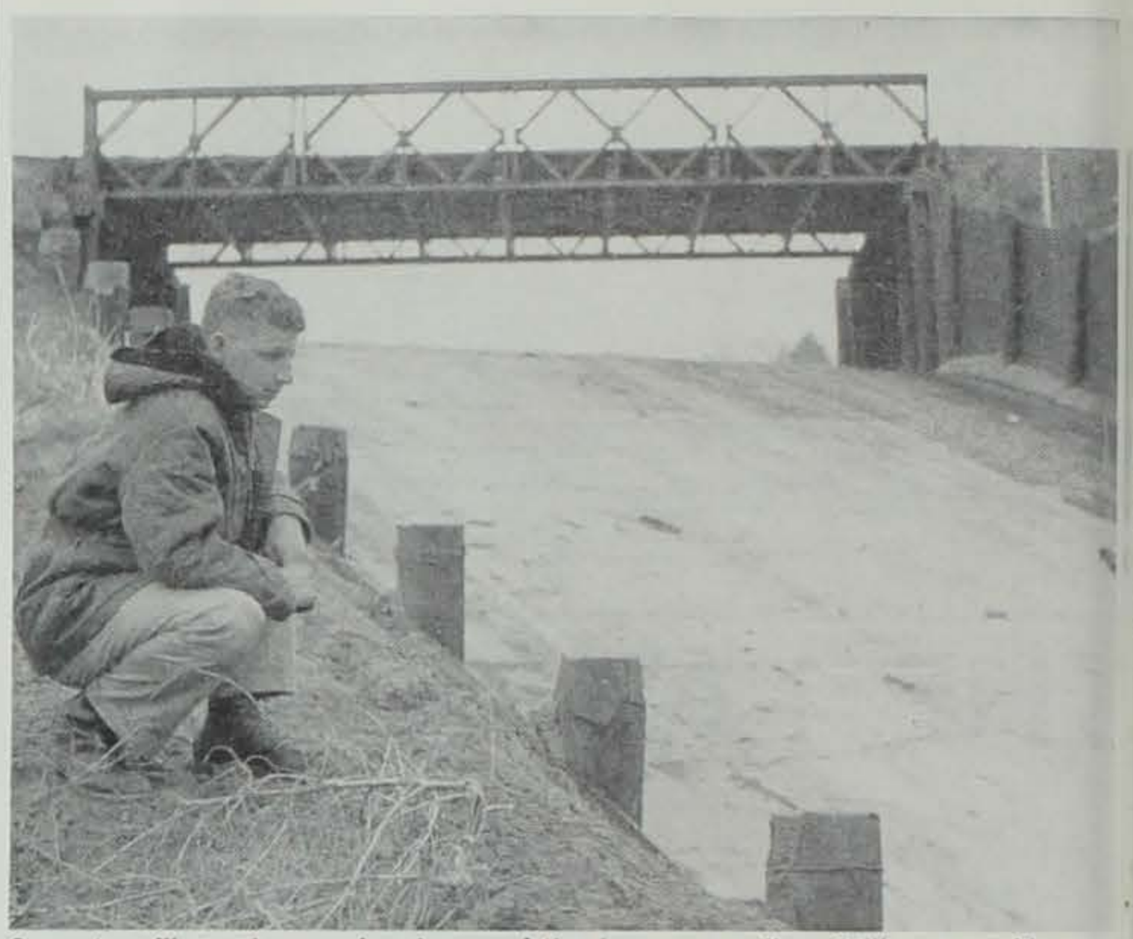
Ralph Greenwood, former Fremont County engineer who worked a lot with these check dams, believes that they may be the best solution for deep erosion yet developed in southwest Iowa. Construction is simple, cost is often surprisingly low, and there are no bridge maintenance problems.

On a typical project, a county road leads to a deep ravine spanned by a high bridge. The ravine may be fifty feet deep, with every promise of becoming even deeper.

On the "upstream" side of the road, large amounts of earth are borrowed to build up the road bed into a broad, high levee across the gorge. The existing bridge is removed. At one side of the gulley, on solid ground, a spillway is constructed to provide an overflow point for rising waters. The only bridge needed is a small, permanent structure spanning the spillway.

The end result is a county road atop an earthen levee, with a deep impoundment beside this road-dam that becomes shallower with each rain.

For as the silt-laden creek is slowed by the static waters of the pond, the silt load settles out. According to Greenwood, about 15 small impoundments in Fremont County have already silted in completely and others are filling rapidly. He estimates that a 12-acre pond, 35 feet deep, will become level farmland in about 12 years. Depending, of course, on runoff from the watershed.



Concrete spillways have replaced some of the deep, raw gullies. Spillways provide overflows for impounded waters, and bridges are safe from flash floods.

* * * * * * * * * * *

Doomed

As water bodies, these impoundments are doomed. But while landowners are waiting for the ponds to heal their farms, they have stock water and emergency water supplies for farm fires. Many of the ponds are near farmsteads. The owners also have backyard boating, swimming and fishing areas that are premium features in that part of the state.

Good Fishing

Nearly all the impoundments have been stocked with fish. The ponds of three acres or less—waters with less than five years of life expectancy—are supplied with bullheads only. Larger ponds that range up to 12 acres are being equipped with largemouth bass, bluegills and crappies.

Fish show good growth in the ponds, and fingerling bass stocked only two years ago have already reached 10 inches. In some ponds originally stocked with adult bullheads the fish have become quite large, and Greenwood told us that the biggest bullhead he'd ever seen had come from such an impoundment.

Ed Neavor, Conservation Officer for Fremont and Page counties, said that "some of the ponds will provide good fishing this summer. Last fall one of the bigger ponds was producing 12-inch bass, and the fish are getting bigger all the time". Neavor also warned that a bass hooked in these waters has more than a fighting chance. Large trees were felled in the upper basins of the larger ponds to aid as silt traps, and bass lurking in the sunken branches of large elms and oaks have things pretty much their own way. "When you hook a bass in cover like that," the officer explained, "you don't play him much. You just horse him in and hope."

Clear Water

The water is surprisingly clear in many of these roadside ponds, for the silt loads brought in by feeder creeks evidently drop out rapidly. On bright days Neavor has looked ten feet into the depths and watched bass swimming among the moss-covered upper branches of submerged trees. Even after strong rains he has noted that the water often remains quite clear. On a recent visit to one of the larger ponds we saw that the water is not brown and turbid, but is a deep blue-green that's not a whit murkier than some of our natural lakes.

Such attractive areas have been hailed by local farmers as wise investments. Twenty of the impoundments were completed last year in Fremont County, bringing that county's total to 80 since the beginning of the program in 1952. Since then, a number of the original ponds have silted completely in, filling deep gullies with upland dirt that would have muddied the Missouri and have been lost forever.

Individual counties, of course, aren't charged directly with mending private land. But one of their main interests is the maintenance of good roads and bridges—an impossible job when big gullies may devour bridge spans with an almost endless appetite. Greenwood has been contacted by several Nebraska counties that are "very interested" in the program, and he has received inquiries from Oklahoma, California and New Mexico. Neighboring Mills County has begun similar structures and Harrison County is also taking action.

So eventually, flat fields of alluvial silt may replace the running ravines of southwest Iowa. But no one seems to be in much of a hurry for it, because until then there will be deep ponds, clear water and fish that are getting bigger all the time.

The deep, water-filled gullies have been stocked with fish—are open to angling with landowner's permission. The ponds may be 35 feet deep, and Officer Ed Neavor reports recently-stocked bass up to 12 inches long.

SKINNING A BULLHEAD

More of us would probably enjoy tching and eating bullheads if weren't for that unpleasant job between. Actually, the task of inning these fish isn't difficult ice you have learned to grasp e fish without being horned.

The actual skin removal, as own above, is quite easy and ally works. All you need is a arp jackknife. Time per bull-ead: 15 seconds.

(1) Feel for slight depression st ahead of the dorsal fin. Cut re as shown, not too wide, deep ough to penetrate backbone and kill fish. (2) Cut away from your hand, removing the dorsal fin and horn. (Bigger the bullhead, the tougher the horn.) Make this cut as shallow as possible. (3) Keeping same firm grip, one horn protruding between index and middle fingers, slit just under skin all the way down from backbone to tail. (4) Keeping left hand in the same position, grasp fish with right hand as shown and bend tail down toward head, causing backbone to protrude. (5) Grip the end of backbone firmly between thumb and knife; pull up, out. If cuts have been made as shown, entrails will stay with the head. *New York State Conservationist.*

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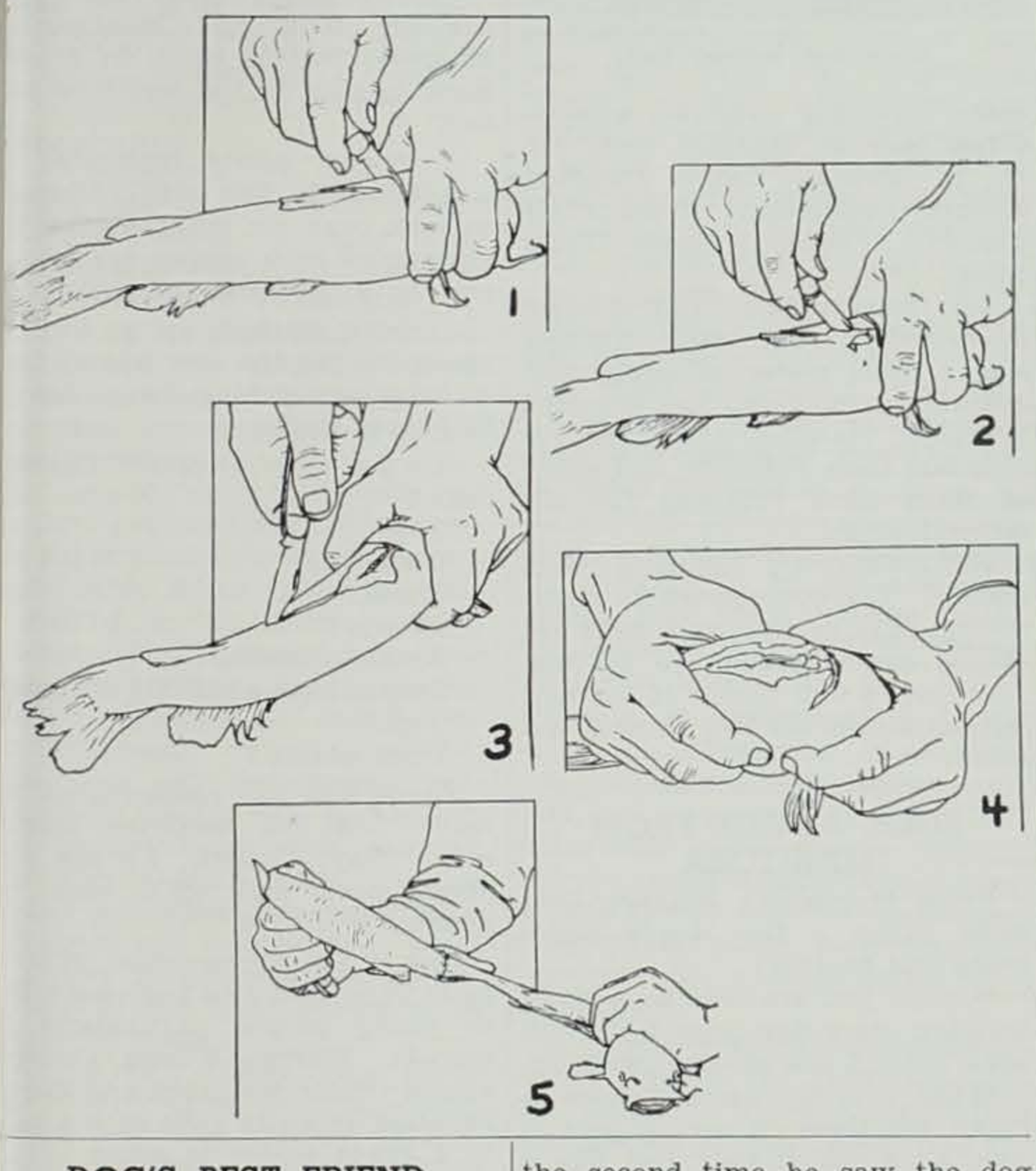

DOG'S BEST FRIEND

A dog's best friend is—a dog. t least, it proved so in this par-icular case.

Cas Risner, farmer, owns two ogs called Bingo and Sandy. They re fanatics about hunting—often oing out alone when their master s too busy to hunt.

Late one afternoon, Bingo rushed ome barking excitedly. He would ake short runs toward the woods, hen come back in a cajoling man-er. Cas figured he had a squirrel reed, but waved the dog aside and tarted his before-dark chores ince it was getting late.

Bingo entered the woods again nd barked "treed". He kept at it o persistently that Cas finally ropped his chores, picked up his un and decided to get it over vith.

Arriving at the spot, Cas began ooking into the tree, but Bingo topped barking and headed far-her out into the woods where he arked again. Cas followed. For the second time he saw the dog had "lied", a trick Bingo had never pulled before. Cas scolded the dog soundly, but Bingo didn't stay to listen—out he went and barked treed once more.

It was so unlike the dog's general character that Cas finally decided Bingo was trying to tell him something. He followed the dog. Bingo ran ahead, barked every few minutes, looked back to be sure his master was following and bore on eagerly through the woods.

He led Cas to an old wire fence, deep in the solitary backwoods, where the man found Bingo's constant companion, Sandy, almost dead. The dog had caught his leg in the wire while trying to get over the fence, and had struggled until he was helpless. In that particular part of the woods, Sandy could have hung there six months to a year without being found.

Bingo had used the only method he knew to get Cas to help his friend and hunting companion.—*Outdoor Notes, Joe A. Small.*

CLEAR LAKE ANGLING IN 1956

Richard L. Ridenhour
Iowa Cooperative Fisheries Research Unit, Iowa State College, Ames

"How long can they take it?" This question was often asked concerning the yellow bass in Clear Lake during August 1954 and the summer of 1955 when fishermen were literally catching tons of "streakers" every week. It now seems probable that not enough were caught. In the fall of 1955 many of the larger yellow bass died—probably because they were old and there were too many of them. These yellow bass were obviously thin and were probably in a weakened condition. A sudden drop in water temperature just before the mass mortality may have been the immediate cause of death. Last summer when fishermen could not catch many yellow bass, many of the fishermen thought that the "streakers had had it". Our studies, however, do not indicate that the yellow bass had been overfished. They had been subjected to heavy fishing, but there were still lots of bass left before the mass mortality.

The Iowa Cooperative Fisheries Research Unit conducted a creel census at Clear Lake last summer as it has since 1953. Since there was a noticeable change in the fishing last summer, it seems advisable to report how poor the fishing was in 1956, how it compared with other years, and what the prospects are for 1957.

The following table summarizes our estimates of the fishing success in the summer of 1956.

Summary of the summer fishing at Clear Lake, Iowa, based on creel census results for June 21-August 31, 1956

	Number	Percentage
Total catch	124,500	
Total fisherman hours	200,800	
Catch per fisherman hour	0.62	
Catch in pounds per acre	12.3	
Species composition:		
Yellow bass	17,400	14.0
Bullhead	75,000	60.2
Yellow perch	1,100	0.9
Walleye	610	0.5
Crappie	4,700	3.8
Bluegill	24,400	19.6
Northern pike	80	0.1
Others*	1,200	1.0

* Channel catfish, largemouth bass, white bass, pumpkinseeds, and carp.

But what do those figures mean? They mean that from June 21 through August fishermen spent about 200,000 hours to catch a little over 124,000 fish. This is a catch of about six-tenths of a fish per fisherman hour which is the same as saying that a fisherman spent an average of 1.6 hours to catch one fish. Most of the fish caught were bullheads, followed by bluegills, yellow bass, crappies, yellow perch, walleyes, and northern pike.

Wading Was Best

To find out which group of fishermen had the best luck, the catch was divided according to the various types of fishing: boat, dock, shore, and wading. Boat fishing, which is the most popular method of fishing at Clear Lake, accounted for over half of the total catch, 61,500 fish caught at the rate of 0.54 fish per fisherman hour. Dock fishermen had a little better catch per fisherman hour and caught about 40,900 fish. Shore fishing was the least productive with about 14,000 hours being spent to

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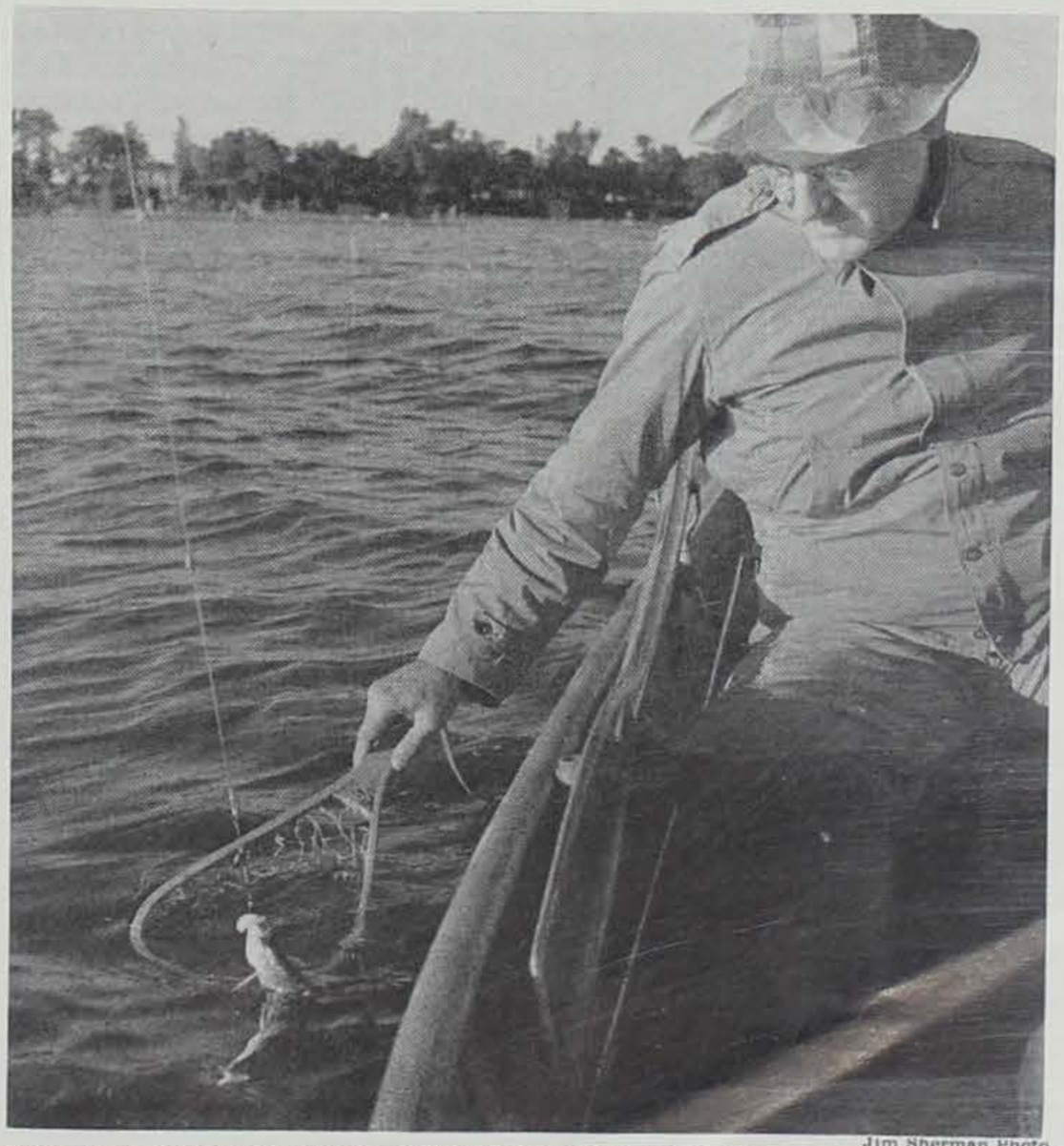


Jim Sherman Photo.

Yellow bass are the trademark of Clear Lake, where the delicious panfish exist in large numbers. Heavy fishing for them benefits the bass, the angler, and other important game fish.

FOR TEACHERS: SUN, SAND AND SEMINAR

A school teacher, if she's kin to Croesus, may spend her summer at Bar Harbor or Banff. Or she may broaden her horizons with a quick junket to northern Europe and a season with the Baltic beach set.

But there's a better chance that she'll spend the summer 1) working, 2) studying, and 3) wishing that she was doing neither, but was at Bar Harbor or Banff. For the teacher who is staying in Iowa this summer, there's a fourth possibility—an outdoor college that pays off in credits and a first-name introduction to Mother Nature.

At Springbrook State Park just north of Guthrie Center in central Iowa, three summer school sessions begin June 9, June 30 and July 31. Each session offers three semester hours of college credit and teachers attending two of the three-week sessions receive a total of six semester hours of credit, enough to ordinarily meet requirements for teaching certificate renewal. Two consecutive sessions are acceptable as natural science requirements for certification.

Although all courses are titled "Iowa Conservation Problems", they place emphasis on a wide range of topics, running the gamut from rocks to raccoons. The first and third sessions stress wildlife, balance in nature and soil nutrients. The second session deals with soil, water and forest resources.

They aren't snap courses; the school is a packed schedule of instruction by some of the state's outstanding authorities in the natural sciences and the outdoors. The factor that elevates the school above all others is the field instruction. Teachers learn the intimate features of the outdoors by actually observing natural resources, resource problems and conservation programs in action. Most of the study is spent in the woods, fields and around water, learning under the direction of experts. An important part of the school is the teaching aids constructed in the modern camp shop—aids invaluable for interpreting material to students in the teachers' home schools.

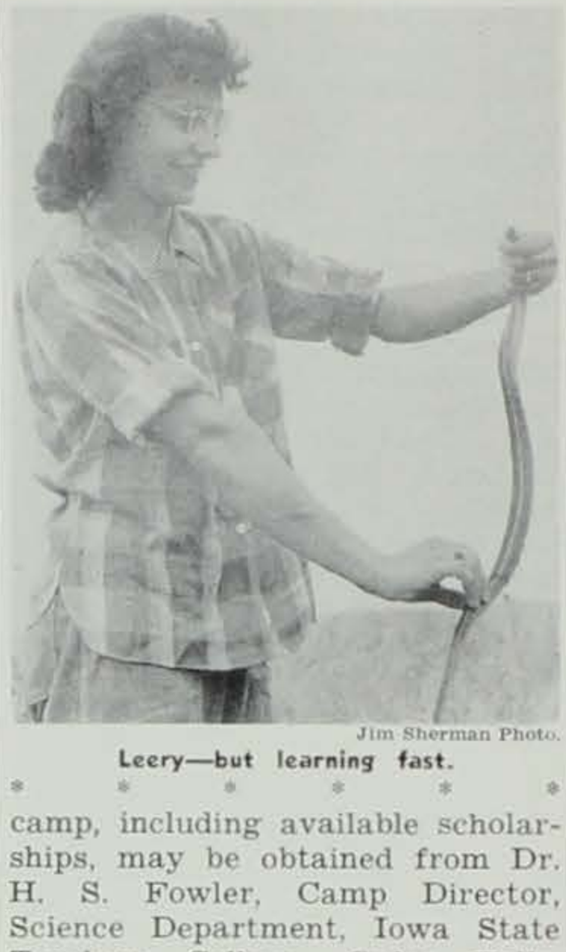
Springbrook is a large park with rugged, heavily wooded hills. There's a small lake set in these hills with a beach, bath house, and supervision of trained lifeguards. During off hours there's swimming, boating, squaredancing and crafts. For anyone interested, there's photographic instruction, cook-outs and watermelon feeds. There's even instruction in the mystic art of catching fish.

The physical facilities of the Teachers' Camp are excellent. Sleeping cabins hold eight teachers comfortably; toilet and shower facilities are convenient. There are full laundry facilities. Teaching equipment includes a complete library, laboratory, photographic darkroom, and a small but complete crafts and industrial arts shop. The food is superb. Teachers have no part in meal preparation or cleanup. At mealtime they simply go to the dining hall, eat, and leave. Visitors are welcome.

There's a price tag, but most teachers attend the camp on scholarships and with little cost to themselves. Cost per session, including tuition, board and room, is $81.30 for undergraduates and $85.80 for graduate students. Scholarships which pay all or part of the expenses are available without obligation from Soil Conservation Districts, sportsmen's groups, women's clubs and other organizations. Full information on the camp, including available scholarships, may be obtained from Dr. H. S. Fowler, Camp Director, Science Department, Iowa State Teachers College, Cedar Falls, Iowa.

Jim Sherman Photo.

The "Chiefs" at the Conservation Camp are experts in their fields. Fisheries biologist Harry Harrison tells the teachers about fish; other instructors cover wildlife, forestry, soils and other subjects.



Jim Sherman Photo.

Leery—but learning fast.

The Conservation Camp is never overwhelmed, but each summer sees a solid roster of applicants. Since 1950 the camp has provided a unique learning adventure for over 600 Iowa teachers, and many of them have returned for additional study.

Write today for complete information. The coursework is fascinating, may be free, and there are official course credits to be had. And there's still plenty of summer left after that for Bar Harbor and Banff.

BOOT ADVICE FROM MANITOBA

From Manitoba's *Wildlife Crusader* come a few words about boots and booting:

"Unless you are used to a lot of walking every day, your feet swell some after a few miles of walking.

When you buy hunting shoes or boots, try them on over a pair of hunting socks, if they feel like a good comfortable fit, buy the shoes or boots a half size larger. This will allow your feet to swell a little and not make the shoes or boots too tight for comfort.

When hunting shoes or boots are to be worn during freezing weather conditions, remember that too tight shoes or boots are extremely cold, as they do not allow for proper circulation and insulation of the feet."

Drying Boots

"There are a number of ways to dry out leather or rubber boots. The method you use depends on the material that is available.

1. Take crumpled newspaper and stuff it into the boots as tightly as possible. The paper will absorb the moisture. Let them stand overnight, then remove the paper.

2. Heat sawdust until it is dry and warm, then pour it into the boots. The sawdust will absorb the moisture. Let stand overnight, then remove the sawdust.

3. If oats are available, heat oats until warm and fill your boots with the oats, which will absorb the moisture. Let stand overnight, then remove the oats.

4. If nothing is available that will absorb moisture and if you have to dry leather boots (not rubber) heat a handful of clean pebbles and pour them into the boots. Shake the pebbles around in the boots and let stand for half an hour. Remove the pebbles, reheat them, and put them back into the boots. Repeat until boots are dry, then immediately use boot dressing on the leather.

WARDENS TALES

Christie Hein, Conservation Officer for Mills and Montgomery counties, lent a hand to a new duck hunter in his territory last fall.

A friend, newly interested in waterfowling, had asked Christie to look over his outfit at the beginning of duck season and advise him on equipment and methods.

Christie worked up a sort of check list for the new hunter that included everything from decoys to proper shells.

"Do you have waders?" Christie asked.

"Yep."

"Duck call?"

"Check."

"Decoys?"

"About a dozen."

"Do you have a hunting license?"

"Yep."

"Duck stamp?"

There was an embarrassed silence, and the neophyte hunter said: "Say, Christie, I'll see you about noon and we'll take up where we left off."

One of the conservation officer's most important jobs is giving talks to young people, particularly in schools. Warren Wilson, Conservation Officer for Story and Boone counties, recently gave such a talk to a grade school in Ames.

At the end of the talk, he threw the floor open to questions. The kids were eager to stall off the return to class as long as possible, and asked every question in the book.

Finally, during a lull, a little girl desperately queried, "Mr. Wilson, don't you ever use notes or anything when you give a talk?"

"No," Warren answered, "I never use notes. I'm an extemporaneous speaker."

"Oh," said the little girl.

"Do you know what 'extemporaneous' means?" Warren asked.

There was a brief pause. "Does it mean 'awful'?" asked the child.

The common name "toad stool" is a form of the German name *Todestuhl*, which means "death chair."

True cranes fly with their necks outstretched. Herons, pelicans and storks fly with their necks doubled over their backs.

hose lines at th' bottom are canals, t the ones farther up are highways. u can tell by the litter strewn on the sides."

* * * * *

itterbugs . . .

(Continued from page 121)

antic flush of the tourist season he lost control only once. That as when he thought of the bliz- rd of Kleenex tissue that de- ended on his park each summer d drifted into roadside shrubs r miles. Kleenex to that ranger as what the cornborer is to the wa farmer.

Of course, each park man has s own pet bugaboo. With some s paper tissues, with others it's per cups. Some levy a lifetime hatred on the common camp tchet. But they all have one ing in common—a deepseated, most psychopathic disdain for e Litterbug.

So does any experienced out- orsman, even if he's just an ex- rt backyard fry cook. Anyone no spends much time outdoors ually learns how to conduct him- lf there and realizes that a set proper manners is just as im- rtant in the quiet places as in drawing room.

We haven't known very many al country types, but there have en a few. Old Charley Thomp- n, for instance, a leathery little -Iowan who had dug prospect les from Deer Lodge to Nogales his fifty years in the desert.

Charley was a salty old bachelor ho wasn't much for the niceties life, and was the only man I've nown who ate beans from a can ith his fingers. But there were vo things that Charley always sisted on: (1) a flower of some rt with his evening meal, and (2) a painfully neat camp. He never left a camp, as far as I know, without thoroughly policing the area. He had nothing but scorn for the dude Litterbugs who hunted out of Tucson.

It's the same way in Iowa, where we have some fine outdoorsmen and others who are pretty sloppy. The men who *really* know their way around the brushier parts of the landscape almost always take sharp interest in outdoor manners and neat campkeeping.

This is particularly important in Iowa, where public playgrounds are limited and often crammed with people from May to October. Park officers can't possibly hope to keep state parks spotless, but they do a good job considering. Sooner or later, the parks get cleaned up even though it channels a lot of man-hours away from more important maintenance jobs. But little can be done for the other places—the fishing access areas, public hunting grounds, roadside parks and others—that have no regular custodians to look after them. Such small areas, left to the mercy of the public, may lapse into deplorable shape. Tossing away the odd milk carton is bad enough, but some citizens may dump their weekly garbage there. It's difficult to escape the conclusion that their porcine traits are probably reflected in everything else they do.

But most Litterbugs, as we've noted, are just folks. They each toss away some little oddment of junk, not important in itself, but which adds to the general clutter. The end result is thousands of tons of junk strewn over the landscape, along public roads, in parks, and anywhere the general public disports itself.

A recent Highway Commission report reflects the magnitude of the problem. It was estimated that $94,000 is spent each year to glean trash from our roadsides, not to mention an additional $10,000 payment for trash damage to mowers, trucks, and other vehicles driven along the highway ditches. We don't know of any such cost estimate for state areas, but it might make a taxpayer wince.

The problems of littering have been bandied around a lot by state, county and city officials who often end up advocating stiffer laws. Enforcing the law to the litter, you might say.

Such an idea is almost as poor as that pun. Laws that cannot be adequately enforced are less than useless and the littering problem is literally as big as all outdoors. Some cities have special police squads that do a good job on a local level, but policing anything beyond that is quite impractical. Certain aids have been suggested, such as paper trash bags for cars, and the use of popular censure. For instance, anyone seen throwing trash along the highway might get three knowing honks and a dirty look from a passing driver. In parks, maybe a subtle comment like "Hey, hog! Pick up the melon rind!"

However, the only real solution is prideful use of the outdoors, and the detached courtesy of allowing others to enjoy it too. Man can't improve on natural beauty; anything he adds only detracts, particularly if the addition is the offscourings of his daily life. This debris—the excrement of our technology—belongs on our midden heaps and not in the few quiet, gentle places that are left.

Think on it.

Jim Sherman Photo.

Macbride's new dam is nearly completed, and will be 29 feet higher than the old structure. Construction at Macbride is under direction of the U. S. Corps of Army Engineers.

* * * * * * * * * * * *

A NEW LAKE MACBRIDE

Conservation Commission engineers report that the reconstruction of Lake Macbride is proceeding rapidly, and that the enlarged lake basin may be ready for flooding this summer.

By late March, two new wells had been completed, revision of the sanitary sewer was nearing completion, cement grout was being pumped into bedrock crevices beneath the dam, and the old bath house was being torn down. Extensive clearing of brush and trees in the lake basin has been done.

Lake Macbride is undergoing a complete facelifting. The dam is being raised 29 feet and will enlarge the present 150-acre lake to an estimated 934 acres. The dam is being rebuilt by the Corps of Engineers to prevent high water levels from the nearby Coralville Dam impoundment from inundating Lake Macbride State Park.

When completed, the new Lake Macbride will be Iowa's largest state owned artificial lake.

The park's bath house, boat dock, sewer system and roads are being relocated to conform to higher lake levels. Commission engineers said the stone bath house is being dismantled "section by section", and will be rebuilt on higher ground.

Impoundment of the Iowa River behind the Coralville Dam will not begin until the Lake Macbride dam is completed, the engineers said.

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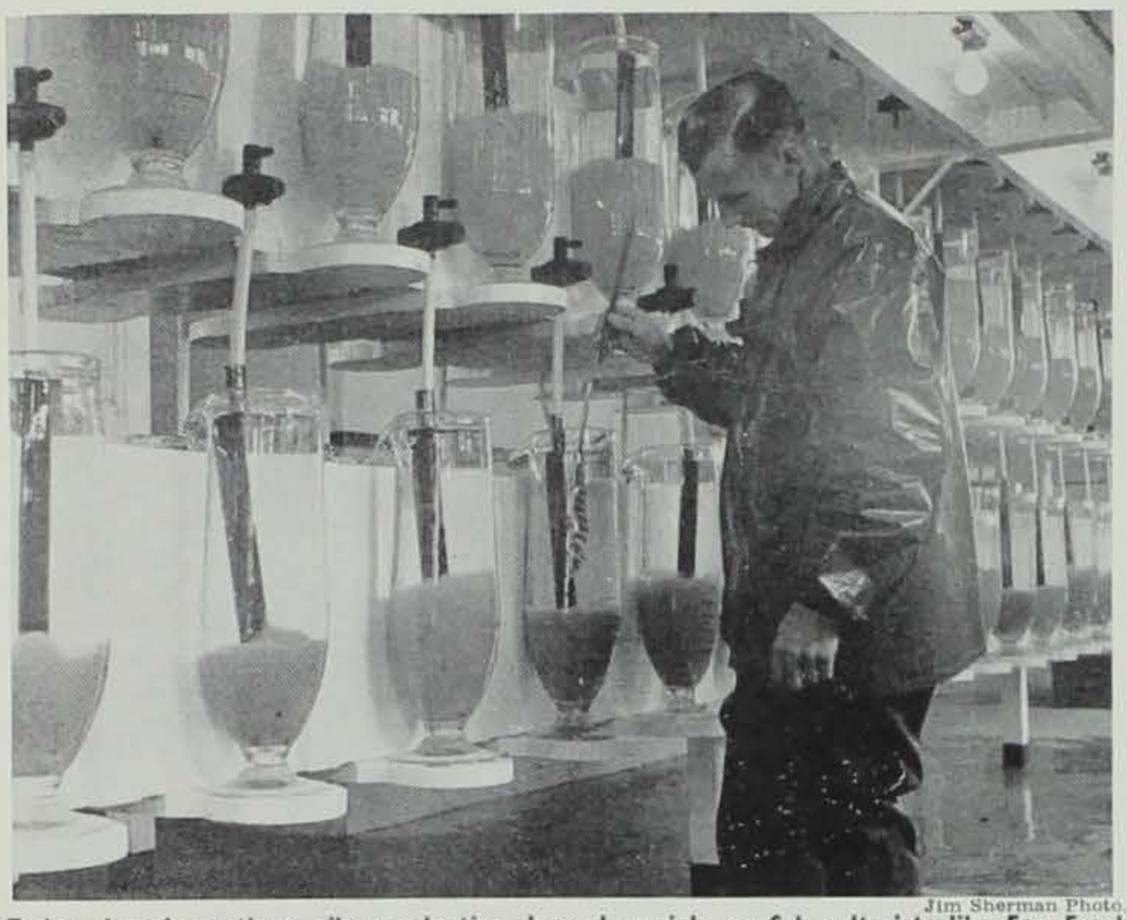
Jim Sherman Photo.

The men above are standing at the future water's edge of the new Lake Macbride. Surface area of the new lake will be nearly 1,000 acres, more than six times the present area.



Jim Sherman Photo.

Today, Iowa's northern pike production depends mainly on fish culturists like Fay Fronk of the Spirit Lake hatchery. Large scale drainage of marshy northern lakes destroyed the natural production.

Pike Story . . .

(Continued from page 121)

sands of these fish. Sixty years ago the number of northerns in many of our Iowa rivers rivaled the carp populations of today.

Fortunately, northern pike in our larger natural lakes have not experienced the same degree of decline that has struck our smaller lakes and rivers. The primary reason for this pike decrease is the destruction of northern pike habitat. Everything in the way of marsh and lake drainage, stream straightening, excessive cultivation of marginal land and other misuses of natural resources have been detrimental to the habitat of this species.

Need Shallows

Northern pike require shallow, weedy or grassy marsh-type water areas for spawning. Adults ascend the small tributary streams to such areas to spawn. After spawning, they return to the parent body of water, leaving the eggs to hatch. As the young fish grow to fingerling size they gradually make their way back to the adjoining stream, river or lake.

The glacial country of northern Iowa once provided ideal habitat for northern pike, but that vast expanse of interlocking sloughs, marshes, lakes and small tributary streams has shrunk to a pitifully small part of what it once covered. The number of northern pike have decreased in even greater proportion. Even though a good spawning area in the form of a marsh is still in existence the northerns' paths are likely to be blocked by a dam or concrete bulkhead with two miles of drain tile between the fish and the spawning site. Each female that is prevented from spawning reduces the potential number of eggs, fry, fingerling and the end products—catchable fish.

High Water

Much of our present natural pike production depends on periods of high water that inundate suitable spawning sites that may not be normally available to northerns.

The spring of 1951 provides a good example of this, and most of the lakes that had at least a few adults at that time produced more northerns than they had in years. Better than average northern pike fishing in 1953 and 1954 reflected this high 1951 hatch.

But even with high water and good spawning sites, there are other hurdles that the northerns must take. The high water in grassy areas must be fairly stable, as must the temperature. A sudden warming of these shallows may kill eggs and fry, and is one reason why reproduction is nearly always nil in southern Iowa waters.

So you might ask: "Why all the fuss about a species that has to buck so many odds?" Well, mainly because of their immense appetites and the fact that they are excellent game fish. Fisheries workers know that the voracious feeding of these fish is one of the most important natural tools in fisheries management. A big problem in many waters is too many small fish, particularly panfishes such as bluegills, crappies, perch, bullheads, and many kinds of rough fish. These species must be thinned out in order to maintain good growth rates of all fish. Since northerns do a good job of thinning out small fish, fisheries workers have begun broad programs aimed at developing good northern pike populations wherever possible.

Hit Lures

The northern's desire to eat everything in sight means a fast-growing fish and more fish on the stringer. Northern pike actually have a high catchability rate. They will hit almost anything that moves, both artificial and live baits, and particularly flashy spoons and minnows. Thus, when fishing pressure is heavy—as it is

(Continued on page 128)

Home Photo Servic

Setting sail on Rock Creek Lake, Grinnell students enjoy a unique class. Program i headed by physicial education departments, and stresses water safety, lifesaving an use of small boats.

"LAKE ACRE": FUN AND LEARNING AT ROCK CREEK

William Davidson

The sails fill with wind, the boats pick up speed, and waves splash over the decks. Overhead a few clouds float lazily along in a deep blue sky, and shouts from the sailboats are easily heard on shore.

"Trim your mainsail!"

"Prepare to come about."

"Hard aport!"

Such sights and sounds might be expected at Cape Cod or Nantucket; never in the heart of the corn country. But sailing is only one of the many activities at "Lake Acre".

Students Buy Acre

For students at Grinnell College, this project is serving not only as a year-round recreation center, but also as an outdoor classroom. Located at Rock Creek Lake six miles west of Grinnell, i is used for student and teacher sponsored outings, overnights an recreational activities. It als serves as an excellent laborator for boating instruction, sailing an canoeing, for Grinnell was th first college in this country to in clude Red Cross small craft in structor courses as part of its cur riculum.

Two years ago the students hel a drive and raised $850. With thi they purchased one acre of lan and financed the moving of a cabi owned by a campus athletic or ganization to the tract. Last yea the college added two more acre of land, an electric stove, refrig erator, chimney, heating and tw wings to the cabin. Each win contains four double bunks.

The men's and women's physic education departments of the co lege are in charge of reservation at the cabin. Permission must b granted by these groups, an chaperones are provided for ove nights.

(Continued on page 128)

Home Photo Serv

The headquarters of "Lake Acre" is a well-equipped cabin with cooking and dini features. Land and cabin were originally bought by students; facilities were added college.

'alleye Prospects . . .

(Continued from page 121)

lleye fishing last fall and may ve a continuation this spring be- e the hatch of gizzard shad nes on and fills the lake with age.

Storm Lake, with its big gizzard id control program last fall, fered a walleye loss. This, ipled with the extremely low ter level and high turbidity kes this lake problematical for 57.

East Okoboji has recovered newhat from the heavy winter l of walleyes in 1955-56 but un- s many fish have moved in from st Okoboji, it may not furnish best angling.

We can be sure of large popula- ns of walleyes in Spirit Lake, st Okoboji and Clear Lake. As as walleye populations are con- ned, we should expect Spirit ke and Clear Lake to produce od fishing sometime between ening day, May 11, and the close the season on February 15. st Okoboji usually does not ve a good early season, probably ause of the cold water. This ves Clear Lake and Spirit Lake the most likely lakes for the ening weeks. We expect West oboji to begin producing good ches during the latter part of y to July, and again in the fall usual.

Record Catch

Last year on Spirit Lake from opening day until the first of ly, anglers really took the wall- es. Census records indicate that ring this short period of fifty ys 27,600 walleyes were caught it weighed a total of 38,296 nds—a record that will be gh to beat. After the first of ly, success declined rapidly as is ual when the young-of-the-year nes become abundant for wall- e food. Lake survey records in- ate a high walleye population this year. This, coupled with lining lake levels which have reduced the number of forage fishes, indicate another banner year on Spirit.

There is one disturbing factor that may knock this rosy prediction into a cocked hat: the walleyes caught this winter in Spirit were fat as butter. Last spring they were thin. Walleyes may have found some source of food that will sustain them so we're keeping our fingers crossed and hoping.

West Okoboji is a hard lake for the novice to fish with consistent success. It has an abundance of walleyes but you have to know where, when and how to take them. On other lakes you can follow the crowd and do fairly well using standard trolling gear, but on West Lake you've got to study the situation well. Many of the experts make good catches trolling killer rigs (spinner-fly combinations) and other hardware just over the tops of the weed beds, rock reefs, shelf edges and bars.

During the morning and evening inshore runs of walleyes, trolling or casting around ten and fifteen-foot depths and on the points or edges of dropoffs can produce fish. In midsummer, drift-fishing with large chubs just above the thermocline in fifty or sixty feet of water will produce action—if you're in the right place at the right time.

But you must know West Okoboji well and have the patience of Job if you're going to consistently take walleyes from it. Inboards, outboards, water skiers, sailboat races and regattas all combine to whip the lake to a foamy froth during the summer. Evenings and mornings are your best bet to avoid all this confusion.

Scads

It's difficult to make a justifiable prediction for Clear Lake. Make no mistake, there are scads of walleyes there but good angling depends on many factors aside from sheer walleye numbers. If excessive numbers of last year's young fish are present, the walleyes may not be hungry and your angling success is going to drop accordingly. This seems to be a major factor, although large quantities of insect larvae or nymphs can also utterly ruin angling for short periods of time. The last excellent walleye season at Clear Lake was in the spring of 1951. In 1950, very few young yellow bass had been produced and reproduction was poor for most other species as well. Conversely, in 1955 the hatch of yellow bass was heavy and there were few walleyes caught. The same thing happened in 1956, one of the poorest walleye years ever.

Wrong?

Nobody likes to be wrong, but in this case I hope my bearings are off just about 180 degrees. Biologically, fishing in Clear Lake doesn't look very promising except for the fact that there's a whale of a lot of walleyes. Angling has been so poor for the past several years that the population has been building up to the point where even last year's yellow bass might not support them. So, in spite of all this badgering of words, and due to the fact that nobody knows all the answers, I'm predicting good walleye angling at Clear Lake this year.

To summarize, walleye prospects look good for Spirit Lake, Clear Lake, West Okoboji, Ingham Lake and Lost Island. Please remember: these are predictions, not guarantees!

Off-Beat Lures

Last, a word about methods. Walleyes are not the easiest fish to catch. Sure, when everyone is catching them even neophyte fishermen can take their limits. But if they're not hitting, it takes a real fisherman to get even a few. I believe the secret lies in trying something different during these "off periods". You don't like mashed potatoes for every meal, and maybe walleyes get tired of seeing the same old hardware cruising past their noses every day. Maybe that's why new lures like "lead heads", "rock-a-roos" and other modifications of salt-water rigs were so effective last year on walleyes at Spirit and Okoboji.

The third edition of our book "Iowa Fish and Fishing" has numerous standby methods and other tips that you should know. Just because you've always caught walleyes using one method is no assurance that it's the best. A little variation in techniques often pays dividends.

Mink, beaver, muskrats and other aquatic mammals often breathe under the ice from air bubbles that are trapped there.

Many species of fish can be aged by the "annuli" of their scales. Such scales, viewed through a microscope, show annual growth rings similar to those of trees.

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Jim Sherman Photo.

alleye fishing last year was outstanding in many northern Iowa lakes. State hatchery- n netted many large adult pike, took their eggs, and reared an immense number of walleye fry.

Clear Lake . . .

(Continued from page 125)

catch 6,300 fish. However, the waders, who consistently have the best success, caught 15,800 fish in only 10,900 hours which is about four times the rate of catch for boat fishermen. It is probably because of the better success enjoyed by the waders that each year more fishermen are turning to this form of fishing at Clear Lake.

What caused the drop to six-tenths of a fish per fisherman hour in 1956? This rate of catch was decidedly below the more than one fish per fisherman hour caught in 1953, 1954, and 1955. Since yellow bass showed the most noticeable drop, a few figures should show what part they had in the changed fishing success of 1956. Yellow bass have contributed about 50 per cent of the catch each year until last year when they contributed only 14 per cent. The 17,400 yellow bass caught during 1956 were only about one-tenth of the 186,000 caught during 1955. A catch of 94,000 yellow bass instead of 17,400 would have increased the rate of catch to one fish per fishermen hour even though 94,000 fish is still below the summer catch of this species during any summer since 1953.

Other Fish

However, the yellow bass can not take all of the blame. Yellow perch have declined steadily in the catch since 1953 when they ranked third in total numbers. Very few northern pike were caught compared to the catch of 3,000 caught in 1954 and even the 340 caught in 1955. Also, last summer was only mediocre as far as the walleye catch was concerned.

Luckily the fishing at Clear Lake is not entirely dependent upon one kind of fish. Bullheads continued to support much of fishing. Bluegills, one of the bright spots in the Clear Lake fishing during the last four years, contributed largely to the catch. Crappies have been caught in about the same numbers since 1953 and continue to be one of the favorites of the dock fishermen. And, even though the yellow bass were not caught in the tremendous numbers that they had been in 1953, 1954, and 1955, they still ranked a very strong third among the species in the catch.

So far the spring fishing has not been considered. Apparently as many or sometimes more fish are caught in the spring as are caught during the summer. In 1956, about 124,000 fish were caught in ten weeks during the summer while in less than four weeks from May 27 to June 20 an estimated 244,200 fish were caught. Both bullheads and walleyes were more numerous (186,300 and 1,700) and made up a larger percentage (76.3 and 0.7 per cent) of the spring catch. Yellow bass and bluegills, however, were caught in about the same numbers during the spring census period (15,400 and 25,600). Fishing success in the spring was

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Jim Sherman Photo.

Iowa's northern pike are never record-breakers, but they are often tackle-breakers. Many 10- and 15-pound northerns are taken each year, offer bonus battles for lucky anglers.

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Pike Story . . .

(Continued from page 126)

in Iowa lakes—the northerns can be fished down to a point where such fishing is poor. This in turn means that conservation measures are needed in the form of catch restrictions.

Ten years of creel census work indicate that northerns seldom make up more than 5 per cent and usually less than 1 per cent of the total catch of fish from our Iowa lakes. West Okoboji Lake seems to be the most consistent in furnishing northerns. During the past six years (winter fishing included) there have been 700 to 1,000 northern pike taken each year from West Okoboji. This represents less than half the actual total because the creel census clerks seldom contact more than 50 per cent of the fishermen.

Spirit Lake and Clear Lake seem to be "boom or bust" lakes as far as northern pike are concerned. For two or three years following a good hatch there is excellent fishing, followed by as many or more years of mediocre or poor northern fishing. Hatchery operations are designed to supplement these poor years.

Lakes that provide little or no natural spawning areas seldom produce more than an occasional northern on hook and line. A few of these lakes have been stocked heavily with northerns to control rough fish and excess forage. When this type of management is used on these lakes the number of northerns caught immediately increases. At Black Hawk Lake, for example, northerns were stocked to help control gizzard shad. Fishing success increased sharply from a take of one or two northerns a year to as many as eighty. This does not represent phenomenal fishing, but it does show a huge increase and gives a youthful fisherman a chance to catch his biggest fish.

Limited

The artificial propagation of northerns is limited by the number of adults that can be secured and by several technical difficulties in the hatchery. The fry *must* be stocked in suitable areas to provide the best chance for survival and eventual adulthood. During the past two or three years of comparatively low water levels and dry streams and marshes, these locations have been at a premium. At the same time, natural reproduction has suffered. *So, our northern pike populations are relatively low as we approach another season.* A return to near-normal water levels this spring would increase production and fishing for northerns would greatly improve by the summer of 1958.

The northern is a fast-growing fish, and that's a great help in the recovery of the species. Twelve-inch fish weighing half a pound are not unusual at the end of the first summer of growth. These same fish may weigh two pounds at the end of the second summer. Then, there's always the chance of landing a really big northern that has survived several seasons.

The record hook and line catch was taken from a New York reservoir, in 1940, and weighed 46 pounds, 2 ounces. One authority reports that a 145-pound northern has been taken in Europe, but not on hook and line. Recent records of Iowa northerns have not exceeded 25 pounds, but a number of 10 and 15-pounders are taken each year.

Although early spring and late fall are the best fishing periods for northerns, the pike will often cooperate in the summer months when natural food is at a peak. So don't overlook the possibility of northern pike fishing when other angling is in the doldrums.

And any discussion of the pike wouldn't be complete without a final statement: pickerel, northern pike and muskies *do not* lose their teeth during the summer months!

Clear Lake . . .

(Continued from page 127)

about 1.6 fish per man hour, over twice as good as in the summer.

Poor—But Good

Even though 1956 was an admittedly poor year for Clear Lake fishing, the catch was estimated at over 40 pounds per acre. Each acre also provided over 100 hours of recreation without counting the boating, swimming, and other sport. Not many lakes in the country provide so much.

Just what will the fishing be like in Clear Lake this coming summer is something we all want to know. You might think prospects are pretty gloomy with the yellow bass catch so low last summer but this is not necessarily the case. Test seining and gill netting indicated that young yellow bass were probably more numerous than they had been for the last two or three years. Since so few walleyes were caught last summer when everything indicated an unusually high population available to the fishermen, maybe 1957 will be the year they will bite. Bluegills have come into their own the last three years and can be expected to provide good fishing this next summer. Of course, bullheads should be as numerous as ever and should be one of the main fish caught. And there are always enough big northerns, largemouth bass, and catfish caught to keep up the interest. We can not say whether the fishing will be good or bad, but we can say that the fish are there and there are plenty for everybody. It is up to the fishermen to find out how well they are biting.

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Lake Acre . . .

(Continued from page 126)

Varied Sports

In the fall and spring, students have an opportunity to participate in a variety of outdoor activities which includes hiking, fishing, cycling, horseback riding, canoeing, sailing and boating. A natural lagoon provides an excellent winter skating rink, and the hills nearby are good for skiing and tobogganing.

Irwin Simone, Associate Professor of Physical Education at Grinnell, has fathered the Lake Acre project throughout its brief history. A veteran instructor of small craft and water safety, his training enables students to secure well-paid summer jobs as camp counsellors. These young people are in such demand as qualified instructors in aquatics that they often receive higher summer salaries than older people.

Says Simone: "Students at Grinnell not only have fun at Lake Acre, but many of them learn at the same time. We are pleased with the results of our project and hope we can inspire other groups to do the same thing."

Jim Sherman Photo.

A hotspot for yellow bass, bluegills and other panfish is in the rushes around Clear Lake. Anglers wading in such shallow areas last summer had the best luck.