Conservation is like a garment... when it is dirty, we clean it up; when it is ragged, we must patch it; but we must keep it as long as we can.—Editor.
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A Late Report on the
SUSQUEHANNA SHAD STUDY

By ALBERT M. DAY
Executive Director

I witnessed a thrilling sight while on the West Coast attending the National Izaak Walton League Convention in Portland, Ore. I spent two days reviewing the fish passage study being conducted by Milo Bell and Harlan Holmes at Bonneville Dam on the Columbia.

I saw thousands of American shad enter the big fishways which each year transport many thousands of salmon, steelhead, shad and other fishes from the lower river level around the power dam to the forebay some 60 feet above. I stood alongside the pools of rushing waters coming down the fishways and saw milling thousands of shad and salmon fighting their way up and across the counting board which rests at the upper end of the ladder. Some 600 to 1,000 shad are going over the device every day, tallied and recorded by the expert observers who spend eight hours a day checking the various species of fish that swim past them. Last year approximately 250,000 shad were counted through the station.

About two years ago the Pennsylvania Fish Commission contracted with this internationally known team of experts to conduct a study to see whether it might be feasible to construct similar fishways at Conowingo, Holtwood and Safe Harbor Dams on the Susquehanna. They have been working on the project continuously since that time and much has been learned. They are now finalizing their report. We plan to have them deliver it personally to the members of the Fish Commission and to discuss the details of their research. This information will then be presented to the public.

While on the West Coast I visited the facilities where they have been conducting their observations on the movements of shad. Holmes and I visited the holding pond on Tanner Creek which is a part of the fish hatchery operated by the State of Oregon Fish Commission just below Bonneville Dam. This is a pool about one-half acre in size with a crystal clear stream of water running through it. It is an ideal spot for observing fish in quite natural environment.

Last year 200 shad were captured in the fish ladders of the Bonneville Dam, transplanted to the Tanner Creek pond and kept under constant observation by Harlan Holmes, Ivan Donaldson, the fishery biologist for the Corps of Engineers at the Bonneville project, and personnel of the Oregon Fish Commission at the nearby hatchery.

Much new information was obtained about shad habits. They found that these fish travel in schools closely bunched together. They learned that single individuals alone seem to panic and do not act in a normal fashion. They found that shad are almost constantly on the move instead of lying quietly at rest for considerable periods of time as salmon, steelhead and trout do.

This school of 200 shad was kept in the pool about four months during these studies. A few spawned and the eggs were taken and successfully hatched at the Bonneville Hatchery.

It was learned that shad fear square corners. When placed in a tank with such corners, they battered themselves against them. When placed in a circular tank, they swam peaceably around and around.

It was found that they can be anaesthetized for easy handling and that they will withstand long hauls in tank trucks under proper conditions of temperature and aeration.

These observations may seem simple and unimportant. In reality they are of great significance in both the design of fishways on the Susquehanna and transplanting, should shad be transported upstream to establish new spawning populations.

Another significant finding of last year's study was conclusive proof that shad spawn above both Bonneville Dam 180 miles upstream from the mouth of the Columbia and above the Dalles Dam another 45 miles upriver. Last year myriads of young shad moved downstream and over both of these dams. Holmes and Donaldson actually captured several hundred yearlings in one of the experimental devices at the Bonneville structure. We have proof positive that on the Columbia shad are moving both upward and seaward at two of the major hydro-electric installations.

Biological observations are continuing at the present time. Last year's studies showed basic patterns of movement. This year's study is designed to learn more of the preferences of shad in negotiating the various steps on the fish ladders themselves. Individual pools are created by stop logs some 20 feet apart which create a series of small waterfalls reaching from the top of the ladder to the river level below. Salmon normally prefer going through orifices under the water surface, although many do fight their way over the top. There is uncertainty as to the preference of shad.

Bell and Holmes have designed a rather unique experiment to gather information on this question. One
Bonneville Experimental Laboratory showing ladders, lights and other laboratory equipment where Bell and Holmes studied shad seeking to solve the fishway problem in the Susquehanna River Dams, the study now nearing completion.

A set of stop logs will be placed in the fishway with artificial or holes underneath the water surface. Another set farther down the fishway will have no underwater provisions. Thus, at one point the fish will pass upward at a submerged level while at the other they will be forced to go over the obstruction by swimming on the surface. A set of expert counters will observe each operation. Platforms are being built in the fish ladder proper and suspended near the water surface for better visibility. The women who do the counting will observe the passage of fish at each point during eight-hour shifts each day. Incidentally, to overcome the broiling sun, Holmes is providing beach umbrellas for the ladies. The counts at these two points will then be correlated with the final tally at the exit from the ladder into the forebay at the top of the fishway. The lady fish counters at Bonneville Dam have stumped the "What's My Line?" television experts on several different occasions.

An interesting thing about this study is the excellent cooperation that the Pennsylvania Fish Commission and its consultants are receiving from all parties in this study. The Corps of Engineers, all of the state agencies and the general public in the lower Columbia River area are keenly interested and are contributing time and equipment without cost to us.

Bonneville presents the greatest opportunity for fishery studies of any place in the United States. When the dam was originally constructed some 7 million dollars worth of fish passage facilities were included. Standard ladders, traps and lifts and special downstream migrant facilities were provided.

Nearby on the Clackamas River, the Portland General Electric Company has constructed fish passage facilities which includes the world's highest and second longest fish ladder, an artificial outlet for downstream migrants and a five-mile long aerated pipeline to bypass ocean-bound fingerlings around the company's three Clackamas River power dams. This company has spent 3 1/2 million dollars constructing fishery facilities which actually are the most extensive and imaginative research tools ever made available to fishery biologists. All of these facilities are available for this study by Bell and Holmes without cost to Pennsylvania.

Another interesting thing about this study is the fact that on the Columbia we are working with the same shad that we have on the Susquehanna, the Delaware and the Hudson. Back in 1871 one Seth Greene managed to transport 12,000 shad fry from the Hudson River below Albany, N. Y., to the Sacramento River in California. Those fish have multiplied and spread their progeny from San Francisco Bay northward and were the forebears of the 250,000 shad which went over Bonneville last year.

Mr. Bell in a recent interim report tells us "from structural and operational standpoints, fishway systems are practical." If our Susquehanna shad react as I saw their distant cousins behave at the fishways at Bonneville, there is no doubt that fishways here will be biologically feasible. The big question mark in this whole undertaking is the price tag. This we do not have as yet. That important element remains to be determined.

AUGUST—1962
THE SLOBS who left this mess on one of our public park sites are com-
monly called "Litterbugs." Perhaps not quite so refined . . . the term
"SLOBS" is far more appropriate.

Let’s Look Once Again at the Shamefully Unsavory Outdoor Habits
of Those Who Destroy, Deface, and in General Characterize . . .

PEOPLE Who Act Like PIGS!

By WILBERT NATHAN SAVAGE

“Human nature,” said the old-timer as he reeled in
a rotted automobile tire, “is a powerful peculiar thing.
A body’d think people’d find some’ers else to toss such
truck ‘sides in a trout stream!”

Flawless as the aged angler’s reasoning certainly was,
our streams and lakes and their immediate environs
continue to serve in too many cases as dumping sites
for just about anything from a tattered mattress to
minute but deadly slivers of broken glass. And, cashing
in on this modern-day continuation of deplorable be-
havior, cartoonists still draw and sell to outdoor publi-
cations the old reliable and presently fitting standbys
depicting enraged or exasperated fishermen hauling in
catchy and sometimes suggestive articles of trash.

But while the cartoonist cashes checks for having
graphically poked fun at such occurrences, there actu-
ally is a dearth of humor in the situation’s real-life
dimension. For the untidy habits of the careless few
most certainly stir in the multitude an active flame
of indignant wrath, and a firm determination to sup-
port any move calculated to hasten a day of reckoning
for troublesome spoilers. (And it seems that an active
crop of these “hooray-for-me-to-hell-with-you” individuals is always with us!)

This may or may not come as a surprise, but several thorough regional surveys once indicated that while a man may keep a neat lawn, orderly garage, and store his fishing gear in the best tradition, he occasionally (reason unknown!) thinks nothing of throwing a bag of litter along a highway, or leaving it to molder on the bank of a respectable trout stream!

And a still more extensive record of observations recently proved this fact: litter is catching. That is, people generally refrain from littering a perfectly clean park. But if one person throws down litter, the next party is apt to think, “Oh, it doesn’t matter; there’s someone already here”—and plop! goes his bag of squishy litter on the ground. The whole thing begins to “snowball” in a strangely contagious kind of way, and soon the entire recreational space becomes a virtual city dump!

But to put the real thrust of concern into the litter problem, it is absolutely wearisome to note that if the unsightly dumps aren’t actually in the water’s edge, they are all too often within high-water reach of the watercourse. And, in far too many instances, a litter heap may threaten a stream already imperiled by the encroachment of other befouling substances. Litter very often contains quick-to-decay matter, and seepage or high-volume runoff from such messes can only be tagged as INJURIOUS to any stream—particularly when the refuse is rat and fly infested, which it often is!

Alas, anxious sportsman!—there is yet another very serious side to the improper disposal of litter. For besides being a menace to streams and property values, ill-placed rubbish often leads to a genuinely hazardous situation involving direct injuries to the public. This aspect of the evil was highlighted in a blistering article in a national labor publication in 1961. The story told of a group of small children jumping on what appeared to be an inviting mound of pure beach sand, but which instead turned out to be a pile of broken glass (dumped within eleven feet of a well-marked trash container!) barely covered with a thin coat of sand. The result was that the children had to be treated at a hospital and also had to receive anti-tetanus shots. The foot of one nine-year-old girl required ten stitches. Of course the sanity of those responsible for fashioning such booby-traps is likely to be questioned in any circle, but this doesn’t alter the fact that such things do happen too often! And it’s practically an everyday happening for swimmers to sustain painful injuries when they step on glass, sharp metal, and other harmful objects that have thoughtlessly been tossed into the water.

In seeking out all the pernicious facets of the litter curse, we finally come to ponder one challenging and profound fact: the wretched condition—national, state, or regional; along streams, highways, or in parks—needn’t exist at all. Adult people with grown-up minds surely must know it is unfair and unsportsmanlike to
THE GUNGOONS have been along here recently and they couldn't care less how much of the taxpayer's money goes into highway sign replacements.

disfigure landscapes, byways and streamsides with assorted waste. And do they not know that violation of every rule attached to outdoor etiquette brings on incensed attitudes of scorn from the "camp of the clean!"

For anyone willing to improve his outdoor manners, a little thoughtfulness and effort to properly dispose of litter will always yield a worthwhile payoff in the strengthening of personal pride, peace of conscience, and a salute of high regard from responsible fellow men. A well-known Pennsylvania newscaster put it this way: "Your rewards in life will always be in direct proportion to your contributions."

But for those too stubbornly fixed in their ways to refrain from bad deportment in the great open spaces, an instrument of persuasion has been set up in most states. In Pennsylvania you can be relieved of $100 for daring to be a bit too daring with a spread-the-trash crusade. (Some people actually seem to have a mania for this sort of thing and will practice it religiously in the face of even an impending arrest!) If you happen to stray across the line into Maryland, the penalty for your littering iniquities will be no less than $250. And in Virginia a small bag of litter casually heaved out your car window can cost you a fat $500! (The author and his wife have made three trips into Virginia since 1960, and take it from us the roads we traveled and the parks we visited were CLEAN!)

In a more gentle attempt to encourage offending motorists to show greater neatness in their treatment of highways and public recreational facilities, hundreds of organizations have aimed programs by the score at those responsible for the widespread litter problem.

Many oil companies supply auto litter bags; several trucking associations have taken up the cudgel against highway litter; and banks, department stores, builders, manufacturers, fraternal organizations, and other purposeful groups have frequently united in drives against refuse accumulations in the wrong places. Labor unions also have joined in the battle; and there is a national nonprofit organization known as Keep America Beautiful (99 Park Avenue, New York 16, N.Y.) which was formed in 1953 to fight the national litter menace —and Pennsylvania regretfully has provided a number of sore-spot targets for the anti-litter marksmen!

Public service TV film clips, radio announcements, and press pleas frequently point out the senselessness of our costly litter headache (it costs fifty million dollars a year to clean up our national highway litter alone!); and slogans by the dozen pop up to remind us not to miss the trash containers conveniently provided for refuse in most public gathering places. Some of the better slogans include: "Annie Doesn't Litter Any More"—"It's Courteous to Be Clean"—"The Difference Between Litterbags and Litterbugs Is 'U',' etc.

And let's not forget the church which did a novel job of focusing attention on the anti-litter movement when this sign appeared on its premises: "Thou Shalt Not Dump Here!" There is indeed no scarcity of people willing to teach ways and means of preventing continuation of the present pace in litter scattering, but indications are that there is a lamentable shortage of pupils eager to learn!

There is another unexplainable brand of humanity who may or may not be litterbugs. This set is simply out to whistle, engrave, chisel or carve anything in sight. With gusto they attack bridge railings, trees, buildings, benches, rocks, and even the inside of caves—the latter being the most suitable place for such conduct. They possess a fierce urge to inscribe names, initials, and crude caricatures wherever a suitable surface is discovered. Sometimes they get real funny. Examples: "Cal Chokum From Shamokin," and "The Cave Woman," which appeared near "The Ghost of Valley Forge." What these nitwits need of course is to be denied their Barlows on a parole basis, and to have their fingernails trimmed extra close before being allowed to run at large!

Then, naturally, we have the diggers and the uprooters. They work at taking up wild shrubs and plants for the purpose of transplantation at home. These jokers aren't particular where they get their evergreens, honeysuckle, rhododendron, etc. State lands will do; so will Federal acreage, or even private property. Actually, most of the stuff they dig up dies within a week or two, but this doesn't seem to deter them from further illegal searches for wild ornamental growths that could easily cost them some real dough in heavy fines!

Couple all this with the acts of the warped demolition boys and it isn't difficult to comprehend that the great out-of-doors is steadily being subjected to a real beating at the hands of Homo sapiens "odd-niks." These are the mischief-makers who smash and mutilate...
THE DESTROYERS just left here but nobody apprehended them. Maybe somebody with an allergy to picnic tables who needs help?

tables, benches, garbage cans, comfort stations, entrance barriers, fences, water fountains, shelters, etc. They also use firearms to blast away at signs and posters, trees, and even mail boxes. They take a fiendish delight in turning direction markers until they're utterly meaningless; they have been known to riddle boats with bullets, break pumps, wreck concession stands closed for the season, and demolish park cooking facilities.

Just what kind of deadly undercurrent motivates such depraved outbursts of skulking behavior certainly calls for a better sense of indulgent understanding than many of us possess. Most assuredly we cannot forever take lightly periodic rampages that callously mangle and destroy. Whether the offenders need psychiatric care or that reliable old deterrent known as stiff fines and imprisonment is not for the author to determine. But certainly some firm and effective method of control should be instituted in a crack-down pledge that would deal more severely with the furtive few who seasonally purvey grievous ruin and sadistic destruction in places meant for pleasure and relaxation for everyone.

THE CARVERS have been busy here cutting the throat of a defenseless tree. . . . "Pete Loves Pat" and "Kilroy Was Here" are symbols of decadent minds.

THE DUMPERS simply brush the waste food, paper and junk off the table down the bank into the little stream. A "No Dumping Allowed" sign leans crazily among the piles of cooking grease and tin cans.
CAMPING CAN BE FUN, but it takes planning and forethought. No camper wants rain to spoil his trip, but if it comes . . . be ready!

This summer, 16 million Americans will shed the warm security of their homes to try life out of doors, and it is safe to say that almost all of them will experience the tragicomic effect of being soaked by a sudden dunking in a mountain creek, a summer squall, or early morning dew. The circumstances may vary, but the end result is the same—wet clothes and possibly wet equipment, too.

Minimizing the effects of being wet, or even better, learning what to do to avoid getting caught in the first place, can be mastered, although it may appear that fate has the upper hand when the first shower sends you running for shelter.

Suggestion No. 1 is to minimize surprise by keeping a close watch on the weather. Learn to recognize the difference between a frontal storm and the local air mass thunderstorm. One comes on slowly via a gradually darkening sky and may not lead to rain at all. The other is isolated, in effect, and may deal its kind of furious destruction while the surrounding sky is sunny and clear. The first requires a place of relative comfort where the camper can wait for several hours while the sky clears. The second sometimes can be dodged altogether by watching for the dark, diagonal patch in the sky below the thunderhead which indicates the area of precipitation. Air mass thunderstorms can be spotted by a characteristic anvil-shaped cloud at the top and a roll cloud at the bottom-rear. This is the trouble area. When it heads your way, watch out!

Suggestion No. 2 is to choose your camp site carefully. Avoid creek bottoms where a flash flood could wash you out. The base of a cliff could be a bad spot, too, because rain can cause slides of mud and even of rock. Dig a shallow ditch of two or three inches under the eaves of your tent so water will flow away from the camp site. Position your camp so the tent backs up into the prevailing wind. Wind-driven rain has a habit of working its way into even the smallest of openings in tents, raincoats, or sleeping bags.

Knowing how to make the most of the terrain is a help, but it isn't nearly as important as having good equipment. The key here is to size up everything that you take with you from the standpoint of how it takes to moisture—either by firsthand experience in the rain or by home experiment in the wash tub or under the hose. Don't forget to see how long things take to dry out and whether they work as well after the ordeal as they did when they came from the store.

For example, headgear with a brim in front may keep the sun out of your eyes, but it lets rain run down your neck. Choose one with a brim that goes all the way around.

Sleeping bags filled with water-absorbent materials such as cotton or kapok may take days to dry out, and acetate fillers droop with moisture and never really regain their loft on drying, leaving the camper with less than the original insulating air space. Careful selection of a filling material in a sleeping bag is the answer. One material that keeps its resilience wet or
SIXTEEN MILLION American campers will silently steal away from home, set up their tents in the outdoors under the stars.

WHEN RAIN HITS CAMP

THUNDERHEAD HAS ANVIL-SHAPED CLOUD AT TOP. WATCH OUT WHEN IT MOVES YOUR WAY. HEAVIEST RAIN AND WIND ARE AT PEAK UNDER ROLL CLOUD NEAR REAR.

PICK CAMPSITE CAREFULLY. AVOID NEARBY SLOPES WHICH CANRELEASE MUD AND ROCK. WHEN WET, ALSO PASS UP DRY STREAM BEDS, RIVER BANKS THAT CAN OVERFLOW DURING STORM.

HAT—SELECT FOR COMFORT WET OR DRY. BE SURE IT HAS BRIM ALL WAY AROUND TO KEEP RAIN FROM RUNNING DOWN NECK DURING THUNDERSHOWER.

PONCHO SHOULD COME BELOW KNEES IF TOO SHORT WATER DRIPS ON LEGS FROM BOTTOM SEAM. AT NIGHT USE AS GROUND CLOTH UNDER SLEEPING BAG.

SLEEPING BAG THAT IS FILLED WITH VIRGIN "DACRON" POLYESTER FIBERFILL DRIES OUT QUICKLY IF RAINED ON, PREVENTS LONG DELAYS ON TRAIL TO DRY OUT. BE SURE OF QUALITY FILLER MATERIAL, READ LABEL ON BAG.

—Illustration courtesy of E. I. du Pont de Nemours & Co.

dry, hot or cold, is "Dacron" polyester fiber-fill. No amount of water will cause a major delay in drying out your bedroll. In fact, it takes to water so easily, it permits you to use a home laundry to spruce up the bag at the end of the season.

In many stores these bags are sold rolled in a transparent polyethylene wrapper. Save it for use on the trail as a waterproof pouch. If it wears out, replace it with a plastic garment bag, the kind that the local dry cleaner uses. If this proves difficult to find, visit the local grocery. Be sure the produce bag they offer has been punched with holes for ventilation. Both kinds are light in weight and can be folded up into a small space. The same material in the form of a sheet three by six feet can double as a ground cloth.

When it comes to tents, make your selection from models with a floor that is sewn in. This is important when ground water overflows the shallow drainage ditches just outside the tent walls. When storms come up in the night, you will wish your tent had window flaps that worked from the inside. Seams, grommets, and other small openings that admit small rivulets can keep you awake all night mopping up. Prevent it by testing the tent under the garden hose in the back yard each year before taking it on the trail.

Few items of equipment do more to promote a feeling of well-being in a rain than good rainwear. City raincoats may be all right for brief showers, but more sturdy garments are required for the outdoor vacationer. Most of these are poorly ventilated, restrict body movement, or turn gradually to a soggy mass during long showers. By far the best is the poncho, a sheet-like garment with a slit in the middle for the head. You wear it like a tent, with the sides open to allow free air circulation. On the trail, a poncho can be worn over the pack, keeping the rest of your equipment dry. In a boat or canoe, it covers the feet and legs and gives plenty of freedom for paddling. Be sure to buy a size that comes below the knees, otherwise the water dripping from the bottom runs off onto your legs too easily.

Of course, it would be great if campers could be spared the risk of a downpour. The only way to guarantee that is to stay home next to the fire. But the risk of a few surprises in the weather is well worth taking to gain the healthy relaxation that only the life outdoors can give, especially when modern equipment can go a long way to making a summer shower just a harmless vacation incident.

AUGUST—1962
Water skiing is not new. In fact, it dates back to the flapper days of the mid-twenties when Fred Waller, the man who years later invented "Cinerama," was granted a patent on his water ski-aqua plane combination. It consisted of two separate skis attached directly to a tow line. The skier stood on the slats in a crouched position and balanced himself by holding two handles, each one attached to a different ski. Needless to say, it was a far cry from water skiing as we know it today, but it did work.

Although for many years water skiing was considered as a sport for the wealthy playboy, it really started to catch on during the last decade. Its increase in popularity was due mainly to the introduction of outboard motors that were more powerful and dependable. Today, water skiing is the fastest growing water sport in the country as each year additional thousands of people seeking fun and adventure decide to give it a try. If you're one of these thousands, Tom Dorwin, a former national champion and now water ski advisor for the Evinrude Boating Foundation, offers a few suggestions to help you get off to a good start.

First of all, choose the proper equipment. Water skis should be selected according to the weight of the skier and the speed and power capabilities of the tow boat. A light skier pulled by a powerful outboard can use rather short and narrow skis. Conversely, a 200-pounder will need skis that are longer and wider. You'll also need a tow line. Completely rigged tow lines, made of either natural or synthetic fibers, are available in the standard 75-foot length. And all water skiers, whether they are beginners or experts, and regardless of how well they can swim, should wear either a life jacket or a good ski belt.

After explaining the equipment, here are the steps Dorwin has used in teaching hundreds of beginners how to water ski. First, slip into the skis. You'll find this easier if your feet and the ski bindings are wet. Adjust the bindings so they feel comfortable and you'll be ready for the first part of your lesson, which will be on land rather than in the water.

Sit down on the skis with the tow bar in your hand and the skis about six inches apart. Your arms should be around your knees and extended out straight. Now have a friend take hold of the tow line and pull you up. This will give you much the same feeling you'll get as the tow boat pulls you in the water. Repeat this procedure five or six times and then you'll be ready to try the real thing.

Leave the skis on and wade out into water at least hip deep. Crouch down and let the tips of the skis come up and out of the water while the other ends rest on the bottom. At this point, the tow boat driver should take up any slack in the line and be ready to "hit the gas" at your command. Hold to tow bar tightly, making sure the line is between your two skis and not tangled around your skis or legs. As soon as you feel you have your balance, yell, "Hit it."

As the boat starts to pull you up, remember your dry land practice and don't try to stand up too fast. Once you're up, keep your knees flexed slightly, your arms out straight and lean back against the pull of the tow boat. Take it easy until you get the feel of it. And this won't take long.
NEXT COMES THE DRY RUN. Sit down on the skis and have someone take hold of the tow line and pull you up. Do this five or six times.

SLIP INTO THE SKIS. To make this easier, first wet your feet and the ski bindings. Adjust the bindings so they feel comfortable.

GET INTO THE WATER at least hip deep. Sit down and let the tips of the skis come up and out of the water. After the driver has taken up the slack in line, yell, "Hit it," when you are ready to go.

WHEN SKIING, keep your knees flexed and your arms out straight. Lean back against the pull of the tow boat and enjoy the ride. After a few tries, you'll be on your way to becoming an expert.

Don't overdo it the first time out. Water skiing puts a strain on arm and leg muscles and, if you're not accustomed to it, you may feel the effects the next day. As soon as you think you've had enough, let the driver know with a prearranged signal. He should then make a pass over the drop off area. When you're in the right spot, simply let go of the tow line and coast to a stop.

If at any time you know you're going to fall, let go of the tow line and drop into the water as easily as possible. Recover the skis quickly and wait to be picked up by the tow boat. In congested areas, raise one ski so you'll be seen by other boat drivers.

According to Dorwin, almost anyone can learn to ski. Of course, some will be better than others. But with determination and practice, the average person can develop into a pretty fair skier in a surprisingly short time.

AUGUST—1962
FOR PENNSYLVANIA ANGLERS . . . more than 340 acres of the state's finest fishing waters, stocked and managed by the Pennsylvania Fish Commission, were opened to public fishing on June 16, 1962. More than 2,000 hook and line artists spilled all over the beautiful lake that nestles in the rolling green hills of York County near Rossville. The park, constructed by the Department of Forests and Waters, already christened and named for the Commonwealth's great conservationist Governor Gifford Pinchot, is a Mecca for outdoor-loving folks from near and far. The 2,250-acre park area can accommodate a mass of picnickers, swimmers, boaters and fishermen. Just about anyone with bait, a hook and a line pulled in fish on opening day. Cross section of anglers there was photographed by Fish Commission photographer Johnny Nicklas.

NICE BASS CATCH by Ralph Zinn, Dover, Pa. . . . "You folks must have stocked this heavy!"

WHAT A DAY! Bruce Davis, 13, of Weigelstown, has plenty nice string of bullheads, channel cats and largemouth bass.

HAVE SOME BLUEGILLS . . . it was a great "catchin'" day for Mrs. Anna Wright, of Elizabethown, Pa.

CLEANING JOB coming for Mom declares Burg Strohm, age 13, of Harrisonburg.

OFF SHORE near Rossville fishermen were plentiful; so were the fish.

ANGELA AND her dad, Ralph Long, of Wellsville, with two nice bass and plenty of bluegills.

BIG BASS by Woodrow Richardson, Neil Strausbaugh and Ray Strausbaugh, all of York.
THEN THE LAKE OPENED! About 2,000 fishermen in 90-degree heat celebrated the opening.

PARKING PROBLEM was handled very nicely by park officials, local and state police.

ANOTHER VIEW OF LAKE at Pinchot Park on opening day, June 16, 1962.

YORKER Dave Wolf, 14, had a ball with these four large-mouths he landed in one hour and thirty minutes of fishing time.

HAD WALLEYE BITE . . . caught same! . . . Harlen Anderson, of Wellsville, getting him in.

"BASS ARE FOR ME . . . but all I get are bluegills . . . wish I'd have gotten a boat," commented Richard Jones, of York, on opening day.

"GOTTA DO MORE of this," declared Ludwig and Helmit Faul, both 12.

TIRED PULLIN' 'EM IN . . . this unknown angler curled up in his boat for a nap.

FAMILY AFFAIR...the Hills at Pinchot lake. Left-right are: Fred, Fred, Rickey, Geanna and Mrs. Hill, Allenwood, near Williamsport, Pa.
A CAMPING TRIP is a wonderful experience for the entire family. But to have the most fun possible, it's best to find a spot all your own. With your boat "parked" right in front of your camp site, you'll be ready to enjoy all kinds of activities. A boat will also be handy for making daily trips to pick up fresh provisions.

**If You're Too Cramped to Camp**

**An Outboard Rig Is the Answer**

Take an outboard rig, add a fun-loving family, sprinkle with good planning spiced with plenty of highlights, and if camping is your dish, you'll have all the ingredients needed to enjoy a gourmet's delight at a lunch counter price.

Camping has really caught on during the last few years. This becomes quite evident as you drive through the state and national parks where camping is permitted. In fact, it's now so popular that finding a place to pitch a tent or set up a camp trailer in these parks is often next to impossible. But there's still plenty of room to stretch out and enjoy some real camping if a boat is included in your plans.

Your outboard rig is a natural for camping, right from the time you start loading bulky tents and equipment into the boat before leaving home. It provides a convenient carry-all for equipment while making the trip, a way to search out and select that perfect spot and, most important, the very nucleus of your fun once you have set up camp.

For real camping enjoyment, there's nothing like getting away from the congested public sites and finding a special place all your own. This is easy to do with a boat. When you arrive at the waterway of your choice, put your boat in the water, park your car and forget about it. You won't need it. With your camping gear tucked neatly under the deck, cruise the shore line until you find that perfect spot. Ideally, it should be a place far enough away from the crowded confusion of a public camp area but close enough to the conveniences of a grocery store, fresh drinking water and fuel for your motor and camping equipment. Usually these provisions are available at water-front locations and it's a simple matter to make a short run with your boat each day to get them.

Camping is a family affair and everyone should have a part in it. While Dad and the kids pitch the tent and tidy the camp site, Mom can start thinking about preparing the first meal. An open camp fire is fine for roasting wienies and as a gathering place for an evening song fest, but for cooking meals, a portable camp stove is more practical. A gas lantern or two will provide all the light you will need.

The boat, of course, will play the biggest part in making the trip a success. Camping itself can soon get to be "old stuff"; but with a boat along, the situation is quite different for there is always something to do. With the boat in the water ready to go at all times, no time is wasted in getting ready to go after the big ones as the sun begins to peek over the horizon.

A mid-morning ride on the water skis will be a refreshing break for the whole family. Or perhaps a swim, with the boat filling in nicely as a raft, appeals to you. Afternoon is a time to be lazy. It's the time to gas up the boat and set out for a little exploring, especially if your camp site is set up on a river or one of a chain of connected lakes. And then to set the day off, there are those magic hours toward evening when the cooling water takes on the appearance of polished glass. Nothing is as relaxing as cruising at this time to the quiet hum of an outboard motor as it slides your boat silently across the water.

Whether you're looking for a pleasant way to spend a weekend or an entire vacation, give boat camping a try. You'll never find a better way to get a more profitable return on your recreational dollar.

Keep the bottom of your boat clean. Tests show a definite drop off in speed of boats left in fresh or salt water over relatively short periods. Fresh-water scum seems harmless, but a four-mile-per-hour drop in speed can send any outboarder to his mechanic for a check up when the real problem may be just plain old drag.

How much anchor rope do you need? It should be at least three times as long as the depth of the deepest water in which you expect to anchor.

PENNSYLVANIA ANGLER
ENJOY THE SUN but don’t try to get too much at one time. To prevent burning and at the same time get a better looking tan, it’s a good idea to apply sunburn lotion to the exposed parts of your body.

Don’t Let Sunburn Spoil Your Fun Whether Aboard Boat or Ashore

The sun makes the summer. It warms the air, boosts the water temperature and extends the daylight hours. And sometimes, it even leaves its mark on the over-anxious sun-seeking boatman. You can avoid a lobster red nose and peeling skin by taking a few precautions to combat some of Old Sol’s shenanigans.

First, keep in mind that boatmen are subject to a double-barreled blast from the sun. When sitting in an open boat, they get the sun’s direct rays as well as those reflected back from the glittering water. Until you become accustomed to this, it’s wise to get your sun in small doses. As soon as you think you’ve had enough, cover up the exposed parts of your body and take a few other safety measures.

If you’re especially susceptible to sunburn, it’s a good idea to apply sunburn lotion to your face, arms, legs and other parts not covered. Lips should also be protected. For men, a little lip ice will do the trick. Women can protect their lips by wearing regular lipstick.

Sun and water can play havoc with your hair. To keep it from becoming dry and bleached, wear some sort of head covering when in the sun for long periods. A well-ventilated visor cap will help keep your head cool and, at the same time, shield your nose and face. Lady skippers often prefer a head scarf which also helps to keep their hair in place.

Although you probably won’t need it for warmth, a lightweight jacket should be taken along on your summer boating outings. When you feel you’ve had enough sun, slip it on to protect your arms and neck. If you’re attired in shorts or a swim suit, take along a pair of thin slacks to protect your legs in case the sun becomes too hot. And don’t forget sunglasses. They’ll relieve eye strain and discomfort caused by squinting over the sparkling water. Good sunglasses will also make it easier for you to see when driving a boat.

To establish a record of ownership, the Evinrude people suggest that a new motor be registered with the manufacturer at the time of purchase. When buying a used outboard, make sure that the bill of sale, which should be kept, includes both the model and serial numbers of the engine. If you should experience the misfortune of having your equipment stolen, immediately report the theft to local law enforcement officers and to your insurance company.

If all boatmen were to vote for the greatest boating nuisance, chances are the guy who takes too much time clearing his craft from a public launching area would win the contest by a landslide. Try to put everything needed in the boat before launching.

Precautions Can Prevent Theft of Outboard Motor

Captain Hook and the days of piracy are gone but modern day thieves still present a problem for outboard skippers. Each year thousands of outboard motors as well as complete boating rigs are stolen. In many cases the loss could have been avoided had a little extra precaution been taken by the owner.

There are several things a boatman can do to discourage theft of his equipment, say the people at Evinrude Motors who handle stolen motor complaints. On most outboard motors, holes will be found in the handles of the clamp screws used in securing the motor to the boat. If the clamps are tightened so that both handles point downward, a regular bicycle lock can be passed through the holes making it impossible to remove the motor without first disturbing the lock.

A boat stored outside and left unattended on a trailer is easy pickings for a thief. All he need do is attach the trailer to a car and speed off. If you store your rig outside, it’s a good idea to lock it down in some manner. A heavy chain can be used to secure the trailer to some stationary object such as a tree or post. Another solution is to chain one of the wheels to the axle. Anything you can do to make it difficult to hitch the trailer without causing a commotion will help.

If your boat is kept in the water, it’s a good idea to keep the area lighted at night. Many thieves are quite bold but most prefer to work under the cover of darkness. A light may be enough to keep them away.

Insurance won’t prevent theft but it will make your loss less serious if it should occur. It’s only good sense to have your rig fully insured for its current value at all times.

AUGUST—1962
Hatching Shad Eggs

THE SUSQUEHANNA RIVER FISHWAY study by Milo C. Bell and Harlan Holmes, now nearing completion, has been augmented again this spring by Pennsylvania Fish Commission fishery biologist Robert Bielo. Fertilized shad eggs were, for the second straight year, secured from Chesapeake Bay commercial fishermen and transported to hatching boxes at scheduled points in the Susquehanna River. While the hatch this year was termed unsuccessful because of high temperatures and very low water conditions in the river, the previous year's hatch achieved 80 to 97 per cent results. Photographs showing how the shad eggs are hatched are by the Fish Commission's chief cameraman Johnny Nicklas.

FISHERY BIOLOGIST Robert Bielo measures a given quantity of shad eggs in a graduated cylinder.

EGGS are allowed to settle to gain an accurate reading.

MEASURED EGGS are shown to (left to right) Harlan Holmes, one of the team of Bell and Holmes making the survey; Maynard Bogart, president, Pennsylvania Fish Commission; and Sunbury newspaper editor, Basse Beck.

INTO HATCHING BOX go the eggs to mingle with the waters of the Susquehanna. A close watch and record is made of all hatching phases.

PROPER ADJUSTMENT of the box keeps the eggs rolling, active and at the proper angle of tilt.
Commission Officers Elected

The Pennsylvania Fish Commission at its July 9, 1962, meeting held at Harrisburg elected Maynard Bogart, of Danville, Pa., as its president and Joseph M. Critchfield, of Confluence, Pa., vice president.

Mr. Bogart, who succeeds Gerald J. Adams, of Hawley, was appointed by Governor George Leader to the Commission on January 16, 1956, to serve until January, 1964. He was the first farmer to serve on the Commission in more than 40 years and has spent a lifetime in the outdoors.

He was a school director for the Valley Township Schools of Montour County, serving in this capacity for five years. His untiring efforts to promote better fishing and hunting throughout Pennsylvania have found a warm spot with many Keystone sportsmen. He has been active in many civic and sports groups in his community.

He is married to the former Louise Parks, of Benton, Pa.; they have seven children—five girls and two boys, and 24 grandchildren.

Mr. Critchfield was first appointed to the Commission in 1940 by Governor James, was again appointed by Governor Leader to serve until January, 1958, and was then reappointed by Governor Lawrence to serve until January, 1966.

He helped organize the Somerset Sportsmen’s League in the Southwest Division of the Pennsylvania Federation of Sportsmen’s Clubs and the Turkeyfoot Game and Fish Association, which he served as president for 25 years.

He is married to the former Anna Belle Blubaugh; they have four children, three boys and a girl. Mr. Critchfield retired from the U. S. Post Office Department in 1955. His vitality, action and concern in all phases of conservation have earned him the tribute and respect of Pennsylvania’s sportsmen.

In other actions, the Commission approved the extending of the trout season through October on all lakes of more than 10 acres which have been stocked with trout.

The Commission also confirmed an earlier mail vote permitting fishing on both sides of Spring Creek from the footbridge to the lower end of the property at Fisherman’s Paradise.

It voted to set all 1963 fishing regulations at an October meeting and according to present plans, a public hearing is scheduled on the proposed regulations in advance of the Commission meeting. The Commission further approved a five-year agreement with Ohio for the management of the Pymatuning Reservoir.
Lightning Strikes More Than Once
—in the Same Place

Lightning is seldom considered as a fish killer but under certain circumstances it can be. When the Benner Spring Fish Research Station was first built, many large brook trout were placed in the pools. They were not there too long when one morning after a hard thunder shower, one of the ponds had a number of these large fish either dead or paralyzed. The fish were unusual in that they had no sign of disease. The only mark was a single black stripe down through the heaviest portion of the back. After an excited session of “What happened?” somebody recalled that this same black streak appeared when fish were hit too heavily with an electric shocker. Therefore, it was concluded that it must have been the lightning from the night before. Subsequent mortalities proved the theory.

Lightning is peculiar in many ways. First the water chemistry must be such that the water is a good conductor. Also the lightning hits only the largest fish because they offer the most resistance to the electricity. Lightning in the ponds cannot be grounded because it is coming from the ground. A bolt can hit a tree a half-mile away, follow down the tree, race through an underground water course and then affect the fish over a distance of at least a half-mile.

Because the lightning couldn’t be grounded, it was difficult to protect the large fish in the ponds. However, with the aid of the Pennsylvania State University a system of cables and metal plates was devised which would carry the lightning around the edge of the ponds rather than through them. Since these have been installed, lightning has had little effect, except for the Home for the Aged, who were recipients of the lightning-killed fish.

KEEN BUSS, Fishery Biologist
Pennsylvania Fish Commission
Benner Spring Fish Research Station

THE SPRING HOUSE

When the hot days of late summer bring the promise of spring’s fulfillment, the country boy of yesteryear, now a graying grandfather, pauses to wipe his brow and remember the cool dampness of the springhouse where, as a child, he found asylum from the heat.

He remembers the barrel churn, the cream separator and the orderly rows of cream crocks placed in the overflow trough, each wooden cover weighted down with a stone. He remembers how stealthily he removed the cover, and, lying on the damp floor, braced himself with his hands in the cool water to drink of that rich goodness. He then replaced the cover carefully, licked his lips to remove telltale evidence and rose refreshed.

He would dig deep into his overall pocket for the red handkerchief that held captive grasshoppers to feed the trout he had placed as a fingerling in the spring. As the fish vigorously hit the insects, the boy noted with satisfaction its brilliant colors and how much it had grown under his care.

Outside the door he paused to observe the lichen-covered phoebe’s nest that blended so well with the gray stone lintel although the nestlings had long since flown. He stopped beside the gray-flagged steps to pick a sprig of wild spearmint, savoring its aroma in a meditative sort of way, and then anticipated a generous crust of hot bread fresh from the oven and topped with rich butter and apple mint jelly.—Albert G. Shimmel

The Feminine Angle

JUST ONE MORE CAST

By MARION LIVELY

The plaintive cry of fishermen resounds, "Just one more cast," as darkness descends and storm clouds loom and dinner gets cold. Which just goes to show what optimists fishermen are. There is surely a big smallmouth by that rock ledge up ahead or a huge brown just has to be under that tree root in the next pool. And that next cast is the one that is going to take him.

On a beautiful day last fall I was fishing for smallmouth in the Allegheny River. Actually the water was too cold for the bass to be feeding actively but the water was low, the day so calm, and the bug burbled along so invitingly that I felt sure any moment a bass would arouse himself from his lethargy to snatch it. Not many did and certainly not that hoped-for monster, but I went happily and hopefully on, sure that the big one that had to be under the next boulder would rear up to my lure. It was a good day—the water was cool, the sun felt good beating down on my back and I was filled with a delicious sense of expectancy. "Just one more cast" was all I needed!

That phrase becomes all too familiar to the families of fishermen. Several years ago we were taking our daughters on their first trip to a particularly remote camp site. My husband and I know and love that place so well that it’s like coming home, but arriving as we did, after dark, I suppose it did seem a little spooky to the girls. The headlights made a tunnel up the dirt road and the only signs of life were some shining eyes and a fox scurrying across the road. The girls were enjoying scaring each other and themselves with tales of bears and snakes. Suddenly, Claudia asked, "Dad, what would you do if a rattlesnake bit me?" Before he could answer Anne said drily, "He’d say, ‘Just one more cast, honey.’"

A man seldom knows what he can do until he tries to undo what he did.
Never Bet on Carp

Can carp ever be taken on the dry fly? As recently as a year ago I would have given five-to-one odds that it couldn't be done. Now let me tell you how I lost a crisp, new five dollar bill.

The friend with whom I made the wager got me up at the crack of dawn and drove me to a five-acre farm pond. He tossed some small pieces of bread on the calm surface and rigged up his fly rod.

Within five minutes a half dozen carp were on the surface feeding on the bread. My friend tied a No. 10 White Miller dry fly to his leader, whipped out line, and dropped the fly in the midst of the bits of floating bread.

Seconds later a 3-pound carp rolled on the surface and engulfed the fly. My friend set the hook and, as the carp took off, he handed me the rod.

That carp stripped off 35 yards of line, right down to the backing, and never stopped. When the spool showed empty I held the rod tip high and held on for dear life. The fish came to the surface, thrashing, and broke the leader at the knot. I confess my hands were trembling when I returned the rod and handed my friend his five spot.

Among sport fishermen, the lowly carp is not generally held in high esteem. But there are several ways of fishing for Mr. Carp that make him as worthy an adversary as any fish that swims.

The most interesting method is surface fishing. Known as Margin Fishing, the technique was developed in England. It is not generally known in this country.

Carp are primarily bottom feeders. But during hot weather they frequently come to the surface at night and early morning to feed on bits of floating algae. It is common to find them rolling on a calm surface at daybreak.

The basic tackle for Margin Fishing consists of a fly rod rigged with floating line or an ultra-light spinning outfit. The bait is a rectangular piece of bread crust about the size of a hait is a rectangular piece of bread crust about the size of a thread crust.

Under ideal conditions, such as in a farm pond, it is possible to scatter bread on the water, get the carp to feeding freely, and drop in a white dry fly. But for "wild" carp it's safer to stick with bread.

Your fishing should be done at night or early morning on a calm surface in the vicinity of surfacing fish. For best results, scatter a few pieces of bread around the hooked crust to attract carp and whet their appetite for bread.

When carp feed on the bottom they do a lot of nibbling on the bait. Not so when they are surface feeding. Turning on their sides, they engulf the food in a gulp, like game fish, and keep on going.—Jim Hayes

The carp bites either at worms or at paste. Of worms I think the bluish marsh or meadow worm is best. As for pastes, there are almost as many sorts as there are medicines for toothaches. Doubtless sweet pastes are best. I mean pastes made with honey or with sugar. These, that you may better beguile this crafty fish, should be thrown into the pond or place in which you fish for him some hours, or longer, before you undertake your trial of skill with the angle-rod. Doubtless, if he be thrown into the water a day or two before, at several times and in small pellets, you are likelier, when you fish for the carp, to obtain your desired sport.

—Izaak Walton

Vacation Quiz for Anglers

PENNSYLVANIA FISH

MATCH:

1. Bull Head
2. Perch
3. Sucker
4. Pike
5. Pumpkin Seed
6. Bass
7. Sturgeon
8. Goldfish
9. Carp
10. Walleye

A. That part of the anatomy of his antagonist most carefully observed by a matador.
B. Formerly a wood commonly used to hold teams of oxen together (or apart).
C. Fancy, but actually they're just relatives of foreigners who came here in the 1890's.
D. Name comes from Old Norse: meaning "to brag or from the Latin, to slander, although heaven knows it has small reason to do either!"
E. Pennsylvania's first roads were so-called.
F. The opposite of Convergent strabismus (cross-eyed, to you).
G. A buyer of gold bricks, a plumber's helper, or one who believes he saves money fishing for his sea food.
H. The veranda on a bird's split-level.
I. Grandparent of a Thanksgiving delicacy.
J. It might be a knight for all its armor; it provides fare for the cocktail party; and its swim-bladder made isinglass, one of the earliest plastics!

OUTDOOR BOOKS


This is a book supposedly written for youngsters with "average parents with average incomes." Nobody quite knows what average is but if you're going to fool around boats even a little bit, it'll take an average around the 7-G mark and more. Damn little in the boating game comes at a discount.

I heartily agree with the author that boating, in the small boat divisions, is a fine, healthy outdoor sport for youngsters with much leisure time on their hands, especially over the vacation period. The book tells of many plans, projects and ideas, such as converting a rowboat to sail at little cost and the pitfalls of building a raft or boat. It also goes on with chapters on seamanship, safety and teaching a healthy respect for boats, water and weather.

Reading along in this book I found myself more and more pitying youngsters of the inlands who often never get the least little glimpse of a lake, harbor or the sea, and many of whom will never get the glorious feel of a tiller.—G.F.
Fish Wardens on Errands of Mercy

District Fish Warden Stephen Shubbick and Deputy Donald Curtis were recently patrolling the Susquehanna River near Falls, where they observed four youngsters in a rowboat.

According to a news story in the July 19 edition of the Tunkhannock Republican, two of the boys attempted to swim across the river, while their boat was anchored near the opposite shore. After swimming about 200 feet, and while still 50 feet from shore, one of the youngsters sank from sight. His companion returned to render aid, and for a moment it appeared both would be drowned.

The two law enforcement officers raced to the scene just in time to pull the two struggling youths from the water.

The two wardens were again on patrol, this time at Lake Winola when they saw a car pull up near the shore; the driver emerged from the vehicle and raised the hood. As the wardens looked on, she unscrewed the radiator cap, apparently to check an over-heating problem. As she did so, hot water and antifreeze cascaded from the radiator, scalding her face and rendering her temporarily blind. Shubbick and Curtis rushed her to her home for first-aid and thence to a physician.

While patrolling Glade Run, I apprehended a man fishing without a license. He told me he had purchased a license high on his grocery list for the following Saturday.—District Warden Clifton E. Ely (Butler and Beaver).

A lady in Warren County has something new in landing nets. Her little fox terrier hups at her side until she catches a trout, then jumps in and retrieves the fish. District Warden Kenneth G. Corey (Warren) figures this is no job for a hard-mouthed retriever.

While preparing a food plot in the Cranberry Glade Lake vicinity on Game Lands No. 111, Somerset County, several crew members and I witnessed something extraordinary. We were caught in a rain and hail storm and took refuge in a truck. Suddenly the surface of the lake came alive with swirling fish; jumping repeatedly, the fish continued this action for 10 to 15 minutes. We wondered if they were striking at the bailer. We noticed the lower bend protruding through the snapper's stomach. My only comment was, "starved snapper."—Special Fish Warden Lloyd J. Hartman.

According to District Warden William E. McInlay (Bedford), more eels were caught during the month of June, 1962, in the last 25 years in Bedford County. It was quite common to find fishermen at night with one to eight eels per.

Smallmouth bass have been at an all-time high this season at Lake Erie. Creek minnows seem to be the best bait. Large perch of the lake are running a close second, hitting best on medium-size emerald shiners.—District Warden Norman E. Ely (Erie).

Tony Lech Day" as recently observed at Schuylkill County Pumping Station Dam. Pennsylvania Fish Commission District Fish Warden Lech, scheduled to retire on July 31, was presented with a fine wrist watch and the best wishes of his many friends by three area sportsmen's clubs. Those honoring the warden are (left to right): Jack Kress, treasurer of Warden Lech; Joe Machulsky, president of the Pumping Station Boosters; Joe Dettery, president of Brandonville Fish and Game Club.—Shenandoah Evening Herald Photo.

Stream Notes

On July 1, Myron Derr, Richland, Pa., stopped at my home for carp dough recipes. Going through back issues of the PENNSYLVANIA ANGLER, we found five. Derr used one of them, went fishing at Charming Forge Dam, then stopped to show me his catch—two 18-inch carp and a snapping turtle weighing about 10 pounds which had hooked itself in a front foot. Next day I got a call from Derr. He showed me two unrusted fish hooks—2½ inches in length and three-quarters of an inch space between the point and the shank. He informed me he had accidentally reached into one of the hooks lodged in the turtle's throat while cleaning it, then noticed the other hook protruding through the snapper's stomach. My only comment was, "starved snapper."—Special Fish Warden Lloyd J. Hartman.

Cynthia Whittingham, 8, of Philadelphia, does not like worms. She put two huckleberries on her hook, cast it into Lake Harmony and pulled out a 21½-inch channel catfish!—Frederick W. Ohlson, District Warden, Carbon Co.

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Fulton County Lake
Under Construction

Construction of Meadow Grounds lake and dam site in Fulton County is currently underway. The 204-acre lake, which will be developed by Fish Commission personnel under the supervision of Edward Miller, chief engineer, will be located on State Game Lands No. 53 in Ayr Township.

The $197,000 project will be financed by Dingell-Johnson funds, which are derived from excise taxes on fishing tackle, and Fish Commission funds.

When the project is completed the breast of the dam will have a maximum height of 37 feet. The dam will require approximately 43,000 cubic yards of earth fill.

In addition to the work on the lake and dam site, according to Cyril G. Regan, chief of the Division of Real Estate and Engineering, the project also will include construction of 2 miles of new access roads and improvement of 1/2 miles of existing roads. Improvements to the site will include parking, sanitary, boat launching and mooring facilities.

The project, which is scheduled for completion in late 1963, was designed by the engineering staff of the Pennsylvania Fish Commission. When completed, the lake will be stocked by the Commission. Normally three to four years are required for the development of an adequate population of legal size fish.

Roger Latham Elected
First VP of OWAA,
Seth Myers, Secretary

Roger Latham, the Pittsburgh Press Outdoors Editor, has been chosen 1st vice president of the Outdoor Writers Association of America. Seth L. Myers, Outdoor Editor of the Sharon Herald, was elected secretary. Outdoor Editor of the Shreveport, La., Times, Grits Gresham, was named president; Bob Steber, Nashville, Tennessean, 2nd vice president; John Gartner, Western Outdoors Editor, 3rd vice president; and E. Budd Marter, III, treasurer.

District Warden Lee F. Shortess (Lycoming) reported he prosecuted a nonresident fisherman who had purchased a resident license in early April but admitted to fishing in 17 states every year with resident licenses and proved his point by showing the warden several licenses from various states.

Fishing had been swell at East Bangor Dam, Northampton County, but it suddenly came to a screeching halt. A vast local locust hatch scattered over the waters of the dam and the fish stuffed themselves in one great "locust orgy." It was all over in several weeks and the fish were again willing to hit ordinary stuff such as worms, minnows and artificials—District Warden Miles D. Witt (Northampton and Bucks).

Let every fisherman remember that one day his son will follow his example instead of his advice.

RAYMOND M. WILLIAMS

RAYMOND M. WILLIAMS, East Bangor, Pa., was appointed to the Pennsylvania Fish Commission in August, 1959, and reappointed by Governor David L. Lawrence in January of 1960 for a term of eight years. Born in Bangor, Pa., in 1921, he attended public school and graduated from Bangor High School, played football, baseball and basketball. After graduation he became active in civic and community affairs, served the Borough Council, managed the Little League organization, was president of the Lions Club, assumed leadership in fraternal and sportsmen's groups.

He became very active in the Pennsylvania Federation of Sportsmen's Clubs with leisure time devoted to the hobbies of hunting, fishing and racing pigeons. In June, 1950, he entered into a business partnership with his brother, Charles, jointly operating the Greenwalk Trout Hatchery located near Bangor.

He is married to the former Madeline Johnson; they have one daughter, Jackie.

His devotion to conservation generally and to better fishing in Pennsylvania in particular has been long recognized by sportsmen throughout the southeastern section of the Commonwealth. His fight for clear, clean water, more boating access areas and a better break for outdoor-loving folks, has won him a host of friends in Pennsylvania and elsewhere throughout the nation.

The 1962 "Sportsmen's Manual" published by the Clarion Council of Sportsmen's Clubs is packed with hunting and fishing information. It includes trout stocking in county streams, addresses and telephone numbers of county fish wardens and the supervisor, a list of club chairman and how to contact them, plus other items of useful information. The Council is complimented on a fine booklet.
A hair packer should first be made to insure a tightly packed hair body. Cut the handle from an old toothbrush and drill a couple of additional holes of different diameters to accommodate several hook sizes (See fig. No. 5).

Place a size No. 6 long shank hook in a vise and anchor size A tying silk or nylon to shank in position shown.

Place two dark gray marabou plumes back to back and tie in.

Cut a tuft of deer or antelope body hair from the hide and grasp butts of hair between thumb and forefinger of right hand. Slide hair over eye of hook and position hair so that it completely surrounds hook and hair ends overlap base of marabou. Maintaining hold with right hand, take a complete turn of thread around hair with left hand and pull thread tight. Move thread forward of hair and half hitch.

Grasping hook behind hair with left hand, slide hair packer over eye of hook with right hand and press hair firmly back.

Cut another tuft of hair and grasp with left hand. With right hand, take a loose turn of thread completely around hair and slide hair down thread until it is flush with hook shank. Swing thread under shank and over hair, and pull thread firmly downward, causing hair to flair and spin around shank. Move thread forward of hair, half hitch, and compress hair with packer. This step should be repeated until the hair body fills the hook within \( \frac{1}{4} \) inch of the eye.

Whip finish and lacquer head.

Trim hair body to a semi-flat, oval shape. Bevel top of body to eye of hook to make lure ride below surface film when worked.

Finished Marapole, wet.

Marapole should be tried in various color combinations and sizes.
Every seasoned river bass fisherman has had the soul-shattering experience of seeing a big smallmouth charge into a pod of tadpoles in water so shallow that the topside of the bass is fully exposed. This is not an uncommon occurrence in late summer and fall, and although the plug and spin fisherman usually has a tadpole lure of some sort in his box to cope with this situation, an imitation suitable for use with the fly rod is not generally available unless the fisherman makes his own.

The combination of marabou plumes and deer or antelope hair makes an ideal fly rod tadpole imitation and the Marapole was born of the necessity of having something in the bass kit to satisfy the tadpole eaters. The Marapole can be easily tied by following the step-by-step procedure and photographs.

The Marapole will fish just under the surface with its marabou tail wiggling frantically when worked in short twitches of the rod tip. Or, if you prefer to fish it deep, you can squeeze water into the hair body and it will go down.

The first Marapole was christened by my wife during the 1960 season on the Allegheny River near the mouth of Big Sandy Creek. With it she caught and released some twenty-five bass in an afternoon's fishing and it was enough to convince us that the smallmouth show a liking for tadpoles.

—Just ask any bass.
FIVE-YEAR-OLD Roy Hockenberry, Altoona, Pa., caught this fine 18-inch brown trout in the Red Zone above Bellefonte Hatchery on a minnow. It was no fluke because he had taken a 14½-inch trout the week before.

BIG MUSKY, caught by John Fowler, Williamsport (on left), at Hills Creek Lake. L. H. Stebbins (on right), Hills Creek, helps hold the 36-inch, 15-pound beauty. —Wellsboro Gazette photo.

EIGHT-YEAR-OLD Donny Mummey, Zion Grove, caught this beautiful 26-inch, 5¾-pound brown trout in Mahoning Creek, east of Danville, Pa., on a salmon egg and night crawler.—Shenandoah Evening Herald photo.

BIG BASS, 20-inch, 5½ pounds, caught by Charles Cleveland (on right), Asaph, Pa., at Hills Creek Lake, is admired by Timmy and Don Campbell (left and center), of Wellsboro, Pa.—Wellsboro Gazette photo.

WALLEYE FISHING WAS HOT for Vincent Beige, Meadville, Pa., at Pymatuning Lake recently and here is the stringer of six dandies to prove it. —Meadville Tribune-Graphic Arts Photo.

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