SALES TAX RETURN?

Throughout most of the long history of the Fish Commission, its fishing and boating programs have been supported by revenue derived from the sale of fishing licenses and boating registrations. In essence, those who have enjoyed fishing and boating have pretty much paid the bill for their sport. Seemingly, this system is a good one, as it has left the Commission in a relatively independent position regarding its goals and programs.

Actually, it is difficult to quarrel with a system that requires the individual who enjoys a special service to pay for that service. On the other hand, it has become increasingly evident that the fishing and boating programs are serving a much broader group of people than just the license buyers and registration holders.

As an example, boaters point out that for every registration, at least eight people enjoy boating pleasures on the waterways. Among the fishermen, it is as easy to set forth such a specific number; however, we do know that several hundred thousand unlicensed youngsters under age 16 fish every year and harvest thousands of hatchery-produced trout. We are well aware that thousands of people who are not licensed fishermen enjoy visits to our many Fish Commission lakes and hundreds of access facilities. A census of people at our access areas and lakes often shows that while the area is being heavily utilized, only a small percentage of the users are actually licensed fishermen or registered boaters.

No one finds fault with the fact that great numbers of people are obtaining enjoyment through the use of areas developed and maintained by the Commission and certainly we do not in any way begrudge the youngsters the enjoyment of catching trout. In fact, the Commission encourages such activities and sponsors a Center City Cane Pole Program that will serve over 75,000 youngsters this year and will provide them with fishing equipment, sun hats, supervision, bait; and, of course, an ample stock of fish in the ponds being used. The Commission also stocks dozens of community ponds throughout Pennsylvania for the enjoyment of area youngsters.

Other activities of the Commission that are paid for by the fishermen and registered boaters involve the review of virtually every project affecting our waterways to assure these precious water resources are properly considered by the construction agency. Another effort having broad public application is our work dealing with water pollution. I could mention many more examples of Commission endeavors that serve far beyond the interests of just the fisherman or the boater, but I would rather use this remaining space to point out that if their programs are to continue, we need a broader base from which to obtain operating revenues.

While license fees from fishermen and boaters have supported the programs of the Commission for several generations, rising costs will soon make it an extremely burdensome matter for the license buyer to support the total program. Actually, we are very much of the opinion that it is no longer fair to put the entire cost of our programs on the license buyer. Part of our reason is simply that the license buyer is not the only recipient of benefits of our programs and secondly; our programs for fishermen and boaters, and the many others who enjoy our developed outdoor areas, generate a tremendous amount of business. A great part of this business involves the sale of all types of fishing, boating, camping and other outdoor equipment, in addition to the many services required to support fishermen and boaters such as restaurants, bait shops, boat liveries, etc.

It is our opinion that the Commission should derive some financial return from the great amount of business that is generated by those pursuing fishing and boating interests. To achieve a monetary return, we believe that it is only fair to request that at least a small percentage of the sales tax collected from the sale of all types of tackle, boats, motors, camping gear, etc., be returned on a pro-rata basis, not only to the Fish Commission, but to the several other State agencies maintaining developed outdoor recreation areas throughout the Commonwealth.

Obviously, there are always complications in such a scheme, however, we doubt if anyone can question the fairness of returning some of these tax funds directly to the agency responsible for generating the business, nor can we believe there would be criticism over the use of such funds to further improve and develop outdoor recreational programs that will serve ever increasing numbers of Pennsylvanians in more places throughout the Commonwealth.
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COVER ART/Fall trout fishing can bring untold joys to the hearts of dedicated fly fishermen. It's a colorful time to be out and the challenges make every catch a prize. Artist Edward C. Schaefer captures the mood for this month's cover.

D. THOMAS EGGLER, Editor / CHESTER A. PEYTON, Circulation Manager

POSTMASTER: All 3579 forms to be returned to The Pennsylvania Fish Commission, Box 1673, Harrisburg, Pennsylvania 17120.

The PENNSYLVANIA ANGLER is published monthly by the Pennsylvania Fish Commission, 3532 Walnut Street, Harrisburg, Pennsylvania. Subscription: One year—$2.00; three years—$5.00; 25 cents per single copy. Send check or money order payable to Pennsylvania Fish Commission. DO NOT SEND STAMPS. Individuals sending cash do so at their own risk. Change of address should reach us promptly. Publish both old and new addresses. Second Class Postage paid at Harrisburg, Pennsylvania. Neither Publisher nor Editor will assume responsibility for unsolicited manuscripts, materials or illustrations which are addressed to the Pennsylvania Fish Commission, Box 1673, Harrisburg, Pennsylvania. Copyright © 1971 By the Pennsylvania Fish Commission. All rights reserved. NOTICE: Subscriptions received after the 5th of each month will begin with the second month following.
ENLIGHTENING

It is with great pleasure and satisfaction that I renew my subscription to Pennsylvania Angler. I have read the magazine for more than a year now, and enjoy each article immensely. I especially enjoy such articles as "Natural Trout Reproduction," and "Fishing Outlook."

For many years in the streams surrounding my native Plains Township, I enjoyed the fantastic trout fishing that these waters afford. They are truly some of the state's finest fishing waters. I now reside in Maryland, and find it impossible to trout fish without several hours of driving time. My fishing trips, therefore, are few and far between so, as a result, I find myself enjoying the Angler more than ever. It is an enlightening and informative magazine.

J. WM. NEARY, Laurel, Md.

NO FEAR

I have no fear of poison ivy. I've eaten it, I've cut it, carried it, and burned it and walked in the smoke from it, until I was told by a friend it was poison ivy.

I worked on the highway crew and I always cut the ivy and got rid of it and it never bothered me but for friends who get it several drugs are available to provide relief.

FRANK SEVER, St. Clair

PRINT POLLUTORS

The Pennsylvania Angler is my favorite fishing magazine but I think it should have more stories about how fishermen and boaters can prevent and fight pollution. For an example when industry dumps acid or waste into a stream and we get a fish kill—do a feature story on it. If the company is convicted or pleads guilty and is fined, then you should print the company's name and the amount of the fine. Keep the readers of the Angler aware of all the hundreds of miles of polluted streams we have in our state as well as the good streams.

JAMES GABELLI, Erie

IMPORTANT STEP

I wish to take this opportunity to compliment the editor and staff of the Pennsylvania Angler. I am presently serving overseas with the U.S. Navy and I am happy to say that I am still receiving your magazine and enjoying it even more. One of the most important and best features in your latest issues has been your campaign on the fight towards clean streams, rivers and lakes. I feel that this is an important step, not only towards improved fishing, but also for Pennsylvania's overall preservation of it's natural environment.

C. G. MOLINO, USN
KEEP WRITING!

I read Mr. Bielo's editorial from the recent issue in one of our local newspapers. It was very interesting and I must say most heartily I don't think he really enforced the present policy as we should. Those signs along the highways make people aware of the problem, but after a while everyone knew the fines were way out, and would never be enforced.

I spend a lot of time walking over the countryside here in Spring Mount along the Perkiomen Creek and I believe we are on the border line. We still have time to save our country if we stop litter now and clean up. It's only when you walk through the countryside and take a look around you that you realize what is meant in an article such as yours. Keep writing!

WILLIAM STAHLEY, Jr.
Spring Mount

NATURAL REPRODUCTION

I read with interest Bob Hesser's three articles dealing with Pennsylvania's Natural Trout Reproduction in the May, June and July issues.

Mr. Hesser, in the three articles sets forth a good deal of information but in conclusion passes the buck by informing that the Commission cannot legally require pollution treatment facilities, etc. This may be true but the Fish Commissioners do have the power to set aside streams under special regulations that would encourage and enhance the natural reproduction that is already present. The effects would be immediate while seeking long range anti-pollution goals. Is the executive branch making any such recommendations?

Mr. Hesser also talks about "wilderness" and "walk in" streams presently under consideration. Certainly these are not the only natural reproducing trout streams across this state. It is my understanding that significant wild trout reproduction occurs in many streams that are not in the wilderness category. Are these to be abandoned? I think this would be a tragic mistake.

I believe the Governor realizes the importance of Pennsylvania's natural reproducing trout streams and that the executive branch of the Fish Commission could do something positive by making specific recommendations to the Commissioners for action now.

JOHN F. BUSCH, Jr.
Trout Unlimited
Northwest Pennsylvania Chapter

CARP OVERLOOKED

I enjoy reading the fishing articles in your magazine. You seem to cover most of the types of fishing in Pennsylvania, however I feel you have overlooked one important fish—the carp. Only a few people enjoy catching these fish because many others don't like them for some reason but the way our environment is falling, the carp seems to be one of the most likely to survive. They are one of the most fighting and powerful fish I've ever caught.

DAVE HILL, Morrisville

WANTS TO JOIN

I would like to join a fishing club and perhaps one of our fellow readers can tell me of a good club. I have belonged to a number of rod and gun clubs but the emphasis in the clubs has always been on guns and hunting (which is fine if this is where your interests are) but I have become so involved with fishing that I have given up hunting.

I am also interested in supporting any organization which is fighting the pollution of our waters and would devote some of my time helping in this fight. Can anyone give me some good leads?

JOHN KENNETH BELLIS
5931 "A" Street
Philadelphia, Pa. 19120
“OLD GRANDPAP”

“Having some free time in the early afternoons and evenings, I generally spend my time along the Allegheny River or Tionesta Creek. Sometimes I fish but mostly I’m just looking. One of my favorite stops is the old Route 62 bridge over Tionesta Creek, midway between the reservoir and the Allegheny River. One day in May of 1968 I stood on this bridge. Not a fisherman was in sight and Tionesta Creek was in beautiful shape, crystal clear and with a goodly flow. A huge tree had floated down the creek early in the spring and lodged against one of the abutments. Its end protruded beyond the downstream end of the abutment and the water’s action over the years had produced a deep hole there and the huge tree trunk made perfect cover for the fish.

“Looking over the bridge that day I noticed this thing lying in the water just under the tree trunk. I had seen it many times and had always passed over it, taking it for a log or a railroad sill that had lodged there. This time the clarity of the water and the position of the sun gave me a good look at it—I realized then that it was a fish. It was a musky, and a whopper at that. It didn’t take me long to hop into the car and beat it back to the house for my musky outfit and the one big bait fish that I had been saving. I returned to the bridge in record time and rigged up.

The first cast landed in perfect position. As soon as the bait landed I could see this vee heading for it. A fish smashed into the bait and took off. I gave it plenty of time, then set the hook. He was on and put up a determined fight but I finally was able to get him up on the shore. As he lay spent on the shore I admired him—a musky 44 inches long with perfect color and confirmation. But it wasn’t the fish I had seen, now named ‘Old Grandpap.’ The fish I had seen from the bridge was 5 feet long if he was an inch, a good foot and a half bigger than the one I’d caught.

I kept coming back to the bridge daily and a few days later I spotted ‘Old Grandpap’ again. Back at his old stomping grounds, he refused anything and everything I threw at him. Then an oldtimer who fished that pool regularly approached me one day at the bridge and told me that he knew I’d spotted the big fish. He said, ‘I’ve seen him many times returning to this pool after he’s been out hunting in the shallows but I’ve been afraid to tell anybody how big he is for fear that they would laugh at me.’

“That month my knowledge of Old Grandpap ended. I walked out onto the bridge one day and was amazed to see a bulldozer in the stream. They bulldozed the stream flat and shallow, jerked out the tree trunk and filled the hole by the bridge pier. A swimming beach created in this once perfect fishing hole stands there today, flat barren and uninhabited. ’Old Grandpap’ had moved out. Wherever he moved to—upstream in Tionesta Creek or possibly down into the Alleghenies—he’s not been reported since. If any one has spotted him or had him and they’re not talking.”

That’s what Lud Haller, owner of Haller’s Sport Shop and Service Station told me during a trip there last summer.

The next time you’re in Tionesta stop at Haller’s and ask Lud about ‘Old Grandpap,’ the Musky at the Tionesta bridge.

FISHING TOURNAMENT

Over the course of the year there are many tournaments or fishing contests held throughout the state. Sponsored by local clubs, chambers of commerce, fishing tackle companies, magazines or breweries they all add to the excitement of fishing in our state. One of the best of these is the Pennsylvania Fishing Tournament sponsored by the Tidioute Chamber of Commerce. This year’s tournament, the twelfth annual, will be held on Saturday and Sunday October 9 and 10. Site of the tournament is the Allegheny River, a 46 mile stretch from the tailrace of Kinzua Reservoir down to the Hunter Station bridge below Tionesta.

The rules of the tournament are few and simple. All Commission rules and regulations as to sizes, seasons and creel limits prevail. There is no registration nor are fees involved. Non-residents are welcome and usually show up in good number. The King of Pennsylvania Fishermen is crowned Sunday after the close of the Tournament.

A point system is used in determining the champion of the two day outing. Each legal musky is worth 10 points in scoring; northern pike rate 6 points; walleye get 4 points; and bass are 2 pointers. All fish to be entered in the contest must be registered at the Tidioute Water Company office on Main Street on Saturday between 2 P.M. and 10 P.M. Fish caught Sunday must be registered between 12 noon and 2 P.M. when the contest officially closes. Total points for the 2 days determine the champion.

Bass must be 12 inches and wall...
Fishing Outlook—

18 inches in length to enter in the tournament. Prizes are also awarded on Saturday for first, second and third largest fish of each of the four contest species. A special prize is awarded for largest Citation fish in each category. Sunday’s awards also include a prize for the largest Citation fish in each of the four contest species.

At this time of the year the Allegheny Mountains are at their finest. The brilliance of the foliage is well worth a visit to the area. The river by now is normally free of the floating aquatic growths and the summer boating pressure is over. The town of Tidioute takes on a carnival atmosphere. Local civic organizations have set up four areas where good meals at reasonable prices are available. The water company office where the registered fish are kept in a huge ice filled table top box draws the most visitors. Motels, hotels and the tremendous number of hunting camps in the area make overnight lodgings no problem at all.

Access to the river is fairly good throughout this stretch. Commission access areas are at Starbrick, just below Warren; the mouth of Brokenstraw Creek and two miles above Tidioute on Route 62. Another is across from the Tionesta hatchery. There is a place to launch at the West Hickory bridge but it is tricky. In Tionesta Hoover’s landing is a private launch and boats are rented there as well at Brady’s in East Hickory. Esther Williams’ camps also have a launch area and there is a launch ramp at Buckaloons State Park too.

George Jones, waterways patrolman for Warren County, has 31 miles of the river in his district. His favorite spots in the river are at the tail race of Kinzua Reservoir for walleye and musky; the mouth of Brokenstraw creek for walleye and the entire stretch for smallmouths. A very good float trip is from the Starbrick Access down to the ramp at Buckaloons State Park. Only 2 to 3 miles long, it has lots of good holes and riff and you can really concentrate on fishing each part thoroughly. George would spend time fishing first for bass with river chubs 4 to 5 inches long. Helgrammites are also good if you can get them. Musky and walleye take these baits well too.

His next choice would be fishing for walleye with all white or all yellow jigs. Third try would be for musky with big suckers for bait. He suggests using lures like big #5 Mepps spinners in silver, jointed Pikie Minnows, or the big Rapala’s.

Joe Kopena, Waterways Patrolman from Forest County, lists as his favorite spots the Trunkeyville Eddy, two miles above West Hickory at the West Hickory Bridge; the Tionesta riff across from the hatchery; around Bakers Island below Tionesta; and the pool and riff near Hunters Station Bridge. Joe would fish for bass first, walleye second and musky third if he were fishing in the contest. Like George Jones he is a firm believer in river chubs as the bait to use.

Watercraft Safety Officer Paul Swanson who has been on duty at the tournament for several years would concentrate first on musky. Big live suckers are his top choice for bait with big spinners and the Rapala lures next in line.

Fish Commission Biologist Ron Lee has been running extensive tests in the river over the last few years in this stretch and reports good populations in all the contest species. Ron has been tagging and releasing game fish that he’s been getting by shocking and netting. The fish are identified with a blue tag that looks like a piece of spaghetti and is attached in back of the dorsal fin. If you catch one of these tagged fish during the year take note of the location of your catch, date, weight and length and the number on the tag and make this information known to a Fish Commission representative. Ron is studying the migrations of fishes towards the Kinzua tailrace, among many other things.

Last year’s winner of the tournament was Dick Wagner of Clarendon. He took one northern pike on Saturday and six bass for a total of 20 points. On Sunday he had 4 more bass for 8 points and an aggregate total of 28 points. This earned him the title of “King of Pennsylvania Fishermen.” Runners up were Tom Simms of Austin with 22 points and Paul Viglo of Warren with 18 points. J. Wagner of Blairsville took last year’s biggest musky, a 10½ pounder. Frank Andy of Canonsburg had a 29½ inch northern which was the biggest for that species. The Tidioute Chamber of Commerce puts out a nice brochure on the contest that is available in the area or by mail. Write to Jim King, Chairman of the fishing tournament at the Tidioute Chamber of Commerce, Tidioute, Pa. 16351.

See you at the tournament.
Summer has faded away and with it went those warm evenings when the evening hatch and the setting sun disappeared into darkness and nighttime fishing for big brown trout. But the diehard trout fisherman can still enjoy plenty of activity during the cool “Indian Summer” now with us. Yes, summer may be gone—but trout fishing has by no means departed. Under the Pennsylvania Fish Commission “extended season” trout fishermen can now enjoy what, to many, is the best trout fishing of all. Our colorful mountains and the fluttering leaves foretell the conclusion of another year—and forecast the arrival of winter.

All ponds, lakes and reservoirs are still open for the trout fisherman who enjoys lake fishing but, best of all, so are many prime streams. And most counties—fifty-nine of our sixty-seven—have selected streams still open to fishing until the end of this month.

There is probably no better time for the fly fisherman to be out although the extended season is by no means limited to fly fishing. The spring crowds and the summer insects—or most of each—have gone elsewhere. The fellow who likes to fish alone, or at least to have one pool all to himself, should not have much difficulty finding a vacant spot. And, if he does meet someone else, there is little chance they’ll be tangling each other’s lines. Most fall trout fishermen understand the etiquette of the sport, unlike some of those who turn up in spring ready to stake up the center of a stream disregarding everyone else. In fact perhaps one of the nicest side benefits of fall trout fishing is meeting the infrequent anglers—out now to enjoy the same kind of sport.

But trout fishing in the fall can be tough—a real challenge to those who like a challenge. Trout stocked in spring and summer are no longer the easy mark they have been when first released. They’ve learned the rules for survival and they’ve learned to pick and choose—one that might have fallen for a kernal of corn or bit of bread in the spring now depends on a natural supply of food. Infrequently will they fall for anything so obviously fake and their eyesight—or at least their understanding—has improved. Perhaps when they were first released they identified a man on the horizon with that hatchery worker who fed them, but by now they’ve found out their food no longer comes so easily and perhaps they’ve also learned
that the figure on the horizon can mean serious trou-

The clear, low waters we frequently have in the fall make the trout unusually wary. Most fall trout fishermen are of course well aware of this. The successful ones make approaches cautiously, very cautiously. Spooked trout are seldom creel’d so approach and delivery are perhaps at the head of the list of challenges facing trout fishermen now on our streams.

Next, of course, comes what to use. The experienced fall trout fisherman selects carefully—as he does always. What will he use? Probably any number of flies, so long as something similar is found in the waters he’s fishing. If it’s your first fall out make a point of talking with some other fall fishermen—most will be happy to explain their methods for success.

Fall fishing, particularly on our streams, certainly could not be called easy but it can be some of the most enjoyable fishing you’ll find all year—not only will it be a challenge to your abilities but will also give you a chance to quietly pursue the sport amid one of nature’s most beautiful seasons.

by TOM EGGLER
Editor, Pennsylvania Angler

EXTENDED SEASON STREAMS
EXTENDED TROUT SEASON—1971

The following waters are open to trout fishing from September 7, 1971 to midnight, October 31, 1971:

ALL LAKES, PONDS, RESERVOIRS AND THE FOLLOWING STREAMS:

ADAMS COUNTY—Antietam Creek, East Branch; Carbaugh Run; Conewago Creek; Conococheague Creek; Latimar Creek; Little Marsh Creek; Middle Creek; Toms Creek. ARMSTRONG COUNTY—Buffalo Creek. BEAVER COUNTY—Little Beaver River, North Fork. BEDFORD COUNTY—Bobs Creek; Wills Creek; Cove Creek (tributary to Raystown Branch, Juniata River); Yellow Creek (tributary to Raystown Branch, Juniata River). BERKS COUNTY—Allegheny Creek; Angelica Creek; Biehler Creek; Cacocacung Creek; Furnace Creek; Hay Creek; Manataweney Creek; Mill Creek, trib. to Sacoony Creek; Mill Creek, trib. to Schuylkill River; Mill Creek, trib. to Little Swatara Creek; Moselem Creek; Northkill Creek; Perksmen Creek; NW Branch; Pine Creek, trib. to Maiden Creek; Sacoony Creek; Spring Creek; Swamp Creek; Tulpehocken Creek. BLAIR COUNTY—Clover Creek. BRADFORD COUNTY—Schrader Creek. BUCKS COUNTY—Cook’s Creek; Mills Creek; Nesbittin Creek; Umami Creek. BUTLER COUNTY—Buffalo Creek.

CAMBRIA COUNTY—Chestnut Creek. CARBON COUNTY—Mud Run; Pahopoco Creek; Lehigh River from Jim Thorpe downstream. CENTRE COUNTY—Pennis Creek; Spring Creek. CHESTER COUNTY—French Creek. CLEARFIELD COUNTY—French Creek; Chestnut Creek. CLINTON COUNTY—Big Fishing Creek. COLUMBIA COUNTY—Fishing Creek; Roaring Creek. CRAWFORD COUNTY—Oil Creek; Woodcock Creek. CUMBERLAND COUNTY—Green Spring Creek; Letort Spring Run; Middle Spring Creek; Mountain Creek; Yellow Breeches Old Town Run; Yellow Breeches Creek. DAUPHIN COUNTY—Clarks Creek; Manada Creek; Powells Creek; Powells Creek, North Fork/Powells Creek, South Fork; Rafter Creek; Railing Creek; West Branch; Stony Creek.

ELK COUNTY—Clarion River, West Branch. ERIE COUNTY—French Creek; South Branch. FAYETTE COUNTY—Dubam Creek. FOREST COUNTY—Tionesta Creek. FRANKLIN COUNTY—Antietam Creek, East Branch; Antietam Creek, West Branch; Broad Run; Campbell Run; Carbaugh Run; Conococheague Creek; Conococheague Creek; East Branch; Conodune Creek; Little Cove Creek; Dennis Creek; Dickey’s Run; Falling Spring Creek; Five Forks Creek; Muddy Run; Red Run; Rocky Run; Roa Run; FULTON COUNTY—Cove Creek (tributary to Licking Creek). HUNTINGDON COUNTY—Standing Stone Mahoning Indiana Creek. JEFFERSON COUNTY—North Fork Red Bank Creek.

JUNIATA COUNTY—Tuscaraora Creek; Lost Creek.

LACKAWANNA COUNTY—Lehigh River. LANCASTER COUNTY—Beaver Creek; Climbers Run; Little Conestoga Creek; Conococheague Creek; Donegal Springs Branch; Fishing Creek; Hammer Creek; Indian Run; Londonland Run; Middle Creek; Octoraro Creek; West Branch; Pequea Creek; Rock Run; Selglock Run; Shearers Creek; Stewarts Run; Swarr Run; Tusquen Sun. LAWRENCE COUNTY—Big Neslimock Creek; LEBANON COUNTY—Bachman Run; Conewago Creek; Hammer Creek; Indiantown Gap Creek; Mill Creek; Smits Creek; Stoney Creek; Trout Creek; Tunpehocken Creek. LEHIGH COUNTY—Big Trout Run; Cedar Creek; Cope Creek; Jordan Creek; Little Lehigh River; Lehigh River; Ontelaune Creek; Sacon Creek; South Branch; Swaha Creek. LUZERNE COUNTY—Lehigh River. LYCOMING COUNTY—Loyalsock Creek. MCKEAN COUNTY—Potato Creek. MERCER COUNTY—Neshannock Creek. MIFFLIN COUNTY—Kisharockillas Creek; Penns Creek. MONTAGUE COUNTY—Bridgel Creek. MONTGOMERY COUNTY—Mill Creek; Umami Creek. NORTHAMPTON COUNTY—Betsch Creek; Bushkill Creek; Little Bushkill Creek; Cataquaqua Creek; Hokenauqua Creek; Indian Creek; Jacoby Creek; Martins Creek; Little Martins Creek; Monocacy Creek; Saucony Creek; Rader Run; Perry County; Browns Run; Buffalo Creek; Little Buffalo Creek; Horse Valley Run; Little Juniata Creek; Laurel Run; Liberty Valley Run; McCabe Run; Montour Run; Panther Creek; Raccoon Creek; Shaffer Run; Sherman Creek.PHILADELPHIA COUNTY—Wissahickon Creek. PIKE COUNTY—Lackawaxen River; Sho-hola Creek.

SCHUYLKILL COUNTY—Bear Creek; Beaver Creek; Little Catawissa Creek; Deep Creek; Lizard Creek; Lookout Creek;continued on page 28
How To Keep A

"QUIET CRAFT"

by Wayne Heyman
When cruising at normal speed, does your boat sound if it's ready to fall apart? Don't be alarmed—the trouble might not be any more serious than a loose spark plug, a bent prop, or improper alignment of connecting rods. Fortunately, some of the most disturbing noises have the least serious causes. So before deciding on an expensive overhaul, give your rig a quick check.

Unless something is badly out of whack, tracing down looseness aboard ship can be a simple chore. The biggest factor in knowing where to look. Needless to say, every rotating engine part and every bolted down section of the boat is a potential source of noise. But certain noises possess characteristics which point to their origin.

In tracking down chatter, an owner will pick up a thorough knowledge of his craft, for often it's necessary to dig deep into the boat to figure out where some sour note comes from. Any boat noise is likely to be frowned on as an ailment in itself, but the truth is, noise always is an indication of a condition, good or bad. There is a favorable side to noise too, since it often is a guide indicating what things are operating normally. An outboard engine tuned for top speed, for instance, should show some tappet noise when cold; running, it should have a deep purring sound. A boat with all fastenings bolted down solidly will give a nice creaking sound of tightness when rising or falling with waves.

Loose sections of chrome trim, hardware, or rivets in a metal hull create a grating sound that is annoying as a guitar string being plucked incessantly. Tracing down this irritation might take some doing, since the sound itself has a habit of echoing to some opposite direction. When found, the trouble is usually remedied by either evening the rivet's head with a hammer or tightening down the trim or hardware with a screwdriver.

If your boat develops the annoying tendency of being hard to keep on a straight course, the chances are the steering gear is loose where it is bolted to the panel. It shifts position slightly when you put a strain on it, enough to cause binding along with a rusty hinge sound. If you steer by tiller bar, then check the rear motor mounts in a hurry. Looseness in this area not only makes steering a problem, but you're likely to lose the engine overboard.

Windshield mounts, running lights, and hinged fixtures will in time work free on even the best constructed craft. The only solution here is to go over the entire boat, from stern to stern, at the start and end of each season. Don't neglect the trailer. With its many bolts, washers, and nuts, it can be a distracting, if not embarrassing, noise-maker when pulled down a crowded highway.

Of all noises that cause boat owners concern, the most worrisome is that sudden knock that starts pounding away in the engine. This could indicate bearing trouble, but before reaching for the checkbook, take a closer look. That dreaded knocking might not be any more serious than an inexpensive tappet gone bad.

Engine noises are a book in themselves. One reason is that the sounds can assume all forms, including knocks, groans, clicks, rattles, and thumps. Although all major overhauls should be left to the trained hands of either a mechanic or a qualified service dealer, most sudden "engine noise" can be corrected, with little difficulty, by the boat owner himself. All that is required is an interest in a smooth performing engine, a minimum number of tools, and a few moments of spare time.

First locate the sound. The service manual supplied with every new engine is essential. For example, it helped one boat owner to determine quickly that a mysterious wheezing sound was simply the result of a loose spark plug. Generator brushes frequently act up, and can cause quite a fuss if there is too much tension or if their holders are loose. Simple trouble of this type can be quickly corrected—provided you know where to locate the generator. This is where the service manual comes in handy.

Strange squealings cause their share of alarm, and the sound keeps reaching for higher pitches with each engine revolution. Trouble from this source is usually harmless if corrected early. Inspect the distributor shaft, or the generator shaft, and lubricate according to manufacturer's specifications. If the trouble persists, check out the oil check points. Often a squeal is just the water pump crying for lubrication. However, if the fault isn't corrected, then take the engine into a service shop.

Watch for loose linkage keys and replace or tighten whenever necessary. Also check for loose screws in the body of the fuel pump. Never wait for signs of leaking fuel before going over this area, since there is too much risk of a dangerous fire hazard. The filter bowl is another part of the fuel system that needs periodic tightening. After emptying the bowl, try to replace it in the same position with attention given to the gasket. Check carefully for leaks. The new rubber gaskets seem to give best protection and are less trouble than the cork type.

A bent, out of pitch, or dented propeller can make plenty of racket and at the same time, shake your teeth loose. Trouble from this source is often confusing since the prop is out of sight and many boat owners think the trouble is in the lower unit. If the prop is to blame, better replace it or have a service dealer true up the blades on a pitch block.

The biggest trouble-maker, and often the hardest-to-find noise source, is loose equipment. One boat owner we know practically tore his craft apart trying to find a certain thunking sound. After wasting several days searching for the sound he got a mechanic interested to take a short run in the boat. Sure enough, the sound started up. Listening carefully, the mechanic plunged his hand into the bilge, probed around for a moment, and brought up the noisy culprit—a discarded spark plug!

OCTOBER-1971
A visit to the new LINESVILLE HATCHERY

Last April the Pennsylvania Fish Commission for the first time held an Open House at the completely modernized Linesville Fish Hatchery, headquarters for the Commission's program for warmwater species.

The hatchery, located on the sanctuary area of Pymatuning Reservoir just south of Linesville, was established in 1939. It is one of the largest inland hatcheries in the world but until this year all operations were concentrated in several small, old, wooden buildings.

Planning for a new facility began several years ago, but it was not until Project 500 was approved that financing for the modernization was available. Then the Commission's Engineering Division quickly dusted off the early plans, added a number of new ideas and not many months later a contractor was at work. And now, just years after Project 500 opened the way for construction, this completely modern hatchery is producing thousands of fry and fingerlings for stocking in the increasing number of waters in our Commonwealth where various warmwater species are required.

The open house held in April gave thousands of interested persons a chance to see first hand how hatchery operations will be conducted at the efficient new center, but if you missed the open house you can still visit the area any day of the week between 8:00 a.m. and 5:00.

First step in touring the area is a stop at the new Robert J. Bielo Visitor's Center in the main building which also houses the main hatchery area as well as offices for the chief of warmwater fisheries. Central feature of the visitor's center (which was named in honor of the Commission's Executive Director who began his career at the Linesville Station years ago) is a large aquarium tank in which most warmwater species of fish common to Pennsylvania intermingle. The lower level of the building is used for all hatchery operations with an elevated observation platform where visitors can watch Commission personnel at work.

If you're traveling anywhere near northwestern Pennsylvania be sure to take time to see this sparkling new facility—you'll find it interesting!
Visitors during the open house filled the lower level as the hatchery staff demonstrated procedures (left). Visitors saw how fish are netted from the sanctuary, brought into the building, and then sorted and handled during the busy spring spawning time. Workers conducted some demonstrations from an elevated platform to enable more visitors a chance to see what goes on. Normally visitors get to watch the whole thing from the platform where the picture on the left was taken. Two views of the new building are shown above and below. The top view greets visitors to the area; the lower view faces the sanctuary—the open area at the lower left of the building (below) is where boats are brought directly into the building for loading and unloading fish netted from the lake.
Every good fisherman has his favorite lures, spots, and time for fishing but what works for one may not work for another. Don Neal, that well-known outdoor columnist from Warren, tells us how he enjoys some terrific bass fishing on the Kinzua Reservoir...

THE BLACKER THE NIGHT

by Don Neal

Fishermen at the Kinzua Dam, busily engaged at transferring their tackle from boat to car at the end of the day, look at me as if I was a bit tetchy in the head as I pull into the Wolf Run Marina and unload my canoe and start loading it with my own fishing paraphernalia just as the sun is sinking over the high hill on the western shore. But they don’t usually become interested enough to approach me until I’ve mounted a midget-sized kerosene lantern on the canoe’s bow, indicating that if I go out on the lake I intend to be there awhile. The apparent inefficiency of this lighting unit always seems to get them.

“Going out tonight?” they’ll ask.

“Yep,” I reply, adding, “I do most of my fishing at night.”

An incredulous look comes into their eye. They have spent the day, in all probability, probing the Kinzua’s secluded and unspoiled coves, and the thought of a lone man venturing out on the dam’s 12,000 acres to visit such areas in the dark of night in a canoe just doesn’t sound kosher to them.

Sometimes I’ll bother to explain my apparent nuttiness; other times I don’t.

But the truth of the matter is that at no time during the night will my canoe be more than fifty yards from shore, nor a hundred yards either way from where I put it in the water. The daylight fishermen may have to chase around all over the dam to find his fishing, but not me. I got it almost figured out that the bass, walleye and crappies come looking for me after the sun goes down and darkness sets in, so I wait right there for them.

Actually, it isn’t quite that simple, but we all know that these fish are night feeders and that they come inshore to do their feeding. So while you may have to search them out in deep water during the daylight hours, if you know where there is a shoreline that slopes gently out into the deeper water you’re in business after the lights go out.

Generally, I don’t get any action from anything but the crappies during the twilight period and for about an hour after dark. So I rig a small jig, usually white, about three feet from a bobber and start casting. I jig the lure slowly back towards me so that it’s riding about a foot or so under the surface. I’ve caught more than a hundred crappies in one night using this method.

But usually crappies can’t hold my interest once I think the bass or walleyes may be hitting. This is when I take the bobber off and let my jig (the same one) settle to the bottom. On the first few casts I let the jig lay idle for a moment or so, then I work it along the bottom by moving my rod tip no more than a couple or three inches while reeling slowly. This is my most productive method, and one particular night produced four bass on five casts. This method also seems to get me hooked into the biggest and sassiest bass in the lake.

However, there are times when they are more greedy, and then I have to use larger jigs or go to plugs. If I go to plugs, the underwater type gets first preference, not because they catch more or bigger fish, but because I like to work from the bottom up with a variety of lures until continued on page 14

PENNSYLVANIA ANGLER
I find the combination that works. My reasoning here is that there's a hundred fish feeding under the surface for every one that breaks the surface, except under very unusual circumstances. And I'll eventually get around to the surface feeder if conditions demand it.

My method of fishing seems very simple to me, but I do find others have trouble adapting to it to the point where they are catching the fish they should. Mostly, I think, have trouble because they inject some of their previous ideas and concepts into another set of ideas and concepts. It complicates the whole thing.

For instance, I'll swear by a small jig. So what is small? To me it's a jig no more than an inch long. To others it can be anything up to three inches in length. And herein can be a big difference in results.

Then there's the matter of losing fish when using the size jig I advocate. Jigs so small aren't noted for their hooking ability when it comes to jumbo bass and lunker walleyes, so you lose a few. The average fisherman can't take losing fish, so he puts on a larger jig with a bigger hook right away to be ready for the next smashing strike. The thing he doesn't stop to realize is that the small jig will bring him a higher ratio of strikes; therefore more fish in the basket.

The same reasoning is applied to all of the plugs I fish. I don't want them to be one whit bigger than they have to be, and it's a rare occasion when I get up to the size most fishermen consider merely adequate for bass.

Others may have methods as good or far better than mine for catching bass, or even walleyes but all I know is that the bass and walleyes of Kinzua give me a rousing vote of confidence almost any black night I present my credentials in the waters along the shoreline.

And it could be that without knowing it I have developed my methods to take advantage of the night-time habits of the fish. There is nothing I enjoy more than to be on the water after the early evening boat traffic has settled down, the canoe rocking gently on what wave action happens to be there and to cast my lure hither and yon and knowing that before too long a slashing strike will reward my efforts.

It could also be that it is my love of the night's serenity that persuades me a bright light is a detriment. However, I know it to be a fact that when I use the Coleman lampluck on the larger than average fish is never as good as when I use the "one-candlepower" kerosene lantern.

Whether I'm right or wrong and whether my methods are best or worst, makes little difference—my association with the fishes of Kinzua is made thoroughly enjoyable through the use of them. And what more could any fisherman ask for than the cooperation of rod-bending lunkers in the quietness of the night. And the blacker the night the better!
WEST
BRANCH
COMEBACK

by Reid Kling, Jr.

"Hey Dad! Dad!"

I turned my head to look back downriver to where my son Mike was fishing just in time to see a leaping small-mouth tail-walking across the surface. For a few seconds I was so engrossed in the action that Mike was having that I forgot about my bass bug drifting along the edge of the weeds upstream. A loud splash made me turn to attend to the business at hand, and I was just in time to see my bug slowly bob to the surface of the water. Mumbling a few choice words under my breath I reeled the bug in for an inspection. Downstream, Mike was busily engaged in unhooking and releasing his tailwalking scrapper. It measured thirteen inches on his fisherman’s scale.

We were fishing the West Branch of the Susquehanna river about midway between Watertown and Allenwood. It was early September, the river was low and clear and the fishing was good. We were wet wading along the West shore and I was leading the way with a fly-rod and popping bugs. Mike was fifty yards behind me with his spinning rod, fishing the deeper water off shore with a small red and white spoon. The score was now three to one, to Mike's favor.

This is a beautiful stretch of river with riffles that run into long flat pools, and it contains some holes of eight to ten foot depths even with low water. Five years ago it
WEST BRANCH COMEBACK

was practically impossible for two men fishing artificials to pick up four legal bass in one evening of fishing on this stretch of water. There were some bass in this section of the river, from Muncy downstream approximately fifteen miles to the Milton-Lewisburg area, but they were small in size and their scarcity made fishing for them a waste of time.

Our problem down through the years has been pollution, principally mine acid drainage from abandoned mines far up the watershed. The last five years however have shown a decided improvement in the bass fishing, both in number of fish caught and in their size. Fish in the three pound class were taken this past summer and that's a mighty nice smallmouth in my book.

In talking with some of the local anglers, one of whom is a member of the Pure Water Patrol, we have come to the conclusion that the general crackdown on polluters . . . plus the fact that we now have flood control dams located on the upper reaches of our watershed that can vary the rate of flow when the river is low, are the two principal factors that have had such a decided effect upon improving the local smallmouth fishing. On one occasion last summer (1970) the acid content of the water was noticed to be increasing dangerously by our water monitors . . . the Department of Mines, Department of Health, and the Fish Commission working together dumped tons of lime and Sodium Dioxide into the river from bridges in the area to counteract the acid. I think the effort worked for I was catching bass two days after the alarm was over. Careful monitoring such as this has been an invaluable aid to the fishing. Naturally, we are all looking forward to the day when the pollution alarm will sound no more, but, in the meantime some mighty good fishing is creeping upstream here on the West Branch.

As would be expected, bait dunkers catch the most bass, with hellgrammites, stone cats and crayfish leading the parade of baits. I prefer using artificials, but I am not adverse to swimming a stone cat through some of the deeper pools. Best results with artificial lures have been obtained spinning or spin-casting with small spoons or plugs. This past season however, I caught a number of bass with the fly-rod using poppers and streamer flies. I did notice that with the fly-rod I picked up more rock bass and sunfish and that's fun too.

We had our best luck fishing the Eastern shore in the morning and the opposite shore in the evening, very likely because of the position of the sun on the water. Using this method we were always fishing in the shade.

Access to the area is simple. Route 15 follows the West side of the river to the Montgomery area a few miles South of Williamsport. Route 405 follows the East side of the river to Montgomery where it crosses and continues up the Western shore to Muncy. Midway between Watsontown and Milton, the Keystone Shortway (Rt. 80) crosses the river at the Northumberland and Union County line and several large smallmouth were taken last year under the highway bridge. The best fishing we have discovered has been this area from Muncy downstream to Milton.

Most of the fishing is done from small boats, and there are numerous places along both shores you can launch. You can put in at the Shortway bridge along the East shore, up river at Watsontown on the East shore at the bridge, further upstream at Allenwood (West shore), and still further North at Montgomery on either side of the river. There are no boat liveries along this stretch of water so bring your cartopper or be prepared to wade. Some spots in the area can handle boats over the 10 to 12 foot fishing length but your fishing would have to be re-
stricted to these shorter stretches of water. One increasingly popular conveyance in the past few years have been Kayaks . . . some of the local boys have built their own from kits they purchased and they make an outstanding craft to negotiate the shallower riffles. More and more of these canoe-like boats are making their appearance each year and they seem admirably suited to this type of float fishing. Two men in a 14 foot rowboat may have to drag across some spots when the river is low.

Some walleyes have been reported this last year . . . neither the size nor the number that are taken down river below Sunbury where the West and North Branches meet, but enough to be encouraging. It has been a long dry spell for the bass men of this area. Their fishing has been relegated to just week-ends on the heavily fished North Branch, some sporadic fishing on some of the larger creeks of this area, and vacations elsewhere. Now, right here in our own back yard we are looking forward to even greater improvements in the quality of the water that flows through this beautiful valley, and hopefully to an ever increasing population of the smallmouth bass and the great recreation it provides fishermen.
Understanding how fish see can be a great help to the fisherman who puts this information to use. Small stream, clear water trout fishermen are probably best aware of what happens when a trout spots unfamiliar action.

WHAT DO FISH SEE?

by Tom Fegely

Have you ever reached underwater to pick up a stone or some other object only to find that it wasn't where it appeared to be? This was caused by a phenomenon known as "refraction." As light rays pass from air to water or visa versa they are bent and, unless viewed from directly above, objects seem to be displaced. Thus, a fisherman approaching a pond from the bank is usually seen first by the fish even though they were lying below the overhanging bank and not in the fisherman's direct line of sight. A cloud of mud stirred up in the fish's swift exit to deeper water is the only evidence that they were there in the first place.

This refraction (bending of light) does not always work to the advantage of the fish however. A trout rising for a mayfly fluttering above its pool has to leap out of the water a short distance ahead of the moving target. Through years of trial and error, however, fish have developed an instinctive skill which is now programmed into the genes of every finned insect eater.

Since we can't get inside a fish's brain we can't say for certain what a fish sees in its aquatic world. But it is possible to make some deductions based on laboratory tests and observations.

First, it is known that there is a limit to the angle at which the bending of light occurs—this "critical" angle is about 49 degrees. Beyond this, light is reflected, bouncing off the water's surface. The next time you look into an aquarium from the front notice that you can see directly through the back glass but the sides appear to be mirrors—reflecting light rays back into the tank. Thus, a fish looking directly toward the surface probably sees the shoreline through a transparent "porthole" 98 degrees wide (49 degrees on each side of the fish). Beyond this "porthole" it sees reflected images of objects on the pond floor. Quiet
With an eye on each side of its head, a fish is thought to see things quite differently than we do. It's called "monocular vision" and each eye sees something different. When light strikes water something else occurs. It's called "refraction" and is the "bending" of light. That's why the crabs or stone you try to pick up from the bottom are usually not just where they appear to be. Likewise, in reverse, it is thought that a fish looking at something out of the water sees it—like the fisherman above.

Waters of a pond world enable the fish to see terrestrial and aerial objects more clearly than in the agitated waters of a stream, since the ripples on the surface would tend to distort the light rays.

The secret then, in approaching a favorite pool, is to keep yourself out of the "porthole" seen by the fish. In this way the fish will not be frightened and, with a bit of patience and ingenuity, a fly can be dropped in their midst without them becoming alarmed.

**MONOCULAR VISION**

Since humans have both eyes at the front of the head causing a wide field of overlapping vision, we are said to have "binocular" vision.

Fish, on the other hand, have eyes placed on either side of the head so that each eye records a separate image with only a small overlapping field. Fish therefore have "monocular" vision. In addition, the retina of each eye sends impulses only to one side of the fish's brain, opposite the eye. Each image then is interpreted separately. In humans the impulses from each eye are passed to both sides of the brain and a single image is formed. The advantage of monocular vision is that a fish can see in more than one direction at a time. Predators approaching from either side or the front are immediately seen and if something off to the side attracts it, the fish rapidly whirls around.

**COLOR PERCEPTION**

To certain degrees fish can see color although probably not in the same pastels as we do. Male salmon, trout, sticklebacks and others change color during the breeding season. Color preferences occur between species and influence the type of food which attracts them, consequently influencing the color lure or fly designed for a particular fish.
FOUL MOUTHED?
During an outing with his family, our Mercer County game protector was explaining to his children about not being allowed to keep fish that had been foul hooked. This was taken with a great deal of seriousness by his daughter. When she finally caught a fish she stated: “Gee whiz, I must return that one to the water. I foulmouthed it.” The hook was caught in the fish’s mouth.
—Waterways Patrolman JAMES E. ANSELL
(Mercer/Lawrence County)

TROLLING?
In one of Roger Latham’s (Outdoor Editor, Pittsburgh Press) recent columns I read the following true to life story:
Two ice fishermen were having no luck at all. All at once one of them spotted an ice shanty being towed across the lake by a small tractor. “There’s what we should be doing” he said, “Trolling.”
—Waterways Patrolman JOHN I. BUCK (Region II, Supervisor)

ALARM CLOCK PLEASE?
While on patrol in the Ridgeway area on the eve of Trout Season, a couple of years ago SWP Eckert and SWP Heberger and myself checked some boys in a small “pup” tent camped on Big Mill Creek. When they asked who we were and we told them “Waterways Patrolmen” they opened the flap of the tent and asked: “You fellows have an extra alarm clock with you? We need one to get up on time.” We told them we didn’t carry alarm clocks, and if they were as anxious as we were when we were their age, they wouldn’t get any sleep anyway!
—District Warden BERNARD D. AMBROSE (Elk County)

MUSKIES INSTEAD
Although the month of March generates a great deal of interest in trout and trout stocking, last spring it was not the main topic of discussion in Juniata County. During the last two weeks of muskie season the Juniata River produced some really fine muskie fishing in the Thompsonstown area. And more have been caught during the summer and fall!
—Waterways Patrolman RICHARD OWENS (Mifflin-Juniata County)

INTEREST-BY EXAMPLE
A huge vote of thanks has to go to the Gettysburg High School and Mrs. Vickie Weitzel for the fine program and the enthusiasm displayed by students and teachers such as on Environment Improvement Day last spring. Space here does not permit a list of accomplishments placed here, but Mrs. Weitzel is a biology teacher at the High School and her main activity is, I believe creating an interest—by example—in conservation projects. And most important she succeeds at accomplishing her objectives.
—Waterways Patrolman WARREN W. SINGER, JR.
(Adams/N. York County)

OPENING DAY ICE
On opening day of trout fishing last spring in Wayne County ice fishermen on Lake Lorain cut through twenty-two inches of ice while just across the road men were playing golf. On Long Pond, two men pulled their boat across the ice, drilled two holes in the ice, sat down in the boat and jigged for trout! As winter again approaches I’m wondering what we can expect next spring.
—Waterways Patrolman H. F. REYNOLDS (Wayne County)

PENNSYLVANIA ANGLER
JUST LIKE MOVIES

During a routine patrol, Special Waterways Patrolman Ed Teck watched two lads about ten years old fishing in the North Fork of Little Beaver River. One of the boys caught a trout around nine inches long, then promptly returned the fish to the water. This action caused his pal to ask, "Why did you do that?" The boy replied, "Just like in the movies when they throw back any fish less than 16 inches!"

—Waterways Patrolman DONALD PARRISH (Beaver County)

BASS BUGS FOR BROWNIES

The fly fisherman who pursues the brown trout with delicate imitations of May flies and caddis flies might want to add a few bass bugs to his fly box. A 16 inch brown trout was caught on a night crawler in Big Fill Run early this season and the young fellow who caught the fish reports he found, upon cleaning the fish, a small frog very much alive and kicking, in the trout's stomach.

—Waterways Patrolman WALTER A. ROSSBER (Blair County)

LITTERING 24 YEARS AGO

I was looking over several old reports from 24 years ago following the opening day of trout season last spring when I found a note that the shore line was so littered then that it required several day's work by the Evitt's Creek Water Company with the help of interested fishermen to clean up the litter. This year it was quite different. It is estimated there were over 2500 fishermen at Koon Lake during the first 24 hours. The amount of litter left was small. I feel great strides have been made in this litter problem. Mr. Ray Nixon, superintendent of the water company told me he wanted everyone to know how well pleased he was with the respect the fishermen showed around the lake this year. Yes, fishermen did show respect and we only hope that the good people who fish this lake will continue to earn his thanks by fighting the litter problem effectively!

—Waterways Patrolman WILLIAM F. MCLNAY (Bedford County)

THANKS JAYCEES!

The Emporium Jaycees again did a magnificent job of float stocking the Driftwood Branch of the Sinnemahoning last spring. They covered about 6 miles of this stream that is otherwise inaccessible to the stocking truck—my thanks to them for their interest and help again this year.

—Waterways Patrolman STANLEY G. HASTINGS (Cameron County)

SUPER SALES MAN

SWP Robert Kopta who was married last spring sold a subscription to the Angler to a man at the Fire Hall, where the reception was to be held, just a few hours before getting hitched!

—Waterways Patrolman GERALD T. CRAYTON (N. Allegheny County)

O C T O B E R - 1 9 7 1
FLY TYING

by Chauncey K. Lively

SPINNING DEER HAIR

Spinning hair on a hook is a craft every fly tyer should store in his bag of tricks. The hollow body hair of deer, elk, antelope and caribou lends itself well to spinning because of its willingness to flare under pressure of the tying thread. Several fly patterns utilize spun hair to some degree and it is generally used when extraordinary flotation is required. Examples are the bullet-shaped head of the Muddler Minnow and the sleek bodies of the Irresistible and Rat Faced McDougal. But it is in fly rod bass lures, the so-called “bass bugs,” that spun hair is used most extensively for it is easily trimmed to shape and is as durable as one could wish. Most importantly, it is the best way to provide necessary bulk without undue weight, a consideration every fly-rodder appreciates.

The construction of the Hair Mouse, shown in the illustrations, is typical of many large spun hair lures. While the technique is not difficult to develop, there are several requirements which should be borne in mind in order to achieve maximum success. First, only the coarsest hollow hair will flare and spin properly and this is generally found on the belly and rump of the hide. Deer body hair is readily obtainable and is ideal for this purpose. The hair of the antelope and caribou is softer and more suitable for smaller lures.

Because of the strength required of the tying thread in spinning hair, thread of considerably heavier gauge than that used in ordinary tying is dictated. While size A may suffice for hooks of size #8 or smaller, size C thread is more appropriate for the larger sizes. Even when thread of smaller diameter has the tensile strength to withstand strong pulling, it is often severed by the rough abrasiveness of the hair as it spins around the hook. The relatively large diameter of the heavy thread does not detract from the neatness of the lure because it is completely covered by the hair. Silk thread of appropriate size is pleasant to use but it is not always readily available. Linen thread is also favored by many and I have used Herter’s size 2M nylon (corresponding roughly to size C) with good results.

A neat, firm job of spinning hair requires that the hair be distributed evenly around the hook and that each bunch be packed tightly against the preceding bunch. There is always a certain amount of fuzz near the hide which should be removed from each bunch by combing. A metal comb is preferred here because it will not generate static electricity. A little experimentation is required to determine how much hair can be handled easily in each bunch. This may vary with individuals but it’s generally best for beginners to start with small bunches.

Good compaction of the hair can best be accomplished by the use of a hair packer, which provides leverage not possible with the fingertips alone. A packer may be easily made from the handle of a discarded toothbrush by drilling (or burning with a hot needle) three holes of different sizes to accommodate a range of hook sizes.

The finished appearance of the Hair Mouse depends on how well and how accurately the hair is trimmed. Well-sharpened, pointed scissors should be used and trimming should proceed lengthwise, from rear to front, not around the circumference of the hair. It’s a good idea to rough-trim the hair first to a squarish shape to establish the desired dimensions of height and width. The hair underneath the hook should be trimmed as close as possible to maintain an open gap for good hooking. Then it’s just a matter of rounding off the corners with snips and tapering the body toward the front. Leave two tufts of hair to represent ears.

The tail performs an important function in the effectiveness of the Hair Mouse and it should be of a material as soft and flexible as possible. A tapered strip of soft rawhide is ideal for this purpose but other materials, like nylon cord or chenille, may be substituted.

The Hair Mouse is generally regarded as a bass lure because of its size. But when large, night-feeding brown trout go on the prowl for food they are looking for a mouthful, too, and a mouse tied on a #4 or #2 hook is none too large to interest them. In use the best retrieve is a slow, steady one, at the same time vibrating the rod tip by rapidly fluttering the rod hand. When done properly, the vibrations are transmitted to the mouse’s tail, making it tremble violently with an action irresistible to large fish.
TYING A
HAIR MOUSE

1. First make a hair packer from the handle of an old toothbrush. Drill several holes of different diameters to accommodate various hook sizes.

2. Clamp a size #2 hook, regular shank, in the vise and tie-in heavy, unwaxed tying thread at bend. For a tail cut a tapered strip of rawhide slightly longer than the hook shank and bind to hook as shown. Half-hitch.

3. Cut a bunch of natural deer body hair from the hide. Hold the tips of hair and comb out any fuzz and short hairs.

4. Hold hair over hook and form a loop of thread over hair, bringing thread around far side and under hook. Gradually pull thread taut, causing hair to flare, and simultaneously release hair with left hand while bringing thread tightly up and over hook through hair. At this point hair should be distributed evenly around the shank and standing out at right angles. Half-hitch in front of hair.

5. Insert hair packer over eye of hook. With left hand grasp hook behind hair and press packer firmly against hair as shown.

6. Repeat steps #3, #4 and #5 with successive bunches of hair until shank of hook is covered, allowing space for tie-off at eye. Then whip finish and cut thread.

7. Trim hair close to underside of hook. Then decide how wide and deep you want your mouse to be and square-trim the hair to these outside dimensions.

8. Carefully finish-trim the hair, taking off a little at a time, until the desired shape is achieved. Add eyes by touching with black lacquer applied with a match stick. Then tie-in fine black thread behind hook eye and attach a large black hackle. Make two turns of hackle as shown, tie off, trim off waste hackle and whip finish. Then trim away the hackle above and below, leaving a few barbules extending out the sides to represent whiskers. Finally, saturate finish windings with head cement or lacquer.

9. Completed Hair Mouse.
BELTZVILLE RESERVOIR

In the not too distant future all roads, at least for many eastern based pleasure boaters, will probably lead to Carbon County and the now under development Beltzville reservoir.

Earlier this year the dam gates were closed to begin impounding water although the vitally important early spring runoff, due to a covered bridge which had to be relocated, was lost. This was just about the same time that the contractor began work on the construction of recreational facilities which will be operated by the Department of Environmental Resources.

According to the Corp of Engineers, which is constructing the facility, this project is one of eight major undertakings developed by the Corps in their study and planning for utilization of the water resources of the Delaware River Basin.

A multiple purpose facility, the Beltzville dam and reservoir is designed to meet the increased water needs of an expanding population and industry. It is also supposed to reduce flood damage and contribute to the Commonwealth's outdoor recreational program.

Located north of Route 209, and just four miles east of Lehighton, the impoundment when filled and open for public use will be available to all forms of boating, including outboard craft apparently with unlimited horsepower, according to a spokesman at the dam.

The dam, of concrete construction with an earth fill and rock slope, was built across Pohopoco Creek, about one third of a mile from its junction with Sawmill Run. It extends 4,300 feet across the Pohopoco Valley and rises some 170 feet above the creek bed.

Based on information obtained from the Corps of Engineers, the reservoir will impound water from a drainage area of 74 square miles. During flood control storage it will impound some 8,800,000,000 gallons of water, while during what is considered the long term storage—for water supply and recreation—it will contain an estimated 13,000,000,000 gallons spread out over an area of 947 acres. The inactive storage is set at 450,000,000 gallons.

As a supplier of water it is estimated to be capable of providing some 53 million gallons of water per day to meet future water supply needs, whatever they might be.

Used for flood control this project is supposed to contribute to flood stage reductions at the principal damage centers on the Lehigh River below the junction of the Lehigh with the Pohopoco Creek. These centers include Bowmanstown, Walnutport, Northampton, Hokendauqua, Catasauqua, Allentown, Bethlehem, Freemansburg and Easton.

As the Corps of Engineers explains it in its brochure "this operation of the project will consider the downstream flow requirements for stream fisheries in coordination with the management of lake fisheries as a basic element of the project's recreational potential."

Some years ago, when this project was in the planning stage, it was estimated that it would provide a recreation capacity for 835,000 visitors annually with an initial design load of 5,000 persons at one time or a maximum of 10,000 on a holiday or Sunday.

As a result plans were prepared designating three specific, or major, recreation sites to be identified by the Commonwealth as the Beltzville State
Park. They are: Pine Run Cove, Trinity Gorge and Twin Flower.

Pine Run Cove, located a short distance east of the overlook on the north side of the reservoir, will provide day use facilities for fishing, picnicking, swimming and boating.

Farther to the east is Twin Flower which, according to the plans, is to be a combination day use and overnight area with camping facilities in addition to fishing and boating.

Pine Run Cove and Twin Flower are separated by some 422 acres which have been leased by the Pennsylvania Game Commission since hunting is also expected to be permitted in designated areas subject to regulations necessary for assuring public safety.

The third recreational area, Trinity Gorge, is located along the southern shore about midway between the dam and the extreme end of the five mile long reservoir. This is to be another day use area with provisions for picnicking, boating, fishing and hiking.

The total land area required for the development of the Beltzville project was over 3,600 acres in Franklin and Towamensing Townships with part of an easement in Monroe County. This has, thus far, involved the relocation of thousands of feet of oil pipelines, water lines, telephone and power lines, and even highways.

The Pine Run Recreation area will include a boat launching ramp, roads and parking areas, bathhouse, first aid and lifeguard complex, comfort station and latrine.

Also planned is a reception area containing offices for the park superintendent, rest rooms, storage area and vehicular storage; maintenance and workshop area, oil and paint storage, locker facilities and gasoline storage.

It can be reached from the east and west via Route 209 and from the north and south by the Northeast extension of the Pennsylvania Turnpike by using the Western Poconos Exit at the Mahoning Valley Interchange.

Even though it is not yet open to the public an excellent view of portions of the impoundment can be obtained off a hard road which runs parallel to Route 209, on the north side of the lake, while there is at the Corps of Engineers headquarters an overlook area with an unobstructed view of the dam.

ACCIDENT REPORT by Ed Jones
Marine Education Specialist
Pennsylvania Fish Commission

EXPENSIVE DINNER

In July an out-of-State boater/fisherman was cooking some of the fish he had caught that day on Shenango Reservoir in Mercer County. He was not doing this at home but on the deck of a drifting cabin motor boat and was using a two burner gas stove.

The waves from a passing vessel caused the boat to roll, throwing the stove to the deck—the fat in the pan caught fire and quickly spread the fire to the fuel tank which exploded. That was the end of dinner and an eleven thousand dollar boat. Fortunately the occupant of the vessel escaped with only burns on one leg. A very lucky guy!!

First of all the stove should have been made secure. Any loose object aboard a vessel is known as a "flying missile." Secondly, a gas stove should never be used aboard a vessel because of the danger of gasoline fumes which are heavier than air and will settle in the low places, gradually building up till there is danger of an explosion. An alcohol stove is more acceptable because alcohol fumes dissipate in the air. The Coast Guard Auxiliary will not issue its inspection decal to a vessel with a stove unless the stove is approved for Marine use. All appliances must be manufactured and approved for Marine use. Appliances which use gasoline for fuel and appliances which use derivatives or distillates of Naphtha or Benzene are also unacceptable. It is also highly recommended that fire extinguishers be located in the same compartment with appliances such as stoves, heaters, or refrigerators.

PROP DAMAGE

There were several accidents this season where boatmen were struck by boats and propellers. One case was a young man who was sitting on the back of the operator's seat. He hit the wake of another boat and was pitched out of his boat. He managed to grab the gunwale of his boat as the boat proceeded at a high rate of speed. He was alone and there was no one to help him back aboard or to shut down the engine. The force of the water forced him aft until he was directly over the propeller of his outboard engine. The prop cut his chest and stomach and to get away from the turning propeller he finally put one hand against the hub of the propeller and pushed himself off. This is truly a remarkable accident in that this young man was not killed or maimed for life.

There have been several accidents like this in the past few years. Most involve people riding vessels on open decks and other parts of the vessel. They place themselves in a very dangerous position as those who fall overboard readily find out.

"STILL LIKE RIDING ON THE BOW, HENRY?"
BLACK MOSHANNOON STATE PARK

What could be a more ideal place for an October trip than a state park located in the midst of a strikingly-colored immense state forest? Black Moshannon State Park near Philipsburg in Centre County is just such a perfect spot for a late fall trip.

Moshannon State Forest covers 159,092 acres in Centre, Clearfield and Elk Counties. The entire region is particularly scenic with rolling plateaus and rugged mountain ridges, deep forested valleys and sparkling trout streams.

Moshannon comes from the Indian name "Mosse-hanne" meaning Moose Stream. You won't find any moose in the area, but it does abound in other wildlife—white tailed deer, turkeys, black bear and even the last remaining herd of elk in Pennsylvania will be found in Elk County.

Black Moshannon State Park is located along Route 504, ten miles west of Philipsburg and ten miles east of Unionville. Central feature is a 250-acre lake where the lucky angler might be fortunate enough to do battle with a husky muskie, northern pike or bass. Other species predominant in the lake are pickerel, perch, catfish, pan fish and trout.

Rowboats may be rented. A swimming beach with life guards on duty is open during the summer months as is a concession stand. Skiing replaces swimming as a major recreational pasttime in the winter months. A modern ski area has slopes for beginners to experts with poma lift facilities.

An 80-site tent and trailer campground is located approximately 300 feet from the lake. Sanitary facilities are pit type. Thirteen rustic cabins can be rented by advance registration.

Supplies can be purchased in the nearby town of Philipsburg, the first town in the United States to have arc lights in the 1880's and which also boasts the first electrically lighted church.

Black Moshannon was originally called Antes and was an early overnight stop on the old Erie Turnpike, which ran between Erie and Philadelphia. The first dam at the site on Moshannon Creek was built by beavers. During the heyday of logging in Pennsylvania's big hemlock woods, a much larger dam was built by a lumber company that stored millions of board feet of logs in the lake.

No angler visiting Centre County should miss a visit to the Pennsylvania Fish Commission hatcheries at Benner Springs and Bellefonte. The hatcheries are open daily from 8 to 5 throughout the year. Bellefonte is 20 miles east of Black Moshannon.

Big Spring has a flow of 11.5 million gallons daily and there are larger than average trout in Spring Creek. Fisherman's Paradise, a fish-for-fun area along Spring Creek, reached from Bellefonte by the Roopensburg Road, is one of the most unique fishing spots in the entire country.

Approximately 15 miles east of Black Moshannon State Park is the town of State College, home of Pennsylvania State University. There are many visitor attractions on campus including art galleries, sheep and cattle barns, flower gardens and the mineral industries museum, to say nothing of fall football games of the top-rated Nittany Lions.

A little further east is Boalsburg.

Here on the grounds of the Boal Mansion is the Christopher Columbus family chapel. Colonel T. D. Boal was married to a relative of Columbus. He erected a stone building on his estate in Boalsburg and brought the entire interior of the Columbus family chapel from the Columbus Castle in Spain, complete with its contents.

The chapel has magnificent carvings and hangings from the original castle as well as many items of artistic and religious significance. Two pieces of wood in a silver container are said to have come from the cross of Jesus Christ.

Pierre Boal, his son, built a museum containing family heirlooms and relics from the Pennsylvania 28th Division. Antique vehicles, weapons, furnishings and glassware are displayed. The mansion is also open to the public.

Further east, roughly 50 miles from Black Moshannon, but still in Centre County are found two additional state camping areas, Poe Paddy State Forest area with 31 campsites and Poe Valley Recreation area with 79 sites.

Poe Paddy was built on the site of Poe Mills, which 90 years ago was a lumber town of 400 people. This area is three miles from the Poe Valley Recreation Area. Both can be reached by following the Milheim-Sigelerville Pike, a dirt road which is reached by state Route 45.

At Poe Valley Recreation Area a 25-acre mountain lake has a large sandy beach for swimming, and a boat rental concession as well as a food concession. The dam is stocked with small-mouth bass, walleye, pickerel, trout, yellow perch and sunfish.

Also along the Milheim-Sigelerville Road is Penn's View considered by many to be one of the finest views in the entire nation. From a high rocky outlook you can gaze down on a wide valley which forms a natural amphitheatre, through which Penn's Creek winds dramatically. Truly a paradise for the camera enthusiast with unlimited possibilities for panoramic shots.

Over 130 years ago Edgar Allan Poe is reported to have visited this valley and experienced a sad love affair. Upon his return to Philadelphia, he wrote his poem, "The Raven" which is believed to have been inspired by his visit.

"I HOPE YOU AREN'T GOING TO POLLUTE THE STREAM BY WASHING THAT COFFEE POT."
LAKE ERIE TRIBUTARY STREAMS CURRENTLY CLOSED TO FISHING

Fishermen planning trips to Erie County waters are reminded by the Pennsylvania Fish Commission that all streams tributary to Lake Erie are closed to all fishing from September 1 through December 31. The closure is a continuation of a program started in 1969 to protect private property and to insure sport fishing during the annual spawning run of coho salmon.

All tributary streams to Lake Erie, by Commission action, have been designated as nursery waters during the fall months. It is illegal to fish or wade in such waters during the time they are closed to fishing. Commission spokesmen point out that most of the Lake Erie tributary streams are very small and run through residential areas. The "nursery waters" classification is aimed at giving private landowners protection to their property as well as to further the Commission's basic goal in the Lake Erie coho salmon fishery—that of maintaining coho fishing on a "sport" foundation in which tackle, techniques, and methods used give both fish and fishermen a fair and equal chance.

Coho fishing is permitted in Lake Erie, either offshore from boats or by casting from the shoreline. The season is open year-round with a daily creel limit of three fish of a minimum size of nine inches. The peak of the coho salmon fishing should be occurring now, as mature salmon, and some immature males, return to tributary streams in a spawning run which completes the three-year cycle of coho salmon.

TWO CRAWFORD COUNTY MEN COMMENDED FOR SAVING BABY IN BOATING ACCIDENT

Two Crawford County school teachers employed by the Pennsylvania Fish Commission on a per diem basis during the summer boating season as Security Officers, have been credited with saving the life of a 16-month-old baby in a boating accident on Lake Pymatuning.

Robert Dean, Conneautville, and Victor Morini, Conneaut Lake, were on a routine safety patrol, Saturday afternoon, July 31, when they observed two paddle-boats in distress near the Route 285 causeway that traverses Pymatuning Lake. One of the paddle-boats, rented from a commercial boat livery at Pymatuning State Park, capsized, throwing three adult passengers and the baby into the water. Morini dove from the Fish Commission's patrol boat and rescued Mrs. John S. Dick, of East Lake, Ohio, while Dean anchored their boat and sounded the alarm siren. Mr. Dick and an unidentified passenger called to Officer Dean that a baby had also gone under. Although the infant was wearing a life-saving device, it had become caught underneath the capsized boat. Dean dove several times before he was able to free the baby and bring it to the surface. He later started mouth-to-mouth resuscitation until additional help and an ambulance arrived on the scene. Doctors at a nearby hospital credit Dean's skill and efforts in saving the baby's life.

In commending the two Security Officers, Pennsylvania Fish Commission officials praised their bravery and skill. They also emphasized that capsizings are a leading cause of boating accidents. Capt. Charles E. Leising, Director of the Commission's Bureau of Waterways, pointed out that improper loading or a sudden shifting of weight in a boat can quickly result in a potentially dangerous capsizing. He urged all boaters to be more careful, especially when young children are aboard.
EXTENDED SEASON STREAMS

Mahantango Creek; Pine Creek, trib. to Schuylkill River; Pine Creek, trib. to Little Schuylkill River; Pine Creek, trib. to Mahantango Creek; Railing Run; Lower Little Swatara Creek; Upper Swatara Creek, SNYDER COUNTY—Middle Creek; Somerset County—Laurel Hill Creek; Wills Creek; Pine Creek, trib. to Mahantango Creek; Pine Creek, trib. to Schuylkill River; Pine Creek, trib. to Allegheny River from immediately below Allegheny Dam downstream 3/4 mile to head of first riffle which is in line with end of Corps of Engineers walkway along talus area; Brokenstraw Creek, Tionesta Creek, WASHINGTON COUNTY—Dutch Fork Creek; WAYNE COUNTY—Esopus Creek; WESTMORELAND COUNTY—Loyalhanna Creek; Youngsboro River from junction of Jacobs Creek downstream to junction of Susquehanna River; WYOMING COUNTY—Bowman Creek; YORK COUNTY—Harley Run; Dyberry Creek; Fishing Creek; trib. to Mudly Creek; Fishing Creek, trib. to Susquehanna River; Furnace Run; Mudly Creek; Mudly Creek, North Branch; Mudly Creek, South Branch; Oster Creek; Reh­meyer Hollow Run; Wallace Run.

CROSSWORD

by Tony Skilton

ANSWERS

7
15
23
31
39
47
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63

17
25
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57
65

ANSWERS

1. abbreviation found in a dictionary of fly patterns
2. species of trout spending part of life in an ocean
6. type of level winding reel used with large lures
9. common name given to unwanted catch of bait fishermen
10. a rip— is used during winter fishing
12. method of propelling a craft
13. mammal sometimes caught by fly fishermen
15. deep rooted plant often found near lakes and streams
17. object of glass, wire or cloth used to obtain bait fish
19. location ending long day of fishing
22. feathered fisherman
26. a member of the reptile family
27. bottom feeding fish often caught on corn
32. salt water species sought by fly fishermen
33. most fishermen neglect to do this to their hooks
34. method of fishing using a constantly moving boat
35. some fishermen do this all day while fishing
37. often used as a guideline to good fishing
38. chemical term used to describe water conditions
39. a hole-in-the-woods
43. material used to secure head of an artificial fly
45. brook, brown, rainbows
46. name given to a large, moving body of water
50. non-metal portion of a lantern
51. fuel for a fisherman
52. an amadromous fish caught by fly fishermen
53. portion of a trout's respiratory system
54. long, slender, bottom feeding creature (fresh water)
55. undesired lodging place of many a fly
56. fish eggs
57. large body of water
58. type of wing on a dry fly
59. adds minnow-like gleam to certain fly patterns
60. location often guarded by male of species
61. location of much bait used by anglers

—DOWN—

1. a blood sucking parasite
2. this animal provides fur for many successful trout flies
3. a preposition
4. an imported species of trout
5. loose surface material destroyed by floods
6. large black bird
7. term used to designate breaking strength of line
8. negative answer
11. mathematical term
13. name given to hooks decorated with fur and feathers
14. small, enclosed body of water
15. foods problem facing early season fishermen
16. general name applied to some streamer flies
17. salt water species sought by fly fishermen
18. used to safely remove catch from the water
20. activity often used to "get away from it all"
21. term applied to the edge of a lake or pond
22. term applied to very short wings on a fly (usually nymph)
23. turbot
24. often the beginning of a day's fishing
25. rainbows growing to mammoth size in deep lakes
26. term used to describe colors
28. term used to describe condition of certain fowl
30. term used to describe color of certain fowl
32. term used to describe a place where fly tyers often work
34. method of landing large salmon
35. a —_ — line uses many hooks and a heavy line to take fish
36. fish eggs
37. southeast (abbreviation)
38. estimated length of a trout weighing one pound (Abb.)

—ACKNOWLEDGMENTS—

2. species of trout spending part of life in an ocean
3. a preposition
4. an imported species of trout
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A new state record northern pike was caught by JOHN FULTON of Home in May. It measured 42-7/8 inches, weighed 15-5/8 pounds and came from Mahoning Creek in Armstrong County. He caught it on spinning gear with an artificial minnow.

This big muskie was caught by REGE DEMAY of Sharon while fishing Pymatuning last spring. It measured 46 inches, weighed 27-7/8 pounds and he caught it on a nightcrawler.

Another Pymatuning muskie taken last spring was this 38 inch, 14½ pounder taken by RICHARD WOLFE of Clairton. He caught it on a chub and, as an added bonus, won $10 in the LATA contest for a tag found on it.

These nice brown trout were all caught by FRANK KOVALESKI of Scranton who was fishing Lake Wallenpaupack last October on the closing day. They ranged from 20 inches, 3½ pounds to 21 inches, 4 pounds. All hit a Rebel.

Sixteen-year-old RICHARD DUFOUR of Houtzdale caught this fat 5½ pound, 22½ inch palomino while fishing Crest Creek in Cambria County. He was using a minnow as bait when it struck.

Big walleye was caught by CHARLES PAPINCHAK of Cochran ton last spring. It measured 31 inches and weighed 8 pounds. He caught it while fishing French Creek with live bait near Cochran ton.
HAROLD LEMLEY of Spraggs caught this 21 inch, 5½ pound largemouth bass while fishing with nightcrawlers. It was caught in a Green County Lake.

JONATHAN DeRAYMOND of Natrona landed 23½ inch, 6 pound chain pickerel while fishing with tip-ups and live minnows at Upper Woods Pond in Wayne County last winter.

BOYD DAUGHERTY of Warren was fishing the Allegheny River in Warren County when he caught this 31½ inch, 11-3/8 pound walleye. He was using a yellow bucktail.

Nescopeck angler DAVID BROVAN (left) caught 32 inch and 25 inch carp on corn from the Susquehanna River while LEO EMERY, JR. of Philadelphia (center) caught 4½ pound, 22 inch rainbow on a yellow jig from Scots Run Lake. AL STEWART (right) of Berwick landed two Citation size perch on jigs.

GREGORY KING, 6, of Menges Mills (left) landed two nice suckers from Cordorus Creel near Spring Grove last spring while ELLIS SPROUL (right) caught 21 inch, 6 pound largemouth at Cowan’s Gap. It hit a nightcrawler.

These three Harrisburg anglers—BRAD, CRAIG and BILL TROUT—hold nice stringer of smallmouth bass up to 17½ inches that they caught last fall while fishing the Susquehanna River with live minnows.

Tionesta angler MARTIN AVERY, 15, (top) holds 35½ inch, 12 pound muskie he caught from Tionesta Creek on a jig. WILLIAM BRIN- SER of Elizabethtown, (bottom) caught 42 inch, 23½ pound muskie from the Susquehanna River in Lancaster County.

EUGENE TELEP of Harrisburg caught 35¼ inch, 12 pound northern pike from Cordorus State Park last February. He was fishing with tip-ups and live minnows when it hit.
EARL PLETCHER of Rockwood (above) landed 38 inch, 12 pound northern pike from High Point Lake in Somerset County while TIMOTHY HARLACHER of Dover (left) displays 24 inch, 3/4 pound brown trout he caught at Falling Springs near Chambersburg. MINER CAFNER of Pleasantville (far right) landed 31 inch, 12 1/2 pound walleye while fishing the Allegheny River in Forest County.

Fifteen-year-old DAVID MINNICH of Mohrsville (left) caught 35 inch, 21 pound channel catfish from the Susquehanna River in Lancaster County while REGINALD WHITE of Philadelphia (right) holds 16 inch palamino he caught from the Wissahickon. JEFFREY NOBLE, 13, of Honey Grove (left) caught 29 1/2 inch, 13 3/4 pound carp from the Juniata River in Mifflin County while MERVIN LANDIS of Northampton (right) caught 30 inch, 6 pound and 28 inch, 5 1/2 pound carp from the Lehigh River.

Juniata River muskies were taken last spring by fisherman DAVE FOOSE of Millerstown. One was 36 inch, 12 1/2 pounds; the other 33 inch, 9 pounds. Both hit a Rebel.

PHILIP GHANER of Hollidaysburg (left) caught 27 1/2 inch, 9 1/4 pound walleye from Lake Glendale in Cambria County while RANDLE GREENE of Oil City (right) caught 31 inch, 15 pound, 10 ounce walleye from the Allegheny River in Venango County.

BILL HOWER, JR. of Berwick (left) holds 21 inch, 5 pound largemouth he caught last year. Location and bait not listed. BOB SIMON of Allison Park (right) caught 26 inch, 3 1/4 pound walleye near Whaley Island on Lake Pymatuning.

FISH TALE PICTURES

As each month passes more and more pictures are received by the Angler for use in this section. Many more are received than can possibly be published and often the fish shown are not really trophy size although most are certainly nice catches. To alleviate the problem we now ask that anglers submit only pictures of trophy size fish. Please do not submit shots of first fish or heavy stringers of fish unless their size is noteworthy. As before all photos should be of good quality with all the information clearly printed on the back.

RALPH PENNEPACKER of Schwenksville holds 39 inch, 15 pound muskie he caught from the Perkiomen Creek. On the wall in the background is head from a 48 inch, 26 pounder he caught in same area.
CASTING WITH THE CO-OPS—by Bill Porter
A MONTHLY FEATURE ABOUT COOPERATIVE NURSERY PROJECTS

LIGHTING

Lighting eventually becomes a consideration for most cooperative nurseries. Thus it becomes the subject of this month's page. Obviously there are many forms that suit a variety of purposes and pocketbooks. So some general considerations first.

Purposes for lighting should get initial consideration. Predator control, particularly human thievery, is one prime reason for a good night-light system. To facilitate the effects of working parties, screen brushers, and feeders, an effective lighting system is a must. Lights also attract insects, developing this important secondary feed source for some nurseries. Then there are certain esthetic qualities and an air of completeness about a nursery with a good lighting system whatever its practical aspects may be.

Types of lighting systems vary with the need, the size of the nursery, and the amount of money to be spent. A simple string of light bulbs, stretched over a raceway, may serve the purpose or something more elaborate may be necessary. Many clubs have professionally installed utility pole lights of various styles. Most do the jobs required of them at little operating cost to the clubs.

Timing devices may be employed so that lights come on automatically and shut-off at preset times. Others, of course, require that someone throw a switch or push a plug into a receptacle. The choice is that of the club. Commission suggestions for lighting systems are not as prescriptive as those for construction of raceways and intake systems. This does not mean that lighting is not considered important by the Cooperative Nursery staff.

In a more specific sense, let's examine the lighting system of one of the southcentral Pennsylvania clubs that has most of the good qualities of an effective arrangement. The Club is the Mercersburg Sportsmen's Association, Franklin County, a ten year veteran in the cooperative program.

Actually their lighting system is a two-phased unit—a series of lights lie directly over the raceway while a cluster of pole lights provide general illumination of the grounds, the lake, and the nursery area.

The raceway lights were designed to attract insects in season to the eager trout waiting a few inches below. There is no question of their effectiveness in this process during the spring and summer months.

The construction and ideas for design come from within the club. Reflectors for the bulbs were made from aluminum pie pans. Sockets for the bulbs were attached to carefully measured and curved lengths of conduit to place the lights in the center of the raceway.

The lengths of conduit extended back to the bank of the nursery on the side away from the feeders' path and the roadway, running alongside the nursery. The conduit arms terminated in connecting boxes elevated above the ground to give proper range of the light in the raceway. The wooden blocks were hinged, permitting the lights to be swung out of the way during cleaning or netting operations. This device in itself was a unique feature of the system.

Underground wiring completed the arrangements to a control panel and fuse box. A timing device is used to determine the start and length of the operation. Obviously, a switch permits the lights to be cut at any time and for as long as there seems to be no need for them.

With home-grown ingenuity, club member labor, and some donated materials, this system was relatively inexpensive to make and install. The overhead pole lights, a later addition, were a more expensive proposition.

However, the Mercersburg Club has had a series of poaching problems and the overheads became necessary. The low flood lights on the raceway did not provide the kind of lighting that would inhibit anyone bent on illegal activities.

The Franklin County organization has what appears to be a complete and effective lighting system. If your club is contemplating a similar installation, we suggest you contact the Mercersburg lads for more details.

And although it might be bad form to close with a pun, there's no doubt about it—this is an important "lighter" side to Casting with the Co-ops that ought not to be overlooked.
FROM G. C. P., PITTSBURGH:
"In the July Angler, an article on anchoring stated flatly that "Anchoring from the stern is a very poor practice because it is very dangerous." The article went on to describe an accident that occurred when a small outboard boat foundered in a swift current while anchored by the stern. I have read several articles written by you where you recommend anchoring by the stern. Who should I believe?"

—Ed Jones, marine education specialist of the Pennsylvania Fish Commission, who wrote the story in the July Angler, was referring particularly to small outboard boats with a cutout transom. A fishing boat with a notch in the stern, anchored in a strong current, should always be secured with the bow into the current, since the boat could easily be swamped if anchored with the stern upstream.

On the other hand, most inboard power boats will lie better to anchor when the rode (or anchor line) is secured to a stern cleat. When anchored by the bow, these boats will tend to tack back and forth across the wind or current, and the resulting changes of pull on the anchor will tend to break the hook out of the bottom. At the very least, the constant motion is annoying.

Another consideration with powerboats of conventional design is that the bow is often the most hazardous place on the boat, and it is much safer to pay out and tend the anchor from the cockpit aft.

To sum up, a small outboard boat with inadequate freeboard aft is best anchored from the bow; larger powerboats will usually behave better when anchored from the stern.

FROM E. M. M., COUDERSPORT:
"Can the new surface-gap spark plugs be used in older outboard motors?"

—In most cases, they can, but we would suggest writing to the engine manufacturer for his recommendation. Selecting the proper plug is a considerable problem, since there is no way to reset a surface-gap plug, and they are made in a wide variety of gaps and heat ranges.

FROM N. F. M., CAMP HILL:
"Could you give me the names of some companies that have parts or kits for boat trailers?"

—Boat trailers are normally shipped by the manufacturer in knocked-down condition, and most dealers will happily give you a discount if you wish to assemble this 'kit' yourself. All of the trailer manufacturers will furnish parts, and will mail you a catalog and price list on request, perhaps for a nominal charge.

FROM C. M., HARRISBURG:
"Where can we obtain information on designing and building an air cushion boat, or hovercraft? I am one of a group of engineers who would like to try developing one of these boats for pleasure and light commercial use?"

—The best general technical work we have seen on hovercraft is "Hovercraft Design and Construction," a 1969 work by Elsley and Devereux. The 262-page book contains many illustrations and tables, and provides an excellent basic guide to the design of air-cushion vehicles generally, and boats in particular.

FROM J. E., TYRONE:
"My steel 12-foot skiff is practically indestructible, but it has swamped in the surf at Lake Erie. How can I add flotation to keep it from sinking if it should fill from a breaker?"

—The easiest way to make a steel boat unsinkable is to box in seats at the bow, stern and amidships, creating watertight tanks. Be sure to include some drain plugs for emptying them, just in case.

FROM W. V. B., CONNEAUT LAKE:
"Can you recommend a really strong cleaner for removing oil and grease from the bilge of a fiberglass boat?"

—The best grease-cutting agent we have ever found is a liquid called 'Gunk,' sold at all auto parts stores, which really does a job. This cleaner is very strong, so try a little on an inconspicuous spot in the boat to be sure it does not damage the structure. If the test goes well, just follow the directions on the can, and the grease will disappear with very little effort.

FROM S. B. K., PHILADELPHIA:
"What factors determine the price of a used boat?"

—Generally, the figure falls somewhere between the seller's hopes and the buyer's budget.

FROM T. L., CARLISLE:
"How are single-screw tugboats, like those in the Philadelphia harbor, able to maneuver so well in reverse?"

—Tugs, and many other types of commercial craft, have flanking rudders installed ahead of the propeller, in the discharge current produced when the wheel is going astern. These provide steering effect when backing down, making the boat almost as handy in reverse as when going ahead.