Permanent Improvement?

Road Work Ahead—Your Tax Dollars At Work—Temporary Inconvenience, Permanent Improvement.

Most of us quietly gripe a bit as we bump along at a snail's pace over these "Temporary Inconveniences." Or we cuss our luck as we back track a few miles to get around a "Road Closed" barricade. However, we all want better roads, safer roads, more roads to carry us to work, to vacation areas, to the city, to the country, to grandma's house and on and on. We are pleased to see real evidence that our hard earned dollars that go for liquid fuels tax, auto and truck license fees and general taxes are being spent to construct the smooth roads we so greatly need and want in this age of high speed travel.

Unfortunately we cannot so simply overlook the fact that too often our own road tax dollars have served to bring destruction, as a by-product of road construction, to a precious natural resource—our trout streams.

It has apparently become habit for the hard working highway engineer to shrug off the complaints of a few so-called "fishing nuts" or to glibly note that the stream will soon be back to normal. Even more infuriating has been the frequent lack of recognition by highway planners and designers that a natural stream, wending its way down a mountainside has any value—except possibly as the easiest area in which to construct a new roadway.

To Pennsylvania's fishermen more descriptive narration of highway construction stream destruction projects is unnecessary. Every county has scars to remind fishermen and conservationists of how the creek used to be before the "new road" went through. The list of highway construction trout stream casualties is unfortunately long.

The policy of road building agencies to firmly and completely ignore the lasting damage of re-channelling, re-aligning, widening and otherwise destroying streams when they get in the way of a road project is not new. Frankly it seems that's the way its always been—however, we believe this attitude can and will change. There is no reason we cannot have good roads throughout our rural and mountain areas without sacrificing our streams.

The Federal Government long ago recognized the need for legislation to positively require coordination between road building agencies and conservation agencies on highway projects that affected fish and wildlife resources. On road projects today where Federal funds are involved, these Federal dollars can be withheld if fish and wildlife resources are not properly considered. Hopefully this same heavy handed method of gaining full and proper protection of our remaining good trout waters will not be necessary in Pennsylvania. Certainly reason and mutual understanding can be reached between highway builders and conservation interests without resorting to restrictive legislation.
PENNSYLVANIA ANGLER
Published Monthly by the
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Raymond P. Shafer, Governor

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PENNSYLVANIA'S OFFICIAL FISHING AND BOATING MAGAZINE

JULY 1969 VOL. 38 NO. 7

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Cover Art/MARILYN REA

D. THOMAS EGGLER, EDITOR

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the Pennsylvania Fish Commission, Box 1673, Harrisburg, Pennsylvania. NOTICE: Subscriptions
received after the 10th of each month will begin with the second month following.
FISHWAY SUPPORT—

Dear Mr. Bielo:

I have just read “Fishways—Part II,” (March, 1969), and want to agree heartily with your statement. I sincerely hope that you will be able to immediately make plans for going ahead and building fishways at the dams which block up-stream migration of shad, striped bass, and other migratory fish.

This matter has lain idle entirely too long and those of us who are interested look forward to your accomplishing this long overdue innovation.

If there is anything I can do to assist you in any way, please feel free to call on me.

With every good wish,
—John P. Saylor,
Member of Congress (Twenty-Second District)

PREFER FISHING

Gentlemen:

Enclosed is my check for a three year renewal to the Pennsylvania Angler which I have been enjoying for over 20 years.

I am a firm believer that the greatest majority of “Angler” readers would prefer not to have your magazine identified with boating, but remain strictly the Pennsylvania Angler. An occasional boating article is fine but why the front cover write up as a Fishing-Boating magazine? Would you consider running a small questionnaire in your Leaky Boot column asking the readers which they prefer?

In closing I would like to thank the Pennsylvania Fish Commission (Mr. Bielo in particular) for doing a fine job.
—Steve Valencic, Natrona Heights

CANOE COMEBACK—

Gentlemen:

Bob Miller certainly did a nice job with his article in the March issue entitled “Canoe Comeback.” I’d like to add a couple of items that might also be of interest to canoers.

He mentioned several Pennsylvanians who were outstanding nationally in the sport, one of which was Bob McNair of Philadelphia. He mentioned McNair in connection with a guide book, but I might add that Mr. McNair has also written an excellent instruction book on river canoeing. The American Red Cross publishes a thorough 445 page manual for beginners, but once that’s mastered canoeists should get Mr. McNair’s book “Basic River Canoeing” to learn how to handle moving water and all the latest techniques.

Two other Pennsylvanians active for years in canoeing circles are Ted Altenerder, Jr. of Philadelphia, present editor of The American Canoe Association’s magazine, “American Canoeist,“ and Don De Lorenzo of Allentown, cruising editor of the magazine. Their magazine is available for $2 per year by writing Ted at 1217 Sprigg Garden St., Philadelphia, Pa. 19123.

Another national canoe outfit that publishes an excellent magazine is The American White Water Affiliate, 459 Hawthorne, San Bruno, Calif. 94066.

The newest national canoeing organization is the United States Canoe Association. They have good Pennsylvania representation and I am their cruising chairman. Their publication can be obtained from C. W. Moore, 6338 Hoover Road, Indianapolis, Ind. 46280.

Miller mentioned Sundquist’s Western Pennsylvania Canoeing Guide. I might add that a complete guide for the entire state is being prepared by the Bureau of State Parks and any suggestions should be sent to Stan Peterson, Bureau of State Parks, 501 Market St., Harrisburg, Pa. 17101.

In addition to open conventional canoes which usually need two people for maximum pleasure the single place touring or cruising kayak made of fiberglass is growing in popularity. Until recently such outfits as Struer of Denmark or Klepper of West Germany were the only suppliers, but lately The Old Town Company is offering them for sale. These sleek kayaks move through the water with less effort even than a canoe and are a lot of fun.

And did you know that one of the largest manufacturers of canoe paddles and boat oars is located at Albion, Pennsylvania? It’s Swanson Boat Oar Factory and they welcome visitors.

Ever notice how many illustrations in catalogues and magazines showing experts fishing, show them in a canoe?
Miller did a good job of giving the reasons in his article. It's instant fun, just add water!

—Ed K. Holloway, Sharon

The material collected by Mr. Peterson has been turned over to the Waterways and Conservation Education Divisions of the Pennsylvania Fish Commission for additional work and final preparations before publication. Most of the material in the guide has been assembled by experienced canoeists who have actually canoed most of Pennsylvania's waterways. Hopefully it will be ready for distribution prior to the 1970 boating season.

—Tom Eggler, editor

STOCKING SUGGESTIONS—

Gentlemen:

I have been a subscriber to the Pennsylvania Angler since moving here from Minnesota a little over a year ago. Since then, I have watched a controversy regarding trout stocking and regulations reflected in the letters you receive and some of your lengthy replies. Allow me to throw my "two cents" in.

I base some of my opinions on experience trout fishing in Iowa, which certainly is different than here in the number of streams and fishing pressure, but nevertheless certain parallels can be made. Iowa streams are open all year. They have a trout stamp that is used for habitat improvement and right-of-way acquisition. They stock openly before Memorial Day and July 4th—otherwise it is a secret, intermittent stocking.

I suggest a trout stamp for Pennsylvania. This would eliminate a large section of fish hogs and kids. (You can fight juvenile delinquency with sunfish as well as trout.) I also suggest you lower the limit to no more than four. The same amount will be caught, only better distributed. I also would like to see stocking evenly distributed throughout the year. You could have (like New Jersey) no fishing the day of, or even after, stocking.

Most important of all, is habitat control. In the short time I have resided here, I have seen more than one stream destroyed in the name of progress. It seems paradoxical, but perhaps not unique to this state, that the Highway Department spends money to destroy streams (although indirectly), while your group spends sums to save them.

Can't you get together?

—Jerome Grehl, Easton

BECOMING "OLD TIMER"—

Gentlemen:

I intended to write to you last summer expressing my appreciative thoughts regarding "Oil Moon Over Pithole" but put off writing.

I heard of some of the happenings 50 or 60 years ago from my father who, as a lad of 18 with his father, uncle and a cousin, went to Pithole in the late summer of 1865 to cut and shape timbers for the drillers.

They dug the earth from a hillside, lined it with logs, covered it with logs, saplings and earth and had what was known as a "dug out" where they put in during the winter of 65-66, returning to their homes near Gettysburg in June of 1866.

July—1969

His father and uncle were millwrights and they used their knowledge of edged tools, axes, broad axes, etc. to make "mud-sills," "walking beams," "Johnson Bars," etc. which was used by the well drillers.

He told me they never ventured out after dark unless there were two of them and sometimes three, as every night someone was beaten and murders were not uncommon.

He died in 1941 at the age of 94 but some of the happenings were clear in his mind until just a few years before his death. Which brings to mind another reason for this letter. I am getting to be another "old timer"—79 years old—and have subscribed to the "Angler" since shortly after it was first published. Enclosed is a check for another year's extension, as my present subscription expires soon.

Now as to a letter in the July, 1968 issue from a Mr. Fred Hardick of Punxsutawney. Seems to me he hasn't made too much of an effort to learn to fly fish. He apparently was unwilling to invest in a fly rod, line, reel, etc. and tried to get on to the hang of it with a spinning outfit.

I have been catching trout with flies for about 50 years and have taught 6 or 8 fellows how to cast a fly and in 10 or 15 minutes most are able to catch a trout. If Hardick or anyone else is unwilling to make such an effort and spent a few minutes time, why should they expect to be granted special privileges to fish fly projects with spinning rigs?

—L. R. McKenrick, Curwensville

"GONE FISHING"

Dear Sirs:

As someone who has subscribed to the Pennsylvania Angler for many years, I feel it is my turn to submit a suggestion. Every year you have a subscription drive, pushing your magazine, at a very modest cost, and usually a little gimmick as well. Rather than send out maps or other such items that can get lost so easily, why not offer an adhesive backed sticker that any fisherman worth his salt can mount on a piece of pine or plywood. The sticker would be in simulated paint and simply state "Gone Fishing."

This would stimulate both the fishermen and the magazine sales. The idea is submitted for whatever use you may be able to make of it.

—Samuel Hurwitz, DDS, Morrisville

NEW ADDRESS?

Each month the circulation section of the Pennsylvania Angler receives several letters from subscribers complaining that their copy of the magazine is not being sent to their new address, as they requested.

Nine times out of ten an investigation shows that at the time they requested their magazine be sent to a new address they failed to include their old address. Subscribers requesting a change of address must include BOTH the old and the new address to insure the change being completed. And don't forget that zip code!

Questions concerning your subscription should be addressed to:

Subscriptions
The Pennsylvania Angler
Box 1673
Harrisburg, Pennsylvania 17120
THE ALLEGHENY—

JULY IS RELAXING time—plenty of warm sunny days, pleasant evenings. Vacation time is here. Late afternoons find the fishermen out on the water. A solitary rowboat lies anchored just off a huge weed bed, on a still, glassy lake. Two red and white bobbers, just at the edge of the weeds, bob gently as the minnows try to reach the security of the lily pads. The fisherman lying across the center seat, his head propped up on a seat cushion, periodically opens one eye to check the situation. Passing through his mind’s eye are visions of past experiences. The five pound small-mouth that fell for a rubber worm or the Husky-Musky candidate that took with it fifty yards of eight pound test line. OOPS—there goes the bobber!

The nervousness of the minnow is reflected in the bobber. Something’s going on. . . . Slowly, almost imperceptibly, the bobber begins to move. Sometimes on the surface, sometimes just under it. Like a sneak thief in the night it heads for the safety of the weeds. To pull now would simply tear the minnow off, or jerk it from the fish’s mouth. Wait. . . . The bobber comes to rest. It’s twitching tells us we’re still in business. Suddenly it moves, now with purpose and determination, off through the weeds. Now pull. The first return pressure tells us this one is nothing to brag about—certainly not big enough to join the 14 inch largemouth and the 19 inch pickerel already hung on the stringer.

Swiftly the fish is brought to the side of the boat and hoisted aboard. A nicely proportioned and colored large-mouth bass about 10 inches long. A firm twist releases the hook from the side of the mouth and the fish is gently returned to the water.

July marks the beginning of fine night fishing in Pennsylvania. Trout fishermen going out now are concentrating on big fish. Lunker browns that spend the major portion of the daylight hours resting and well hidden, are cruising about in search of food. The abundance of the night hatching Stone Flies and the Dobson Fly (Helgrammite) plus the larger terrestrial insects that fall into the water, like moths, crickets and grasshoppers and an occasional young bird, mouse or frog that enter the water make it necessary to use big flies. Sometimes even plugs or bass bugs.

On Pohopoco Creek in Carbon County years ago I witnessed probably the oddest method of taking fish that I’ve ever seen. Two spin-fishermen stationed themselves one on each side of the big hole, 200 yards downstream from the covered bridge. A live mouse was attached to the line of the one fisherman who was using eight pound test line. Two sets of #8 treble hooks were used. These were not impaled in the mouse but tied on with light thread. The other fisherman also attached his line but with a real light tippet. Dropping the bait in the water they reeled it back and forth across the pool in a swimming manner. Doing this, they covered every inch of the length and breadth of the pool. I never saw a fish take this rig but the anglers claimed that when one hit, the light tippet on one line broke and the other fisherman was fast to a trout or bass that didn’t need to be measured.

Top target for July fishermen is the smallmouth bass. Pennsylvanians are fortunate in having excellent brown-back fishing all across the Commonwealth. One of the best waters in the state if not the entire United States for small-mouth is the Allegheny River from the upstream limits of commercial navigation, two miles above East Brady in Clarion County to the Kinzua Dam in Warren County, a distance of about 130 miles. The Allegheny doesn’t have to take a back seat to any body of water.

Said to be “ounce for ounce, the fightingest fish in the water” the smallmouth gorge themselves on the prolific crayfish populations of the Allegheny. Warming waters and heavy feeding have caused these crayfish to grow too big for their shell. When the hard outer covering of the crayfish is first shed, the crayfish, referred to as soft-shells are so soft as mush. Others just starting to split their shells are called “peelers.” The uncovering of these can be completed by hand. Crayfish remain effective as bait until the hardening process is completed. Collect your soft-shells at night along the shoreline using a dim light or one covered with a piece of red cellophane. Like pie and ice cream to the kids, soft shells are a treat to all fish. Carp, suckers, catfish, rock bass, walleye and the pike all relish them and a mixed catch is a probability this month.

This entire stretch of the Allegheny also has excellent walleye and musky fishing, plus some northerns. Trout are picked up fishing near the mouths of feeder streams and rock bass, bluegills, bullheads and channel catfish are plentiful too. An occasional flat head catfish in the twenty pound plus class is taken from one of the deeper holes—No matter how you fish it—from a boat, from the shore, or wading—plan a fishing trip to the beautiful and productive Allegheny River in July.
ATTRACTIONS IN PENNSYLVANIA SEEM ENDLESS. FROM THE RAPIDLY DEVELOPING KINZUA AREA EAST TO THE LONG FAMOUS POCONO MOUNTAINS, SOUTH TO THE FASCINATING DUTCH COUNTRY AND WEST TO THE GROWING RECREATION AREAS IN SOUTHWESTERN PENNSYLVANIA'S MOUNTAINS, TOURISM IS BECOMING INCREASINGLY IMPORTANT TO THE COMMONWEALTH'S ECONOMY. AS ONE WHO ENjoYS PENNSYLVANIA'S MANY RECREATIONAL BLESSINGS YOU MIgHT BE INTERESTED TO KNOW MORE ABOUT . . .

by

BONNIE HOCH
Bureau of Travel Development
Department of Commerce

pictures

HARRY EWING
Department of Commerce

NEXT TWO PAGES

EACH YEAR thousands of people visit Pennsylvania's many tourist attractions. And the art of candle-making is just one of the things you may discover if you visit such popular summer activities as the Kutztown Fair.
the tourist trade

 PENNSYLVANIA IS THE EXCITEMENT STATE for beautiful scenery, historic attractions and interesting activities. No other state offers such stimulating diversity for old and young alike. Half the United States resides within a 500 mile radius of Pennsylvania and all her beautiful spots may be reached via more state highways than all of New York, New Jersey and New England.

As a result, Pennsylvania has mushroomed into a giant tourist mecca. Last year more than $3 billion dollars were spent by travelers in Pennsylvania, making the tourist industry the second largest in the state with manufacturing ranking first and agriculture third. These tourist dollars obviously create a favorable, dramatic impact on the state’s economy.

It has been estimated that for every $10,000 spent by tourists a new job is created. At this rate the three billion dollar impact figure would mean through tourism there have been created at least 30,000 jobs in the state.

In the course of a normal day of traveling, studies show that a couple spends about $35. And each dollar spent...
An area is shared by several different types of businesses, including food and housing services, banks, utilities, farms, stores, shops, auto services, insurance companies, professional men, and sooner or later, nearly everyone in the community is affected.

The tourist dollar can be broken into percentages showing exactly how and where it is spent to add to the state’s revenue. For instance, 27 per cent goes for food, while 17 per cent is spent on lodging facilities. Auto expenses make up 19 per cent of the tourist’s spending and 18 per cent is spent on attractions such as theaters. Personal services and retail purchases account for 21 per cent. This impact could also be demonstrated in other terms. For instance, last year the National Association of Travel Organizations (NATO) says tourists in Pennsylvania consumed 2,500,000 hogs; 531,000 steers; 14,000,000 chickens; 28,000,000 quarts of ice cream; 201,000,000 loaves of bread; and all the potatoes, apples and peaches which can be grown on a 44,000-acre farm. In addition, $150 million were contributed to the state’s sales tax funds from lodging facilities alone.

Who ate all this food? Studies indicate the average size of the traveling party in Pennsylvania averages 2.7 persons and the average length of stay in the Keystone State is 2.2 days. Travelers who make use of campground facilities stay an average of three days and spend approximately $27—outside of camping.

The year 1968 set a new record for the impact of tourism on the economy of the state. Factors were much more favorable for tourism, due mainly to the improved weather conditions, less social unrest, fewer strikes and no competition from Expo 67 as was the case in 1967.

Responsibility of promoting Pennsylvania as a vacation and recreation state is placed with the Pennsylvania Department of Commerce Travel Development Bureau.

Function of the bureau is to attract out-of-state visitors and keep the state’s 12 million residents informed about “what’s happening” recreationally in the Keystone State. The successful promotion of Pennsylvania in this respect has enabled this state to enjoy a dramatic upward surge from a revenue—and tax—standpoint, as well as provided increased employment for Pennsylvania citizens.

The bureau accomplishes this mass dissemination of information with commercials for radio and television, advertisements for national and regional magazines and metropolitan newspapers; publicity stories, promotional photographs and motion picture films. The bureau has at its disposal several five-minute films which are used to expose the sights and sounds of Pennsylvania to members of clubs, church groups and other organizations.

In addition, tourist information centers are serviced and operated by the bureau at Bedford, Zelienople, Neshaminy, the Highspire Service area and the new Sideling Hill center on the Pennsylvania Turnpike in addition to one at Delaware Water Gap. These centers are open from 8 A.M. to 8 P.M. to furnish free literature on things to see and do throughout the state. Representatives are there to answer questions on places to visit in Pennsylvania.

Specific brochures as well as news releases are also printed and promoted by the bureau. Brochures produced by the bureau and available free to the public include Discover the New Pennsylvania; Pennsylvania Golf; Pennsylvania Ski/Excitement; Pennsylvania/Excitement; Meet Pennsylvania; Pennsylvania Government; Pennsylvania Emblems; Pennsylvania Religious Traditions; Flaming Foliage; and the quarterly Calendar of Events. The Bureau of Travel Development also handles the development of research materials for the public and private sectors of the travel industry.

Like more information on what-to-do recreationally in Pennsylvania? Contact: Travel Development Bureau, Department of Commerce, Harrisburg 17120.
Creature of Ephemeral Existence

by CLARK SHIFFER, biologist Benner Springs Research Station

On July 22, 1909, Mr. R. C. Lange and a companion were camping on the shores of the Meramec River in Missouri. About 8:30 that evening as they sat about a brightly burning campfire they noticed something falling into the flames. The sound made by the falling objects was compared with that made when a burning match is dropped into water. The sizzling noise increased as the objects dropped into the fire with increasing frequency. In less than five minutes the blazing campfire was extinguished. The odor of burning grease filled the air. A coal oil torch was lit and the two stepped into their boat. The bottom of the boat was quickly covered to a depth of two inches by the falling objects. The next day some fishermen camping on a sandbar related to them that their campfire had also been extinguished about 9:00 by the same falling objects.

At various times accounts similar to the above appear in journals, newspapers, etc. Sometimes the numbers of these objects almost stagger the imagination. About the shores of the Great Lakes, in past years, so many of these objects piled upon streets, vegetation, bridges, and various other objects that they formed piles several feet thick. Traffic over bridges and roadways became extremely hazardous. In every case the objects were attracted to artificial lights of every description. The objects always appeared in swarms which abated almost as suddenly as they appeared. The swarms were often likened to falling snow, even though they only appeared during the warm months.

The preceding accounts concern a most unusual and interesting insect. It is variously known by the names may shad fly, willow fly, cisco fly, trout fly, day fly, spinner drake, dun, mackerel, and cob fly, among others. It is one of the most ancient insects on earth, with many fossil forms. There are about 1,500 species world-wide, with about 550 species in the United States. Fishermen in general, and fly fishermen in particular, are familiar with since many artificial lures are imitations of the adults.

* From the Greek word Ephemeros, meaning "lasting but a day."
in keeping the eggs attached to rocks or underwater plant debris.

The eggs hatch after an incubation period ranging from slightly more than a week to a month or more, depending upon water levels and temperature. The tiny creature that makes its way from the egg is known as a nymph or larva. It is possessed of three body parts common to all insects; the head, thorax, and abdomen. At the tip of the ten-segmented abdomen are three tails. (Some kinds have only two tails.)

As the nymph grows it changes its form many times. The old skin is exchanged for a new one in a series of molts. After the first molt tiny gills make their appearance. These increase in number until there are, in the mature nymph, seven pairs arranged along the sides of the abdomen. Two large eyes composed of many smaller eyes and three separate, single eyes develop on the head. Four wings develop upon the back of the thorax.

The nymph feeds upon tiny plant life present in its watery world. It may be compared to the larger, more advanced plant-eating animals which serve as food for the meat-eating animals. Many species of fish find mayfly nymphs excellent eating. In fact, many young fish may feed almost entirely upon the nymphs.

When the time for the emergence of the adult draws near, the nymph ceases feeding. This is usually about one to three years after hatching. The wing pads upon its back become darker and swollen. Many organs undergo regression, i.e., they slowly disappear.

Finally, the nymph either arises to the water's surface, or crawls out onto the bank, up a plant stem or rock, and the adult insect quickly crawls out of the ruptured nymphal skin. This process usually takes an average of ten seconds. Many adults are eaten during this transformation process, or "hatching."

The adult flies feebly to streamside vegetation and there it rests quietly on the underside of leaves. It is called a subimago, or immature adult, at this stage, because it must molt one more time. No other insect molts after getting functional wings except the mayfly. (Some kinds do not go through this molt at all, and in other kinds only the males molt.) The subimago stage usually lasts about 24 hours, but may be of longer or shorter duration.

After the subimago has rested quietly for about a day, it is ready for the last molt. This process is slower, for the wings must be protected against injury. If the wings are injured the adult cannot fly and is then unable to perform its role in life. That role is to reproduce its kind. When the molt is complete the mature adult is known as an imago.

Some imagoes fly as soon as they molt, but most remain quiet for a brief time. The eyes are now much larger and

continued on page 28
If you're one of the thousands of people who enjoy boating on some Pennsylvania waterway each year then you should...

Know Your Boat's Loading Capacity!

by/DEAN KLINGER
Chief Marine Services Specialist

YEAR AFTER YEAR CAPSIZING of boats has been the number one cause of boating fatalities. The major cause for capsizing can be attributed to one thing—OVERLOADING. In an attempt to prevent overloading and to educate all boat owners as to how much their boat can SAFELY carry, Pennsylvania passed and adopted the Boating Capacity Plate Law and Regulations which requires all boats under 26 feet in length (except sailboats and canoes), regardless whether they are designed for a motor or manual propulsion, that are built, offered for sale, or ownership is transferred after January 1, 1969, to be equipped with a capacity plate. The capacity plate must be installed where it can be readily seen by the operator and show the following information: that under normal conditions the craft can safely accommodate a certain maximum amount of OBC certified horsepower; the number of persons at 150 pounds per person or a properly located maximum weight in pounds for persons, motor and gear, and the hull serial number. Most of the major boat manufacturers have been complying with this requirement for a good number of years even before it became law.

The most important thing to remember on any boat with a capacity plate is that all calculations give the maximum load or power UNDER NORMAL CONDITIONS. Normal conditions do not include swift water, rapids or stormy weather, so if you must boat under any of these conditions make sure that you are well under the maximum weight capacity and that the load is evenly distributed.

If you own a boat that was built before January 1, 1969 and you have no intentions of selling or trading it but would still like to know the safe carrying capacity for your own peace of mind you can get the approximate maximum by using the following formula for simple design boats: Center line length times maximum width times maximum depth, times 0.6 divided by 12, multiplied by 150, except where beam measurements are 48” use no more than 19"
as maximum depth; where beam 49" to 52", use no more
than 20" as maximum depth; if beam is 53" to 56",
use no more than 21" as maximum depth; and if beam is
57" or over use no more than 22" as maximum depth.
This answer will give the approximate safe carrying ca-
pacity in pounds.

In computing any formula it must be remembered to
change inches into decimal feet for proper results. (See
table.)

A simple method for determining the approximate num-
ber of persons a boat can safely accommodate is to multiply
the center line length by the maximum beam and dividing
by the number 15. For example if you had a 12 foot boat
with a 3 foot beam you get the number 36, divide 15 into
which gives you an approximate safe passenger guide 2
persons at 150 pound average.

In determining approximate horsepower capacity simply
multiply centerline length by transom width (the width
at the back of the boat). With the following chart, locate
this number on the bottom and then go upwards to where
the curve line intersects. This will give you an approximate
maximum motor size.

As it was mentioned earlier these answers are approxi-
mate. Exact formula will vary to some degree. The im-
portant thing to remember is that if a boat feels overloaded
it probably is. Operating a motorboat which is either over-
loaded or overpowered is not only extremely dangerous to
you and your passengers but is also illegal and can possibly
result in a heavy fine.

For the safety conscious boat owner who wants a ca-
pacity plate for his own protection as well as persons who
either build, or plan to sell or transfer the ownership of a
boat after January 1, 1969 and are required by law to have
them installed, an application form can be obtained di-
tectly from the Pennsylvania Fish Commission's Waterways
Division (Box 1673, Harrisburg 17120) or from any
Waterways Patrolman. The completed application form
must be forwarded to the Commission along with a check
or money order in the amount of $2.00 per application to
cover computing and handling costs.
IT WAS ONE OF THOSE SWELTERING NIGHTS in late July. Even the crickets seemed to be panting as they chirped their night song. Sleep was out of the question, I felt as I stepped out the back door of the house, searching possibly, for just one stray breath of air. The sound I heard reached into my brain and it startled me. I concentrated, and finally heard it again; the liquid noise a big trout makes at night as he sucks in a floating object. Call it the power of suggestion, I suppose, because the nearest trout stream, the Letort, is two miles away.

"Anything wrong?" my wife asked as she appeared behind me.

"Honey," I said "I'm going to see if I can't clobber a big trout tonight. I'll probably be back before daylight."

"You're crazy," I heard her say, "but go ahead." I knew the crazy remark was uncalled for because she's had the idea for years that I'm nuts.

It didn't take long to assemble my gear; waders, mesh fly rod, two fly boxes and a flashlight. I didn't carry a creel because the kind of trout I hoped to catch wouldn't fit into one.

For years I've known, and outdoor writers have written, that one of the best times for catching outsized trout, especially browns, is at night. In Michigan the boys go about their nightly work with kingsize dry flies, fishing to the sound of feeding browns as they slurp caddis flies off of the surface. In New York State, especially around the Salmon River Reservoir, a big wet Montreal still gets the nod by those who practice this "owl time" art. In my case both surface and sub-surface artificials come into play. I could show you a half dozen flies, wet and dry, and speak for hours on the experiences I've had with each. Like the majority of fishermen I'm not addicted to the sport of night
fishing, but I do manage to practice it enough to claim partial success.

With the exception of flies, leaders and flashlights the night fisherman’s equipment differs very little from the tackle of the “not quite so crazy” daytime fisherman. The rod understandably should be powerful enough to withstand the surge of a big trout. I generally use a glass rod in the six foot class, lightweight and a dream to cast with, but with plenty of backbone. My reels are single action with weight forward tapered lines. Leaders can be either level or tapered, but generally no lighter than eight pound test with ten being better. With one exception which I’ll mention later there’s actually no need for a light leader. Whether or not a big trout can see the heavy leader at night, he tends to ignore it. The wariest daytime browns become a little simpler after the last rays of sunlight have left the water and the gloom of night settles over everything. The fish seem to gulp everything that comes along; floating beetles, minnows, crayfish and even a baby muskrat if the trout is large enough.

I might mention the one exception as far as fine leaders are concerned. A few seasons ago it was my good fortune to be revising topographic maps in the Millheim area of Pennsylvania, the section containing such fine limestone waters as Penns Creek, Elk Creek, and Spring Creek. Each evening after work I would head for Penns Creek. I slept in the back of the station wagon and generally parked beside the creek at Tunnel Mountain below Coburn. I would eat a light supper and then fish until dark or later. The fishing was wonderful, but as the summer progressed, and the water warmed slightly I found I was catching fewer trout in the daytime and more at night. I could waken anytime at night and hear the slap, slup, slurp of various trout as they surface fed. On quite a few occasions, mainly in the deep slow runs I would fish over rising trout with my proven night flies and never interest them. In desperation one night I shined my light on the waters and noted nothing but tiny naturals riding the surface. I rigged up with a 5x leader and number 18 and 20 black flies and had a ball. It was amazing how a trout could pick out such a small tidbit in total darkness, but on occasion they did it. My best trout on these tiny flies was not as large as the trout normally hoped for in night fishing, but I caught trout up to sixteen inches regularly and one deep bodied eighteen incher. I might add that during the course of the summer I killed only three fish.

One fly was very successful on Penns Creek, and that same fly is my number one lure yet today. I have Don Gapen, the originator of the muddler to thank for the idea of this fly. Actually a big muddler makes an excellent night fly but I wanted one a little bulkier and different so I tied one on a #4 streamer hook. The tail is turkey, body is thick

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DARKTIME TROUT

black wool rubbed with gold tinsel and Palmered thickly with three black hackles, wing is a heavy mixture of black and white bucktail and the head is the clipped bucktail head similar to that on the muddler. The first night I fished this fly I raised ten trout, landed four. At one pool I kept hearing the splash of a kingsize fish and was trying to locate him in the darkness. I kept casting the night muddler and letting it drag across stream on a short line. There was a tremendous splash and my reel began to scream like an injured banshee. If I remember correctly this fish cleared the water twice, falling back with a sound not unlike Uncle Louie slipping in the bathtub. Finally the runs became shorter and slower and I felt the little lump as my line-leader connection passed through the tip of my rod. I turned on the flashlight to look at the shimmering monster at my feet. “No trout could be that big,” I gasped, but there was a feeble flip of his tail and the monster sank from sight. How big? I guess I’ll never know. I never hooked or saw him again.

What happened to that sweltering July night? I’m coming to that. I decided against the Letort, so drove six miles more to a spot along the famous Yellow Breeches Creek. I had already tied a big night muddler to the end of the heavy leader, since use of a light of any kind will usually spook the trout for a while. I slowly eased into the head of a long pool and the coolness of the water felt through my waders was just about the most refreshing thing in the world. I stood hip deep in the water waiting for my eyes to become accustomed to the dark, at the same time listening for the tell-tale sounds of a feeding trout. I heard the melodic song of the crickets, and on the ridge behind me a fox broke out with a “yip-yip.” I finally heard the sound I was waiting for. With a false cast to lengthen my line I sent the big bug out through the darkness. It floated dragless for a moment and then I could see the tell-tale wake as the line tightened and the current dragged the fly below me. On: cast, two, then ten. I lost count and was just about ready to try another pool when there was a sudden flurry in the water to my left. A quick cast in that direction must have been on target because there was a sharp, my rod whipped forward and something was tailwalking all over the pool. The fight was over shortly and the trout, about sixteen inches was released. Sometimes it’s best to keep fishing one pool while night fishing, but I had the wanderlust and the memories of good fish in nearby pools, so I proceeded downstream.

The moon was apparent through the trees, but wasn’t bright enough to affect the fishing. A bright moon sometimes keeps the trout from feeding but fishing the shadows on a bright night can be rewarding.

I eased quietly into the head of the next pool, stood a few minutes and made my first cast. It all happened so quickly that I hardly knew what was happening. A shrill screech of the reel as a heavy one propelled downstream at the end of my eight pound leader. First I was giving line, and just as abruptly the line was slack as the fish turned back upstream. I reeled frantically but was too late. I caught the flash of a huge body as he jumped nearly in my face. I kept reeling but the fish was gone. The sweat drenching my body may have been from the heat, but at least part was from excitement.

I fished a few more holes, caught and released two more trout but didn’t see or feel another big fish. I walked back to the car at 4 A.M. and decided to try one spot a few miles downstream before heading home.

I was still using my number 4 “night muddler” with the pinched down barb. Most of my flies are barbless and it doesn’t seem to affect the percentage of landed fish. I still lose some fish, but feel that I never lose any more than I do with barbed flies.

This hole was a little different. It could be fished from shore, so I eased down the bank to the water’s edge. At least one good fish was feeding, his gurgling and slapping noises plainly audible over the sweet sound of running water. A good dozen casts were fruitless but the unlucky thirteenth cast hit pay dirt. This fish was crazy, thrashing the surface and shaking his head from side to side. Being unable to free himself that way he took off in a mad dash for the far side of the pool. Judging from the amount of line that was out that trout should have been on the far bank. I felt a sickening sawing on the line and remembered the old post sticking in the water. I jumped into the water, finally made it to the far bank and released the line from the post. The trout was still on and after ten minutes more of thrashing, running, jumping and head shaking he was ready for the net. “A keeper” I said aloud, “about 23 inches I’d say.”

I wasn’t hot any more; a cool breeze had sprung up, the sky was brightening with the first light of dawn. I dismantled my rod, held the trout up to the light to admire it, paused a few minutes to soak in the beauty of the sunrise and headed for the car. I could sleep now.
"UM, WELL I DON'T KNOW," I said. Horace Burgard of York, Pennsylvania, was describing a boat he was about to build. He had ideas from all over, one here, one there and I gathered he was about to put them all together in one riproaring masterpiece. It sounded like an awful mishmash.

The next spring I was called to inspect his creation. It was impressive, and it was then I recalled that I had been talking to a seasoned and determined boat builder. I beheld a trim roadable cabin job with an unusual power application. Each side had a wash board from stem to stern to keep bait cutting and other mess outside the boat. The cabin had a jaunty forward pitch and water taken aboard drains down the foredeck and overside at the low point of the wash boards. Aft was a self draining fish box and cooler. With a crank in the cockpit you could winch the anchor up or down without scrambling forward to handle a lot of slimy line. The cabin was spartan but adequate considering the space available. The sharply flared sides of the hull gives it a built-in urge to fight capsizing. The power plant is a 10 h.p. outboard which drives it all day at eight knots on five gallons of gas. A vent pipe with fan draws off fumes from the motor well. Protection from the sun is furnished by a cabin overhang. Visibility is good forward but just in case you get nervous in pea soup weather there is a sliding hatch in the overhang for 360°.

continued on next page
BURGARD BOYS - -

visibility. It has the sweep and shear of a good sea boat and a shallow draft. In short, after three years of use it has proven itself on the swells of the open Chesapeake yet has navigated some of the more shallow reaches of the Susquehanna with equal ease.

When Burgard starts to build something, he seems to start off with fundamentals. First, he does not see eye to eye with contemporary boat design. They are, he says, short changing the average guy which also includes the average pocketbook.

Boats, he feels, are getting too big, boxy and far too expensive. They have, he contends, a lot of unused space and excessive power for leisurely cruising or fishing, and what grieves iconoclast Burgard most is the fact that they are looking less and less like boats.

"I wanted something you could drop in the water where the fish are biting, doesn't cost much to operate and should have overnight accommodations. I aimed at just under $500 for the whole thing including the trailer and that's just about what I got."

His finest hour must have been one day when a cabin cruiser pulled along side and somebody in a natty yachting uniform yelled down. "Hey mister, that thing looks like a boat should look."

Since this authoritative view came from the bridge of a plush forty footer, Burgard thanked him and allowed as how his wasn't so bad either.

With all of his many projects, Burgard carries everything in his head without making any drawings and they always seem to work out. Watching him paint the water line on the boat I asked how he knew where it should be. "Should be about here," he reflected and when the boat was put overboard for the first time with full gear and a crew of two for a weekend, just a hairline of red antifouling paint showed above the water.

This was not the first time he gambled time and money to prove his ideas. Some years ago he was watching a motorboat race and thought he had an idea to make them go faster.

"Can't be done," said the experts but Burgard went ahead and did it anyway. The results were nearly fifty trophies including a first place in the President's Cup Regatta plus two national and international records that still stand.

The key to his success was an advanced concept that manipulated weight and wind so the hull was airborne except for two spots about the size of a grapefruit half...
and the bottom blade of the propeller. Coupled with this was an additional trick that made it stay that way. If a wave lifts the bow at racing speeds a boat suddenly thinks it's an airplane wing and the driver is apt to find himself in a seriously uncomfortable flight attitude. The winning features of Burgard's racers were their ability to get into planning position fast and stay there.

But not all was easy sailing at first. He had to learn the tricks of the rough and tumble racing circuits. For fast starts he learned how to "walk" his boat, a precarious position that has it reared up on its transom like a bucking horse, fluttering from side to side while accelerating into the semi-airborne position. A delicate touch is required here as too much throttle will flip it one way and too little the other. One time at Lock Haven he was roaring down the approach to the starting line when some neophite competitor hove to, broadside, directly across his bow and only split second timing avoided a shattering collision.

During the heyday of his racing career he used to enter about seven contests a season. In addition to Lock Haven he has raced at Sunbury, Harrisburg, Goldsboro, Long Level, the Schuylkill, Havre de Grace and various other points in Delaware, Maryland and New Jersey.

When it comes to building things Horace and Dick Burgard are like two peas in a pod. One way or the other they have always had some project in the works. In the early years when financial pickings were slim they pooled resources and talents. Later, as the more affluent society took shape they followed their inclinations more separately. Boats they have built, or rebuilt over the years include a wooden houseboat, a whaleboat, snipe and a penguin which they had at Long Level. A familiar sight for many years on the river was their 25 foot sloop Ranatowa, which, loosely translated (no pun intended) means an Indian maiden without any visible means of support. For several years they also had a steel hulled cabin cruiser they kept at Annapolis, Md. During all this an outboard rig was always at the ready for a quick trip to the Conewago or Susquehanna for bass plugging.

Har Burgard and his brother Dick have always been business partners. Their first venture in the early 1930's was 15 dollars worth of model airplane supplies set on a card table. It quickly matured into a marine dealership and repair depot which lasted for 25 years. For a while they had a small plant where they manufactured boats and made custom accommodations to other boats.

Later they turned to the more lucrative field of construction machinery rentals. Their mechanical sagacity sometimes stands them in good stead. One time they were interested in a slightly used piece of equipment worth about $23,000 but was balky and nobody seemed able to fix it up. They offered $1,000 for it but the banker told them the scrap steel was worth more than that.

"Well, we have to gamble that we can fix it and everybody else has failed so far."

After some haggling they agreed on $1,600. Dick cut a pin off the timer, revolved it 90°, installed a new pin and it has been purring like a kitten ever since.

Horace's present project is a home made airplane. When chided about such an undertaking at an age when more sedate activities seem to be the thing he summed it up characteristically.

"Well, the bird will be a seaplane and I can get to more fishing spots faster."

This is not the first home made airplane. Dick built one in the early 1930's but a law was passed prohibiting home
BURGARD BOYS --

made flying contraptions and he had to scrap it. Maybe it was just as well. "With the throttle wide open it might have developed 25 horse power," he recalls. A rib from this old plane is now in an aeronautical museum in the midwest.

At an early date Dick also built an open spark radio transmitter, which, he reminisced, could be heard further with the windows open than it would transmit.

Dick feels that his most rewarding achievement was a stern drive paddlewheel welded steel houseboat which is still kicking up a sedate rooster tail as it chuffs about the Susquehanna after 15 years service. It is 32 feet by 9 feet with a step down cabin. It has bunks, galley, head, picture windows and a sun deck. Steering is conventional from the pilot house or you can loll on the sun deck and steer it with a two station pushbutton on a long flexible cord. The 30 h.p. engine, mounted athwartships, turns the paddlewheel at a splashing 60 rpm's. It cost Dick under $3,000 to build and he figures the nearest factory built equivalent would run about $15,000. Unaccountably, one time, a picture of it showed up in the Mainchi News, a daily newspaper in Japan. (A friend in the military service saw it and sent him a copy.)

They seem to have inherited much of their love of the Susquehanna. Their late father "PY" Burgard always had one property, and sometimes two, at Long Level. The boys have continued this tradition to this day.

"I was hooked on the water since I was a pup," Horace mused.

For many years, Har and C. C. "Doc" Bleecker, venerable and revered ex-pysical director of the York YMCA, would make an annual pilgrimage to some spot or other that captured their imagination. One of them was Nova Scotia and at the drop of an anchor they will tell you about the reversing falls, the forty foot tides, the giant tuna of Soldiers Rip, the Crank Banks schooners and their contention that Nova Scoti is the only place where you can still find wooden ships and iron men.

Somewhere, in a vest pocket of his mind, Horace stored away the graceful sweep of the Grand Banks dory that can navigate on their treacherous North Atlantic fishing sta-

tions with a 4-5 inch freeboard when loaded with cod fish. After twenty years he revived these seaworthy lines which you now see on the boat described in the first part of this article.

The biggest boat he was ever on was to visit a high school buddy who was attending Annapolis and was just getting his sea legs on one of Uncle Sam's big battleships. Today, York Countians will know this young midshipman as battle scarred Rear Admiral Edward E. Grimm, who recently sat on the board of inquiry looking into the Pueblo disaster.

For many years Horace was sort of a commodore in charge of maintenance of the fleet of about twenty-five assorted boats of the York YMCA Camp Minqua, above the Holtwood dam. Yorkers who attended Minqua from the early 1930's until its recent disbandment will remember the two Synge's used to haul the youthful campers on sightseeing tours. Synge One was a half sunken hulk in the Chesapeake Bay which he and Doc Bleecker raised and brought to camp, including a hoist over the two dams. Synge Two was a whaleboat which he converted.

While Long Level was always his berthing spot, quiet tidewater ways cast a spell on him and he is intimately acquainted with the Maryland Eastern Shore. One time, he recalls, after a day of fishing they sacked out on the loading platform of a tomato cannery warehouse. As the cool of the evening wore on the tomato cans contracted, snapping in the top with a resounding "boing." He viewed the resulting tinny clamor as something less than ideal music to go to sleep by.

"Har" Burgard has always had an intense curiosity about any natural phenomena and his knowledge of outdoor lore has gained him a reputation as an amateur naturalist and biologist. For the past several years he has distributed about 700 pounds of corn each winter to wild ducks at Kiwanis Lake, near York—a few goof-offs who stay there all year round.

The urge for the outdoors runs strong and if civilization becomes too stifling he will pack up and head for some nook and cranny of nature. His latest expedition was a trip to Alaska where he caught an ocean run salmon and learned the fine points of mushing on the Arctic tundra. A deer camp in the wilds of north Canada also held his attention for a few years. If he cannot find a companion for spur-of-the-moment sojourns he will go by himself. A few Januarys ago he loaded up his cruiser and launched it in the Chester River for a weekend jaunt all by his lonesome. The next February the natives of Hoopers Island, in the boondocks back of Cambridge, Md., shook their heads sadly and tapped their temples meaningfully as they watched him fishing in the tidal flats.

And so it goes with the Burgard brothers of York, Pennsylvania, as they carefully fashion wood, plastics and metal to bring their dreams and visions to reality.

What is next on the program? Horace says it will be a 35-foot version of his present boat except that it will be a true double-ender. Among the innovations he contemplated is a single engine driving two propellers through twin hydraulic transmissions. Will it get built? We are willing to bet on it but we feel it will help if he follows instructions for a change as he continues with his home-made airplane.
A column of news devoted to the activities of boat clubs, flotillas, power squadrons and items of interest to Pennsylvania's boaters.

FABRIDAM

NORTHUMBERLAND AREA BOATERS are in for a treat this year—more water and a much larger boating range—provided no unforeseen problem occurred in recent months.

Bigger boating conditions were brought about with completion of the Susquehanna River fabridam, a long sought after project, at Sunbury.

Actual construction of the fabridam began shortly after mid-1966 but it was not until last March that the final sylon and neoprene bag was installed and tested.

Completion of this project had been anticipated months before it came about but the project was plagued by labor problems where the bags were fabricated and unnormally high waters which washed out coffer dams.

Located about 2.5 miles south of the confluence of the west and main branches of the Susquehanna River, the fabridam will provide plenty of water even for those areas which, in past years, threatened the unwary boatman with a sheared pin, or worse, if he unknowingly ventured into the shallows.

It will impound the water from a drainage area of 18,300 square miles and create a pond of about 3,000 acres extending six to eight miles up either branch of the river.

UTILITY PLANS IMPROVEMENTS

Improvements to one of the first public access areas on the lower Susquehanna River, in southern York County, were planned for the current boating season by the Safe Harbor Water Power Corp.

It was quite a few years ago that this utility constructed the first free public access on Lake Clarke and it's been put to extremely good use since then not just on weekends but practically every day in the week.

Since then, as an added attraction, Safe Harbor has converted several acres of woodland, a short distance upstream, into a picturesque picnic area with plenty of parking space for fishermen and family gatherings.

For the 1969 boating season the utility has turned its attention to improving the facilities at the launching ramp by providing a floating dock where boaters can tie up their craft for loading and unloading purposes only.

Of aluminum construction the dock will feature two walkways leading from the shoreline to a 60 foot long floating span buoyed by a series of aluminum drums.

As previously mentioned the ramp has always been heavily used but there has always been the problem of loading and unloading.

Thus the new dock will be an asset to the launching area and will, no doubt, encourage much more use on the part of the general public.

POTENTIAL TEACHERS TAUGHT SEAMANSHIP

A group of Millersville State College students were among the audience when the Susquehannock Power Squadron began its small boat handling classes this year.

This time the course, held on campus, represented a co-operative venture between the squadron and the Earth and Science Department of Millersville State College.

The potential teachers taking the course were members of the oceanographic studies group taught by Prof. Bernard L. Oostdam who is in charge of the college's Marine Science Center which operates from the former U.S. Coast Guard station at Lewes, Delaware.

It was Dr. Oostdam who suggested this cooperative action in view of the fact that oceanographic studies relate to both marine biology and marine geology. Students in both fields operate boats owned by the college and equipped for field studies including diving for exploration and sampling of the ocean bottom.

This form of activity requires a working knowledge of seamanship and safe boating for the protection of all persons involved and although Prof. Oostdam, a former midshipman in the Royal Netherlands Navy, provided his students with training in the rudiments of boat handling and safety afloat, he felt the course provided by the power squadron could supply these necessities thus leaving him free to pursue the oceanographic studies.

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JULY—1969
FLYING TROUT
- We know the moon isn't made of green cheese and there is doubt as to whether a cow ever jumped over it—but would you believe that brown trout can fly? I was patrolling Bradys Run Lake on a cold January afternoon when a fellow said, "If you had been here a little while ago, you would have seen a funny one!" "How's that?" I asked. Very excitedly the fisherman replied "This guy was fishing through the ice with a minnow and decided to lift the bait for a quick check. The bait was about six inches above the ice when a brazen brown trout came flying close behind and finished a poor second."—Waterways Patrolman DONALD PARRISH (Beaver County).

NONE YET!
- During a pre-season stocking at Raccoon State Park Lake, a man standing next to a friend holding a small boy said "See those are what your daddy goes fishing for all the time." The boy's mother overheard the comment and exclaimed "Ha! we've been married five years and I haven't seen a fish yet."—Waterways Patrolman DONALD PARRISH (Beaver County).

NON SWIMMERS?
- During the pre-season stocking of Chest Creek, one stop was along a section of stream that was ice covered. Someone had cut three holes in the ice in order to get the fish into the stream. These holes were about ten feet apart. Boys from the area were helping with the stocking and dumping the trout in the hole nearest the truck. One man didn't approve of this, and said, "Don't put them all in the same hole!" Some people must think trout can't swim.—Waterways Patrolman ANTHONY MURAWSKI (Cambria County).

WASH AWAY GARBAGE—
- Sometimes it gets a little hard to keep calm and really tell someone off. While stocking a stream in Blair County last spring, I mentioned to one of the residents about the litter that was thrown in the creek at or near almost every home. This man's answer was that I shouldn't worry about the cans, paper and garbage, because when high water came it would all wash away. With thinking like this it is hard to keep calm and hard to understand the thinking of this kind of person. I'm considering taking this stream off the stocking list and having the fish transferred to a stream where the landowners will appreciate the fact that the Fish Commission also appreciates having CLEAN STREAMS!—Waterways Patrolman CLOYD W. HOLLEN (Blair County).

HATS OFF TO CO-OPS
- Recently while accompanying Mr. Robert Brown on a Cooperative Nursery tour, we were impressed by the many more and much nicer fish we saw as compared to previous years. All in all these clubs are doing an outstanding job—fishermen and all lovers of the outdoors should take their hats off to these clubs. May they keep up the good work.—Waterways Patrolman SAMUEL W. HALLE (Lancaster-Lebanon Counties).

HUNGRY TROUT
- Robert Kinsman of Honesdale had this odd experience while fishing last winter. A tip-up flag went up so he ran to attend the line, giving the fish lots of time to get the ball deep in its mouth. He turned around in time to see another flag go up. This was too much, so he pulled in the fish on the first tip-up, only to find that the fish had swallowed over and taken the minnow on the other tip-up. Both hooks were firmly in its mouth!—Waterways Patrolman HARLAND F. REYNOLDS (Wayne County).
CHRISTMAS GIFT—
Christmas is a good day to learn ice fishing. Ice fishing has increased the last several years and it looks like some people feel that Christmas Day is a good day to learn. This Christmas a call was received at my home wondering if I would come to Shawnee Lake to show several people how to ice fish. The call was answered by my going to Shawnee Lake. Eight people were waiting. We went to Felton’s Cove. Within a short time we had five tip ups placed. Two real nice pickerel and one walleye were caught. The visitors said the next time we will have our equipment and bait, and we thank you for giving us part of your Christmas, it was fun.—Waterways Patrolman WILLIAM E. McILNAY (Bedford-Fulton Counties).

FIND PEACE
One of the Pennsylvania Fish Commission’s “Find Peace In A Violent World” posters has found a new place to be displayed. A University of Cincinnati student requested a poster to hang on the main bulletin board at the campus.—Waterways Patrolman CLOYD W. HOLLEN (Blair County).

SALESMAANSHIP
While visiting issuing agent Mr. Tom Jackson, owner of Jackson’s Hardware in Unity, he told me of his method of selling fishing licenses. He explained that if you buy your license on the first day of January, it will only cost you a little over a penny a day for your fishing enjoyment, but as each day passes until you do buy it, the cost of your license raises. Of course a retired person has the real money advantage. He figures this by dividing 365 days in the year into $5.20 (the cost of a license). Now that’s what I call a real salesman.—Waterways Patrolman JAMES R. SMITH (Allegheny County).

BIG FISH/LITTLE NET
While on routine patrol of the Delaware River, I came across a young man playing this fish. Wanting to be of assistance, I asked him if he had a net. Finding he had none, I raced to my car for my brand new one. After playing the fish for an hour he brought it close enough to shore to use the net. Did you ever try to land a 12 pound carp with a small net? He finally did it and won a Junior Fishing Citation for the effort!—Waterways Patrolman JOHN W. WEAVER (Northampton County).

TEENAGE HELP!
There was more interest in the stocking program last spring than I have ever saw in the past. More sportsmen were present at each stocking than ever before. In a number of areas I had help of high school groups and I must say they do an outstanding job. Two of these boys will take a pair of fish and run to and from the stream. In fact they have the fish in the creek while the average person is just getting started. The albino and palomino trout mixed in the loads added a lot of interest as well as the quality of fish being stocked!.—Waterways Patrolman KENNETH ALEY (Potter County).

FATHER’S INTEREST!
While patrolling Elk Creek in Erie County I came across a young boy with a trout out of season. When I asked the boy his father’s name, he told me it was none of my business and his father had nothing in it. Later I found out his father did have something in it. His father did not believe in “Sparing the Rod and Spoiling the Child.”—Waterways Patrolman JAMES R. CARTER (Erie County).

“SNEAKY” PATROLMAN SPOTTED!
While my son Jimmy and I were patrolling North Park Lake early in the spring I wore a red jacket over my uniform as part of a disguise. Three small boys struck up a conversation with us and I pretended I didn’t know much about fishing. But the searching sharp eyes of one youngster observed my uniform underneath, and said “You’re a warden aren’t you?” I asked how he guessed? He said he saw my uniform under my coat and then had looked in my car and saw my binoculars. Then the one boy said “Boy you sure are sneaky!” But I was thinking to myself that I wasn’t very successful if these boys had spotted me that easily!—Waterways Patrolman JAMES R. SMITH, SR. (Southern Allegheny County).

TROUT RETRIEVER
Several years ago George Hotalen of Dingmans Ferry purchased a beagle with hopes of making a good rabbit hound out of him. George was unsuccessful in training “Bingo” the beagle, however, all hopes of owning a well trained beagle were not lost. George says that whenever he goes trout fishing, Bingo will lie on the bank of the stream and just as soon as he hooks a trout, Bingo is in the water and within seconds has retrieved the trout.—Waterways Patrolman MICHAEL BADNER (Pike County).
The second important factor in dry fly angling is the presentation or casting of the lure. There are several features to remember here, all of which become relatively automatic as the angler gains experience. These features include the delivery or actual cast of the fly; the type of fly, which is governed by the season or availability of the natural insect being imitated; and the line-of-drift or pattern by which the fly approaches the feeding station of the fish.

TO TROUT - with love

by

R. T. TRIMMER

PART II

THE DELIVERY

The variety of equipment which is available to the fly angler is staggering. The fly rod may be anywhere from twelve feet long, as in the ash wood heavy weights used on the big, rough English and Scottish streams, down to the pin weight four and five foot glass and bamboo midget rods now being manufactured here in America.

The purpose of the rod is two-fold. First, it acts as a whiplike transmitter to send the line and lure across a given stretch of water to the point where a fish will consider the fly as food. A little practice will prove that the longer and stiffer the rod, the further will be the cast. However, distance casting is far more important to the tournament caster than to the angler. Most trout fishing is done within twenty-five to thirty feet of the angler's casting position. Thus, distance is relatively unimportant, since most of the fly fishing water in Pennsylvania is well under forty feet across. True, some of the fly sections such as found in Penns Creek may exceed this distance, but a minimum of wading will usually put the angler within reach of his target area. What is far more important is the...
accuracy of this cast and this is accomplished only with a rod which is easily controlled and is light enough to allow fishing all day without unduly tiring the angler.

The second purpose of the rod is to act as a buffer and shock absorber, taking most of the strain when a particularly large or violent fish is hooked. For this purpose, the rod must be very springy and resilient, bending easily but firm support when the fish makes its wild, plunging runs for freedom.

Attached to the very end of the rod butt, behind the angler’s hand, is the reel. Here again is a piece of equipment with a two-fold purpose. Primarily, the reel acts as a storage spool for unused line. The secondary purpose is as an auxiliary buffer, paying out line slowly on the longer escape runs of the trout.

Fly line is available in two kinds and three basic styles. Sinking fly line, which is usually used for wet and streamer flies, will be of relatively little interest in this work. The second kind of line is, as may be expected, floating fly line. Almost equally popular for wet and streamer flies, and considerably easier to cast and retrieve, floating line is a must for dry flies. Both kinds of line are available in three styles. These styles include: “torpedo” or weight-forward line which is most popular among tournament casters and anglers to whom distance is vitally important; level line, in which the weight and diameter is the same throughout the length, is perhaps the easiest to use, and is certainly the least expensive; and the double-taper line, which is really two lines in one, in that the ends are lighter and smaller in diameter than the center of the line, making it reversible should one end begin to wear.

All three styles have their drawbacks. The level and torpedo lines tend to splash and create more disturbance when they strike the water than does the double-taper, but the lighter casting end of the double is far more difficult to deliver, especially when casting into a breeze. Once again, the choice of equipment is entirely the discretion of the angler. Use whatever works best for you. The only factor to remember is that the weight and length of line should be determined by the chosen rod. A rod cannot cast a line with necessary accuracy unless that line is matched to the weight and spine of the rod.

The next feature to consider is the leader, to which the fly is attached. It is important to remember that the more invisible the leader, the less likely is the fish to see it. This invisibility is accomplished by making the leader as fine as possible, taking into consideration the fact that it must withstand the shock of the fish’s strike as well as the tug-of-war that follows.

Leaders are available ready-tied in two styles: knotless, tapered leaders in various lengths, which narrow from material near the same diameter as the fly line, down to almost gossamer half-pound test; and tapered leaders made up of several strands of level monofilament, each progressively smaller until they reach the same degree of delicacy. Many anglers choose to tie their own leaders in the latter style, using their own combination of weight and strand measurement.

It is important to remember that the more delicate the leader tip, the more springy should be the rod, or fly and line will part company with a most discouraging snap.

THE FLY

Now that we are equipped with our tackle, our next problem is the selection of the lure or fly. This section is concerned mainly with the type or species of fly to be used in a particular instance, not with the quality of the fly’s construction, though this factor cannot be too strongly emphasized.

The sections describing the entomology of the trout streams dealt mainly with the descriptions of the flies, mentioning their appearance on the streams only in passing. The appearance schedule of the natural flies is of paramount importance in selecting the fly to be used at any given time. Unless the natural insect is available to the fish, they are not likely to recognize the imitation as something to eat and the angler may find himself viewing the tail of a fleeing fish.

Although there are several ways of determining, with fair precision, which species of insect is appearing at a given time, the only sure way is to catch a few of the natural insects emerging from the stream. Matching imitations to this catch will give the best possible results. Perhaps the second best method of finding out which species are available to the fish is reference to one of the many types of emergence tables which may be found in nearly any book on trout angling, a typical example of which may be found in the appendix to this treatise.

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WATERWAYS CAMPING

WATER SPORTS OF ALL TYPES—boating, fishing, swimming and water skiing—reach their peak in mid-summer. July, normally the hottest month of the year in Pennsylvania, sends all of us in search of the refreshing coolness of the water.

With the modern camping supplies now available, it is easy to combine two top-notch activities—boating and camping—for a fun-filled family adventure trip.

Today's tents, a far cry from the heavy, wax-soaked canvas monstrosities of yesteryear, are compact and lightweight enough to easily stow in a rowboat, outboard or canoe. With an outside frame of aluminum or pop-up fiberglass construction, the tent can be set up on shore in a matter of moments. Adding warm comfortable sleeping bags which roll into a tight package, you can be all set for a peaceful night's sleep on the water's edge.

The size of your boat will determine the amount and type of camping gear that you can comfortably tote. If weight is a problem, the ultralight gear and foods designed for backpackers might be ideal. Most of these foods are freeze-dried so you would not have the problem of worrying about refrigeration or the additional weight of cooler and ice.

You could utilize a campfire for all your cooking needs or choose any one of the many varieties of camp stoves now on the market.

Once you determine which equipment best suits your needs and the carrying capacity of your boat, you come up to the big question. Where in Pennsylvania can campgrounds be reached by water?

As many campers are aware, campgrounds in most of our state parks are located a distance from the lake. There are, however, several places in the Commonwealth where it is possible to reach your destination by boat.

The newest and most popular area for camping in sites accessible only by water is the Allegheny Reservoir, better known as Kinzua Dam, in the Allegheny National Forest of Northwestern Pennsylvania. This huge lake covers 12,000 acres.

Five boat-only campgrounds are in various locations along the 91-mile shoreline of the huge reservoir. Morrison, the largest, contains 30 sites and is located between the main "drive-in" campground at Kiasutha and Kinzua Beach.

North of Route 59 on the eastern shore, you'll find Pine Grove with 15 sites, Hopewell with eight and Handsome Lake with ten. The fifth campground is located in the northwestern section. Hooks Brook has 20 sites. Boats can be launched at Roper Hollow, Fishburn, or Willow Bay in the northern part of the lake. Kiasutha or Dunkles Corners in the south or at the privately operated Wolf Run Marina.

Boat campers, of course, must have a pioneering nature. Sites accessible only by boat generally of necessity contain only a minimum of facilities.

The United States Army Corps of Engineers, often permits camping on the shores of their reservoirs in Western Pennsylvania. Most, with the exception of Tionesta and Youghigheny, have no organized campgrounds. Tionesta has a campground on Tionesta Creek below the dam, but this is a drive-in area. You would need to take your boat to the main reservoir for launching.

Pioneer camping (without facilities) can be done on the shore of the reservoir at Nebraska Bridge or on the eastern edge of the lake.

Smaller reservoirs at Conemaugh and Loyalhanna in Westmoreland County and Mahoning Reservoir in Armstrong County do not have regular campgrounds, but the Resident Engineers will generally permit primitive camping. You should contact the Engineer for permission and regulations.

On Lake Erie there are several private campgrounds along the shore which enable you to enjoy both boating and camping.

Another possibility for boat camping is along one of Pennsylvania's scenic rivers. The northern Allegheny for example offers some delightful scenery. There is a large private campground, Cloverleaf, right on the stream near Tidioute which has deluxe facilities. Islands offer fine choice of primitive campsites as do unoccupied stretches of shoreline.

Moraine State Park, under construction near Butler, will have canoe-in campsites when all planned facilities are completed.

It is to be hoped that eventually the Department of Forests and Waters will add primitive camping areas accessible to boats along the shores of some of the larger state park lakes. The popularity of this form of family fun is growing by leaps and bounds.
TIPS FOR HAPPY BOATING

by Gordon L. Strobeck

YOU CAN ALWAYS have a "happy boat;" one which doesn't leak, is shiny and new as when bought. How? Well, just attend to a few long neglected chores.

First, it's always a good idea to loosen up any dirt lying between the boards (strakes) when cleaning. The narrow nozzle of a vacuum cleaner and a small screwdriver are ideal for these jobs.

If a mountain spring happens to be handy, most of the cleaning—leak-checking is very easy. Just put the boat on its trailer, pull up beside the spring and start "splash-filling" your boat with a plastic bucket. (See illustration.)

When loosening material caught between narrow boards, you may find an ordinary pencil eraser helpful. Carefully clean the loosened dirt and other materials such as sand from your boat either at the afore-mentioned "mountain spring" or by doing it the hard way—by scrubbing the loose paint and varnish on all surfaces, then sanding with fine sandpaper before painting.

Be careful when using sharp tools, of any kind, as these may harm the wood, thus causing leaks. No fisherman or boatman likes a leaky boat, but after your boat is about half-filled with water it's easy to check for these. Also, the "splashing" will have loosened dirt and sand, which have not previously been removed with the vacuum cleaner and hose.

If the chances are balanced in your favor, you'll probably be lucky and will have no leaks! This leaves only the dirt and sand to be scrubbed out before varnishing and painting. NOTE: GET IT CLEAN! This cannot be stressed too strongly, for even a tiny bit of dirt can be caught in a small crevice underneath the varnish; holding moisture which eventually can cause the varnish to come loose and the wood to rot.

Use a good grade of wax-based paint remover, if your boat needs a new coat of paint—but any detergent is much too strong for the varnished parts of your boat, and will cause the varnish to blister. If you happen to need a new coat of varnish, merely sand the loose varnish with fine sandpaper, and after making sure that the wood is clean, varnish it carefully with a good grade of spar varnish.

In case you've been thinking about getting a metal or fiberglass boat to solve your maintenance problems, take note:

While it is more or less true that metal and/or fiberglass boats need less care, it is also true that a wooden boat can last almost forever—if it has proper care.

And whether you're a fisherman or a yachtsman it's always a good idea to know the small craft gale, whole gale, and hurricane warnings. Carry seat cushions like this one and it won't be long before you'll have memorized the Coast Guard Safety Signals for both daytime and night.

Safety cushions like these can be very important to many boatmen and fishermen, for storms can come up in a hurry and rough water is dangerous. Many state and federal lakes use these warnings, but they are of little use to those lacking the correct knowledge.

JULY—1969
TV PROGRAM GUEST

Pennsylvania Fish Commission Executive Director Robert J. Bielo recently appeared as a guest of Harry Allaman on “Call Of The Outdoors,” a weekly WGAL-TV program originating in Lancaster. The pair discussed possible fishway construction on the three dams of the lower Susquehanna which presently do not afford any means for the passage of such migratory species as shad and striped bass. Shown as part of the program was a ten minute color film of much larger dams on the Columbia River in Oregon where fish passage facilities permit thousands of fish to daily move upstream.

Long standing legislation has permitted power companies operating the Susquehanna impoundments to refrain from building passage facilities in lieu of a token payment of a few thousand dollars to the Pennsylvania Fish Commission each year.

COHO RELEASED

More than 135,000 young coho salmon, or smolts, were released in tributary streams of Lake Erie late in April.

The release, according to Robert J. Bielo, Executive Director of the Pennsylvania Fish Commission, was a continuation of the Commission’s program to sustain the coho sport fishery in Lake Erie. The initial release of 84,500 coho was made between April 17 and May 4 last year.

According to Shyrl Hood, Assistant Chief of Fisheries, most of the 135,000 coho smolts, averaging 5-6 inches in length, were reared at Commission nurseries on several tributary streams. They were grown from Michigan eggs collected in the Manistee River during November and December, 1967. The eggs were hatched at the Commission’s fish culture station at Corry and fingerlings were transferred to the Lake Erie nursery sites late last summer. One group of 4,000 young coho also released were reared at the 3 CU Cooperative Nursery east of Erie.

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SEA BAG

U.S. COAST GUARD FLOTILLA HONOURED

Flotilla 52, of Lancaster, during its Winter Conference, was presented with a trophy and a plaque for being the most outstanding flotilla in the 3rd District.

The trophy was presented by Rear Admiral Thomas R. Sargeant III, Chief of Staff, of the U.S. Coast Guard; while the plaque was given by Rear Admiral M. A. Whalen, Commander, 3rd Coast Guard District, for having made the largest number of Courtesy Motorboat Examinations.

SAFE BOATING—SEASON—WEEK

Since National Safe Boating Week is being observed this month some mention should be made in an attempt to emphasize the importance of safe boating throughout the entire season.

During 1968 there were 72 reportable boating accidents in Pennsylvania which resulted in 30 deaths, 47 persons injured and property damage estimated at $19,800.

Quite a few of these accidents, I’m sure, could have been avoided with the use of a little common sense the lack of which I observed in several instances on the Susquehanna River last season.

For example there was the exhausted water skier who just couldn’t stay afloat any longer and had to be rescued, the fellow who made a wide sweeping turn in front of the one which required, on my part, a quick switch to reverse; the fishermen anchored at night in a much traveled channel without a light showing, and the jet set zooming past the canoeist and creating a wake large enough to swamp the smaller craft.

SUSQUEHANNA POWER SQUADRON ELECTS OFFICERS

Leon R. Sachs, of Lancaster, was elected commander of the Susquehanna Power Squadron and was installed during the squadron’s annual Change of Watch. He succeeds Gerard E. Frailey, also of Lancaster.

Others elected were: Douglas M. Reinhart Jr., Littlestown, executive officer; Richard J. Faith Sr., Chambersburg, administrative officer; Nelson P. Reynolds Jr., Willow Street, secretary; and Ronald L. Wagner, Palmyra, treasurer.

Committee members elected were:

Executive—Walter J. Brewer, Chambersburg; Arthur T. Farmer, Lebanon; Donald F. Neidig, Summerdale.


Nominating—Gerard E. Frailey, Earl W. Hill, past commander, New Cumberland; Robert L. Jones, a past commander, Akron.
THE "CENTER CITY CANE POLE Fishing Program" originated by the Pennsylvania Fish Commission last year is again in full swing. Last summer the program, despite a late start, received favorable reactions from many areas. The Federal government, other states, municipal governments, service and charitable organizations have contacted the Commission inquiring as to details of the program. Greatest success of the program however was the enthusiasm of the children who actually participated. They received the greatest benefit of being able to fish—some for the first time.

Originally three sites were used. In Philadelphia the old Torresdale Hatchery ponds, now city owned, were fished daily for a period of six weeks. Almost 5,000 children attended and caught nearly 2,000 fish. Pittsburgh using Carnegie Lake and Panther Hollow, the latter site of the city owned overnight camp David L. Lawrence, had approximately 2,000 children participating and catching 300 fish.

At present each child who arrives at a fishing site is lent equipment consisting of an eight-foot cane pole complete with line, bobber, hook, and bait. A representative of the Commission briefs the children as to types of fish they might catch, how to use the equipment and safety factors involved. The children are then turned loose under supervision for a few hours fishing. A colorful paper hat is given to each child making him an official member of the "Center City Cane Pole Club" and those lucky enough to catch fish are given plastic bags in order to carry their "trophies" home.

From this beginning the program has been expanded to some of the smaller municipalities in the state such as Allentown, Altoona, Reading, York, and suburban Montgomery County. A Philadelphia owned summer camp for children, located in Monroe County which provides outdoor recreation for children and has an attendance of 300 children per week is another area where the program is in progress.

With an earlier start and its advantages of more detailed planning, the program is exceeding the number of children it was able to reach last summer. And after this year's program is concluded more ways of improving and expanding will be given consideration in order to bring the sport of fishing to an even greater number of children in areas where fishing opportunities are rare.
PITTSBURGHER NAMED WINNER

Ralph Warren Abele of Pittsburgh is one of 21 persons from across the nation named to receive an American Motors Conservation Award in 1969. Abele was honored for spearheading an all-out conservation campaign while serving in various leadership capacities with the Allegheny Council of the Boy Scouts of America. He organized and placed into operation a full scale conservation program for the Allegheny Council's 27,000 scouts and 6,000 adult leaders which includes such projects as reforestation, soil surveys, mine pollution control, stream improvement and hunter safety education.

The awards are presented each year to 10 professional and 10 nonprofessional conservationists for dedicated efforts in the field of renewable natural resources, although in 1969 one joint award was given bringing the total number of persons honored to 21.

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TO TROUT -with love

THE LINE OF DRIFT

The third feature with which we must concern ourselves is the precision with which the lure must alight on the water. Like most members of the animal kingdom, the trout is a peaceful, easy-going critter, who eats only when hungry. When hunger strikes, he will move to what is known as his "feeding station." This is a pocket of relatively quiet water formed by an obstruction in the stream. Like a funnel, the obstruction causes the normal flow of the current to increase and squeeze by in a narrow channel. The more rapid flow moves small stones in the stream bed, dislodging the larvae of aquatic insects, as well as bringing surface-borne food into a smaller approach line. This smaller pattern is known as "line-of-drift."

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Creature - -

there may be only two tails at the end of the abdomen. The males have at the end of the abdomen two forceps-like appendages used in grasping the female for mating. Most females have a long scoop-like process arising from the underside of the seventh abdominal segment, which holds and guides the eggs.

Most people have observed the mating flights of mayflies. They occur near water at almost any time of day. Great numbers of males usually make up a mating swarm. Each male flies quickly upwards and then suddenly drops downwards again, only to rise once more. This up and down flight is continued on and on, while females enter the swarm alone and at intervals. Each female falls into the up and down rhythm, and is usually seized shortly by a male. Both drop out of the swarm and mate on the wing.

From his position in the quiet water, usually behind a large rock or log, or beneath an undercut bank, the trout will dart into the current to intercept bits of food from the passing drift. Although the eyesight of a trout is extraordinarily keen over short distances, visibility through water is extremely limited for any creature. Therefore, the fish chooses a feeding station at the narrowest line of drift which will give an adequate food supply.

In most cases, the line of drift will not exceed two or three inches in width. Material drifting in the normal current will be drawn about two inches by the suction effect of the faster flow, thus giving the angler a target area about six inches wide in which to place his lure. Here again, care must be taken so that the leader does not catch the current before the fly, drawing it, like a miniature speedboat, through the line of drift. A towed fly is possibly one of the best fish-frighteners in the angler's repertoire, second only to a splashing line or a disturbed current.

After mating, females turn to their primary purpose in life, which is laying eggs. Their bodies are marvelously adapted to this end. The food canal is used as an air reservoir, and the whole body, even up into the rear of the head, is filled with eggs. Well-oxygenated waters of lakes and streams are chosen as the egg laying site. Some females wash off a cluster of eggs each time they alight on the water's surface, some lay all the eggs in one clump, and others crawl beneath the water and affix the eggs to a rock or stone. Both sexes die soon after mating and egg laying. The total adult life from transformation to death may span two days or so at most.

Not all females lay eggs, however. Some give birth to live young and sometimes young are hatched from eggs not previously fertilized (parthenogenesis).

Adult mayflies take no food during their brief life, since the mouth parts are small and nonfunctional. They seemingly exist only to provide food for other organisms. No known insect accomplishes so much in such a short time.
ABOVE—MUSKIE FISHERMAN Ed Crumlish of New Cumber­land holds a 44 in., 20 lb. 4 oz., muskellunge he landed late last summer while fishing the Susquehanna River near Harrisburg. Well known for his muskie fishing abilities, Crumlish reported hooking six of the big fish on six consecutive days while fishing the same area.

LEFT—BIGGEST WALLEYE reported caught in a long time is this 14 lb. 5 oz., 34½ inch catch made by Pleasant­ville fisherman Carlyle Sheldon. It weighed more than two pounds over the state current record walleye (36", 12 lbs.) but fell 1½ inches short of its length. Sheldon was using a red and white jig he had made himself while fishing French Creek near the mouth of Conneauta during February.

SIX-YEAR-OLD Skip Wagner and sister Sara, age 7, of Emporium with the big carp he caught while fishing the Sus­quehanna River at Danville last summer. It weighed 11 lbs. and took a hook. Young Wagner was using a spin­ning outfit and 6 lb. test line.

ANOTHER BIG CARP landed by a young angler was this 16 lb. 30 inchcher caught by 10-year-old Thomas Drake of Pleasantville. He was fishing the Allegheny River in Warren County with a bucktail when he made the catch—and won a Junior Fishing Citation for it.

FISHERMAN Bart Strasser of Hawley holds a pair of big largemouth bass he caught last summer while fishing the popular Lake Wallenpaupack in northeastern Pennsylvania. The two fish measured 23½ inches and 20½ inches. Tackle and bait not listed.
LONGNOSE GAR was caught by Raymond M. Newman II of New Castle in Lake Erie. It measured 32½ in. and weighted 2 lbs.

UNUSUAL CATCH was made by Vernon Clemmer of Souderton last summer. That’s a 22½ inch, 5¼ pound Cisco he caught fishing Lake Wallenpaupack.

LOUIS WOLOWNIK of Quakertown landed this nice 18 inch largemouth bass while fishing Lake Wallenpaupack in the popular Poconos last summer.

LOUIS WOLOWNIK of Quakertown landed this nice 18 inch largemouth bass while fishing Lake Wallenpaupack in the popular Poconos last summer.

ERIE FISHERMAN Lawrence Pfister (above left) holds 14½ inch, 1 lb., 5 oz. yellow perch he landed fishing Lake Erie. Conemaugh angler Ed Michura Jr. (center) landed 18½ inch, 2 lb., 1 oz. brown trout from the North Fork; Lewistown fisherman Parke Brown (right) holds the 10½ inch, 1 lb., 2 oz. rock bass he landed from the Juniata River. Pfister won a Senior Fishing Citation while both boys won Junior Citations.

FISHERMAN JOHN POLISHAN of Scranton holds a big walleye he landed while fishing the Delaware River. It measured 31¼ inches and weighed 10½ lbs. Bait and tackle not listed.

ANGLER DUANE WETICK of Butler holds 36 inch, 12¾ pound muskellunge he landed while fishing the Susquehanna River at Falmouth last November.

PAXTON WHIPPLE of Wellsboro landed this 24¼ inch, 5 lb., 7 oz. rainbow while fishing Beachwood Lake in Tioga County in February. It won the 13-year-old angler a Junior Fishing Citation.

GRANDPA (Allen Romberger) caught these muskies shown with Clark Romberger! The fish measured 40½ and 38½ in., and weighed 18½ and 14 lbs.
STAGER DEBRA CHRISTIAN (above), 17, of Easton holds an 18 inch, 2 lb. brook trout.
BIG MUSKIE was caught by George Stewart (right) of Seneca at Canadohta Lake in January. It measured 46 inches, weight 29 pounds.

PLEASANT GAP ANGLER Mrs. Mary Luke (above left) holds a 15 1/2 inch palomino rainbow caught in the Logan Branch.
FISHERMAN SHARMAH HOWARD of Harrisburg (above right) holds 15 lb., 26 inch carp from the Susquehanna.

DALE YASHINSKI, 15, of Titusville holds 32 inch, 8 lb. 1 oz. northern he caught while fishing Canadohta Lake in Crawford County last winter.
BROWN TROUT caught by Victor Padwlese of Philadelphia in Wissahickon Creek. One measured 19 3/4 inches and weighed 2 lbs., 10 oz.; the other measured 18 1/2 inches and weighed 2 lbs. 5 oz.

BRIAN LEIBOLD, 12, of Laurel Dale (above left) holds an 18 1/2 inch, 4 lb. largemouth bass he caught in March while fishing Reservoir Dam. It won him a Junior Fishing Citation.
GEORGE R. STERNER of Hohnston (above right) holds 16 1/2 inch, 2 lb. white catfish he caught while fishing Onsetauwee Lake in Berks County. It won him a Senior Fishing Citation.

JUNIOR CITATION WINNER Jim Wagner holds 24 inch, 6 lb. channel catfish he landed while fishing Glendale Dam in Cambria County last summer.

SENIOR CITATION was won by Howard Spigelmyer of Selinsgrove (above left) for the 21 1/2-in. 4 lb. 10 oz. smallmouth bass.
ANGLER Allen Black, 11, of East Freedom (above right) holds the 20 inch, 4 lb. catfish he landed from Lake Groundhog.

BOBBY MARTZ, 6, (above left) holds two trophies he won for the largest crappie (8 inches) and largemouth bass (15 inches) entered in the Junior Division of Glendale Lake Fishing Contest.
LAKE ERIE ANGLER Laren Lydic (above right) of Lake City holds 19 inch smallmouth he caught while fishing off Elk Creek.
HICKORY RUN—

YOUTH FORESTRY CAMP Number Two represents many things, one of which is a cooperative nursery. Located in the heart of Hickory Run State Park, Carbon County, the camp houses fifty court-committed boys primarily from the Philadelphia area. Ernie Powell, Camp Director, Department of Welfare, sits on top of the operation with the help of his staff and people from Forests and Waters, the Game Commission, and of course, the Fish Commission.

The purpose of the camp is to give the youths a sense of responsibility and belonging. To do this, the boys work on specified forest and conservation projects under the guidance of Robert Kerr, Park Superintendent, and his foreman, Harold Whisler. As a result, the 15,000 acre complex is one of the most attractive outdoor recreational areas in the state.

However, there is more to it than these assigned projects on scheduled working hours. Local high school teachers provide a basic educational program and in the off hours there are special volunteer projects such as the cooperative nursery thing and a pheasant rearing program. Let’s deal with the former to get the article back in line.

Nick Charnichko, Program Director, began the story for us with the fact that the present nursery was established in 1967 on Hawk Run at the eastern end of the park. It was a volunteer effort, done on free time, and the end result was a 75 foot raceway of cement block construction. About 3,000 brook trout were added and the camp was well on its way to adding quantity and quality to the fishing in the Hickory Run State Park area.

The nursery project turned out to be successful in several ways. Perhaps most important was the interest shown in it by the campers. Some boys found the trout raising and stocking to be the first thing of value they had ever been part of. This, according to Nick, was a prime issue in the overall purpose of the camp. Actual physical results were also good. The trout grew well; there was little mortality and the area's fishing picked up. Net result of this success will be two more fifty-foot raceways to be constructed early 1969. In fact as this is being read, they will probably be operational.

Among the campers involved with the nursery project are Joe Hydock, who perhaps has the most interest, and Tom Singleton, Tom Fantini and Ronald Wiesner as other leaders in the nursery activity. These boys will be around for the development of the new portions of the raceways and are looking forward to the increased fish production and activity. It should be mentioned that the average stay at the camp is about eight months so these fellows will soon be turning over their nursery to other capable hands.

It can be safely assumed that a little bit of sentiment and nostalgia will also exchange hands at the same time.

Being a little more objective about the nursery and its operation, the 3,000 brooks were being fed a diet of pellets at first. Later this feeding pattern was changed to a mixture of venison, liver and pellets. It was found that the trout showed a preference for the venison, ignoring the pellets when fed the mixture. Late word received indicates that the feeders have switched to a 100% venison diet and the trout are showing faster growth. The venison, incidentally is supplied by the park and game people from roadkill donations, and a few confiscated illegal kills.

The water supply comes from Hawk Run and is steady with few problems. The area is shaded essentially by evergreens and there is a good natural fall to provide flow through the raceways. A complete screening of the nursery reduces preditor problems to almost zero. A building for storage of food and equipment completes the scene. Well—not quite—because hovering in the background is Fred Ohlsen, Waterways Patrolman, a jolly man, caught up in his profession, who stands ready and willing to help the boys in their cooperative nursery project.

The story is just about complete. There are others involved. Residents of the area have donated materials for the nursery. There is good rapport between local sporting clubs and the campers and their various outdoor projects. Everyone seems to realize the value of the initial purpose of the camp and the benefits derived from the efforts of the youths staying there. There is considerably more to the idea that Casting with the Co-ops pays off for Youth Forestry Camp Number Two than just adding a few more fish to a stream.
From R. A. M., Weatherly:

“Do I need a license, permit or registration for my new 12-foot rowboat and what must I do before I can go fishing in it?”

—Your 12-foot rowboat needs no license or registration of any kind, unless you will be using an outboard motor on it. If a motor will be used, you must register the boat. The necessary application form can be obtained from most boat dealers, or from the Pennsylvania Department of Revenue, Harrisburg. Even if you do not power the boat, you may wish to register it for identification or proof of ownership. The fee is only $4.00. Don’t forget your fishing license.

From T. L. M.,Charleroi:

“My houseboat performs well with its single engine, but I would prefer twins in case of a failure. How difficult would it be to convert this boat to twin screw?”

—Your boat can be equipped with twin engines, and many of this particular model were equipped with two. However, since you are primarily interested in the safety aspect of having a second power plant, we would suggest installing a small outboard on a transom bracket. Several manufacturers offer long-shaft models designed for sailboat wells, with all the controls on top. This arrangement will get you home safely if slowly in the event of an engine failure, and cost only a few hundred dollars instead of the thousands that could be involved in converting to twins.

From J. B. E., Everett:

“My 17-foot fiberglass boat has a space between the floorboards where water and dirt collect. Could I bore a few holes in the floorboards and fill this space with poured-in-place foam?”

—This can be done, but the amount of foam created by a given quantity of liquid components is very difficult to predict, and you could damage the boat if you had too much of the stuff expanding under the sole. Offhand, we would say the project you contemplate would not be worthwhile, as it is certain to be expensive and will really do nothing to improve the boat.

From C. F. R., Erie:

“The automatic bailer in my Higgins runabout has always worked well, but the last time out it started to operate in reverse, and was bringing water in. What is wrong?”

—The bailer used in your boat is a syphon constructed of a gooseneck of copper tubing. There is a very tiny hole at the top of the bend, which lets in enough air to break the action when the boat is at rest. This hole is apparently clogged, and should be opened. To avoid enlarging it and ruining the device, use a single strand from a wire brush, as this is about the right diameter. Check the hole occasionally to be sure it stays open.

From G. G. L., New Wilmington:

“No paint I have tried will stay on my steel-hull daycruiser. How can I get a finish that will last a full season?”

—The only way possible is to sandblast the hull to “white metal” then prime it immediately. We would suggest getting a professional industrial painter to do the job, which should be good for several years with only touch-ups as required. There is no kind of paint that can be applied successfully over rusted metal, and no way to get the metal really clean except by sandblasting.

From H. F. C., Pittsburgh:

“I have an opportunity to buy a boat that has been left in a dealer’s yard and is being sold for repair and storage charges. The dealer says he is unable to locate the owner. Can I safely buy this boat?”

—If the dealer gets a court order to sell the boat, and it is sold at public auction, then the buyer will have a good title. However, if the dealer sells it informally, all he is selling is his interest, and all the buyer acquires is the possessory lien passed from the dealer. In the second case, the original owner could still claim an interest, and legal difficulties would most likely result. If you are satisfied that the former owner cannot be located, and the price is so attractive that you are willing to gamble, go ahead, but keep listening for that knock on the door.
Ever wondered what it was all about? There may be a spot for you—and your boat—at some Pennsylvania marina.

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