WOULD OUTLAW LIVE BAIT

Dear Sir:

I have been borrowing and reading Florida Wildlife which I enjoy very much as I have spent my spare time for the past 35 years fishing Florida's lakes and streams. I am very much interested in the conservation and restoration of our game fish which seem to be rapidly disappearing.

I have been told that we can not make anything out of a game or fish hog but a hog, but I do believe we can build this type of hog a smaller pen through proper game laws, regulations and a strict enforcement program.

Our bag limit at present is only for a certain number of pounds of game fish taken per day. Let use a limit on the number of pounds of game fish taken per day so no one person needs eight large mouth bass, running from five to ten pounds each, such as I have seen taken from the water by some bugs with live bait.

In fact, I hope to see the day that "live bait" will be outlawed in the taking of black bass.

CHARLES H. SHAFFER
Sefford

OHIO TEACHER SUBSCRIPTIONS

Dear Sir:

While reading Florida last year, I picked up one of your magazines at Martianland and have enjoyed it so much, I have been interested in conservation of plant and wild life for years and your magazine is the best of all I have seen.

Having been a teacher and on conservation committees in club and federal work, I do appreciate your articles. Would it be possible to put my name on your mailing list and bill me?

MRS. BOSS JEFFRIS
Lakewood, Ohio

The Lowdown on Balance

The term "balance" is often used by sportmen and fishery technicians alike when referring to the fish population of a body of water. Biologists have been using the term for some time to designate the condition of a lake or pond, and recently a number of sportmen have started using the phrase "out of balance" as an all-in for poor fishing. When questioned on what he means by "out of balance," the sportmen usually says: "too many bass, too many brownies, too many big, too many small."

Especially be it right. However, the complex problem of balance needs a little further explanation than just too many or too few of one group of fish. It is the ordinary sense. Balance implies the leveling out of too many or too few substances, materials or other subjects so that they become more or less equal in weight, ratio, or proportion. So it is with a fish population.

Here balance simply means the proper proportions of the desired species which will result in satisfactory fishing. Actually it means that two groups of fish are balanced, one against the other, in such proportions as to sustain a desirable condition of growth, reproduction and perpetuation of the species involved. The two groups of fish concerned are separated on the basis of their food habits—the carnivores or fish-eating

by JOHN F. DEQUINE

You hear a lot of talk about fishing waters being in balance and out of balance. What does it mean? Florida's chief fisheries biologist gives you the lowdown.

THE LOWDOWN ON BALANCE

(Continued on Page 17)
By Charles H. Anderson

Bait casting is nothing new to fishermen, but it’s amazing how few have mastered the technique. Here are a few pointers, demonstrated in pictures by a world champion.

Just because you’ve been able to plunk down fifteen bucks for a new glass fishing rod by squeezing the lunch budget and lifting a few dimes out of the wife’s grocery cash, don’t think that you are doing anything that is at all original. It has been going on for more centuries than anyone has been able to count. True, all through the centuries man hasn’t been having to lay down the long green to collect himself some fishing gear. The tackle of primitive man was in the woods and free for the taking. And he has been doing that since the day of creation when man was given his first fishing license. In the first chapter of Genesis, in the story of The Creation, man was given dominion over “the great whales, and every living creature that moveth, which the water brought forth”. Since that day man has been doing a lot of devising, inventing and study to take those creatures.

It is doubtful that anyone ever thinks of the worldwide brotherhood of fishermen being so ancient that it pre-dates even the art of writing. Yet, in cave walls in France, picture stories of anglers and angling contests of 50,000 years ago hint at the age of fishing. In ancient Egypt, around 3500 B.C., sportsmen were using a makeshift rod and about the year 1300 B.C., some Egyptian angler came up with a rod and reel that was not at all unlike the ones that were common about the time Ike Walton was doing his fishing in the 1620’s.

And with the development of the rod and reel, the artificial lure was by no means left out. One Claudius Aelian, in his book De Natura Animalium, of about the year 200 A.D., described artificial fly-tying and its use. And almost two centuries earlier another “sportswriter” wrote of and described a fly that anyone would recognize as being the blood brother of the ever-popular Red Hackle.

However, the biggest forward stride in sports angling took place some time around 1808-10 when George Snyder, a Paris, Kentucky watchmaker and President of the Bourbon Angling Club, set down and built his own reel; the first free running spool geared to four revolutions to one turn of the handle. Bass fishing as a major sport was definitely on the way.

Work the up-swing checked, the rod springs and is loaded for the . . .
forward power drive of the wrist that will fire the plug as . . .
. . . the thumb pressure is released and the rod tip follows through.
So, through many centuries, there have been years of careful planning, craftsmanship and development that have placed that fifteen-luck glass rod and new reel in your hands—what are you going to do with it? Go out, wave it over a stream or lake like a madman, swearing at backlashes, blaming the fish that won't strike a lure that lands with a splash, sending a couple of gallons of water cascading in all directions. Or are you going to take the time to learn its action, its feel and delivery; to use it with the grace and ease that the centuries have built into it for you?

To say that this is going to be an easy telling an individual how to cast is a lot of poppycock. To do that would take a couple of good-sized volumes and it seems that since the time of Brother Walton’s “The Compleat Angler” in 1653 some 8000 adventurers have put forth with how to do it in that many many books. And, out of any ten individual anglers there will be ten individual ways to deliver that plug to the most effective spot. However, as in any game of sport that requires even a fraction of skill, there are certain fundamental rules that will go a long way toward making the most productive and much more enjoyable.

Let’s ease down towards St. Petersburg and look up Walter Willingham. Just in case you haven’t heard of Walt, it might be well to say that in the past quarter century he has run up a list of angling championships as long as your arm. In the past couple of years Walt has been just up twice with a severe illness that has kept him out of current exhibits, seminars and contests but today still holds the National Skid Distance casting honors with 232 ft.; the world’s record distance cast of 274 ft.; and the National Casting Tournament fisherman’s distance cast of 228 ft. On top of that he is former holder of the national accuracy title and just about all other national honors connected with bass casting. And on top of that all, Walt is a topnotch fisherman.

To begin with, Walt will tell you, don’t just up and go into a sporting goods store and buy the first thing that the salesman hands you in the way of fishing equipment. And don’t buy it just because it’s pretty and has a lot of chrome and red trim on it. That, he says, is where many would-be anglers make their first mistake and, after a few attempts at harling out a bait, give rod-and-reel fishing up as a bad business.

Select your tackle with care, ask the salesman a few questions. He should know how to advise you for the particular type of fishing that you want to do. For bass fishing, the most popular in Florida, select a rod between four and eight feet long that has a good action at the tip. This tip action is the power needed to spring out the one-half to two-thirds-ounce bait generally used. However be careful you don’t wind up with a rod that has a buggy whip offer. To test for this, wriggle the rod by the handle with the tip in the other hand and bend it into a partial semi-circle. The biggest bend in the rod should come about one third of the way down from the tip, the other two-thirds should be fairly stiff but not so stiff that it doesn’t have a slight curve to it too.

Of course, common sense will tell you that it won’t be a good idea to put a surf casting or salt water reel on the rod that you have selected. One of the many fresh water, level-winding type reels with a lightweight spool, balanced handle and easy running, free meshing gears will fill the bill. Walt recommends one of the new type reels with a removable headband.

(Continued on Page 21)

With the spool parallel to the ground wrist action is confined, aim is bad and the reel must be point up.

To get the most out of your wrist and your reel the handles must be point up.

The 35 x 60-foot zoo at the Boys Industrial School is one of the most modern in Florida and attracts the constant interest of the boys on age students.

They Made Their Own Zoo!

Kids at the Florida Boys’ Industrial School wanted a zoo. So with a helping hand from the Game Commission they built their own!
The partnership worked out perfectly, and today outstanding wildlife experts have pronounced the results "one of Florida's finest small zoos."

Since the zoo opening, a half-grown Florida panther has continued to "steal the show." The beautiful animal was presented to the Game Commission and the Industrial School by Bill and Lester Piper, noted wildlife authorities from Bonita Springs. In addition, the brothers also donated a fawn and three owls. The remainder of the cages contain a baby bear, several deer, raccoons, foxes, squirrel, alligator, wildcats, wild turkeys, eagles, quail, pheasants, wild ducks, and a white pelican. Also, two Canadian geese were given to the zoo by Davis & Gist, noted bird raisers at McIntosh.

All of the work connected with the new construction was done by members of the school. Strangely, the material used in the construction of the cages was salvaged from a dog kennel at the school that once housed a pack of bloodhounds used to track down runaway youngsters. Now the heavy-wire fencing will serve a more modern purpose—offering pleasure and education to the school corps.

Ceremonies, marking the official opening of the zoo, were colorful. The school band played. School Superintendent Arthur Douzier served as master of ceremonies, and Cole

man Newman, director of the State Game and Fresh Water Fish Commission, made the dedication. Short talks were given by Frank S. Wright, assistant to Governor Fuller Warren; Terry Lee, coordinator of state institutions; and L.G. Morris, game commissioner in the Third district.

Guests at the ceremonies sat wide-eyed when Jack Ramon, noted herpetologist, representing the Ross Allen Reptile Institute, of Silver Springs, offered a lecture on non-poisonous snakes while using living specimens, and wound up his act with the milking of venom from a cottonmouth moccasin and a huge rattlesnake.

Bill and Lester Piper were on hand to present the young Florida panther they donated to the zoo. Already plans are underway to enlarge the present zoo and eventually exhibit specimens of every living wild animal found in Florida.

School Superintendent Douzier explained that specially selected students are charged with the care of the animals and birds. By the time they have served their tour of duty at the zoo they are perfectly familiar with the habits and diets of every animal and bird held there in captivity. Director Newman, during the ceremonies, pointed out that the experience of caring for the animals opens a new field of study not available at

There's always a big crowd of students on hand to offer advice when it's mealtime for "Charley," a Florida bear cub. (Inset): A wild-cat, captured near Winter Haven, bided its disapproval while the zoo dedication was in progress.

(Continued on Page 14)
HERMIT of ST. ANDREW

In 1929 Teddy Tollofsen was shipwrecked on the desolate shores of St. Andrew peninsula. He's been there ever since.

By BILL SNYDER

THEODORE Tollofsen, a sturdy 70-year-old Norwegian, has been living in isolation on a remote, dune-studded peninsula six miles southwest of Panama City ever since his fishing boat wrecked there in the 1929 hurricane. However, you scarcely can call him a hermit.

Webster's dictionary says a hermit is a person who retreats from society and lives alone; that fails to describe Teddy, because he isn't alone. You see, he's got a family with him consisting of three black cats, a one-eyed rooster, and 11 red hens—not to mention the weatherbeaten remains of his unfortunate fishing boat which he all but worships.

No, Teddy doesn't fall into the hermit class—he's in a class all his own! For my money he's a modern-day Robinson Crusoe who has proven for 21 years that in Florida a man can keep himself supplied with fish and grits no matter what happens to him!

Frankly, I admit that it would take a mighty rugged individual—sort of a superman—endowed with a full tank of intestinal fortitude—to follow Teddy's path since the dark night the howling hurricane howled him and his boat out of the angry sea back in 29. It's more than likely that but few of us would have survived the storm itself—but Teddy did. What's more, most of us would have made a one-way trip to the mainland as soon as the storm subsided—but Teddy didn't. Demonstrating this islander's inherent love for his craft, Teddy has stubbornly refused to leave the withering remnants of his fishing boat ever since.

"The boat wrecked here and so we've stayed together," he told me somewhat pathetically as he reverently patted the rotting frame of his former fishing pal.

It took two full days to get Teddy's story. You see, he's a man who weighs questions carefully before answering. His memory of dates and names, I found, is nothing short of amazing. His blue eyes never stop peering at you from beneath shaggy eyebrows. While talking with him you have a feeling, somehow or other, that he'd rather be putting around with a fish net or maybe feeding chickens instead of being interviewed or posed for pictures. To attempt writing an imitation of his fascinating dialect not only would be impossible—it would constitute pure sacrilege!

During the 21-year tenure on the wind-swept, sandy expanse Teddy

T

elected to call home, he has seen many a change occur and he's had many and experiences that required a stout heart to forget. Yes, he's lived there long enough to watch mountainous sand dunes disappear in the path of howling winds—he's seen other dunes born in a 24-hour period. He's watched stately trees wither and die, and he's seen scraggly seedlings grow up to replace them. He's observed the shoreline receding inch by inch in front of the pounding waves of the Gulf of Mexico. He's watched fresh water lakes turn to salt.

Time after time, in the years gone by, sinister characters have threatened Teddy, unless he'd move the government land to which he was attached the property. It's true that the abstract delivered to the Park Board accurately described the property. It traced the winding contours and placed the boundary lines; however, it greatly neglected to describe Teddy.

A battery-powered radio gives Teddy's shack its only modern touch. He has no use for soap operas or jazz orchestras and confines his listening to news broadcasts and weather reports.
and Teddy is just as much a part of the property as the trees, the boundary lines, and the long expanse of Gulf beach!

Today, the Park Department frankly admits that Teddy is equally— or important to St. Andrews—Staten Point as are the sand dunes, the swimming lakes, and the soaring trees. As a matter of fact, Teddy very likely is the property’s most outstanding attraction.

To pay him a visit calls for considerable advance preparation. Goggles and masks must be bought to cover a two-day stay. Jeepies with big tires must be prepared to grind through six miles of shifting sand to reach him. There are no roads.

The thermomometer was lugging in the lower 50’s and the wind was biting gusts up to 40 miles an hour one day last month when our party of eight persons started on the "Sahara safari" toward Teddy’s strange home. Lewis G. Scovill, state park director, headed the group. Park Ranger Claude Willsbough was our guide. True, there were roads leading to the park, but blazed our own windswept trail through white sand fashioning hundreds and grottoes sand dunes. Sand, shifting in the high wind, lashed our faces. The scene was reminiscent of a midwinter blizzard in Ohio 40 or 50 years ago.

Eventually we parked our camping gear and supplies in a building belonging to the park, then continued another mile or so until we arrived at Teddy’s one-room shack—the driftwood home he stood building just two days earlier. As we looked at him ashore 21 years ago. Almost immediately we started interviewing Teddy—the man who, we later learned, has survived three bolts of lightning and was twice shanghaied.

First of all, we were amazed at Teddy’s apparent youth despite his 70 years. He was as agile as a cat. He demonstrated the stamina of a 21-year-old, and like I said before, his memory of dates and names was astonishing.

Health, I learned, has posed no problems. Since there are no roads leading to his long stay on the peninsula. However, he admits to having a cold two or three times, and once he suffered with a toothache.

"What did you do for the toothache?" I inquired.

"Oh," said Teddy, "I just pull him out with a pair of pincers."

Born at Trondheim, Norway, Jan. 28, 1889, he attended school until he was 14. That’s when he signed up as a seaman aboard the "Professor Johnson," a 144-ton square-rigger and took off on a 22½ month jaunt that led him to Melbourne, Shanghai, Calcutta, and Liverpool. From there on, his life was just one ship after another.

The combination of too much liquor, an overnight stay in jail, and a $3 court fine started Teddy on his American career April 3, 1901 at Boston. He had arrived at that port several years earlier as a seaman aboard a foreign passenger ship.

"By the time I paid my fine and got out of jail, I missed my boat by 15 minutes—and so, I decided to stay in America," Teddy recalled.

Then he hastened to remind us that he’d been a tee-totaler since 1907.

"I quit drinking in Mobile after I figured I’d been a fool long enough," he said with a wry smile. "What’s more, he has never used tobacco in any form during his lifetime.

Although Teddy is a dyed-in-the-wool seaman, he’s been a jack of all trades at various times when necessity dictated. Once he helped build a railroad in the west. Then too, he once joined up with a threshing crew in the wheat fields of North Dakota in 1902. That’s when he staged his first engagement with a bolt of lightning.

"A storm was coming up and I was helping a couple children lead their pet lamb to safety," he related.

A bolt of lightning forked its way out of a black cloud and struck. When Teddy came to, he was still grasping the end of the lead rope—the lamb was dead on the other end.

His second mix-up with lightning came in 1911 when he was sailing in the Gulf aboard the "Bella," a fishing smack.

"That time it just knocked me down on deck," he explained.

He was stranded again in 1911 while walking near his present home. The bolt melted his watch that time.

"My watch stopped at 2:20 in the afternoon and when I woke up I could tell by the moon that it was after midnight," he told us. For many weeks afterward his eyes made things look like "being in a snow storm."

In 1902 he went to Seattle expecting to ship out to Alaska—but wound up in South Africa instead.

"A nice fellow gave me a drink in Seattle and when I woke up I was in Port Townsend," Teddy recalled. "He gave me another drink and when I came to the next time I was at sea aboard the ‘Great Admiral,’ a Boston tea-clipper."

He remained aboard for eight months as a deck-hand at $20 monthly. When he was finally paid off, the skipper deducted one month’s pay because of the trouble involved in shanghaing him!

In 1908 he landed at Mobile on a trip from West Africa and decided to settle down at Pensacola and Fish for a living in the Gulf. From then on, he usually fished alone aboard his own craft and specialized in red snapper.

A as a matter of fact he was master fishing aboard his 28-foot boat the day the 1929 hurricane tore loose and blew him ashore. During a battle day and night, Teddy hid in a woods and frantically clung to cypress trees during the storm that registered gusts up to 90 and 100 miles an hour.

"It was a bad experience," Teddy admits, "things you couldn’t see were whistling through the air and a hickory bat would have dropped you like a bullet."

When the storm started subsiding, he found his boat battered up beyond repair. Two days later he started building a home nearby. Timber from his boat was augmented with precious driftwood from other wreckage and the cozy 9’ x 12’ one-room cabin was completed within two weeks.

Visiting his cabin is like making a trip to a nautical museum. The shutters swing on zinc-coated skylight hinges that drifted in with ship wreckage after the 1929 storm. The front door is secured by a massive padlock that likely would rate a tidy sum from an antique collector. A portion of the cornice contains the hand-carved wooden name-plate of the schooner "Teumoseh." Built at Gloucester, Mass., in 1911, it tore up during a Gulf storm in 1931. The cabin itself is compact to say the least—containing a wood cookstove, a built-in table, and a bunk. Nine line haws hang from the rafters or stand on the floor. There’s a huge stack of

FLORIDA WILDLIFE

MAY, 1950
It's a simple way of earning a living if you are endowed with Teddy's determination!

"Why," we asked him, "has snapper fishing gone backward in the last few years? Do you think paper mill pollution is responsible?"

Teddy didn't think so, and said so.

We had paper mills in Norway when I was a boy and they didn't bother the fish," he declared. "If you ask me, it's those pesky outboard motors that are running 'em off the flats, and what get run off are getting killed by DDT they're spraying from the air for insects."

Maybe Teddy's got something! Frankly, I don't know.

Teddy has had a big single gripe to register since he began his 21-year stay with the sand dunes and his wrecked boat. Two years ago, several young men narrowed his shack and made away with a box containing all of his important papers. Included in them were his citizenship papers, issued at Mobile back in 1911, and his honorable discharge from the U. S. Army at Orange, Texas, on Dec. 21, 1918 after the close of World War I.

Federal agencies have been unable to locate the issuing of his citizenship papers, and the navy department thus far has failed to locate his record as a seaman. Meanwhile, although he is eligible for old-age pension, he is unable to supply the required proof of age.

However, Teddy still searches repeatedly for a clue to leading the recovery of his lost papers. He's determined too to spend the remainder of his days with the skeleton of his wrecked fishing boat!

For money, he's a living memorial to the frontiersman tenacity that has made our country the greatest in the world today. He's living proof that an energetic man can get his share of fish and grits come hell or high water.

THEY MADE THEIR ZOO
(Continued from Page 9)

any high school in Florida. He described the possibilities existing today for expert animal trainers and care-takers and said that Ringling Bros., Barnum & Bailey Circus alone uses in excess of 200 persons to care for the animals in its menagerie.

Among the guests attending the ceremonies were: Glenn Holley, Marianna mayor; the Rev. M. A. Du-rant; Dr. C. D. White, Okaloosa County physician; Dexter McCaskill, presi-dent Marianna Rotary Club; Otis Badger, president Marianna Chamber of Commerce; Joseph P. Carroll, editor the JACKSON COUNTY FLORIDIAN; Edgar Wesley, state treasurer's office; Miss Chris Magill, Associated Press; Lemoey Cash, JACKSONVILLE TIMES-UNION; and Ross Summers, trader for the State Game Commission.

Game Commission officials pointed out that the zoo will serve a double purpose. Aside from providing pleasure for the school students, it will be used as a sort of "animal bank" for the commission's portable 50-foot wildlife exhibit. Birds and animals captured and removed from other commiss-ion's fall and spring exhibits at Florida fairs, it was explained.

Attention Is Called to Federation Ballet

Club members throughout the state are urged to seriously consider potential candidates for the newly pending Welfare Fed-eration's post in advance of the annual convention at Sportsmen's Lodge, Wekiva, Oct. 2-5. Now President E. A. Markham is stepping down from the position and several new occupants are expected to be elected at the commission's fall and spring exhibits at Florida fairs, it was explained.

Efficient operation of the above three projects resulted in a net financial gain to the Federation of nearly $8,000, with which they were able to complete the new clubhouse on Lake Maggie. Dedications, certificate donations, and a for-midable lease of city property.

Other services and activities include cooperation with the St. Pete Yacht Club in its Southwinds Sweeps on Lake Mag-gie, as the year-round fishing contest, regular fish fries at its own hard-board pavilion and parties, and the nearby magnificence of the club's terrace over the bay. It is staffed every Sunday, and nights, sunset parties are a feature on the dock. The Club issues a monthly bulletin on all activities.

The St. Petersburg Rod and Gun Club was one of the first members of the Florida Wildlife Federation.

MAY, 1950

FLORIDA WILDLIFE
This month I am repeating an article, written by Jack Van Coevering, one of America’s foremost outdoor writers, for the DETROIT FREE PRESS. It will give you a chance to picture yourself as others see you. The article follows.

"When Michigan was in its hey day of lumbering, it would have been difficult to sell the conservation idea. There were enough pies to last a million years, men said. And then all of a sudden, the pies were gone.

"Florida is going through a stage something like that. Ten years ago there were ideal nesting conditions for bald eagles from Clearwater to Fort Myers. Large pine groves where they could build their nests were abundant.

"Today, thousands of acres have been cleared for sunlight gardening. Landowners have cut large timber. Housing construction along the coast is crowding the birds from their favorite nesting territory.

"The King of the Air has come down from its erstwhile lofty perch to build his home in 10-foot mangroves. His numbers are decreasing rapidly.

"You can scarcely drive a day along Florida’s highways without seeing forest fires. Flame lick at palmate and near the palms, but no one gives it a second glance.

"To a Michigander, who would stop at the nearest telephone to report a forest fire, this attitude is beyond understanding.

"We take the little Florida key deer. That little fellow is a perfect miniature of our familiar white tail. He stands only 50 inches high, weighs 50 pounds. Today there are not more of these mini deer in all the world. They live on a group of sub-tropical keys between Key West and Marathon.

"Illegal hunting is extirpating the last of these deer. There is no great public outcry, no wide-spread demand for an intensive refuge, no state-wide knifed effort to save the deer.

"The rack and file of Florida sportsters are more interested in telling and reading about the fish they catch than in passing on the goodly heritage that is theirs."

There you have it. Right between the eyes. This outdoor writer is merely saying for what thousands of our visitors must be thinking about us.

"Since I have been president of Florida Wildlife Federation, I have suggested means of fire prevention to sportsmen’s clubs, by which they could aid in protecting our game from being destroyed. Have YOU cooperated?"

The Federation conducted a statewide campaign on behalf of a refuge for the little Key deer. Three clubs supported.

"We are unable to get our clubs and other sportmen to send telegrams or letters supporting the Federation. The Federation wrote every state federation in the United States, seeking their support of our bill through their congressmen.

"I am happy to report that 29 State Federations cooperated, and our Washington representative, C. D. Shemkanty, appeared in committee to read and argue for the territorial document prepared by the Florida Federation. As a result, the bill was favorably reported out of that committee and referred to the executive committee for confirmation.

"This is approaching Florida conservation business the long way around. Were it not for the fact that expenditures throughout the nation appreciate Florida’s wildlife, to support the Florida Federation, the state might well have been impoverished according to the impression of the DETROIT FREE PRESS writer.

"Pollution Abatement"

"Two years ago members of the Federation were made conscious of the drastic situation concerning pollution in Florida waters. Last year, under a state commission, the Federation learned that local pollution was brought about by the discharge of raw sewage into the waters.

"Today, our records show that only four of the 25 major lakes in support of this legislation. Your Federation sponsored the nation seeking support from other federations and was sufficiently successful to result in passing the bill through the House. As a result, a federal appropriation was set up and made available to the states involved, for investigation of needs and recommendations for correction.

"From here on out, it is up to individual states to clean their own houses. In order to accomplish this the Federation will need the co-operation of these new state federations, a full supporting legislation to make Florida clean again.

"At no time, there will be no other state federations to help. The job falls on Florida alone. What will YOU do to help?"

STATE LEGISLATIVE COMMITTEE

"All Florida conservation clubs already have been advised of the structure of the Federation’s strong legislative committee. Your representative has been instructed to see that his committee within its membership to stand in readiness to cooperate on state legislative bills.

"If your club has not already notified us of your request for a copy of this article, you are cordially invited to obtain one at any time. Your regular subscription rate is two dollars a year. Any contributions you wish to make will be much appreciated.

"If your club is not a member of our Federation, we would like to make you an offer. We will arrange to have a representative of the Federation call on your club and explain this offer."

LOWDOWN ON BALANCE

(Continued from Page 3)

under its own power. Some forms move up and down at various times of the day and for short distances laterally, but they are principally at the mercy of the currents. Plankton produces a little balances or disorientation of the waters under ideal conditions at certain seasons of the year, and heavy growths like these are very rare in a dull yellow to green, or even red. The inaudible ‘red tide’ which occurred on the west coast of Florida several years ago, and the recent discoloration of Lake Apopka, which is attributed to the abundance of countless millions of plankton organisms. Our hatchery ponds and other heavily fertilized waters also become discolorated and cloudy, because the heavy growth of plankton organisms produced by the intentionally added plant foods as Lake Okeechobee and others of our large natural waters also produce plankton. The tabular at different times in the Florida lakes chemical plant foods.

Group III in the pyramid, similarly, contains principally because "Insects, etc." consists principally of aquatic insects, their larvae and pupae, snails, worms and the newly hatched fry. Fish. Among the insect forms familiar to many of all Florida angler know the as "ancestors of the blind minnows, the dragonfly or dragonfly, and the snail, as well as the water beetle and many insects which spend all of their life in or on the water. The important forms which feed upon plankton are also many species of aquatic insects, and several other species also depend upon plankton for their major diet and are included with these insects. Newly hatched larva and bean food absorb mainly on the various types of the water flea, to do the fry of almost other edible animals. As all of our fresh-water fish. As all of Group III are relatively small to secure, a time of a small-sized food is necessary for their existence. Plankton fills the bill.

A row of our fish, like the gizzard shad, are equipped with a special swimming organ located in the throat which enables them to feed almost entirely on plankton forms. To give you a rough idea of the volume of plankton organisms present under managed conditions, there have been cases where 1,000,000 gills of plankton shad were produced in a day in a fertilized pond. Imagine the tremendous amount of these tiny organisms which had to be present to feed 1,000 pounds of shad."

Group IV, the forage fish, is one with which more of us are familiar. This group feeds principally upon those forms represented in Group III. It includes the fingerlings, all of our great fish and most trout and the anchovies of all the species which escape. These are feed forms represented in Group III. It includes the fingerlings, all of our great fish and most trout and the anchovies of all the species which escape. These are feed forms represented in Group III. It includes the fingerlings, all of our great fish and most trout and the anchovies of all the species which escape.
have reached the apex of our pyramid or the end point in our fish food chain. It includes those fish which feed upon other fish for food, and to Florida fresh-water includes the bass, crappie (speckled bass), the gar, mudfish (bowfin), and the pickerel and pike.

All of these species of fish, together with others which find their limit toward the end of their first year of life. As illustrated in the sketch, this is a driving mechanism, with bass, crappie, mudfish, bowfin, pickerel, pike, etc., as its motors, driving other species, to physiologic death, in weight and in age dependent upon that group below it for its sustenance.

It is of interest to point out that the aquatic food chain is set up somewhat like the pyramid, with the various groups separated according to their food habits, the volume of each group dependent upon, but less than, the group below it. We know definitely that we can increase all of the upper groups by merely increasing the food supply of the lower species.

This method of increasing the fish supply is practiced everywhere by thousands of pond owners in the Southeastern United States. In determining just what this proper balance or ratio must be in order to produce good fish, these experiments have been so conducted as to make the measured catch of the fisherman the most important factor in determining the answer. Hundreds of demonstrations in experimental waters have been made with accurate records kept on the numbers and weights of all fish caught by anglers. A number of these waters were drained at the end of one year, two years, or five years, while some of them are still producing good fishing where a proper balance had been established. Results of these studies show that in order to have a balanced, self-sustaining fish population, it is necessary to provide a sufficient number of fish over a number of years, it necessary to maintain an approximate ratio of one pound of bass to between 3 and 9 pounds of minnows. In this combination, it appears there is first a sufficient volume (or weight) of the carnivorous bass to keep the forage fish thinned out to a point where they do not become so numerous as to severely compete with one another or with young bass for the available insects. The second major requirement is a sufficient volume of healthy, fast growing bass to supply continuous spawning of young for proper food for the bass. In a balanced lake both bass and minnows are able to produce successfully in sufficient volume to replace those adults removed by fishing, predation, or old age.

As what connection has this discussion to do with good fishing? As pointed out above, these determinations were judged, not principally by fish which could be seen from the bank or might be present when the pond was drained, but upon the actual numbers and weights of fish caught by sport fishermen. These balanced populations have produced excellent recreational fishing year after year without the necessity of restocking, draining, poisoning, or other drastic measures, and with or without fishing. Best all-round fishing has been found to occur when the ratio is about one pound of bass to nine pounds of minnows. Newly created lakes tend to start out with a small proportion of forage fishes, say a ratio of about one to three, while older lakes tend toward a ratio of about five to seven.

Many fishing by hook and line for one group seems to temporarily tip the balance scales slightly in favor of the other group. However, when the population is observed, many indications of the same ratio is found. In a few months, Fishing for bass only, for example, has shown to cut into a population and change its ratio from fish to forage instead. When this occurred the bass had a more abundant supply of food than formerly and their growth was rapid. The population was below the total weight of bass again according to the forage fish, which was the balanced carrying capacity of the pond. During the time that the ratio was cut to one bass to one forage fish, the adult bass had as much or more food than they could use, they apparently were not interested in sampling the fisherman's baits in the lake, fishing because poor until the carrying capacity was again approached. It has been found impossible to cut down either a bass or a bass population by hook and line fishing to the point where it could not recover itself in a matter of a few months. This is evidence of surplus adults by fishing creates a temporary surplus of bass forage and increased growth of the remaining fish. If the adult fish were not removed, the younger or smaller fish in the lake would have utilized the predation eliminated the older ones before growing up to take their place. To achieve a vigorous, fast-growing forage fish population, it has been found preferable to harvest surplus adults, thereby making room for the young bass to grow and in turn be harvested themselves. Some lakes having balanced populations have been producing about 100 pounds of forage fish as much as 15 years, wherein the only interference by man has been consisting of harvested the adults by fishing.

Bass and minnows have been used to illustrate the ratio relationship between carnivorous and forage species. These ratios also apply when other species with similar food habits were substituted. For instance, a number of ponds having both bass and crappie as the carnivorous species maintained a ratio of approximately 1 to 3 with the bass and crappie together making up the one. Similarly, proportions of catfish, suckers, or minnows or any of the forage species. However, it is usually more difficult to achieve a balanced population of all species with a large variety of species in small bodies of water. In most of the large lakes, although there may be some indication of the same ratio as applied to their fishing, the populations are so large and variable that whatever species are involved. In our Lake George studies, for instance, show a ratio of one pound of carnivorous fish to five pounds of forage fish, indicating a healthy balance, the crappies being the most abundant carnivorous while the bass was the most plentiful forage species. Lake Appalachee had a ratio of about one pound of carnivorous fish to three pounds of forage fish (mostly brook), and a series of lakes in Marion County showed an average of about one to three. Most of the lakes studied tend to show a balance approach in contrast to the new lakes, as indeed our Florida lakes are never geologically speaking, a new lake. How far has this discussion along with others have been found to be in balance, Lake Skagerrak near Lakeford, for example, showed a ratio of one pound of carnivorous species (bass, crappie and cat) to almost 100 pounds of forage species, most of which were gizzard shad. The few bass present were big, averaging over four pounds or more, and the gizzard shad were readily identified with reproduction of bass in that lake for several years, apparently due to the heavy demand by the gizzard shad upon the plankton, insects and other foods. The severe competition among the shad evidently made them reduce their food habits and food habits properly belonging to other species. Whether they prevented successful reproduction by actually destroying the bass or by their actions was not determined. How far this point of view caused by the huge shad population was the available food for the bass, preventing successful reproduction by bass.

In this case the shad had also crowded out the bluegills, only a few of them showing up in the studies. This, of course, is a most unusual example of the extent to which an out-of-balance body of water can go. We are anxiously waiting a chance to check Lake Hollingsworth this spring and, as the article itself brought about by the removal of a great shad population can be sufficient to allow the bass to be in spawn and reproduce successfully.

The other two lakes mentioned were another example where pressures from a large bass population, with possibly a few catfish thrown in, had prevented successful reproduction by bass. Several operations several years ago showed heavy populations of gizzard shad and many dozens of pounds of these fish removed. The bass grew very slowly, even in good condition, but young bass stocked in the pond grew up, and no successful reproduction was taken place. However, the spring following the removal of the gizzard shad was found in abundance all over the lake. Local sportsmen at Winter Haven, as well as the fishermen who were familiar with the pond, recommended that the removal of the gizzard shad was responsible for the successful reproduction of bass. Whether or not, within two years after this clearing work the gizzard shad had been caught from Lake Howard, however, as this is the case, the Shad Point in Washington County.

"Oh, stop arguing with him! If he says there's a sales tax on boot rentals there's probably it."

MAY, 1950
near Chipley, was found to be so top-heavy with bass and crappe it had completely poleaxed and restored. A ratio of approximately one to one and a half was found between the crab and fish and the bluegill, shad, shiner, suckers, and catfish. One-year-old bass averaged seven inches in length and weighed about three ounces. The two-year-old bass averaged 11 inches and weighed 10 to 12 ounces. Florida bass normally grow at a normal unwrapping rate of about 12 inches and weigh 12 to 14 inches after one year. The size of bass seen here are 13 or 15 inches long and in the 2- to 3-pound class. Almost 450 bass less than 12.5 inches were caught and thrown back into the lake to 2-to-3-pound size and five free 4-to-8-pound. The few crappe were also very strong.

As you can imagine, fishing was almost non-existent in Blue Pond. It will be re-stocked again this year, and proper proportions of bass and crappie, and within a year’s time will be producing good fishing.

A acquaintance of mine who is bitterly opposed to the removal of the 12-inch length limit on bass told me recently of a lake he had fished, in which all the bass caught were less than 12 inches long. His objection to the 12-inch limit was that he refuses to keep any bass less than 12 inches long. As a result, he said, there was no proportion of bass to crappie in this lake. For some reason it has not yet occurred to him that removing the smaller bass to what is always in an unfair condition would result in increasing the growth of the remaining bass.

Several years ago a good-sized lake near Winter Haven contained a number of easily caught bass, none of which measured the 12-inch minimum. The lake was about 15 feet deep. Sportscast complained, and it was readily apparent to the biologists who analyzed the lake that the trouble was too many bass. In cooperation with the local sportscast’s club, an experiment was conducted wherein the size limit was removed and a hundred of 10-inch bass were taken by fishing. Although this condition had persisted for several years previously, it was noted that of about one year before two, three, and four-pound bass were being caught. You would have a hard time convincing the local sportscast that a size limit was helping their bass and crappie.

Some of these examples also illustrate that in order to achieve proper balance, removal of the two groups must be of equal size. Simply making the bass limit of 10 inches, while keeping the crappie the same as before, would not be in balance unless the bass were equally reduced in numbers and size and some large individuals. The largest numbers of bass would be small, but the greatest weight would be composed of fish large enough to use as food. Similarly, the numbers of small bass must be greater than the numbers of large bass, but the weight of the large individuals must be at least three times as much as the total weight of the small bass. An example of this was demonstrated in another natural pond in Pasco County, which produced 56 pounds of bass and 375 pounds of crappie. The crappie weighed 1.7 pounds. The lake was fish too small to be used (1,500 by extent) made up 60% of the bass weight while only 34 individuals were large enough to be taken by a fisherman. The total bass weight was made up of 37,050 fish, none of which was of catchable size. Here was one instance in which the weight ratio was correct, but the size grouping was not. The factor causing this unbalanced condition was the presence of undersized pond words which were caught in the pond that though there was an abundance of bass food present (in the form of small bass) the heavy growth of woods prevented the bass from using that food. The weeds kept the bass from thinning out the bass, and result was stunted growth by both species. It may be seen that a properly-balanced lake must not only contain the proper ratio of bass to crappie, but it must also have a bass large enough to feed on small bass. The conservation of the bass is the concern of the T. & E. Bass Conservation Service, Orlando, Fla.

The following is an excerpt of another Sportscast quoted in this article:

"I didn't know you could cook, Roy. Why this tasty almost good enough to eat!"

FLORIDA WILDLIFE

May, 1950

. . . . . YOUR CASTING

(Upper Lake Okeechobee, page 6) or ring that permits easy take-down for cleaning and oiling without disturbing the tension adjustment of the spool.

With the rod and reel in harmony with each other, you'll have a little ring in the selection of line. Try to keep your whole rig in balance so each separate piece will function as part of a team. It goes without saying that the rod's action will affect the reel, within reason, the longer casts and better accuracy you will achieve. Willam penciled in the 13-pound class for actual fishing and a nine-pound line for tournament work. Many sports fishermen do use a nine-pound line for fishing. Silk line is rapidly losing its popularity to the newer stretched nylon line. Reeling a synthetic line has better keeping qualities and if properly stroched before using is better running than silk.

Accuracy is one of the prime objectives of good plug casting so let's lay out a target—a barrel hoop, bicycle tire or a sheet of newspaper will do. Step off about a distance of five yards and see what happens . . . Pretty awkward, wasn't it? Let's see what the expert says about it.

First of all, grasp the rod firmly, your fingers gripping the grip ring tight, with a manner that the thumb falls naturally onto the spool of the reel. The rod should be in about just a little past vertical or one clock on a clock, at 10 o'clock. At this point stop the back swing positively from this back swing should feel the buld spring or load the rod, this is the power that is serving the actual drive of your bait. Now squeeze your fingers and rock the wrist forward, starting pressure in about a horizontal line. As it is in addition to the spring that is in it as the lure is pulled it back to the end of the up swing. There is no place between the up swing of the rod and the forward drive.

The rod is driven, with wrist action. Practice it with a 10 to 11 wind-off of about 56 degrees forward from vertical. Pressure of the thumb is raised on the spool until your elbow is level and the line. Your thumb pressure increases gradually to offset the fast turning spool. If you are not in the forward whip of the rod in a fairly clear line with a vertical arc, the plug will land right in line with the direction you are facing, near the target.

One of the things Willam and all made nauseous strain is the importance of the wrist action. Perhaps no other single item such as important part in casting. Practice and more, practice is all that will perfect it. As a suggestion to anyone who has a tendency to make a will swept wind with the rod when learning, try holding a newspaper or magazine between your hands and while making the cast. This will hold your arm close to your sides and more or less force you to either use your wrist or drop the magazine. Dropping the magazine will tell you that you are doing the cast wrong.

Practice your dry-land fishing in your spare time. Join one of the many local and popular skish clubs. By practicing your dry-land casting you are going to have a lot better chance of placing that favorite bait in the nearly inaccessible vertical and horizontal that old bass is hiding some misty summer moon.
Gator Conservation Committee
Makes Management Suggestions

Recently appointed members of the state's alligator conservation committee held their first meeting at Lakeland recently and came up with five important recommendations for the future preservation of gators in Florida. It is expected that the formal suggestions will be presented to members of the State Game and Fresh Water Fish Commission in the near future.

Principal recommendations of the eight-man committee included: an eight-foot size limit on alligators, a four-month state-wide open season, Oct. 1 to Feb. 1; the establishment of closed areas especially adapted to alligator production; the licensing of alligator hunters; and an increased educational program concerning alligators.

Members of the committee were carefully selected to give the game commission, commercial hide dealers, recognized alligator authorities, and sportsmen an equal voice in the fact finding. Bill Piper, Boita Springs, and Ross Allen, Silver Springs, both are alligator authorities who are interested in gators from an economic standpoint; Fred Jones, Lakeland newspaperman, E. A. Matlack, Gullport, president of the Florida Wildlife Federation, representing the sportsmen; Nester M. Galkowski, Tarpon Springs, and Jim Cappo, St. Augustine, both alligator hide dealers; John F. Dequette, chief fisheries biologist, and O. Earl Frye, chief wildlife biologist, representing the state game commission. Frye is the committee chairman.

The committee members estimated that approximately 25,000 alligator hides were purchased during 1948-49 by wholesale dealers at an average price of $14 a skin—representing a $350,000 turnover. In addition, Frye says the hides are made into leather products that likely account for another two million dollars in Florida's annual.

During the meeting, the committee discussed the economic importance of the sale of hides and specimens; the economic value of alligators and their value as a tourist attraction; possible dangers they cause to livestock, and the effect of 'gators on wildlife—such fish destruction and their aid to water conservation.

Last winter the Game and Fresh Water Fish Commission decided to give full year-round protection to alligators. The regulations became effective March 1, of this year. Several months ago the commission named the committee and asked for recommendations for the future preservation of gators in Florida.

During the meeting, Frye reported, it was agreed that the Everglades is the only part of the state where 'gators are in danger of being exterminated. It was pointed out that the commission gave full protection to alligators this year as a means of stopping hide smuggling from the Everglades.

Fishing Permit Sales Show Amazing Jump Over 10-Year Period

A few weeks ago, Robert H. Wingfield, Volusia county judge, started juggling a bunch of figures and came up with many an amazing fact concerning the growth of fishing and hunting in his county during a ten-year period.

Judge Wingfield's compilation covered the hunting and fishing license sales in Volusia county since 1939. No doubt the judge himself was amazed when he discovered that resident fishing licenses in 1949 registered a 1230 per cent increase in sales over actual sales back in 1940. To prove his contention, official statistics reveal that 325 resident licenses were sold in Volusia county in 1940 compared to 4414 in 1949. During a similar period, non-resident license sales increased 786 per cent.

Although resident hunting license sales also showed a healthy growth, the figures were not as imposing as the one established by fishermen. During 1940, 1962 hunting licenses were sold in Volusia county as compared with 9067 in 1949. This is an increase of 877 per cent.

Naturally, the fees derived from license sales also mounted in proportion during the 10-year period. Figures reveal that the Volusia county office returned $5,938 to the State Game and Fresh Water Fish Commission back in 1940 as compared to the amazing figure of $308,565 in 1949. This is a 547 per cent increase.

A portion of Judge Wingfield's license sales table follows below. For convenience, non-resident state fishing license sales have been combined with the sale of non-resident 10-day continuous licenses. Also, resident county game license sales were combined with out-of-county and state licenses.

<table>
<thead>
<tr>
<th>Year</th>
<th>Fish</th>
<th>Non-Res.</th>
<th>Fish</th>
<th>Non-Res.</th>
<th>Fish</th>
<th>Non-Res.</th>
</tr>
</thead>
<tbody>
<tr>
<td>1940</td>
<td>958</td>
<td>205</td>
<td>953</td>
<td>205</td>
<td>1908</td>
<td>405</td>
</tr>
<tr>
<td>1941</td>
<td>364</td>
<td>89</td>
<td>362</td>
<td>89</td>
<td>1138</td>
<td>245</td>
</tr>
<tr>
<td>1942</td>
<td>1272</td>
<td>246</td>
<td>1260</td>
<td>246</td>
<td>3524</td>
<td>725</td>
</tr>
<tr>
<td>1943</td>
<td>2896</td>
<td>576</td>
<td>2880</td>
<td>576</td>
<td>8344</td>
<td>1800</td>
</tr>
<tr>
<td>1944</td>
<td>3435</td>
<td>710</td>
<td>3425</td>
<td>710</td>
<td>10714</td>
<td>2225</td>
</tr>
<tr>
<td>1945</td>
<td>4469</td>
<td>899</td>
<td>4459</td>
<td>899</td>
<td>14484</td>
<td>2800</td>
</tr>
<tr>
<td>1946</td>
<td>5666</td>
<td>1099</td>
<td>5657</td>
<td>1099</td>
<td>17425</td>
<td>3500</td>
</tr>
<tr>
<td>1947</td>
<td>6978</td>
<td>1399</td>
<td>6969</td>
<td>1399</td>
<td>20989</td>
<td>4225</td>
</tr>
<tr>
<td>1948</td>
<td>8496</td>
<td>1699</td>
<td>8486</td>
<td>1699</td>
<td>25496</td>
<td>5100</td>
</tr>
<tr>
<td>1949</td>
<td>9531</td>
<td>2051</td>
<td>9521</td>
<td>2051</td>
<td>30800</td>
<td>6125</td>
</tr>
</tbody>
</table>

WHO, ME?

Yes, this message is for you and millions of other people who want to bring our state back to its natural beauty. Enjoy the outdoors and leave it for future generations to enjoy.

Douse your campfires, put out your matches, crush your cigarettes. Be careful with fire in wooded areas. Keep Florida Green!

GAME AND FRESH WATER FISH COMMISSION
FLORIDA FOREST SERVICE
LOOK AT THIS ONE, MA!