The parts of a fish are used when describing or identifying individual species. Not all fish have all of the parts shown. Most do not have barbels. Some have only one dorsal fin. Some have no pectoral fins. There are many variations in size and shape of fins. Fins help the fish maintain its balance in the water.

The big bass has long been a special attraction in Florida's fresh waters—many anglers are out to "break the largemouth record" that has been standing since 1932. See page 13.

From A Painting By Wallace Hughes

The official publication of the Game & Fresh Water Fish Commission State of Florida

Publications Department
BILL HANSEN Editor
WALLACE HUGHES Art Director
GENE SMITH Editorial Assistant
C. L. SATTERFIELD Circulation

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April 1970

ROSE TALLAMASSEE

Official publication of the Game & Fresh Water Fish Commission State of Florida

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West Palm Beach, Florida 33401

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* * *

REGIONAL OFFICES

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Pensacola, Florida 32504

Robert Goad, 32504

Northeast Region
ROBERT BEAULIEU, Manager
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Lake City, Florida 32655

Central Region
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Ocala, Florida 32676

South Region
J. D. BROWN, Jr.
2222 Leek St.
Jacksonville, Florida 32201

North Florida

B. E. HUGGINS, 3205

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APRIL 1970
Friday, the 13th of February 1970, was an unlucky day for the waterfowl, marine life and people of the Tampa Bay area of Florida. On that morning the Greek tanker Delian Appolon, while proceeding to the Florida Power Corporation's power generating plant at Weedon Island, ran out of the ship channel while in heavy fog. It grounded hard; the hull of the tanker ruptured; its cargo of Bunker C crude oil began spilling into the water.

According to later newspaper accounts, the spill was thought not to be serious at first. By early afternoon, however, the reports confirmed the worst: a major oil slick was spreading from the damaged tanker, which had been refloated by harbor tugs and was moored at the Florida Power Corporation dock.

What followed was an all-out effort by various governmental agencies, conservation groups, community service organizations, and hundreds of volunteers to salvage as many of the thousands of oil-soaked wildfowl as possible. Containing the oil and beginning massive cleanup operations took some time to organize.

On Saturday afternoon, Game and Fresh Water Fish Commission wildlife biologist Steve Fickett met with Department of Natural Resources officials, representatives of the Florida Audubon Society, and others, for a briefing on the situation and to begin organizing a task force operation for the purpose of salvaging wildlife. Other Commission personnel were being alerted to assist with the effort, and an aerial survey was flown to help ascertain (Continued on page 6)

By H. E. WALLACE
Assistant Director
Game & Fresh Water Fish Commission

"Operation Dirty Bird" was no place for the timid or the tidy, as these photos show. It was a long, grimy weekend for those helping on the job. First, the ducks' eyes and nostrils were cleaned, then the feathers. Many methods were tried; the best one now being published by the Florida Audubon Society.
Many tons of rags and other cleaning materials were donated by local merchants and individuals. As birds were cleaned, each was banded for future identification. Recoveries of the banded waterfowl will give some indication of survival rate. The operation was a rather hectic affair. In the aftermath of the spill, state health officers and county pollution control authorities closed portions of Tampa Bay to the taking of shellfish—mainly oysters. Marine biologists under Dr. Robert Ingle of the Department of Natural Resources undertook a study of the damage and potential damage to salt water fishes and shellfish.

Much was learned in the Tampa Bay spill about the proper, and improper, treatment of waterfowl and other wild birds affected by oil. One outgrowth of the unfortunate experience is that the Florida Audubon Society, Maitland, is preparing a manual detailing the best methods of coping with the problem, which will undoubtedly be repeated in Florida and elsewhere as time goes by. The Game and Fresh Water Fish Commission, too, is planning to tabulate all its information on the salvage operation. Presumably, other agencies and groups will do likewise. Dissemination of such information to other states’ game and fish agencies, conservation groups, and to the general public, will help reduce wildlife losses in future oil spill mishaps. It is our hope that others may benefit from our experience by being better prepared to deal with similar catastrophes.}

(Continued from page 4) the extent of the problem and to photograph the damage. Shortly thereafter, the modus operandi for Florida’s first major “operation dirty bird” had been fairly well outlined. Randolph Hodges, executive director of the Department of Natural Resources, had been named by Governor Kirk’s office to head the operation. He was assisted by Harmon Shields. Maj. J. O. Brown, manager of the Commission’s South Florida Region, was in charge of GFC units assigned to the task force—about 25 officers, five boats, two airplanes, an aircraft, a base radio station, and other miscellaneous ground support.

Estimated expenditures by the Game and Fish Commission alone amounted to approximately $30,000.00.

Others directing portions of the bird salvage operation were Jim Kelly and Harold Sims of the Florida Audubon Society and Dr. George Reid of the biology department of Florida Presbyterian College, St. Petersburg.

Practically the entire faculty and student body of Florida Presbyterian were dismissed from classes for Florida’s first major “operation dirty bird.” The operation was set up on the west bank of Lake Maggiore. Hundreds of other volunteers assisted—of all ages and from all walks of life.

The whole operation was a rather hectic affair. Yet, through the concerted efforts of all an orderly operation was finally established. It involved such things as the erection of power poles and flood lights by Florida Power Corporation, the hookup of a water supply by the fire department, the provision of portable toilets by the city, the furnishing of a mobile telephone unit by General Telephone Company, the provision of food and beverages by the Salvation Army, the Red Cross, and local firms such as McDonald’s Hamburgers, and the donation of truckloads of rags, sawdust, lumber, and other items and supplies far too numerous to list.

Initially many volunteers brought salad and cooking oils to use in cleansing birds, but after experimenting with various products a certain mineral oil was tentatively selected as the most satisfactory and was purchased in 55-gallon drum lots.

It was evident that a shelter was needed to house the rescue operation, so one was ordered by the Game and Fish Commission—a huge circus-type tent.

While some of our personnel assisted with picking up and transporting oily birds to the shelters—all both dead and alive—others remained at the cleaning operation headquarters issuing instructions on the cleaning and treatment of birds, packaging and distributing wildlife food supplies—including cracked corn and a truckload of gizzard shad—and banding all the birds as they were cleaned. Band returns will help biologists determine the rate of survival of oil-soaked, “laundersed” birds.

It is estimated that approximately 3,500 wildfowl were cleaned and subsequently harbored in private homes and dormitory rooms for treatment and care. Efforts are being made by Dr. Reid to learn how many birds were so cared for, how they were treated, and how many survived. It is acknowledged, however, that the sum of wildlife mortality that occurred as a result of the oil spill will never be accurately determined.

In the aftermath of the spill, state health officers and county pollution control authorities closed portions of Tampa Bay to the taking of shellfish—mainly oysters.
Meet Your Commission

C. A. Peacock, Jr.
Commissioner
Miami

The appointment of Miami businessman C. A. "Pete" Peacock, Jr., 33, to a 5-year term as a member of the Game and Fresh Water Fish Commission was announced in February by Gov. Claude R. Kirk, Jr. The new appointee replaces W. T. McBroom, also of Miami, whose second term on the Commission expired last December.

Commissioner Peacock is a native Floridian and a lifelong devotee of a wide range of outdoor sports, including hunting, fishing and outbound motorboat racing. (He was born in Miami—as were both his parents.) He is a swamp buggy and airboat enthusiast and currently owns two 'buggies he built to traverse the Everglades, where he has hunted and fished for the past 20 years—mostly in the Big Cypress area.

The Commission is a 1954 graduate of Miami Senior High School. He attended the University of Florida, Gainesville, before entering military service in 1958 for 6 months active duty as an Army reservist recalled during the 1962 Berlin crisis, but saw no overseas service.

Peacock is now sales manager for two firms: Seminole Rock Products, Inc., and Miami Crushed Rock, Inc. He is also part owner of Pan American Construction Company. All are Miami firms.

Although a very busy family-and-businessman, he still finds time for leadership and service in several areas of civic and professional life, in addition to public service.

He is president of the Engineering Contractors Association of South Florida and has served on its board of directors for two years. He is a member of the Florida Road Builders Association; is on the board of directors of the Florida Concrete Products Association; is past president of the South Miami Kiwanis Club; and is past vice president of Sigma Chi Alumni Association.

Commissioner Peacock was formerly a member of the District 9 Welfare Board, to which he was appointed by Gov. Hayden Burns in 1966. He resigned that post to accept an appointment by Gov. Kirk to the Tennessee-Tombigbee Waterway Authority in 1968, a commission he resigned to accept appointment to the Game and Fish Commission. He formerly served in an advisory capacity to the Florida Legislative Council’s Roads and Highways Committee and its Construction Industry Study Committee. Additionally, Peacock represented Florida for the past two years at the National Rivers and Harbors Congress in Washington, D.C.

He is married to the former Llwana Flora, a native of Pennsylvania. They have three children: Luther, 9; Bill, 7, and Sherry, 4. They live at 434 Palermo Avenue, Coral Gables.

The Commissioner’s mother, the former Mary Elizabeth Bunnell, is a descendant of the Flasker County town of that name. It was his grandfather, L. E. Bunnell, who introduced him to hunting in the Everglades—at the ripe age of eight! (They first hunted in what is now part of Everglades National Park, which was established in 1947.)

As he recalls, he bagged his first turkey at about age 11; his first deer at 13. He has since grown to love turkey, deer and dove hunting—in that order—but enjoys a bowhunting enthusiast—with one deer kill to his credit so far. And, he has participated in the managed bear hunts the commissioner conducts in the Liberty County portion of the Apalachicola National Forest.

As for fishing, he says he enjoys both salt and fresh water angling with light tackle, including fly fishing.

Commenting on the challenges of his appointment to the Game and Fish Commission, and on conservation in general, Commissioner Peacock says, "Having seen the great changes in the Everglades since my boyhood—and in all of Florida—I am greatly interested in preserving what is left for my own children—and for future generations."

"I am convinced there can be a meeting ground between business and conservationist interests in the future. We cannot have all of one and none of the other. I believe we can achieve mutual understanding in problem areas through careful and intelligent planning of Florida's future with regard to all her natural resources."

With reference to the involvement of young people in today's great environmental issues, he says, "I think our young citizens can achieve a great deal by calling attention to the urgency of pollution and other major problems facing our state and nation, but I feel they must be reasonable in pressing for change; that they must abide by the law and commonly accepted rules of courtesy."

Boats and Boxes

It seems as though tackle box manufacturers have been neglecting average fly fishermen—aiming primarily at smaller size trout angling gear

By CHARLES WATERMAN

FISHING

The First Big Bass I ever caught was landed some 40 years ago on a plastic (nopes, it isn’t all new) lure called the Heddon Gamefisher. The Gamefisher I used was pretty big and jointed in two places; in other words it was made up of three sections, skillfully mounted so that they gave a mighty unusual wiggle in the water. I just happen to have that old plug and I’ll stick in a picture of it along with something newer.

The old Heddon floated at rest and gougled down about two feet when you retrieved with a quick casting reel. It was painted in rainbow colors that gave an eerie appearance from the fisherman’s viewpoint. As it came through the water you couldn’t see the joints plainly; it looked as if the thing was all one flexible piece and the wiggle was something to behold. As I recall, it pulled rather hard through the water. It was a pretty good plug.

I have a new Rebel that’s jointed once near the tail. That will undoubtedly add to the fishy action of the thing. The more recently designed jointed plugs are somewhat simpler than the old Gamefisher, with a connection made of ordinary interlocked rings rather than the old Heddon hookup.

Several times I have felt that joints gave added attraction to a plug and I particularly favored the jointed Creek Club Pikie after it made me look good on a Missouri float trip. I guess it adds up that the extra bit of snaky undulation doesn’t hurt anything. If it helps, so much the better. There are some little design gimmicks—for one thing it’s easier for a jointed plug to get its hook tangled and you must build the thing so they don’t get together. Then, the hookup between the sections must be strong enough not to give way after a long period of wiggling and wobbling. The plug should be balanced so it won’t constantly hook the line in casting.

Some jointed plugs don’t work too well on the surface, stiffness being needed to give the seductive tipping motion that’s attractive to bass. Others look quite good with top-water twitching.

Some ago I had some things to say about binooculars for use by fishermen. Since then I have done a lot of testing on some new glasses by Bushnell. These are pocket binooculars, the 7 X 26 Custom Compacts, listing at $69.50.

Miniature binooculars aren’t even considered by many buyers because there have been very cheap and very poor “little” glasses on the market since I was a kid. These little ones are plagued by the term, “oera glas,” in many cases. Since the very best glasses were big and heavy for a long while, a lot of outdoorsmen feel that if the things don’t bow your neck and buckle your knees they’re no good.

Ever since World War II there have been ultralight glasses with fine optics—some of the more (Continued on next page)
expensive ones didn’t make it because there wasn’t much prestige in glasses you could hide in your hand. But the size of the glasses has little to do with the actual quality of optics. The aforementioned Bushnells are sharp enough and clear enough and with so few aberrations that I am unable to distinguish between their images and those seen through glasses that cost $300. They are small enough to slip into your pocket and come in a soft zipper case rather than in a conventionally stiff shoulder strap. Small glasses are not night glasses, the added light-gathering qualities requiring bigger glass surfaces. I am not going into bimocular construction because I don’t understand it and you probably don’t care. So are the little glasses perfect? Well, not quite. There are a few things you must give up for extremely small size and weight. Although the little glasses are equipped with retractable eyecups to make things easier for eyeglass wearers, they are not nearly as readily adjusted in width as are larger glasses. Unless you set them at the proper angle and work the hinged center adjustment just right, you’ll find only one eye is seeing through.

This is much less important for folks who don’t wear glasses. In practical use the drawback is insignificant unless you want to look through the glasses in a hurry. They are not quite as quick to use as standardized ones. Nevertheless, I accept this minor inconvenience happily in escaping extra weight and bulk.

I HAVE A VERY INTERESTING letter from Horace P. Morgan, executive director of the Resources Advisory Board, Southeast River Basins, Atlanta.

Mr. Morgan sent me a copy of an article on suction bite-keft first aid, written by Homer E. Wasam and appearing in Pmr Magazine, published by the Federal Postal Employees Association in Denver.

Mr. Wasam has compiled a list of research on suction bite information and summarizes it in his findings in a few notes. He recommends that a victim cools or puts glasses in a hurry. They are not quite as quick to use as standard-sized ones. Nevertheless, I accept

whether or over, almost anything and that would do a good job on dry land as long as the bottom lasted. These bigger boats, and most of the smaller ones, can be fixed, new or re-built, and for about $4,000 you can buy a pretty good boat with a new aircraft motor as produced in an Orlando factory. Comes now something that may be of interest to a guy without that much money to spend but still wanting to cross some flats his boss refuses to negotiate. Now there’s a company, Recreation Technology, Inc., Box 13156, Orlando, Florida 32809, building a light airboat, the “Osprey,” powered by a rebuilt Volkswagen engine. This one costs around $2,900, has a spacious fiberglass hull and carries two men and their equipment. The speed is up to 30 miles an hour, the designers claiming that “air lubrication” of the hull surface adds to operating efficiency.

Maintenance has been simplified by use of Volkswagen parts, which are pretty easy to obtain. This may not be something to smash through a solid bank of cattails but it might serve the purpose of a lot of fishermen.

STRETCH in fishing lines is important stuff with people who expect to tax breaking strength to the last ounce. When playing a large fish, stretch has the happy faculty of taking up all of the slack if the fish makes a sudden turn and it also gives the fisherman a little leeway when he’s slow in giving line.

This means the stretch is a sort of extension of the rod’s flexibility, absorbing shocks and still keeping things taut. All of this is fine if the stretch is moderate. If it becomes excessive, there are a whole batch of troubles. For one thing, your outfit is no longer as stiff as it should be, and it is very important to reduce the stretch immediately, even in the field, and try to save his arm with a tourniquet. He even said that if he were bitten while bird hunting, he’d blow his leg off with a shotgun. This is pretty unpleasant business. Another physician told me that he thinks it’s necessary to cut very deeply and remove the venom-bearing blood—no job for a crappie fisherman with a pocket knife.

Pretty vague information, isn’t it? Well, I’m one guy who isn’t going out on a limb about snakebite. If I told you the wrong plug to use for bass, you might forgive me, but this snakebite business is something else again. I’m just passing it along.

Before launching on this next item I want it understood that I am not a medical guy. My experience in airboats is principally confined to the ability to hang on to something until the driver says, “Here’s where the fish are!”, or some such thing.

I do know that airboats are pretty expensive unless you’re a combination of engineer, mechanic and petty parts thief. For the fisherman or hunter who simply wants a boat to drive off into the grass and cattails, things are likely to be very, very costly.

I know that there are big, spacious airboats, little tippy ones, very powerful ones, and under-powered ones. I have ridden on some that went

 realizes can be built so they will slip into a pocket and still have enough power for most inuses. These Bushnell Custom Compacts are seven-power.

New style airboats powered by rebuilt Volkswagen engines.
Fresh water bass and salt water species.

About the cutest stunt to come up lately is a new Plano Fly and Bug Pak, designed by Tom McNally, a Chicago outdoor writer who does a lot of fishing. It's about 8" X 13" X 3 1/4" and built largely of transparent plastic. It opens from both sides and the advantages of keeping fly tackle so you can see the various items is pretty important, especially in the case of leader material. When you use tapered leaders you need a number of different tests at hand. The Plano box allows you to keep twelve different spools in plain sight.

There are some spaces for the really big streamers used by salt water fishermen and plenty of room in the big lid compartment to display a lot of flies in plain sight. There's a space for a good tapered leader storage space but plenty of below average size. If you use tapered leaders you need a number of different tests at hand. The Plano box allows you to keep twelve different spools in plain sight.

When you talk of money it's hard to raise anybody's eyebrows any more. A few years back a hundred-dollar fly rod was spoken of as aces. Now the best way to sell some things is to boost the price. Some of the fishermen who want one of almost everything aren't handy enough to appreciate good tackle over bad, but they hang right in there. I know guys who have $250 Leonard rods and could do better with canepoes.

A guide I know has been working for a multi-millionaire who loves fine tackle. He loves it so much that he doesn't do much fishing. "We didn't fish today," the guide explained. "We just tested tackle. He generally brings fifteen or twenty rods and a dozen reels along. Crowds the boat."

The largest bass caught in Florida waters? It appears to be just as good as ever in some areas, even in most of the state's traditionally good bass-producing waters. Perhaps it's the increased water fertility. Maybe more hooks in the water has something to do with it. Anchors, judging from the state's outdoor press, both size and frequency of catches of bass are pretty darned remarkable.

(May 1970, FLORIDA WILDLIFE)

The Largemouth Bass

By Gene Smith

A Little Old lady tottered into the station house and told the gendarme at the desk, "Officer, I was assaulted."

"Oh, lady, let me get a full report," he said.

"Now tell me, when did it happen?"

"It was in 1922," she smiled.

"In 1922? And you're just now reporting it?" blurted the cop.

"Oh, I'm not reporting it," she replied, "I just want to talk about it."

That story reminds me a lot of some fishermen I've known—the types who tell about having caught a real monster bass, or having seen some other guy caught, that "just had to be a record fish!" But it usually turns out the catch was made back when Off White was a pup and the fish never was "officially weighed" if weighed at all. A tattered, undated Polaroid picture might seem to support the story that it was a real big 'un, however.

Big fish stories are fun to tell and relive because some of the catches might very well have been recordbreakers in some class, and because some of the stories can be disproved. Too, they're fun to tell because everybody knows "bass fishing ain't what it used to be."

The fact is, fishing for largemouth bass in Florida appears to be just as good as ever in some places, even in most of the state's traditionally good bass-producing waters. Perhaps it's the increased water fertility. Maybe more hooks in the water has something to do with it. Anchors, judging from the state's outdoor press, both size and frequency of catches of bass are pretty darned remarkable.

(We pause to acknowledge that size alone is a sorry standard by which to judge fishing of any kind. "Meat" fishing has its points, sure, but the enjoyment and re-creation good fishing provide don't come by the pound.)

It's true that the recognized world record for largemouth bass—22 lbs, 4 oz.—has been standing since 1932, but that's no sign some angler hasn't matched or broken it since then—and baked the evidence. Somewhat like our little old lady, it could've been that in all the excitement and hubbub of being the center of attention briefly, the average guy catching aunker bass might fail to have his fish's weight and measurements verified for the record book.

A good many fishing camp discussions, newspaper outdoor columns, and a few letters to the Game and Fresh Water Fish Commission make the under the lack of an official list of Florida fresh water fishing records. Such would certainly be interesting to know and
Deer trapping is not the solution to deer distribution problem, but the Game Commission, with luck, can catch enough to furnish "penalty deer" ordered by the courts. Nets, above, are erected by day. At night, below, captured deer are bulldogged and processed for shipment.

Deer Trapping

If you've ever seen a frightened deer in the wild you should have little difficulty imagining the skill and know-how required to trap this extremely sensitive game animal. But unless you've actually watched such an operation you have little idea of the sheer strength and effort required to catch, subdue, tag, and crate an adult whitetail for shipment once it's successfully "incarcerated!" It's a little like a wild west rodeo—always exciting; sometimes a little dangerous.

Trapping deer on a large scale, say, for population control, is numerically impossible in Florida. However, it sometimes becomes necessary for the Game and Fresh Water Fish Commission to trap and move fairly good numbers of deer. Such restocking is nothing new. Occasionally it is done for study purposes, but more often to obtain deer ordered by the courts to replace those taken by convicted game law violators, who pay the bill as part of their fines. We call such replacements "penalty deer."

After several years of experimenting with numerous trap designs, Game Management Division personnel developed a web-type, portable trap-and-pen combination capable of capturing and holding several deer at a time with minimum injury to the understandably frantic animals.

One oft-used source of deer is a large private ranch in north Florida. As a result of quality habitat, intensive management, limited hunting, and good protection by the owner, the deer herd periodically becomes overcrowded.

All the factors meshed this year. A large number of penalty deer were due in various parts of the state; deer were available in good numbers on the private ranch; the Game Management crew felt "up to the job."

Forty doe deer were trapped and relocated to help improve future hunting around the state.

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Photo Story

By LAURENCE ROSSIGNOL

APRIL, 1970
recovery and study of material evidence remaining not only because people are naturally curious but work of the shady private detective. It is fascinating sites. The science that deals with such work, the systematic selves by the serious study of people, things, and cultural remains can show a pattern of diet. They can because there is so much to be learned about our­ way of life.

man can give us a great deal of insight into his and mammal remains found in association with early culture being studied. Thus, the study of birds, fish, draw conclusions about this aspect of the particular culture being studied. Thus, the study of birds, fish, and mammal remains found in association with early man can give us a great deal of insight into his way of life. Excavated material can tell us which species were important as food sources. For instance, in the Indian mounds of the northwest Florida coast large amounts of jack crevalle bones are found. An analysis of these bones shows not only that this was a plentiful food fish but that the individual fish taken in prehistoric times averaged much larger in size than those taken today! We are also able to tell that the people lived in certain places at cer­ tain times of the year, since the jack run in seasonal migration.

Fish remains can tell us many other things—such as what the prehistoric people used to catch fish. We know that some species will not take a lure or a hook and must have been either speared or netted. To support this, evidence of fishing nets has been found. The nets themselves are not preserved in the warm, moist climate, but clay pots have been found with the impression of the nets pressed into the wet clay. The kinds of fish remains found can also tell something of the fishing methods employed since we know some species are deepwater forms while others frequent the shallows and can be caught by fishing from shore or just offshore.

In order to aid archaeologists in reconstructing the way early people lived, the zooarchaeologist needs whole, connected, or articulated, specimens of present day fish and animal skeletons for compari­ on with bones recovered from study sites. Our job has been to produce, for comparative analy­ sis, articulated fish skeletons. We have been fortu­ nate in being able to assist one of the foremost zooarchaeologists in the nation, Professor Stanley J. Olsen of the Department of Anthropology at Florida State University, Tallahassee.

The preparation of skeletons of fishes is more time­ consuming than difficult. Although an occasional specimen can be completed in two days, the average time required is about a week. A particularly diffi­ cult one can take as long as two weeks. Actual working time may be only 15 or 20 hours, the rest of the time being consumed by soaking the specimen in chemical solutions and drying them. It should be emphasized that patience and extreme care, not specialized knowledge, determine the degree of success.

How we get specimens to be prepared is impor­ tant. Netting is the preferred method because it does the least damage to the skeleton. However, since good specimens of some species are hard to come by, one might be wise to prepare even those damaged by spear or hook. A damaged specimen is better than none and can easily be replaced with a better one if the occasion presents itself.

Freezing is the best method of preserving un­ cleaned specimens, in that it makes scaling and skinning easier and tends to break down the fleshy tissue without harming the articulation of the bones. The latter is a most desirable feature.

Some of the materials needed to prepare speci­ mens are ordinary household goods. Others must be ordered through chemical supply houses. Household ammonia is a very important part of the process; sodium hypochlorite, or its common form—Clorox—is another. A 30% solution of hydrogen peroxide is also needed. All three are readily available, of course.

(Continued on next page)
The Clerox treatment amounts to a d unk ing; not soaking. Complete immersion of the skeleton in sodium hypochlorite should not last more than 30 seconds to a minute. Generally, the flesh remaining around the head, ribs and fins will burn away. The specimen must be watched at all times during this phase since the solution will begin eating away at the fins and small bones. If left in Clerox too long, the entire skeleton will simply come apart and dissolve. Any flesh remaining in quantity may now be removed. A small amount will not hurt since it will shrivel and become barely noticeable. In fact, it may strengthen the specimen at points of articulation if some flesh is left there.

Next in the process we use a 30% solution of hydrogen peroxide—mixed one part peroxide to 11 parts water. This solution will also aid in removing flesh but its main purpose is to whiten the specimen and draw off as much excess grease as possible. After initial immersion of about three hours, periodic removal of the specimen, followed by drying under a lamp, with subsequent reimbursement and drying, will help in the removal of grease and will lend a temporary white appearance.

It may be noted that the specimens in the illustrations are not completely white. This is because we were not able to degrease the specimens other than in the method described above.

A simple and effective method of more completely removing the grease from a specimen is with the aid of a heated vaporizer. Such an aid is not hard to make. The principle employed is to heat the solvent in the bottom of a container and to condense it at the top. A vaporizer may be made from an oil drum, a heat source—such as an electric immersion coil—and a cooling coil. Trichloroethylene is a relatively safe solvent to use. It is not flammable, but breathing the fumes should be avoided, as with any other chemical.

After several hours in the vaporizer the skeleton should be allowed to cool. It may be returned if necessary. Some skeletons will turn yellow even after vaporizer degreasing; others can be easily bleached by re-immersion in peroxide solution.

None of several other effective chemicals used for degreasing are safe to use without proper ventilation and absolute isolation from a source of accidental explosion. (Among them are xylene and carbon tetrachloride.) So—"no smoking" around combustibles! By following the above guidelines, and with the equipment described, specimens can be safely and effectively prepared for use in scientific studies.

One reminder in closing: when drying your completed specimen you should set it in the position desired before you leave it. Only resoaking in ammonia will loosen it enough to permit rearranging after drying. Water should not be used since it promotes rotting.

We would like to express our appreciation to Professor Olsen and the Department of Anthropology of Florida State University for supplying the funds and time necessary for this project. We would also like to thank Andrew Konnerth, research assistant for Woods Hole Oceanographic Institution in Massachusetts, whose work, "Preparation of Ligamentary Articulated Fish Skeletons," contribution No. 1712 from the Institution, and whose personal communication with regard to the degreasing equipment, aided in our study.

The authors are shown with a completed study skeleton, used for comparing with bones from archaeological sites. The most, dark colored pieces pictured. Some long dead Indian campfire ledded a need of Scorpionfish, proven by close comparison of the "old" and "new."
OUTHC CONSERVATION

Camp time is here—almost. It's time to make your plans to attend; write for application and health forms; get that reservation nailed down.

Who may go? Youngsters between the ages of eight and 14.

When? There are one- and two-week encampments for boys; girls may attend for one week. The opening session (for boys) begins June 14. (See the schedule for the entire summer program.)

Where? Two youth camps are operated by the Game and Fresh Water Fish Commission. The camp at Lake Eaton in the Ocala National Forest, Marion County, will be opening its gates for the 17th annual session this year. The "younger" South Florida Youth Camp, located in the J. W. Corbett Wildlife Management Area in Palm Beach County—west of West Palm Beach—will be entering its second year of operation.

What does it cost? The camper's fee is $35.00 per week, plus 4% sales tax for a total of $36.40 per week. This amount covers everything except the few dollars a camper will need for "spending money" at the camp canteen—for snacks, post cards and similar small items. Five bucks per week usually does it.

Where do I get full information and the forms? Two places. For those interested in attending the Ocala camp, write or call Lt. Floyd H. Dennard, Game & Fish Commission, 1239 S.W. 10th Street, Ocala, 32670—phone (904) 622-7158. If you're closer to Ocala and would like to attend the camp at Lake Eaton in the national forest, get in touch with Lt. Jim Brandly, Florida Game and Fresh Water Fish Commission, 551 North Military Trail, W. Palm Beach, Florida 33406—telephone (305) 683-0748.

There are facilities for about 175 campers per session at the Ocala camp. At the South Florida camp, which is still under development, only around 80 will be accepted per encampment. For space availability for a particular camping period, check with the appropriate Commission officer, Dennard or Brandly, or his office.

What goes on at Youth Conservation Camp, anyway? The program includes a variety of outdoor-oriented activities unlike those of any other summer camp in the area. They can be listed generally as resource education, campcraft, nature study, instruction in fishing, canoeing, and archery marksmanship and safety, swimming, wilderness survival, and outdoor recreation. There are

(Continued on next page)
(Continued from preceding page) hikes, nature walks, wildlife workshops, instruction in basic game and fish biology and management, and interesting sessions on Indian lore.

Add to these the fun of group sports and athletics, the good training of individual responsibilities in camp housekeeping, the singing and skits at talent time—and the enjoyment of good wholesome food served up in ample portions! That’s what youth camp is all about.

Mothers and dads can appreciate the careful selection and training of the camp staff, the cabin counselors, and the instructors. All are experts in their fields and qualified to handle any situation. Yes, there’s a registered nurse on the resident staff, and no, there are no poisonous snakes in the animal compound. It’s hard to imagine a safer, more healthful, or more educationally beneficial vacation environment than that provided by the Commission’s youth conservation camp program.

The best judges of this are, of course, the campers themselves.

In an effort to learn what Florida youngsters who have attended youth camp think of it—and what they would suggest to improve the program—lengthy questionnaires were mailed to 1,000 of them. The response was somewhat astonishing. Over 50% have completed and returned the questionnaires so far—in itself a fair testimonial of the impression made on last summer’s campers.

Not all the questionnaires have been tabulated, but a sampling of the replies, which were heavily favorable, indicates that campers heard about the program largely from friends—almost two-to-one over news media and other sources. The most popular activities, in order, were rifle, nature and conservation study, archery, canoeing, swimming, crafts and Indian lore, and fishing.

Four hundred forty-six campers liked their instructors; 7 didn’t. Four hundred forty liked their counselors; 20 checked “no.” To the question, “Did you get enough to eat?” 439 said “yes”; 17, “no.” The food was rated “excellent” by 156, “good” by 219, and “fair” by 73 respondents to the question.

Three hundred eighty-one said their quarters were comfortable; 55 said “no.” Nearly everybody liked the campsites and campfire programs and afternoon activities; 391 indicated that classroom work was interesting while 38 voted “no.” Interest­ingly, 302 respondents thought class periods were “just right;” 86 said “too short;” 58 checked “too long.”

Three hundred sixty-six would have liked more hikes while 86 wouldn’t. To the question, “Would you like more or fewer activities?” 358 checked “more;” 54 wanted “fewer.” Three hundred twenty-three felt they had enough free time to 132 who checked “no.”

Quite predictably, 427 of the 435 respondents said “yes” to the question, “Did you like the animal compound?” They liked mammals, reptiles and amphibians, in that order.

Of those returning the completed questionnaires, 335 had been to youth camp only once; 105 were repeat campers. To a companion question, “Would you like to come to Youth Conservation Camp again?” the “ayes” got 345, the “nays” only 26.

In a free-for-all question, “What would you like improved or added to the camp program?” which invited parent as well as camper comment, the replies were interesting and varied—often humorous:

“Kill all the mosquitoes!”

“Television in all the cabins.”

“A cleaner lake to swim in.”

“I must commend your counselor training,” wrote a parent. “I wish every child in Florida could attend.”

“You should let some people catch snakes and bring them home.”

“Our son enjoyed camp; is looking forward to another week this summer. He talked for weeks about it . . . a big thank you for helping us teach him the importance of conservation.”

“Omit nap time.”

“Coke machines and girls,” a few boys said they’d like added. Some indicated they’d settle just for the soft drinks. A couple just said “girls.” (Conversely, no girl campers mentioned boys, boys!)

A number of youngsters made a good strong case against sulphur water—the best, or worst, spelling was “sulpher”—and, in fact, the majority of constructive comment dealt with water, latrine and laundry facilities.

A number of campers asked for the 1970 schedule.

The Commission is continually attempting to update its camp curriculum, improve its physical facilities, and expand the program to include more young people. Supporters of the youth camp program, financially and otherwise, are convinced that conservation education is no less important than any other kind.

Florida’s future will be greatly influenced by the next generation—today’s summer campers, who will be tomorrow’s educators, scientists, engineers, political leaders; its clergyman, farmers, foresters; its mechanics and merchants—all consumers; all resource-users; all with a hand in determining the quality of life in their time and beyond.

By their brief but intense “exposure” to nature (Continued on next page)
There are many remedies on the market. Some are over-the-counter and others are prescription-only. It is important to consult a healthcare professional before using any medication for respiratory issues.

Inhalation therapy is another effective method for managing respiratory problems. This involves using nebulizers or respiratory devices to deliver medication directly to the lungs. It is particularly useful for conditions like asthma and COPD.

Nutritional support is another aspect of respiratory care. Nutritional deficiencies can exacerbate respiratory problems, so it is important to ensure adequate intake of vitamins and minerals. A dietitian can help develop a personalized nutrition plan.

For chronic respiratory conditions, lifestyle modifications can be beneficial. This includes quitting smoking, avoiding environmental triggers, and maintaining a healthy weight.

In summary, respiratory issues require a multifaceted treatment approach. Holistic care that addresses underlying causes and supports overall health is key.
High base, low base—whatever the brand—shellhead manufacturing has reached more than 100 different operations to produce a single ready-to-use shell. Care is taken to see that ammunition reaches consumer in most efficient, durable form. The usual sporting ammunition is like money in the bank, and it pays to keep them in the best possible storage.

When writing for assistance, take care to outline your problem clearly—and do send along a self-addressed, stamped envelope.

In decades long gone by—and, in fact, in our own generation—it was a sad mistake to leave paper tube shotgun shells exposed to damp air, or rimfire cartridges to dampness—or worse, a combination of humidity and heat. The paper tubes of shotshells that received only overnight exposure often swelled until normal chambering and firing were impossible. Similarly, many a .22 cartridge, long exposed to heat or dampness, would fail to fire. Improvements in primers, powders, tube materials, wads, and crimping have greatly increased shotshell life and improved primer-powder ignition dependability. Centerfire ammunition, never as much of a problem as shotgun shells and the .22 caliber rimfire cartridge, has also been improved and given longer useful life. It will probably surprise some readers to learn that there are some 212 different operations in the manufacture of a single shotgun shell. After putting expensive materials, labor and time into the production of a consumable, literally disposable product, the manufacturer knows it is simply good business to make certain it reaches the purchaser in top condition. A great deal of technical research has gone into making the modern shotgun shell reliable, whether stored properly or carelessly by dealer or sportsman.

Formerly, sporting ammunition was shipped to dealers in wood cases. These boxes tended to absorb moisture. Now, bulk packaging is in heavy cardboard cartons, impregnated with waterproofing and sealed against moisture. Inside, the individual boxes of ammunition have their own factory-provided protection. The result is much longer shelf life for ammunition.

Today, adverse storage or exposure conditions usually have to be either severe or prolonged before small arms ammunition performance is affected. Even so, heat and moisture are still the insidious enemies of sporting ammunition. Heat will deteriorate primer and powder and will cause some bullet lubricants to melt and slowly penetrate loads of metallic cartridge class. In shotshells heat can cause varying powder performance, even among shells from the same box. Piring pressures may increase dangerously, too—but not always. The safety factor must always be considered, however, whether or not any real danger occurs. When pressures do increase, there will surely be performance variation from shell to shell or cartridge to cartridge, although there may not be a dangerous increase in breech pressures. Given reasonable care and proper storage, modern high power centerfire ammunition will likely last for years and give dependable performance when fired. Not long ago I fired some black powder rifle ammunition that was loaded about the year 1880. Every round fired, and accuracy at 100 yards was very good.

But this ammunition, despite its age, had been given ideal storage through the decades following its manufacture. Another factor contributing to its long potent life was the absence of metal stress on the straight brass cases.

There is constant, silent cartridge case stress on our necked-down modern cartridges, like our big game .30-06 and .30-0602 cartridges and our high velocity varmint loads. Within twenty years or so of manufacture, some of these unfired, sharply necked-down cartridges tend to develop neck cracks. Others appear normal but similarly split at neck on firing.

Whether old or modern cartridges, eventual performance will be greatly affected by exposure to heat during inactive life. Despite warnings printed on boxes and helpful trade tips from manufacturers, many retailers still follow the harmful practice of putting ammunition in display windows where the sun's light and heat strike it most of the day. (Empty boxes or dummy shells and cartridges, obtainable from the ammunition manufacturer, would best serve for such displays.)

Some stores keep reservation stock in tightly closed, outside metal structures. This is inadvisable, too. Although our new plastic tube shotshells stand up better under adverse storage conditions than the old paper type, still, they shouldn't be subjected to high or prolonged heat. Preferably, all sporting ammunition should be kept in a cool, dry place, remote from both moisture and heat infiltration.

Unfortunately, there are not many such storage places in the average Florida home, and those that exist usually have some sort of family priority use attached. The sportsman in the family usually must use back porch closet or garage for sports equipment storage.

While closets and garages may be satisfactorily dry, most are poorly ventilated and far from cool. When closed, it is not unusual for summer temperatures in Florida home closets and garages to average 90 degrees Fahrenheit or higher—which is considerably more than the 60-70 degree range considered ideal for ammo storage. In a home closet, humidity is apt to change radically, too, depending on air conditioning. One thing sure, the humidity won't be constant, as it should be, if air conditioning in the home is on and off intermittently. It is always a good idea to hunt or shoot competitively with fresh ammunition, not an old assortment of bullet weights and styles or accumulated shotshell leftovers of uncertain past storage life.

What with constantly rising consumer cost (due largely to inflationary prices of brass used in manufacture), and the growing red tape of acquisition, others will have to be a user of their manufactured reloading components to get help.

The National Rifle Association's technical staff will answer puzzling reloading questions and help solve bench operation problems. This service, too, is free, but is restricted to NRA members. There is no reason for you to be stumped by any obstacle to safe, efficient and enjoyable reloading of sporting ammunition. Your problem clearly—and do send along a self-addressed, stamped envelope.

(Continued from preceding page)
The National Wildlife Federation.

The deaths of two whistling swans per year also are a mixed blessing. To date the Chesapeake Bay in- incident has not threatened the area's huge population of wintering birds, including Canada geese, representing two to three thousand coots and buffleheads unfortunate as they may be, are slight in comparison to West Coast casualties.

The disease is a relative newcomer to the Atlantic Flyway, lack of documentation makes general commentary highly disputable. What is known, says Dr. Locke, is (1) immediate diagnosis of diseased birds and (2) close observation of other waterfowl in the area. In short, until an intense, coordinated bacteriological study of cholera is conducted on the Atlantic Flyway, luck will continue to play a large role in the fate of waterfowl.

In the words of a spokesman for Maryland's Department of Game and Inland Fish, "We're cautiously optimistic." Waterfowl cholera is at best unpredictable—sometimes restricting itself to the infestation of one species, another time affecting the entire gamut of wildfowl. To date the Chesapeake Bay incident has not threatened the area's huge population of wintering birds, including Canada geese, representing two to three thousand coots and buffleheads. Some figures, unfortunate as they may be, are slight in comparison to West Coast casualties.

The California Department of Fish and Game considers a disease loss of two to three thousand waterfowl a year a major worry. Though none of the officials there approves of this many dead waterfowl floating about, thoughts of big epidemic fowl cholera years such as 1944-45 recall casualties as high as 8,000 waterfowl in just one game management area. Records of the deadly affliction, begun by California and Texas as early as 1944, indicate the awe-some speed with which fowl cholera can spread from its point of inception.

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(Continued from preceding page) businessman of Mexico City. Other officers, as well as the original board group are Vice Presidents Jorge De Heredia and E. Stuart Gil-dred, and Secretary Philip Pat-ton. Cooperating closely in the organization is the Club Can y Caza de Mexico, one of the nation’s bonding sportmen’s groups.

In commenting on the organization of Ducks Unlimited of Mex­ico, President Elser stated: ‘We are extremely happy to see the enthusiasm and vigor which our friends in Mexico have expressed. While about 80% of our conti-nent’s waterfowl are hunted in Canada, where Ducks Unlimited has built up 200 ‘duck factories’, many millions of these same ducks and geese winter in Mex­ico. The forward-thinking men who formed Ducks Unlimited in Mexico are understandably con­cerned with the preservation of the wintering grounds and the wise conservation of waterfowl resources within their country. Dr. Corzo, Mexico’s Director Gen­eral of Wildlife, has given his wholehearted support, and in turn may expect close cooperation in his waterfowl conservation efforts.

I feel that the launching of this new organization and its programs will mark an important milestone in the long history of waterfowl conservation on the North American continent.’

House Refuses Timber Bill

 invoking a rarely used pro­cedure, the House of Representa­tives, by a vote of 228 to 150, refused to allow floor debate on a controversial bill that sought to accelerate logging on the na­tional forests, according to the Wildlife Management Institute. By denying the proposal the privi­lege of the floor, House conserva­tion leaders effectively killed any further consideration of it for the immediate future.

The plan, proposed by elements of the timber industry and endorsed by housing and construc­tion groups, was rooted in the notion that accelerating cutting of national forest timber would generate larger receipts that could be reinvested mainly in reforestation and the growing of still more timber. This was held necessary to overcome a potential lumber shortage, but the timber industry was hard pressed to explain its rising export of U.S. timber.

Conservationists rejected the plan because its enactment would have given priority to the growing and cutting of national forest timber. The plan’s supporters claimed no intent to harm watersheds, fish, wildlife, recreation, and other national forest values, but to persons familiar with the ways of Washington and federal agencies, there was no question but that the creation of a special fund for timber purposes, over the long term, would result in national forest program attention being given mainly to trees and logging.

Florida’s New Driver License Renewal System

The system for issuing your Florida driver license is chang­ing. Driver license renewal by mail begins July 1, 1970. You will not go to the court house or substation for renewal. The Department of Highway Safety and Motor Vehicles, Division not notified the Department of the change, promptly complete the form attached and mail it to THE DEPARTMENT OF HIGHWAY SAFETY AND MOTOR VEHICLES, DRIVER LICENSE DIVISION, KIRKMAN BUILD­ING, TALLAHASSEE, FLORIDA 32304.

To receive your driver license renewal notice, the Department must have your correct address. Should you fail to receive your renewal notice by the first of your renewal month, you must contact your nearest Florida Highway Patrol station or driver license office for assistance.

If you have moved since your last license renewal and have not notified the Department of the change, promptly complete the form attached and mail it to THE DEPARTMENT OF HIGHWAY SAFETY AND MOTOR VEHICLES, DRIVER LICENSE DIVISION, KIRKMAN BUILD­ING, TALLAHASSEE, FLORIDA 32304.

CHANGE OF ADDRESS NOTICE

INSTRUCTIONS: Please print or type name as shown on your driver license. Print your new address below, listing your street, city and zip code. However, if you receive mail through a Post Office Box, General Delivery, or Rural Route, you may use that mailing address if you also list the location of your home.

Examples: P. O. Box 13 (1 mi. E. on Magnolia Dr.); RFD 1, Box 34 (3 mi. W. Blountstown, on SR-20); General Delivery (Corner of Dade St. and Orange Avenue).

Name __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ _______