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Florida Fish and Wildlife Conservation Commission
Florida Wildlife's Fishing Citation

is available without charge, to any and all subscribers to Florida Wildlife Magazine, and their immediate families, who catch any of the fresh-water game fish of the prescribed species and size requirements. Citations, showing recorded date of the catch, will be mailed to the applicant upon receipt of the following application form that has been properly filled out and signed.

APPLICATION FOR FLORIDA WILDLIFE FISHING CITATION

The Editor, FLORIDA WILDLIFE

Date

Game & Fresh Water Fish Commission, Tallahassee, Fla.

Please send me the Fishing Citation with the inscribed data listed below:

Name (please print) _______________________

Address _______________________________________

City __________________ State ______

Species ___________________________ Weight ______ Length ______

Type of Tackle __________________________

Bait or Lure Used _______________________

Where Caught ____________________________

County ________________________

Date Caught ____________________________

Catch Witnessed By _____________________

Registered, Weighed By __________________

At ______________________________

Signature of Applicant _______________________

CUT OUT AND SAVE THIS APPLICATION BLANK

ELIGIBILITY REQUIREMENTS SPECIES

LARGEMOUTH BASS 8 pounds or larger

CHAIN PICKEREL 2 pounds or larger

BLUEGILL (BREAM) 4 pounds or larger

SHELLCRACKER 2 pounds or larger

BLACK CRAPPIE 2 pounds or larger

RED BREAST 1 pound or larger

All fish must be from the fresh waters of the state of Florida, as defined by the Game and Fresh Waters Fish Commission, and must be caught on conventional fishing tackle, with artificial or live bait, in the presence of at least one witness. The catch must be weighed and recorded at a fishing camp or tackle store within the state by the owner, manager, or an authorized agent of the respective establishment.

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Clubs and Conservation

Campers provided their own camping equipment and prepared their own meals. Dealers in camping equipment provided a "commercial row" of exhibits and the instruction ranged from fly-casting to safety retooling.

Professor Troy M. Wakefield of the General Extension Division of Florida, Gainesville, was in charge of registration. High spots of the program included:

Swimming supervised by John Christy and Henry Wentz; exhibits in the recreation hall directed by Bernard M. Dykes; The Pleasures of Family Camping with Troy Wakefield presiding; Welcome by Wakefield and David H. Hunter; opening Invocation by Charles G. Gilze; Family Camping At Its Best, by Thomas C. Slaughter; demonstration of safety retooling by Walter R. Welsh; film on family camping by Kenneth R. Swinford.

"Pitching Camp, Sanitation and Breaking Camp, Slaughter; Hunting Skills and Safety by Courtney Roberts and Captain Philip E. Traupan; fishing skills by Frank E. Philpot; Charles Waterman, Paul Mauns and Charles Alexander; Camping Skills, Kenneth Swinford; preceeding and covering Safety Underfoot, Roos Allen; Boating Skills and Safety, Gene Capper; Equipment by Harry Croy, Frank C. Jones, Charlie Murray, Reold Richards; Pioneer Camping, Allen Cottle; Water Ski Demonstration, University of Florida Ski Club with Jack Eckdahl as club advisor; Archery Demonstration by Gainesville Archery Club with Henry Smith, president, and Ray Williams, secretary; camping; opportunities in Florida with James Crowley; Recreational Opportunities Elsewhere and Anywhere by Slaughter; square and round dancing, Robert E. Wales.


Tampa Gun Safety
One of Florida's best organized programs in hunter safety and junior marksmanship is now established at the Tampa gun range.

In reporting the graduates of his most recent hunter safety course, Henry C. Robertson, instructor for the course sponsored by the City of Tampa Recreation Department, has summarized the organization table of the "model" Tampa system.

The marksmanship and safety program is conducted under the supervision of recreation, David M. Marksdale. The policy affairs committee includes Robertson, Jesse E. Harpe, Herbert G. Trombe and Capt. Martin R. Beck. Publicity is handled by Lillian Hesel of the Tampa Recreation Department.

On the advisory committee are Nick C. Nuccio, Rudy Rodeman, B. L. Cooper, Robert F. Enklaar, Woodrow Helms and Leon Powell. The sports committee is made up of Bill Blodgett, Bobby Hicks, R. Benedict and Milton Spenser.

Practice and qualification firing is held at MacDill Air Force Base Small Arms Range. Marksmanship tournaments are being set up with local firms providing awards.

MEET THE BALD EAGLE

Adult Bald Eagles are unmistakable, characterized by white heads and white tails. The young eagles lack these definite white areas until their fourth year, although they often have some erratic white coloring.

When soaring, the eagles hold their wings in a horizontal plane. The wingspread is about 61/2 feet, the bird's weight about 13 pounds. Eagles are seldom found far from water. Their staple food is fish sometimes which is caught or stolen, the rest being carrion. They eat some small mammals and now and then captives, many of which are crippled.

Bald Eagles usually nest in the main crotch of a large tree; live pine are the favorites in Florida. The nest is added to from year to year and may get to be 10 feet across by 20 feet deep. Sticks are the basic nesting material. Two dull white eggs are the usual clutch. Eagles are famous for life. Many of our Florida eagles migrate northward as far as Canada for the winter.

To The Parents
Has your boy gone to camp yet? If he hasn't may we remind you that there are some vacancies to be filled at the Youth Conservation Camp at Lake Eaton. For boys between the ages of 8-12, there are three weeks to choose from—July 9-15; July 16-22; July 30-August 5. If there is an older boy at home and he likes the outdoors, there is a special week for him, July 23-29.

All of us have an interesting time. Every day both camper and counselor enjoy new experiences. Challenges in every field of activity prove stimulating. Friendships are developing, and believe me, the memories of camp will be long remembered.

Items Passing Over My Desk
A Little Boy: In some of our larger newspapers recently an advertisement appeared for a communication system. What I liked about it was the simplicity and the few words assigned to the commercial. It has the picture of a young school teacher standing by her desk, looking down and smiling. Smiling at a little boy looking up to her and extending some fruit. The picture told the story, but underneath appeared the caption: Lead Him with Love, Teacher! Here he is, teacher. More than a little boy. The beginning of a man. For a few precious hours each day his imagination is yours to kindle. His mind is yours to stretch with infinite surprises. His character is yours to cut and grind and polish. Lead him with love, teacher. He is your challenge, and your opportunity.

The challenge and opportunity that we share as good citizens is to support our schools in preparing this new generation for responsibilities of leadership during the crucial years ahead.

National Conservation Education Association
August 13-16 are the dates set aside for the annual conference of the C.E.A. There will be approximately 500 educators from the United States and Canada attending the conference. It is to be held this year at the University of Montana. The conference is aimed at enlistng public support for conservation programs everywhere.

Articles in the past to the program, one of which is a panel group discussion on Youth Education. Montana, as host state, will moderate and three states appear on the program: Michigan, New York and Florida.

The Game and Fresh Water Fish Commission is honored in receiving the invitation from C.E.A.

National Council Of Junior Outdoorsmen
The council has recently printed a brochure explaining the program to the interested citizens of our country.

It is addressed to Mr. & Mrs. American Citizens and the lead lines is startling. It reads: as you read this there are 30 million children in America—just like yours—15 years from now there will be 40 million more just like them! They will all need food and water for survival. Where will it come from? The answers are in the information. Anyone wishing to learn more about the council can write to: National Council of Junior Outdoorsmen, Laceyville, Pa.

Hollywood Club
John R. King of Hollywood recently sent in a directory of 36 club members. The Junior Club is sponsored by the Kiwanis and Hollywood Sportmen's Club.

Palm Beach County
Palm Beach County now leads the league with five clubs-two clubs for boys in West Palm Beach and one fat girls and another in Riviera Beach. Pawhokee has one for boys also. By this fall there will be 11 club (Continued on page 39)
FISHING

BY CHARLES WATERMAN

I have a working arrangement with the fish management experts. If they don't write a string of stories, won't practice biology.

If any of what I am about to say sounds as if I pretend to a scientific knowledge of fish, you are misunderstanding it. If some of it sounds like horse sense I shall be flattered.

This is about increased fishing pressure and my definition of increased fishing pressure is simply more people fishing in a place than used to be there. Sometimes the fishing gets progressively worse.

It's common to say that a heavily fished area is "fished out" when the catch falls off. Maybe it is but that's unlikely in waters like those found in Florida where the reproductive potential of our game fish is as high as it is. Fishing pressure lowers the catch in a given area, even while the total number of fish present remains nearly the same.

Let's suppose there is a bunch of bass along a stretch of shoreline. You fish it once and catch three fish. You turn right around and do it again and catch none at all.

Does this mean there were only three fish there?

You know better than that but only three fish were ready to strike and for all practical purposes the guy right behind you is working "fished out" water. He is suffering from fishing pressure even though you may have turned your fish back because they won't strike again for a while. You had skimmed off the ones that were easy to catch.

Now if you fish that stretch of water with poison or a seine it may be full of bass. But the fact remains you have already caught the easy ones.

The weakness of this argument is that we are dealing with only one day's fishing and maybe three other days, all of which bass will be in the mood tomorrow.

Nevertheless, the chances are that only part of the fish are ever easy to catch. We have to consider that almost all fish that are struck with equal abandon there wouldn't be any ten-pound bass in heavily fished waters.

So we come to the conclusion that it is possible to "ruin" fishing with pressure, even though the total reduction of fish population is very slight.

Navigation can kill all kinds of fish. I know of several shallow rivers on the west coast that lost their reputation for tarpon fishing as soon as boat traffic was diverted through them. In shallow water, fish will leave after being regularly tossed by waves. That's another form of pressure.

Fish change their habits to conform to conditions. Bass accustomed to living along a shoreline that is regularly muddied by wakes will move somewhere else. Such fishing may give way to bottom fishing.

Why the fleeting popularity of certain lures? Can it be that the fish susceptible to such baits are caught and the others prefer something else?

So what about succeeding generations? Can it be that a whole strain of a fish that preferred to strike a Whoozit has been eliminated? Such a conclusion is 'way out but how else can you explain the killer of ten pounds a day's fishing pressure and my definition of in some way?'

Fishing pressure can be a valuable tool in some forms of fish management. It can be used to keep the population under control and we know that too many fish can cause stunting or even a kill in close quarters.

Of course the other part of the balance picture is that too much fishing for gamefish can sometimes give undesirable sport to non-gamefish.

Fish Photos

Since we make lots of pictures of fish we catch and even more pictures of people catching fish or trying to catch them, we're bound to have quite a collection.

Most of the pictures are pretty ordinary but whenever we show them to a non-photographic angler, he generally runs a temperature about the 'wonderful pictures.' He wishes he could take pictures like that. He wishes he had the secret.

So here is the secret of fish pictures—for free.

If you want to take the pictures while the trip is actually under way and when the fish have just been caught. If you take a picture of your friend in the bow of a fishing boat with a catch he has just--and the equipment he used--or even as he lands it--you have a fishing picture of value to you. It may not be technically perfect but it is well worth keeping.

If you wait until you get to the dock and then stand your buddy and his prize against a brick wall or a sporting goods store window, you're apt to end up with a picture of a jerk with a dead fish.

So if you really want interesting fish pictures, take the trouble to take the camera with you—and take the time to use it at the right time.

Putty-Tat Song

When the spring cobia run is going good around Panama City Beach, there is a mixture of residents and tourists on the open ocean.

Some years ago, one of the regulars learned that if he announced to all and sundry that he had sighted a group of "ling" approaching the fishing area, there would be such a shower of lures from eager beginners that no one would catch any fish.

At that time, the regulars were singing the Putty-Tat song with the theme of "I taught I saw a Putty-Tat..."

There was a trace of connection between a cruising cobia and a "putty-cat" since the salt water crawlers have some resemblance to cobia.

And on the subject of lures, the oft-thwarted angler on Panama City Beach pier figured out a warning that would prepare his fishing friends for action without warning the would-be cobia before the visitors could get into action.

Roy Martin, who runs the pier over there, says the code stunk.

And even today, if you happen to be sunning yourself on the Panama City Beach pier and hear some sunbathers foam with delight at "pussy-cat," you can bet there's a school of cobia approaching.

Wash Off The Salt

Some people sell new fishing tackle and repair salt-damaged used stuff will be here before you can say "I shouldn't be necessary in Florida"--but a fresh-water bath will save your fishing tackle.

I've been less than half of the people who use fishing tackle in salt water bother to wash off the salt when they get through. Even the best equipment will suffer through this neglect. Cheap equipment or gear intended only for fresh water is as likely to get washed up as the most expensive.

Salt water is rougher than most of us realize. Take a look at the automobile that spend their lives on beaches.

And on the automobile subject, I shudder at Jim Coleman's story about the time he was running his pickup on Daytona Beach's ocean front when a man drove up in a new Cadillac, stepped out in his bathing trunks and proceeded to wash his car in the salt surf. Jim was so shocked he simply sat there with his mouth open.

If your rod is a takedown model, always pull it apart when you wash up exposing it to salt. Being real sharp on this sort of thing always teljng folks about it, I believe I have personally ruined something like eight sets of ferrules in the past ten years by forgetting to take them apart when the day was done.

Flying Fish Starts Hard

I was giving brief fly fishing instruction to 40 persons the other day and they were notably unimpressed. They loved to see a flyrod work but when they found how much wrist and elbow had to be used in learning, they lost interest fast and turned toward push-button reels.

This of course, is the reason why fly-fishing will never again be as popular as spinning. It is work to learn and once you've got it down fairly well, the labor vanishes and only the fun remains—but in the meantime, it takes a lot of faith and tears.

The whole thing to me is a flyrod fights back as long as you fight it and nobody is going to have his timing his fly rod and win with. About ninety per cent of the beginners will give up before it gets easy.

Nothing in blaming the neophyte who turns to something easier. Long ago, he quit walking and started riding, quit rowing and started an outboard motor, quit the dock and turned on the electricity.

It really is too bad that he'll never get over the hump to where fly fishing is easy on both wrist and temper.

The Secret Method

I have just heard about a hush-hush secret fishing method. I'm like you in that I don't want to tell the exact stump under which I keep the string of fishing—because it would be fished out in record time; but any time I am fortunate enough to have a good trip, I'll gladly share the hush-hush secret fishing method.

The Secret Method

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2. Wash Off The Salt

3. Putty-Tat Song

4. Flying Fish Starts Hard

You may have read about before (Continued on page 41)
planes and radio comm-
ally dangerous ev-
itary
‘‘Unit 2’’ boat of Ernie Baldini, com-
‘‘blind cun·es.’’
George, takes up about one-third of
This is Unit 2, a boat to aircraft, 2 to air-
.. leading boat now passing our
.. leading boat now passing our
.. leading boat now passing our
.. leading boat now passing our
.. leading boat now passing our

Patrolling the waters, to provide
afety for both racers and for non-
guards, has been a Coast Guard Aux-
olleys from Cocoa-Titusville, Sanford,
and Kinsmee, Patrick Air Force
and Palatka. Planes circled on
relay communication network, boat,
boat, and boat-to-boat, kept each
of the position of the
and flashed warnings of po-
tential ‘‘danger spots’’ caused by
movement of non-racing craft.

Each racing boat was checked, by
number, as it passed the individual
patrol craft—which in our section of
the river, covered by the Cocoa-Tit-
usville Flottilla 49, were less than a
mile apart. Should a racer fail to
reach the next check point, the clos-
est patrol craft was sent scurrying
out to ascertain if assistance was
needed. Fishing, cruising, sightseeing
and skiing groups were left unnot-
iced until shortly before the racers
were due—then they were picked up
and courteously requested to clear
the river both for their own safety
and that of the marathon drivers.

If a collision did occur during the
length of the race. It was an impres-
son of effective mobilization of a

The Coast Guard Commandant,
basing his comment on a continuing
study of the causes of accidents on
the water, says, in effect, ‘‘No, not
at this time.’’

He made these points in an official
statement to a congressional commit-
tee.

1. The Coast Guard does not con-
ider that an operator’s license is
either necessary or desirable at this
time.
2. The large majority of accidents
resulting in personal injury or death,
from small craft, are caused by ig-
norance and heedlessness—rather
than inexpert or dangerous boat driv-
ing. Most fatalities are due to such
things as overloaded craft, failure
to carry adequate life-saving equip-
ment, taking small boats into adverse
weather conditions, falling overboard
while fishing, and the like. And
most of the fatalities occur among
persons primarily engaged in fishing
through their own negligence—not
from operation of a boat while un-
derway.
3. The operation of a motor vehicle
on city streets and highways is in
no way similar to the operation of a
boat. Different differences in sizes and
types of boats, and the many different
kinds of condi-
tions encountered on the water,
makes it impractical to establish a
universal operator license system.
4. Any move toward operator li-
censing must be based on an accu-
rilal accumulation of facts justifying
there should be a continuing study, but
the advisability or practicality does
not now exist.

Back to the race … the winner?
George Thompson of Sarasota, av-
\nning just over 60 miles an hour,
the victor in the ‘‘unlimited’’ class (over
100 h.p.). Thompson drove a cala-
maran powered by twin Mercury
85s. Bob Terry of Jacksonville, a
professional winner, was disabled in a
boat collision on Saturday. Chuck
Mersereau, winner of the Long Island
and Seattle-Alaska marathons, was
kicked out en route by collision with a
drifting log. There were no injuries or
serious accidents.

Both Outboard Marine Corporation
(manufacturers of Evinrude, Johnson
and Gale motors) and the Kiekhaefer
Corporation (Mercury outboards) have
made their expected announcements on
outboard-outboard power units—those
with an inboard engine and outboard-type
deck.

It went in different directions.
The Outboard Marine Corporation
presents a complete unit, utilizing an
80-horsepower adaptation of the firm’s
two-cycle, two-stroke outboard. At
essentially the same power head as the
twin Evinrude ‘‘Lark 75’’ and Johnson
‘‘Sea Horse’’ 75, it will not come to market
until late this summer, including separate
carburetor and oil in-

Mercury’s new ‘‘MerCruiser’’ twin outboard
unit for inboard engines of 125 to 200 horse-
power.

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Mercury’s new ‘‘MerCruiser’’ twin outboard
unit for inboard engines of 125 to 200 horse-
power.
on the trail of the jaguarondi

by wilfred t. neill

for more than a decade I have directed a biological research project sponsored by Ross Allen's Reptile Institute, Inc., at Florida's Silver Springs; and during that time many tourists or Florida residents have come to us for identification of animals and plants seen by them in the woods or along the roads. When the actual specimen is brought in, identification is seldom a problem; but difficulties arise when we are presented only with a vague description of an animal briefly glimpsed.

not long after my arrival at the Reptile Institute, I began to hear reports, and also to read newspaper accounts, of "black panthers" found in Florida. The accounts were hard to evaluate because so many people did not know the distinction between a "panther" and a "black panther." Our state has two native wild members of the cat family. One is the wildcat, also called bobcat or bay lynx; the other is the panther, also called puma, cougar, or (in the West) mountain lion. The panther, much larger than the wildcat, is completely black in parts of southern Florida. (See "The Florida Bobcat," by Ross Allen and myself, in Florida Wildlife for February, 1955.)

these abnormal wildcats could have been responsible for some "black panther" stories. But many of the puzzling reports insisted that the animal had a very long tail, and the wildcat, whether normally colored or freakishly black, always has a very short tail.

it seemed possible that some of the reports were based on otters, for these animals are long-tailed, and at a distance they look quite black. And in Florida Wildlife for April, 1954, Ross Allen and I told how otters, usually thought of as aquatic, sometimes ramble about on high ground far from water. But the mystery animals had some habits not very otter-like: they were raiding hen-houses, leading dog packs a merry chase, and eluding the best hounds put on their trail. Furthermore, in some cases they left behind their cat-like tracks, unlike the web-footed imprints of the otter.

 Discounting reports that might have been based on Florida panthers, wildcats, otters, house cats, and stray dogs, there remained many sightings of a blackish animal, smaller than a panther but larger than a domestic cat, long and slender, short-legged and long-tailed, with a cat-like head and a sinking gait. The description strongly suggested a little-known cat called the jaguarondi: (not to be confused with the jaguar, which is a very large, spotted feline not found in present-day Florida). But the jaguarondi, ranging from South America northward through Central America and Mexico, was known to enter the United States only in extreme southern Texas. How could it be in Florida?

in its natural range, the jaguarondi commonly inhabits dry country with scrubby underbrush; it feeds on rats, mice, rabbits, birds, snakes, lizards, and insects. It also hunts around ponds and waterholes, taking to water freely and catching frogs, tadpoles, and fishes. Like most cats, it climbs well, but unlike many members of its family, it prowls by day as well as by night. Its cat-like appearance was given quite black. Some books state that it has a reddish color phase, but this is probably in error; the red animal, called the eyra, has longer legs and a shorter body, different habits, and a much gentler disposition. At any rate, no one was reporting red cats in Florida—only black ones.

one night, Randy Smith and I were driving through the western part of the Ocala National Forest, where dry brush was giving way to flatwoods and ponds. Suddenly an animal, resembling a big, black housecat, dashed across the road in the beam of the car's headlights. There were no houses nearby, and the animal did not have the movement of a house cat; so I pulled off and we took it after an open stretch with scattered palmetto clumps. As I neared the animal and threw the beam of a flashlight on it, it turned to face me, purred its muzzle into a small, gave out an explosive hiss, and made off again. As I gained on it a second time, it turned and hissed again, then slipped away. (Continued on Next Page)

Florida's Black Cat of Mystery

Admittedly the similarity of names is misleading, and we found some people who were indeed misled by them. They had seen tracks of a large, cat-like animal, tracks larger than those of the wild-cat. They had identified the tracks, probably correctly, as those of a panther; but, not realizing that our panther is quite different from the black beast of the Old World, they began to speak of "black panther" stories. But many of the puzzling reports insisted that the animal had a very long tail, and at a distance it appears quite black. Some books state that it has a reddish color phase, but this is probably in error; the red animal, called the eyra, has longer legs and a shorter body, different habits, and a much gentler disposition. At any rate, no one was reporting red cats in Florida—only black ones.

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in the author's drawing, at left, the wildcat shown at top resembles an orange house cat with a banded tail. the ears are pointed and up-standing. the ears are pointed and up-standing. the ears are pointed and up-standing. the ears are pointed and up-standing.

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(Continued on Next Page)
In 1954 I gave a talk before the Florida Academy of Sciences on the topic of introduced animals in Florida, mentioning the jaguarundi. Dr. Joseph C. Moore, who was present, said that jaguarundi-like animals had been seen on a number of occasions in the Everglades National Park. I had kept records of the various sightings, and these he very generously sent to me. Some of the reports are especially interesting, and I present a few of them here.

1. On April 30, 1950, Mr. and Mrs. Robert N. Gentry saw what they took to be a black panther on the Loop Road of the Tamiami Trail about 11 miles west of Forty-oneth Road in Monroe County, Florida. Mr. Gentry, an employee of the Park, described the animal as being rather small for a panther, but long-tailed and definitely not an otter. He approached to within 40 feet of the beast.

2. On February 3, 1951, John Rohm, a Park Ranger, saw a black or nearly black cat-like animal in the Park at Nine-Mile Bend on Florida Highway No. 27, Monroe County. It was very small for a panther but very large for a house cat; its tail was nearly as long as its body. He heard the beast from a distance of between 50 and 100 yards. The locality is in an area of the Park where mangrove swamp passes into freshwater glades.

3. On January 22, 1952, Mr. Rohm and Tony Geiss saw a panther-shaped cat with a very long tail. The female cat had less than a full-grown wildcat, but was much too large to have been a house cat. It was seen about a half-mile east of Coot Bay Pond on the Ingraham Highway in the Park, Monroe County. Although Mr. Rohm never saw another of these felines another time, he called it a "teyra," which of course does not exist. According to Dr. Gentry, this account was puzzling, however, for he called it a "teyra," evidently confusing "eya" with "teyra" which is a totally different beast. And he stated that he heard about the black feline near the "Louisiana-Jackson" boundary—where of course does not exist. According to Mr. Rohm, T. Hague killed a female "teyra" and "teyra" and two kittens near Chiefland, Levy County, Florida, and had seen another from Homestead. F. S. Levy had reported a similar animal from Highlands Hammock State Park in Highlands County; Mr. Verrill himself, his home in Chiefland. Mr. Verrill said he needed the animal from experience with it in its "native" lands of Central America.

4. On April 3, 1952, Ranger Dave Bogart saw a long-tailed, short-legged cat, about the bulk of a wildcat, on the sand beach of the mainland just west of Alligator Bay, Monroe County. It was at the water's edge but slipped back into the brush.

5. On February 24, 1953, Ronnie McMillan saw two black cats, similar to house cats, one following the other along the road near Flamingo, Monroe County.

Another interesting record appeared in Florida Wildlife for February, 1954. E. J. Teagarden wrote to the editor, stating that in 1947 he and four friends had seen a jaguarundi-like animal on the banks of the canal between Lake Tohopekaliga and Cypress Lake, in Osceola County, Florida. It was "black, or nearly so, and long-tailed. It was "evil and vicious" in appearance, and "stood glaring at us in a most ferocious way." Mr. Teagarden provided a sketch of the animal he saw, and I include it here; it well portrays the jaguarundi's short legs, long tail, Florida "grampus," and snarling expression when disturbed.

Not long thereafter, I was driving northward along U. S. Highway No. 27 in Florida, just north of the Glades-Highlands County line, when I spied on the road a dead animal resembling a young jaguarundi; but a light rain was falling, there were several other cars close behind me, and I persuaded myself that it was only a house cat and not worth investigating. About 10 or 12 miles farther on, near Lake Place in Highlands County, I saw another such animal dead on the road, and this time I was able to pull off. The beast proved to be a young jaguarundi, hardly more than a kitten. It had been hit by a car just a short while for, when it first crossed the roadway, the carcass was in good condition. I was able to save the skin and the skull; it was the first Florida jaguarundi specimen to reach a scientific collection.

Thus, through personal experience as well as from written accounts and verbal descriptions we have obtained some idea of the jaguarundi's possible distribution in Florida. We attempted to plot a map on the localities at which black, long-tailed cats by reliable observers, it appeared that the animals, with a few exceptions, were concentrated in or near protected areas. This vegetation is difficult to be feasible to man.

While tracking down records of the jaguarundi, I have learned why and by whom this cat may have been brought to Florida. A man told me that a neighbor of his, a writer now deceased, had in years made several trips to Mexico and Central America, usually bringing back jaguarondas (which are easily obtained in their homelands). The felines could liberate them near his home and in various protected areas such as state parks and national forests, in the apparent hope of providing some interesting copy.

On our study on the black feline were sent to Drs. A. De Vos, R. H. Manville, and R. G. Van Celder, scientists who were compiling a list of introduced mammals throughout the world. The publication, in a technical journal called Zoologica, included a summary of my experiences in trailing the jaguarundi in Florida; and this summary has provided the foundation for subsequent comments on the presence of the animal in our state (as, for instance in All Florida Magazine for January 15, 1961).

For a while, at least, the bandy-legged black cats were very well received and this is not surprising; for several other transplanted "weasemens" are thriving in our state. The Texas nine-banded armadillo, whose story was told by Ross Allen and myself in Florida Field and Fan, for August, 1955, has spread throughout most of the state in 30-year, from an initial introduction on the upper east coast of Florida: and the Texas horned "toad," really a lizard, is now common in Florida and other Florida localities.

For that matter, some of our native wildlife, including the scrub jay, burrowing owl, indigo snake, and whip-tailed scorpion ("grampus" or "venomante"), all are merely isolated Florida populations of essentially western species, although they reached the state ages ago and without the aid of man.

Fossil deposits in Florida have produced the bones of at least two mammals: the coyote, a canid much like the present-day one, a procenogaeo. closely related to the "proeinae" of the Southwest, the jaguar which today reaches Arizona and New Mexico, and an armadillo California condor, to name but a few. And at least two fossil beds have yielded the bones of some kind of small cat, definitely not those of a wildcat but suspiciously similar to the modern jaguarundi. It may be that modern man has simply brought this black feline back to its native home in Florida, after a lapse of several thousand years! 1
YOUR GAME BIOLOGIST

By RICHARD HARLOW

Game Management Division
Florida Game & Fresh-Water Fish Commission

What Is A Game Biologist?

A game biologist is a professional worker engaged in the study of the origin, structure, functions and life history of wild animals.

What Does He Study?

The game biologist may study wild mammals, birds, reptiles, amphibians. He seeks accurate information about the rate of growth, reproduction, food habits, diseases, environment, habitat, and the inter-relationships and inter-dependencies of such animals. He seeks to know and record everything about wild animals.

Why Does He Study?

The truths that he learns and proves by careful research are applied to the management, regulation, development and harvest of wild animals. This is embodied in the word CONSERVATION—which includes preservation, restoration and wise use of the natural resources—in this case, the wild animal resource.

Is Such Research Necessary?

Yes. You cannot have a good, progressive wildlife management program without good research. The wise, practical application of good research information leads to good management and utilization.

What Does Research Accomplish?

1. To properly govern the harvest of game, you must set sound regulations based upon biological facts about such game.
2. Biological facts developed by good research help prevent the conservation agency from carrying out wasteful and expensive management practices and programs.
3. Good research continuously measures the effects of man's ever-changing influences on our natural resources. As human populations expand and grow, increasingly varied and heavy demands are placed upon the resources. Good research investigates the effects of these demands upon wildlife so that adequate management methods may be developed to maintain wildlife populations.

How Are These Things Done?

By careful, patient, persistent collection of facts. This is often termed "routine research." Such facts must then be analyzed, evaluated and practically applied.

What Is Routine Research?

For the game biologist, routine research is the collection of biological information about game animals. Some of this information is collected from licensed hunters. Hunters may help provide information about animal weights, measurements, stomach contents, sex ratios, age groups, health, condition and quantity of game killed, as well as hunting pressure on a species. With this information, the trained technicin can interpret such data to yield valuable information about any species of game and to make good recommendations as to how to manage such game.

Any Other Research?

Detailed research, in some instances, requires long-term programs and objectives. Biologists develop workable techniques for counting populations of wild animals. They work out methods to obtain accurate figures as to the statewide hunting harvest and hunting pressures. They find and use methods to improve or maintain suitable wildlife habitats—food and cover. They determine the life histories of game species—food habits, reproduction, population dynamics of the species, diseases, habitat requirements, and inter-species tolerances. Biologists also study and attempt to determine the influence of weather on the game populations and on the availability of foods. This is particularly important in determining the fluctuations in the populations of small game, such as quail, dove and squirrel. All of this information is vital in the setting of good game regulations. It is also important data for the type of management and development work to be done by biologists.

What About Game Inventories?

It is important to keep accurate inventories of all game species. The game biologist acquires wildlife populations to gain information upon which to base recommendations as to regulations for the wildlife harvest. Population records also alert the biologist when a significant drop-off in game numbers occurs and an early investigation may be made to find the reasons for such declines.

It may be found that the decline is the result of disease, destruction of adequate food or cover, adverse weather conditions, illegal hunting, or, most probably, a combination of all such factors. Keeping game inventories is primarily a wildlife management activity.

What Is Wildlife Management?

The management of wildlife is primarily concerned with the manipulation of habitat—food and cover—so that the habitat will produce and support a continuing supply of game for the ever-increasing number of hunters. Such management work includes food plantings, marshland water control, selective timber cutting, controlled burning, fencing of natural food plots to prevent competition from deer, and such programs as the proper use of feeder devices for quail and turkey. Other management work includes such activities as acquisition of land and access areas for public hunting, and maintenance of strips of natural vegetation in nine-site preparation areas. This is managing the resource of wildlife.

What Is Development Work?

The real job of the Game Biologist is "the art" of making the land produce sustained annual populations of wild game for recreational use.

(Continued on Next Page)
mainly in the Florida Wildlife Management Areas which are supervised by the Game and Fresh Water Fish Commission for public hunting purposes. Development work includes building boundaries, fences, bridges, canals and dikes so as to develop the areas for best use by the licensed hunter.

What Other Work Is Done?

The game biologist's research must be put into a form for other people to use. Research that is not published or recorded for the use of other persons or programs is of little value. Therefore, all Commission biologists spend considerable time in preparing bulletins and reports of a technical nature about their research findings. They also write articles in "popular vein" for general public. They speak, on various aspects of game management, before sportsmen clubs, civic organizations, conservation groups and youth groups. They tell the public about Florida wildlife and the role of the Commission in the management of wildlife.

Game biologists also offer technical advice to landowners involved in wildlife habitat improvement. They perform liaison work between the Commission and other agencies and groups, such as the Central and Southern Florida Flood Control District, the U. S. Soil Conservation Service, the U. S. Forest Service, Florida Forest Service, U. S. Bureau of Fisheries and Wildlife, the Federal Wildlife Biological, the County Extension Services, and many others.

Define Game Management

The late and famed Aldo Leopold is considered to be the "father" of game management in America. Leopold stated, "Game management is the art of making the land produce sustained annual crops of wild game for recreational use." This, then, is the real job of the game biologist.

How Do Biologists Begin?

In the words of Bentley Glass, Professor of Biology, The Johns Hopkins University, in the article "Should Your Child Be a Biologist?" printed in the Feb 17, 1961 issue of LIFE magazine as a public service, "What Are The Benefits? At the present time (1961) game biologists have a base salary scale of $330.00 per month; this is for Biologist 1. At the end of the first probationary year, the biologist receives an increase to $345.00. Top scale for Biologist 2 is $420.00 per month. The Biologist 2 receives a salary range of from $400.00 to $500.00 per month. Promotions in salary are not automatic, except at the end of the first probationary year, but must be earned by meritorious service ratings.

What's The Future?

Biologists may be promoted to positions as Project Leaders. Some wildlife biologists have won promotion to Regional Manager, which is the supervisory authority over one of the Commission's five administrative regions. The biologist may also win promotion to the position of Division Chief, or to a high administrative post such as Assistant Director or Director of the Commission.

Do Biologists Make Arrests?

The Florida wildlife biologists are commissioned as wildlife officers. A number of arrests are made annually by technical personnel who, in the course of their routine duties, witness violations of the game and fish laws. This arrangement promotes cooperation between wildlife officers and game biologists.

Do Other States Use Biologists?

All fifty states employ biologists. Nearly all countries in the world have technical personnel connected with their natural resource departments. Countries of note in this field are Canada, New Zealand, Russia, Finland, the Scandinavian countries, British East Africa, and Germany. The quotation from the New York TIMES of March 20, 1909: "The whole pattern of land usage and game and wildlife management in British East Africa is undergoing a marked change as a result of recent projects initiated directly or indirectly by United States game biologists."

How Big Is The Job?

As human civilization expands, and as wilderness territory dwindles, the job of the game biologist becomes increasingly more important. Greater human populations seem to result in the continuous destruction or elimination of wildlife habitat and wildlife food supplies, and heavier hunting pressures, and, sometimes, additional illegal hunting. The game biologist's job is to find and utilize methods for producing more and more game on less and less wilderness land. He also helps set the hunting regulations to insure that all hunters will have an equal opportunity to harvest a fair share of the surplus game animals without harm to the basic wildlife populations. Basically, the game biologist is the "game manager."

At the present time, the Florida Game and Fresh Water Fish Commission employs twenty game biologists. This number is small compared to some of the other states. Almost all the Florida wildlife biologists are assigned research, management and development duties.

What Are The Drawbacks?

The low salaries paid to state game biologists (low compared to foresters, chemists, engineers, agricultural specialists; all of similar background and training) often fail to attract and hold good men. Many biologists who start out in the wildlife field soon become discouraged and leave for higher-paying jobs in other fields. Those who stay truly love the work, despite any financial sacrifices.

Is It Worth While?

The game biologist is working for you—the general public—and his job is to provide you a continuing game supply that will assure for you, in the present, as the future, many profitable and pleasant days afield as the future, many profitable and pleasant days afield in the Florida wilderness. Upon the game biologist rests the responsibility for the future of the wildlife harvest in Florida. The game biologist works to preserve that American hunting heritage, which is handed down to us from our forefathers—the American pioneers.
The hair covering of the mole is remarkably suited for warmth and maneuverability in narrow underground tunnels.

**Chillun Got Clothes**

By ROSS PHARES

Many wild creatures are as well supplied with armour as the best equipped knights of old. Even some of the tender little folk are as well protected as if they went about in plates of steel. The pill millepede, when faced by an enemy, rolls itself into a shell-covered ball. Behind its armor of shell it is safe from injury. Though nature is a generous provider in the clothing department, some animals become careless and develop clothing problems. When people overeat and become fat they can usually adjust their clothes by loosening a belt, shifting a few buttons, or making alterations. Nature often does not let the wild creatures off so easily when they break the rules of temperance. A box turtle finding his favorite repast of strawberries may gorge himself while the supply lasts until he finds he's too big for his britches. In the presence of an enemy he discovers he is so big he can't get his front and hind paws closed at the same time. If he manages to get his head and fore legs inside his shell, his tail and hind legs pop out. In this embarrassed position he is often faced with a difficult choice. Once such an animal becomes a glutton, he can not find relief by the simple expediency of a trip to the tailor. It may be a choice of keeping his head away from food, or risking something making a meal of it—for lack of protection.

Wild creatures might be regarded as one-garment dressers. Such is not the case. They may wear several garments, from underwear to overcoat. A beaver has two distinct coverings. He wears soft, thick fur under wear of dull brown for warmth. On top of this he wears a shiny outer garment of long chestnut brown fur which acts as a water repellent. Though a beaver works and lives almost constantly in water, usually cold, he stays warm and dry. Many animals wear the same suit from birth until death. A fish grows as long as it lives, which means that the big fish are the old fish of their species. Yet a fish wears its birthday suit right through old age. A kind nature sees to it that the scales continue to grow in size as long as the fish grows.

But as a rule animals change their clothes. Birds molt and lose their feathers. Hair falls from the covering of mammals. Thus new growth generally provides regular but gradual changes of clothes.

The old saying that clothes make the man applies also to animals. Covering may be an animal's best asset. You can tell a lot about an animal by the clothes it wears.

An antelope is in a sense "vacuum packed." At least it has the benefit of hollow body hair serving as a superb insulation against prairie winds and sudden changes in temperature. Perhaps designers of space suits and extreme weather apparel may learn something by studying the antelope's protective and comfortable garb.

Hollow hairs aids some animals in swimming. The caribou possesses a remarkable swim suit which enables it to float high in the water as the result of the innumerable little "water wings" nature has provided in its hairy covering.

A porcupine's frightful quills do more than protect him against enemies. They are hollow, and highly buoyant. Thus this clumsy creature becomes a ready and skillful swimmer once he hits water.

Just as some people must adopt uniforms or costumes for specialized activities, many animals are uniquely attired for their particular occupations and recreations. A mole is always dressed for evening. For he lives in an evening world—dark and cool. This type of living calls for a warm coat as well as covering designed for convenient travel. For a mole must at times turn himself virtually wrong-side-out to turn around in extremely narrow burrows. His hair covering is remarkably suited for such maneuverability and warmth. It is short and velvetlike and has no bias, which permits the traveler to go forward or backwards in close-fitting tunnels with ease.

Some animals are born with the "uniform" suitable for their needs. Others have to grow them. Bears have a sweet tooth, and are especially fond of honey. But getting honey is no job for a young bear. A cub that sticks a paw into a bee gum is ordering trouble. His fur and fat is too thin to protect him from the outraged bees. Bee robbing is strictly for papa and mama bear. Junior has to live long enough to grow hair and fat too thick for a bee stinger to go through before he's an independent honey collector.

Some animals may gorge themselves while the supply lasts until he finds he's too big for his britches. In the presence of an enemy he discovers he is so big he can't get his front and hind paws closed at the same time. If he manages to get his head and fore legs inside his shell, his tail and hind legs pop out. In this embarrassed position he is often faced with a difficult choice. Once such an animal becomes a glutton, he can not find relief by the simple expediency of a trip to the tailor. It may be a choice of keeping his head away from food, or risking something making a meal of it—for lack of protection.

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Don't feel sorry for animals because you think they don't get new clothes as often as people. In some respects they are more fortunate. They don't have to give as much time to this matter as people, who must consult catalogues and show windows and ultimately the cashier. Nature is style-conscious and always has in mind what will be suitable for the best-dressed rabbit or fox the coming season, and starts early cutting the pattern and material.

Like many style-conscious ladies (Continued on Next Page)
Snakes, like the Florida diamondback, change color as several times a year. They usually shed their clothes on a bush and crawl out of them.

(Continued from preceding page)

who buy, and indeed, start wearing their creations ahead of the season, some animals seemingly, in like fashion, "rush the season." A Columbian ground squirrel puts on his finest and heaviest fur coat in mid-July.

Changing clothes in the animal kingdom, as a rule, is a gradual process, losing and gaining a feather or hair at a time. However, some are quick-change artists, changing as quickly as you might shift from winter woolens to summer cottons. A snake changes several times a year. He literally hangs his clothes on a bush and crawls out of them, and leaves them.

During the last two World Wars, military experts devised camouflage designs that did a lot toward making soldiers "invisible." But any experienced hunter knows that animals are the supreme masters at this art. As a rule, they are decorated in such fashion as to fade into their natural background. The same species may vary from one locale to another. The cottontail of the verdant mountain regions of the East differs in hues from its kind in the western deserts of brown sand and gray rocks. Some birds build nests that harmonize so perfectly with their limbs and colors that they are almost impossible to see as long as they remain still.

Some animals have the amazing capacity to change colors almost instantly to blend with their background. The chameleon can turn from the dark brown of bark he is resting on to the brilliant green of new leaves almost as quickly as he can jump from one to the other. This remarkable quick-change ability not only affords the lizard protection, it's a meal-winner. The not too sharp-eyed insects in his neighborhood stumble upon him before they know it, and are gobbed up without the lizard moving a step.

A spade fish can change colors, from black to white, instantly, like turning off a switch.

Some animals change the color of their vegetation with the slowness they change their habitat. The sea hare when young lives among red seaweeds, and is red. But when it grows into an adult it crawls about on green seaweeds. Its color has appropriately changed to match its new habitat—of green.

Many animals change the color of their covering as they progress in age. A turkey buzzard is pure white when young. But it turns black by the time it is grown. A baby ante-lope is paler and grayer than its mother. And an elk is born reddish brown and dappled like a deer fawn.

Some animals arrange their own camouflage mechanically. A little crab walks about carrying a dead sponge on its back.

Most birds and mammals are born "with clothes on." But there are many exceptions. A kingfisher is fuzzy and "married as a jaybird" when it comes out of the shell.

Birthday suits are designed for immediate baby needs. A musk ox calf arrives in a barren, cold, treeless world. To withstand the rigors of the Arctic North it is born with a heavy overcoat of curly, brown hair. An otter is born not only with fur, but with the fur well oiled, so it is immediately ready for life in the water. An elephant starts out with a woolly coat of hair and gradually becomes totally bald.

Surprisingly enough, the porcupine is born with a protective suit of quills. Actually it arrives in "Swaddling clothes," a membraneous sac, which its mother must rip open after birth to release it.

The armadillo is born with a suit of flexible "leather." This suit does not harden until the animal is full grown. Thus it is assured of a "perfect fit" for life.

Sometimes when the infant is dressed differently from the mother, problems arise. Because sheep with wool can't tell how cold it is, they don't always realize the dangers to their more thinly clad lambs, and thus permit them to catch pneumonia and die. If the wool is sheared from the top of the ewe she feels the cold and damps and thus takes her lamb to protective cover.

Needs and "tasties" in animal coverings are as varied as they are sometimes unexplainable. The deadly fih monster is a thing of beauty—of magnificent, intriguing designs of gorgeous colors. It wears a Jacob's coat of marvelously bright beads. By day, it is a monster in glamour clothes. Which warns that you cannot always tell a villain by his dress.

Nature's clothing store supplies wondrous creations of the latest styles, for the most convenient and practical wear.

DIAMONDBACK Rattlesnake

The Eastern Diamondback Rattlesnake of Florida is the largest and most dangerous of all poisonous snakes native to North America. It is also one of the heaviest and most dangerous poisonous snakes in the world. Its large body-size, quantity of venom, aggressive defensive tactics and tremendous striking speed make this snake one to be treated with extreme caution. It should never be molested or handled when encountered in the wild, except by commercial and professional reptile-handlers.

Diamondbacks are recognized by the distinctive pattern of yellow-bordered diamond-shaped markings on the back. The tail ends in a rattling mechanism of brittle, button-shaped horny growth. The arrow-shaped head is much wider than the neck.

Found throughout Florida, they occur in every county and on many coastal islands and keys. They may be found almost anywhere, but are most commonly found in areas of palmetto flatlands, pine woods, abandoned fields, and brushy, creosote, and gauzy areas. In some situations the snake is difficult to see since its color-pattern blends into the surroundings.

When disturbed, the snake takes a defensive position—body coiled upon itself, rattle-tail free and elevated to sound the warning whirr, head and neck raised in an S-position. From this position, when the target is close, the snake can repeatedly deliver its stabbing strike and return to its position so rapidly that the movements appear only as a blur to the human eye. Effective striking distance is from one-third to more than one-half the length of the body. The recurved fangs lying embedded at the front of the upper jaw are hollow and self-extending when the mouth is widely opened in strike. In stabbing into target, pressure is exerted on the fangs to hypodermically squirt poison from the sac-glands through the fangs into the two-puncture wound. When a preferred strike from cool, the snake can deliver a lethal strike from any position and in any direction. When disturbed, it generally sounds the warning whirr, if there is time, but may remain quiet and strike without warning.

Every person should be well versed in information pertaining to snakes, their habits, identification, habitats, and the first aid methods for treating snakebite.

This publication is designed to provide basic information regarding the poisonous snakes of Florida, the emergency treatment for bites, and to bring about a better understanding of snakes.

Hunters, anglers and outdoor lovers should not overlook the fact that they may encounter one or more species of poisonous snakes on almost every type of terrain.

There are two types of poisonous snakes in Florida. The Crotaline (pit vipers) can be identified by a depression or pit located between the eye and the nostril on either side of the head, as well as elliptical eye-pupil and wide head. This group includes the diamondback rattlesnake, pigmy rattlesnake, cane-brake rattlesnake, cottonmouth moccasin, and the copperhead. The poison of these snakes is of a type known as hemotoxie, which affects and destroys the red blood cells and the walls of the blood vessels. The Elapine is represented in Florida only by the coral snake. The venom of this snake is neuro-toxic, and affects the nervous system of the victim through paralytic action. Hemotoxic breakdown is a relatively slow process, with death usually resulting in 24 hours or more. Neuro-toxic reaction, since it paralyzes nerve centers takes effect rapidly.

FLORIDA WILDLIFE

JULY, 1961
The diamondback may shed its skin from three to five times a year, depending upon health and rate of growth, adding a new segment of rattle at each shedding. The rattles are often fractured and broken off when traveling through rough terrain, and it is unusual to find a perfect set. Therefore, the snake cannot be accurately aged by the number of segments in the rattle.

This species may attain a body-length of over eight feet, but is now only rarely found in a length over seven feet. It feeds on small warm-blooded animals—rodents, rabbits, squirrels, shrews and some birds—and gives live birth to from nine to 15 young at a time. The young carry poison at birth.

This species is commercially valued for its hide, meat and venom, for exhibition purposes. It renders economic service to land-owners by preying on rodents.

The Eastern Diamondback is unpredictable, incredibly fast in striking, venom-potent, and aggressively defensive. The strike of this reptile is always a serious matter. However, with immediate and proper first-aid and medical treatment, the majority of the human victims recover.

**COTTONMOUTH MOCCASIN**

The cottonmouth moccasin is one of the more dangerous snakes in North America. In Florida, it occurs in every county and on many of the coastal islands.

The color-pattern of the body is variable, and may be olive, brownish or blackish. The snake is stout for the length, the tail abruptly tapering, and the head much broader than the neck. The drooped mouthline and the protective shield overlapping the eye gives the snake a sudden appearance. The head is characteristically carried at an angle cocked upward of the line of flight.

When disturbed, the snake goes into a loose coil, cocks the head and neck back, and opens the mouth widely to reveal the whitish interior lining. Hence the name "Cottonmouth."

From this position, it hanges out in a fast strike to imbed the poison-carrying fangs. It usually retains the hold, and bites and chews to imbed fangs and poison deeper. Although preferring to strike from the loose coil, it can deliver a lethal bite from almost any position and in any direction, while either in or out of water. It is unpredictable in that some specimens are sluggish and others may move in aggressively.

Almost always found near water, the cottonmouth is most commonly found about stream banks, river swamps and lake margins. They hunt by night feeding on cold-blooded and warm-blooded prey—fish, frogs, snakes, lizards and small mammals. The species gives birth to from six to 12 live young that are armed with poison. The young are strongly marked with reddish-brown crossbands, and are often mistaken for copperhead snakes.

During the day, cottonmouths spend much time resting near the water, often in a grassy patch, on a pile of debris, in brushy situations, and sometimes in low trees overhanging the water.

Full-grown adults become very heavy in the body, and may attain a length of six feet.

The poisonous bite of this reptile results in great pain, severe swelling, and sometimes permanent crippling. With immediate and proper first aid and medical treatment, the bite is only occasionally fatal to human beings.

**CORAL SNAKE**

The venom of the coral snake, drop for drop, is the most potent venom carried by any poisonous snake native to North America. The coral, and its venom, is closely related to the dangerous tropical snakes known as cobras, kraits and mambas. The coral snake of Florida, however, is a shy, secretive snake that is usually unaggressive unless startled, tormented or hurt.

The coral snake is often confused with the harmless scarlet king snake, which it closely resembles. Both snakes are brightly colored with red, black and yellow bands. The coral snake has a black nose, and there are no red rings on the tail portion of the body. The bands of color in the coral snake completely encircle the body. The bands of color are always in sequence of black, yellow and red. In the coral, the red bands touch the yellow bands, while in the harmless snakes, the red bands touch the black bands. This is remembered by the rhyme, "Red touch yellow, kill a fellow; red touch black, good for Jack."

The coral is a small, slender-bodied species with a relatively narrow head, a round eye-pupil and an absence of the facial pit found in pit-vipers such as the rattle-snake and moccasin.

Coral snakes are found more or less commonly throughout Florida. They prefer damp areas, living among rotting logs, old lumber piles, leaf mold and piles of decaying vegetation.

Coral snakes have small teeth. When molested, they do not strike, but bite and chew to inject the poison that flows over the teeth.

The largest coral snake on record measured 47 inches in length, but most individuals measure less than 24 inches. This species poses danger because of the small size of the red color band, which is supposed to be helpful in identifying the harmless from the deadly. This species lays eggs, usually less than six in number, that hatch in from 60 to 90 days. The new young resemble the parents, but are lighter in color.

Although coral snake venom is the most deadly snake venom in this country, the snake is seldom a menace, except to barefoot children and ungodly gardeners.

**PYGMY RATTLESNAKE**

The pygmy rattlesnake sometimes called "ground rattler," is common throughout Florida. It is found in every county and on many offshore islands.

The head is wide and the body stout for so small a snake. The tip of the tail ends in a tiny, slender rattle which can be heard no more than a few yards away. The body is grayish in color, with several rows of rounded, dusky spots; often there is a bit of reddish color along the mid-line of the back, near the head. Most pygmy rattlesnakes measure less than eighteen inches in length.

This species feeds on small frogs, lizards, mice and snakes, and gives birth to live young.

The pygmy rattlesnake is often found in palmetto flatwoods, or in areas of slash-pine and wire grass, but may be found in almost any locality where there are lakes, ponds, or marshes.

It is fortunate that the pygmy rattlesnake is small, as it is fiery in disposition, easily angered and quick to strike. The bite usually produces pain and swelling, which subsides in a few days. While the bite could be fatal, no deaths have been recorded.

The canebrake rattlesnake is restricted to northern Florida; however, they have been reported as far south as Alachua County. This snake is sometimes called "timber rattler," but the true timber rattler is a smaller snake found in the more northern portions of the United States.

The canebrake may be recognized by its grayish or pinkish color, dark cross-bands, brown or black tail which terminates in a rattle, and the orange or rusty red stripe down the mid-line of the back. As in other rattlesnakes, the head is much wider than the neck. It is much more slender than the average diamondback, and seldom measures over five feet in length in Florida.

Usually found around abandoned fields and farms, the canebrake also occurs in flatwoods, river bottoms...
and hammocks. During hot weather, this snake may be found in low swampy areas.

Since it is confined to northern Florida, the canebrake is seldom encountered. It is, however, a dangerous snake, and should be avoided.

COPPERHEAD

The copperhead is rarely found in the few counties of northwest Florida, which is the extent of its southeastern range.

The southern copperhead is generally pinkish or tan in color, and has from 18 to 21 dark reddish-brown cross-bands on the body. These bands are wide along the sides of the snake, but narrow along the center of the back. The head is much wider than the neck, and often copper-colored.

Copperheads often fail to bite or strike unless actually touched, stepped upon, or hurt. The bite produces severe swelling, but is seldom fatal to humans in good health.

Investigations usually reveal that reported copperheads are actually baby cottonmouth moccasins, which look much like a copperhead.

This poisonous snake is so rare in Florida that very few bites, and no deaths, have been recorded in Florida.

FIRST-AID TREATMENT OF SNAKE BITE

The treatment for the bite of a poisonous snake consists of four steps:

3. Extraction of poison.

The first three steps come under the category of first-aid; the fourth should be left to a physician.

It is impossible to tell from inspection how serious a bite may be; therefore, indiscriminate cutting should be avoided, as more damage may result from the cutting than from the bite. Many drugstores stock snake-bite kits, consisting of a tourniquet, a cutting implement, suction cups, and an antiseptic. Such a kit should be kept readily available to persons who frequent areas in which they may encounter poisonous snakes.

Immediately upon being bitten, apply a tourniquet or constricting band several inches above the bite (between the bite and the heart). If a tourniquet from a kit is not available, a belt, or handkerchief will serve. This should be loose enough so that a finger can be forced between it and the skin. A tourniquet that is too tight may cause serious damage and must be released for about five minutes every 15 minutes.

Keep the patient comfortable, warm and calm and take steps to obtain medical aid. Under no circumstances allow the patient to run or take strong stimulants such as whiskey, since these simply increase the rate of spread of the poison. Avoid panic. It is well to keep the bitten part below the general level of the body as this tends to slow down the spread of the poison.

If the snake has injected any appreciable amount of poison, swelling and/or agonizing pain may develop in the region of the bite within five to ten minutes. After swelling or pain develops, make small cuts (not more than a quarter of an inch deep and a quarter of an inch across) in the vicinity of the bite and start suction. Suction can be produced either by the suction cup from a snake-bite kit or by the mouth (snake poison is harmless to healthy tissues of the mouth and stomach.) If the aid of a physician has not been obtained within 15 minutes, release the tourniquet for about five minutes, then replace it a couple of inches above the line of swelling, making additional cuts in the region of the swelling and applying suction to these new cuts. Release the tourniquet for about five minutes once every 15 minutes. If the swelling advances, continue to make cuts and apply suction until a doctor is reached.

SNakes In FAcT And FiCtion

The average person has a dread fear, a misunderstanding, and little or no factual information re-" unseen snakes. This condition coupled with the impression that the snake is a creature from the dark regions has led many people to believe the often repeated folklore or fallacies regarding snakes.

A snake is a cold blooded reptile; nothing more, nothing less. The snake has a place in nature’s system of balance, and does much toward keeping other reptiles, insects, and animals in check and under control.

Fiction—If you kill one snake, its mate will come to the scene.

Fact—Snakes do not mate for life, and would have no way of knowing a mate from another snake of similar sex and species.

Fiction—There is a poison dust inside the rattle of a rattlesnake that will cause a person to lose their eyesight.

Fact—There is nothing inside the rattle.

Fiction—a snake cannot strike unless it is in a coil.

Fact—Snakes can strike from almost any position and in any direction.

Fiction—Moccasins cannot climb trees.

Fact—Moccasins can and often do climb trees, although many of the non-poisonous water snakes are better climbers.

Fiction—The number of segments on a rattlesnake tail indicates its age.

Fact—New segments are formed each time the snake sheds its skin; rattles are often lost or broken, and it is unusual to see a perfect set.

Fiction—Snakes are slimy to the touch.

Fact—Snakes have dry skin.

Fiction—If you kill a snake it will not die until sundown.

Fact—Once a snake is dead, it’s dead. The movement often noted is muscular reaction.

Fiction—Snakes have psychic wildlife and people before striking.

Fact—A snake may fascinate wildlife and people, but not hypnotize them.

Fiction—A mother snake will swallow her young to protect them.

Fact—A new born snake, whether born alive or hatched from an egg, is on its own a few minutes after birth, and has no family ties.

Fiction—Non-poisonous snakes do not bite.

Fact—Non-poisonous snakes do bite; they should be treated by cleaning the wound and applying an antiseptic.

Fiction—The king snake is the mortal enemy of the diamondback rattlesnake.

Fact—A large portion of the normal food of the king snake consists of other species of snakes, but not venomous kinds alone. In all probability they eat the species that is easiest to obtain.

Snakes bites result from man’s carelessness, not snake’s belligerence. A few simple precautions would help eliminate the danger of snakebite.

Do wear substantial boots or leggings when in the woods or fields.

Do wear the pants leg outside the boot, to help deflect the aim of a striking snake.

Do carry a snakebite kit and learn how to use it.

Don’t put hands, face or other parts of the body into dark, bushy places without looking.

Don’t step over a log, step on the log, make sure there is no snake, then step down.

Don’t try to catch, entwine, photograph or disturb poisonous snakes in the wild.

Remember, a poisonous snakebite can be deadly, and poisonous reptiles are unpredictable.

Information and Education Division

Revised by: Jim Floyd
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The legendary wisdom of the bee has been passed down through myth and superstition for centuries.

CONSIDERING THE BEE

By HELEN STEWART KNAUS

WHEN LONG AGO Scotch Highlanders coined the phrase, “Ask the wild bee for what the Druids know,” the chances are no one ever did. But the saying revealed an insight into the nature of these small em- pire builders whose wisdom is woven through the centuries like a golden thread.

Since older days when beekeeping was practiced by the Egyptians and Greeks, the government of a bee colony has remained an enduring example of order and stability. In each colony the systematic division of labor changes as the age of the insects change, thus insuring the uninterrupted maintenance of the hive. The bee aptly exemplifies the Biblical prophecy, “They shall not build and another inherit,” since its instinct for colony continuity is unsurpassed.

The queen is considered the most important member of a bee colony, but the workers, who are undeveloped females, rule with authority. They are the engineers, the builders, the laborers in the nectar fields, the nursesmaids, the guardians of the dwelling. They serve the meals, clean house, and when necessary, air condition it by fanning their wings vigorously.

These industrious maiden bees make bee-honey and royal jelly; they gather bee-glue, or propolis, from the bark of trees, to waterproof the exterior of the hive. They are the apothecaries who bring about the polination of crops in order to perpetuate flowers, fruits, and other growing things. Without their labor, food crops, world trade markets, birds, butterflies and related forms of life would experience repercussions as colossal human ingenuity would be put to a severe test to cope with them.

The queen, barring untimely happenings, spends her life in a state of continual pregnancy without the companionship of her mate who had a one-way ticket on their nuptial flight to the wide, blue yonder. Should she meet with an accident, the female martinet goes into action. If no queen larvae are developing, these workers produce a new queen simply by feeding royal jelly to a worker larva who will ascend to the waxen throne.

Nor do the improvident male bees, or drones, of the colony, escape the iron fist of the workers. During prosperous times they are fed from the communal larder, but if lean times come they are driven from the hive. Women and children first, is a strict rule enforced by these determined little insects.

But it is not always a life of labor for these female bees. Occasionally they have a ball. The revelry is triggered off by a forager bee who enters the hive, sits down on a comb and remains motionless for a short while. When she begins to discharge glistening drops of nectar from her mouth the other workers in the hive take their places in front of, and directly facing her. With extended tongues they catch the nectar droplets as they fall and then move along to feed other colony members, or to store the food for future use.

The last drop disposed of, the bee leaves the comb and begins her dance. She whirls rapidly in a narrow circle, constantly changing her direction from right to left, clockwise, then counter-clockwise. Although the dance takes place in the thickest part of the hive, the worker bees start tripping along, one by one, always managing to keep their feelers in direct contact with the leader.

As the dance gains momentum the choreographer appears to carry a solid train of golden insects, all whirling and gyrating in excited rhythm. Suddenly the festivities end as abruptly as they began, and the lead bee breaks rank and flies from the hive. So a solid stream of her sisters are trailing her to help gather the rich nectar harvest which was reason enough for the bees to have a celebration.

Although these industrious bees may seem to be self-centered little shrews, history and legend indicate that they have been helpful to man on different occasions and in surprising ways. The Roman poet, Virgil, left an account of the time Roman soldiers planned to confiscate his property. But, according to the story, the poet learned of the plan and hid his most valuable possessions in bee-hives, where they remained safe and unmolested.

Then there is a story of Belgian soldiers who barricaded themselves inside a bee-house when Germans attacked them during the first world war. The invaders advanced within a few feet of them, the Belgians tossed bee-hives, complete with occupants, through the door. As the animated hand grenades struck the ground infuriated insects went into action, and the German retreat was speedy.

A similar account tells how the insects almost broke up a battle during the civil war. As a rookie Pennsylvania regiment began an attack, Confederate soldiers loosed a round of ammunition through a length of bee hives near a farm house. The air was soon ablaze with angry bees, and the attacking soldiers ran for cover, dreading bees more than bullets. It required the Brigade Commander and his staff to get the disorganized troops back into the ranks.

From a medical standpoint these insects have been helpful to mankind for many years. In olden times sufferers from rheumatism, arthritis and neuritis visited bee-keepers for the alleviation of their suffering. Two bee stings constituted the first treatment. After that they were increased until the sufferer reported relief. Similar treatment is available today in the form of an extract called bee venom. On the border between Bavaria and Wurttemburg is the world's largest bee farm which is operated for the purpose of producing this extract.

The legendary wisdom of the bee has been passed down through myth and superstition for centuries. In parts of Europe some people "tell the bees" when there is a death in the family. It is believed that failure to do so will cause the insects to leave their hives, stop making honey, or even die. This may stem from an earlier legend that originally bees were messengers to the gods.

And some Irish people not only inform their bees of a death in the family, but also by throwing mourning crepe on the hives. Also, many of them confide their plans to the small colonists when a new project is contemplated per the undertaking.

The Queen Bee, at top, is considered the most important member of the hive, but the Worker, shown at bottom, does all the work and rules the hive. The Drone, center, serves only as a consort to the Queen.
By MARGO HOSFORD

iridescent greens and blues, brown and bronze over his back and wings. His heavy bill is orange-red, tipped with yellow; his long legs and big feet are yellow too, and in the center of his forehead is a bare, flat, sky-blue disc. Beneath his short little brown tail, which flicks with each step, he wears a fluffy white patch. Although he was so audacious he would climb all over me, peck at my toes and fingernails, and follow me around like a puppy, he would not allow me to touch him. I tried brushing the back of my hand along the beautiful feathers of his side—it was difficult to resist—but he shied every time, giving me a "how dare you!" look. I had great difficulty in Mi, for he tried to...

... Petey would come to stand beside me on the dock, and I stood feeding the shiners. I offered him a piece of bread and he ate it, practically at my feet. The next day he was back for more. In just another day or so, when I did not drop the bread for him at once, he flew to my wrist and tried to take the whole slice. Right then he had me hooked. To strengthen his hold on me, he brought his mate and five small black, long-legged youngsters to the edge of the lake, just off the dock, and I spent the rest of the summer as a slave to their slightest whim. I have never seen anything more beautiful than this slender, turtl

He was the most charming pet I ever knew. Some people call the purple gallinule a bumble walker, because he can walk on lily pads and bonnets, and actually appears to walk on water, when he glides over submerged grass. Others call him blue Pete, because of his coloring. To me he will always be "Petey." He answered to that name when I went down to feed him. He was fantastic, and I adored him. He became almost a neighborhood pet. At one home, only a few hundred feet away, he frequently strolled through an open door to where a man sat writing, and the teen-age daughters of that same family, as they swam, or fished from their dock. At no time did he fear of humans, yet many bird watchers refer to him as shy and retiring.

Petey stayed with me until late in August, then left the five almost grown youngsters with me. I was their baby-sitter for three more weeks, then they became restless and, suddenly, they too were gone. They had been my almost-constant companions for weeks, and I missed them. For a while I seemed still to hear the slap-slap of their amusingly big feet behind me, as I walked along the lake. Now, each time I see a gallinule, I wonder if it could possibly be one of the five youngsters I helped raise.

At another lakeshore home nearby, a little green heron became quite tame. This one, however, was more or less a one-man bird and would seldom join his fisherman friend if anyone else were around. Only once did he approach while I was there, and then only because I sat, motionless, while he came nearer and nearer, tempted by the dead shiner the man offered him. When he accepted the minnow, which was quite large, he flew to the edge of the water, and after bluffing off two gulls which tried to hijack it, he managed, with difficulty, to swallow it, head first. The shiner was almost as long as his neck, and the little green heron, looking as though he were choking, sat for almost half an hour, while the process of digestion did its work.

Such things as these might be called the fringe benefits of my Window Wonderland. For while the Window is the focal point, from which to see an extremely large concentration of birds, it is only the close-up view. Wherever I go, or you go, there is a Wonderland, if we only look for it.

(Continued on Next Page)
other such things I have seen. I am fully convinced that just as surely as people are bird watchers, birds are people watchers. They know as much about some of our habits as we do of theirs.

There is a string of musical bells attached to a screened door just outside my kitchen. I can come home after an absence of hours, or even days, enter that door, and in seconds the empty feeders are surrounded by birds, awaiting expectantly for their food. I sometimes think they recognize my car. I know the gallinule did, and he also knew my voice, even when he heard me in the yard, over a hundred feet from the lake. On the other hand, too, knew what those bells meant. One early morning when I was talking to the yard man, I looked up to see the bird had crossed the road and was halfway up to my door. As soon as I said for him he followed me docilely back to the lake.

Frequently I do my typing at a back window, where I cannot see the feeders. I can always tell when the food supply outside is low, for a shrub, which almost touches the house, will suddenly be filled with cardinals and titmice, eyeing me as I work. As soon as I go out and replenish the food, they are satisfied. Sometimes I place a temporary feeder by that window, near enough to reach from inside. They find it at once and though it is within three feet of the typewriter, neither the sound of it, nor my presence intimidates them.

Another dividend the Window offers, is the opportunity to pry into the private lives of the birds. Scientists prefer calling it "the study of bird behaviorism," but it is still amusing, and I have seen some interesting (sometimes scandalous), goings-on!

Last month, during the nesting season, there was a good example of this. A female cardinal, a Jezebel if I ever saw one, proved that she knew how to go after what she wanted. I guessed that this was not her mate in some mishap, and anyway she could be determined to get another. When she spotted the male she wanted, with murder in her heart, she followed the direct course of getting rid of the other female. Attacking the other bird, she injured its wing so badly it could not fly. Then the siren started making overtures to the male, who very properly guessed that this wanton had lost her season, there was a good example of going about it provocatively, and gazing up at himself with an admiring air, placing herself on a branch or a stump. She talked a lot, puffed her feathers, and gazed up at him.

Another advantage is close-ups to be had of the migratory birds that come to share the feeders. Just last spring an oven bird stayed in the yard for days. I had not seen one before in Florida, and had forgotten, if I ever knew, that it is one of the warblers. Much larger and chunkier than most warblers, it doesn't even act like one. It feeds almost all together on the ground, and it walks, rather than hopping. At a casual glance it looks like a small thrush, because of its heavily black-streaked breast and brownish back. I was fortunate in seeing this one, several times, just beneath my window, so that the black-bordered, orange-brown crown patch was visible.

But, as I said, the Window is only a peep-hole to the wonders outside and there were many things to see all during the spring, when the migratory water fowl were still around.

One of these was a fulvous tree duck which spent much time in a marshy pasture a few miles east of town. Though it is known to nest in the coastal regions of Texas and Louisiana, and in parts of California, it is rare in Florida. The fulvous duck stands taller than most ducks, and has longer legs and neck. Tan-nish in color, it has a bit of white beneath the wings and at the base of its tail. A dark brown streak runs from the top of its head down the back of the neck. Only one of these ducks was seen, but it is entirely possible that there were others around.

Another bird, that seems to have come to us to stay, is the cattle egret. Every pond and cattle pasture has been full of them all this year. Ten years ago we had scarcely heard of these birds; they were not even mentioned in most bird guides. Now they are so numerous, as to almost constitute a menace, not only in Florida, but up into the northern-most states.

Coming to Florida from Africa, by way of South and Central America, they were considered rare, even as recently as five years ago. Only last fall, for the first time, I came to roost with the snowy and American egrets on a point of land at the center of the lake on which I live. They are near the size of the small snowy, but heavier and less graceful, and instead of the slender black bill theirs is yellow. During the breeding season, the cattle egret has pearly linen plumage, and the same color on top of the head and back of the neck.

I've a feeling that they may not turn out to be the most desirable of immigrants. In one place, I told, they have already usurped the nesting area of the snowy egrets.

But desirable or not, common or rare, all birds are amusing, or interesting, and sometimes, amazing. And anyone, anywhere, can share in the game of birdwatching. I will always be partial to the birds, and even animals, in my own back yard. I hope eventually to have the aluminum bands on most of "my" birds, because then, I will know when I see them, that surely, they are my friends and neighbors, and the real owners of the Wonderland and Mockingbird Hills.
Although Florida's climate permits year around outdoor sports participation, it is during the long, vacation-minded days of summer that the state's populace is seemingly most active.

It is a period ideal for fishing, boating, camping, skin diving exploration, family picnicking and interstate travel to interesting places.

Summer is also the time of year when Nature puts on what is probably her best, most colorful show.

Trees are visably green with fresh growth, most flowers and shrubs are at peak bloom, and animal and bird life are noticeably active and abundant. It is the calendar period when Florida skies are perhaps at their bluest, and contrasting dark-tinted cumulus clouds pile up in the sky as if released from a gigantic aerosol shaving cream tube.

It is also ideal picture-making time. ... "Catch your summer fun for keeps in pictures!" is timely advice whether you read it in a Kodak advertisement or here.

The weeks of summer are open periods for many local and national photo contests, too—including local-level segments of the annual National Newspaper Photo Contest.

There's always the chance that, in addition to making a cherished picture, you'll win a modest or major cash prize.

This summer you'll invariably get better outdoor pictures if you use an inexpensive filter accessory in front of your camera's lens.

A filter is a solid piece of colored optical glass, a piece of colored gelatin or plastic alone, or one of the last two materials sandwiched between protective layers of glass, and capable of absorbing certain colors of the spectrum.

Primary function of a filter is to hold back the light of some colors, and let the light rays of other colors pass on through to the film.

Color tone rendition is not hard to master if you will remember two basic rules:

If you want a photographed color to register as a lighter shade on the film emulsion, use a filter of the same color—say, a yellow filter when photographing yellow or orange colors you want to register in light tones.

If you want an embodied color to register darker, then use a filter of complementary color. Examples: You would use a red filter to darken the tones of blue or green, an orange filter for a subject predominantly blue colored, and a medium blue filter to make yellow, orange or red colors appear darker.

Today, practically everyone uses panchromatic film in one or more of its emulsion speeds for making black and white pictures. Panchromatic film differs from the old orthochromatic film of a generation ago in that it has added sensitivity to red, orange and yellow, and is the only kind of film which is sensitive to all colors in the visible spectrum.

The result is better tone rendition in black and white snapshots—especially when given the correction or control influence of a color filter.

Currently, the larger photographic supply catalogs list more than thirty different types and shades of filters, of general and specific application. Actually there are more than a hundred types manufactured.

However, for general outdoor photography, the average amateur will be concerned with only one to four filter listings for black and white film photography, and about the same number for color work. Filters commonly used for black and white photography cannot be used with color film without creating undesirable over-all "color cast".

With black and white films, you can do fine work with a lone Medium Yellow filter, or a set that includes one each Medium Yellow, Orange, Light Green and Medium Red. For color work outdoors, a good selection would be filters designated technically as 1A Sky Filter on UV-15, and Chrome F (55).

Because, when in place, a filter becomes the front element of your camera's lens system, take care to buy the best you can get. Quality filters are flat and generally neutral hard-coated on both sides for perfect light transmission control.

Filters are held in retaining rings or adapters that slip on a camera's lens or mount or screw into it. Some filters, like the Kodak Nos. 6A, 7A and 13 made especially for box type cameras, come with filter and mounting ring made as a solid, one-piece unit, but the majority of filters are housed in a sectional adapter that will also accept additional filter rings or a screw-on lens shade.

Eastman, Ednalite, Tiffin and others make a wide variety of filter holders for just about every camera model, regardless of make. Your local photo equipment supply dealer can fit the proper units to your camera at very reasonable cost.

Besides enabling you to make better, more interesting pictures, use of a filter is good protection for a camera's lens. If damaged, it is far more easily and cheaply replaced.

However, a good filter should receive the same care as your camera's lens. Keep it free of grit, dust, fingerprints and grime, and protect it from long exposure to the hot sun. Cemented-layer type filters are especially vulnerable to moisture and heat hazards.

Because the average filter holds back a certain amount of useful light, you have to increase film exposure in accordance with the filter's working factor. You would (Continued on Next Page)
For close-ups appear open sky, use X1 Light Green filter gives good rendition of flesh tones.

The 25A Red gives the most dramatic cloud rendition, and is also good for haze penetration. Used with infrared film, the 25A Red filter gives landscapes sensational depiction, causing water and blue sky to appear black, foliage and meadows contrasting white. (Other special filters for taking pictures by infrared radiation are the Kodak Wratten Nos. 70, 87 and 88B. However, the average amateur is not concerned with these.)

An X1 Light Green filter renders green landscapes and foreground foliage lighter in tone and more detailed.

In landscape photography, you want lots of detail on a fine grain negative. If possible, always use a lens shade and a tripod to keep from producing fuzzy pictures despite a sharply focused lens.

If you want your landscape pictures to suggest distance or a sense of elevation, keep the picture-dividing horizon line low. To emphasize the foreground, keep the line high.

Wild flowers can be tricky subjects to photograph, due to their usual embodiment of an array of colors. Some experimentation with different types of films and filters may be required.

For "foliage" — a cluster of flower blossoms, tree leaves and branches — a K2 Yellow filter will give improved contrast. As already stated, an X1 Light Green filter will make green leaves appear lighter in color tone, if that is the effect desired.

If the flower blossoms are red, bronze or orange in color, and you want them to register in lighter color tones and show more detail on the film, use a 25A Medium Red filter.

Experiment, and at the first indication of chalky highlights in your finished pictures change to less dense filters.

If possible, work from a low tripod when photographing flowers. Also use the smallest possible shutter aperture, consistent with light conditions, for the maximum depth of field (sharpness). Consider existing background before snapping the picture, a different shooting angle might be advantageous.

Portraits made close-up and against a background of open sky are no problem if you combine panchromatic film with an X1 Light Green filter for good rendition of flesh tones. If the subject is freckled, the skin spots can be slightly minimized through the use of a K2 Yellow or 15G Orange filter. To accentuate them, use the X1 Light Green filter with pan film.

The same green filter will make a pretty girl's red painted lips appear in strong color tone, whereas the use of a 25A Red filter would make them appear "washed out" or colorless.

A K2 Yellow filter tends to sharpen up the texture of clothing and give good tone values in outdoor close-ups of people.

Filters can be combined with equally inexpensive portrait lenses, in dual retaining rings, for really close-up shots.

Marine subjects offer many opportunities for good pictures. But, besides protecting your camera from possible water damage, you must remember that open water reflects a lot of light that ruins many other otherwise good photographs by causing overexposure.

A good idea when taking beach or marine pictures on a bright day is to reduce your shutter opening one stop from normal. Where a filter is used, you might even use normal exposure without compensating for the filter, as with a K2 Yellow.

Also remember to keep your horizon line level in the viewfinder and your shutter speeds relatively fast.

What do famous photographers think of the use of filters?

Ozzie Sweet works a K2 Yellow

(Continued from Page 41)
If you don’t mind getting wet, or meeting up with snakes and ‘gators, try your sportsman’s luck at

HAND HUNTING FROGS

By MAX HUMM

Most frog hunters use gigs to garner a sackful during a night’s outing, but not Gayle Finley, wife of the owner of the Izaak Walton lodge at Yankeetown, Fla., who thinks nothing of collecting a sackful in a couple of hours with some highly unorthodox hunting. She catches her frog leg dinners by grabbing them by hand instead of using a gig. And she’s highly successful.

The former CAP pilot and daughter of a U.S. Army family, with her husband operates the hunting and fishing lodge on the banks of the picturesque Withlacoochee river on the Florida Gulf coast. And when she decides to serve fresh frog legs in the lodge’s American plan dining room, she inviegles her husband, Bud, into operating the boat for her on a moonless night. Both wear head lights, and they’re so expert they can spot the eyes of a frog across the broad river.

Cruising slowly up the bank in a fishing skiff, they pick up the frogs with their headlights, and while Bud holds the frog immobile in the glare of his lamp, Gayle scrambles ashore—water moccasins and alligators notwithstanding—and grabs Mr. Jumper. However, the slightest loud noise or shift of the light and the bullfrog takes off for parts unknown. It’s far more difficult than it appears.

Bud talked Gayle into going frogging one night, and now he wishes he hadn’t, for she’s taken to the sport so enthusiastically that she’ll go frogging any night, or night after night.

And it was a good thing she likes to hand hunt frogs when the Florida Outdoor Writers’ Association held a convention at Yankeetown. A frog jumping contest was placed on the program, and Gayle volunteered to collect the jumpers.

“I knew we’d be terribly busy when the convention opened,” she recalls “and I wanted to get a good night’s sleep just before opening day.

“I thought I’d be smart and collect the frogs two nights before. I caught the frogs all right, but they got away from the wire cage I left them in. So the night before the convention, I was busy hunting frogs again.

Frogs don’t sit out in the open, and when Gayle Finley has to crawl under over hanging brush in order to grab her prize.

This three foot ‘gator wasn’t too happy to have Gayle intrude upon his hunting preserve during a frogging expedition.

This husky frog will make excellent frog legs soon. Gayle Finley has captured him by hand instead of with the usual gig.

Got one!—Gayle Finley grabs up a huge bullfrog just before he tried to make his big leap away to safer territory.

FLORIDA WILDLIFE

JULY, 1961
By George Crowley

Barkless, Dogs

It's a Far Cry from Africa to a modern U.S. home but the true story about a Basenji puppy begins with the gap between the two. A Basenji is often called the barkless dog of Africa, and it's true that dogs of this breed cannot bark. But they are not entirely soundless, as an American couple discovered several years ago. Actually, the Basenji makes some rather peculiar noises, something between a yodel and an out-of-tune violin.

Back in 1954 a New York state couple bought a cute Basenji puppy, a brown and white, short-haired fellow with a curled tail and deeply furrowed forehead which gives the breed its characteristic frown. He was so well behaved that they thought it quite safe to go out to dinner one night and leave the puppy in their car while they ate.

As they were driving home they heard the sounds of police sirens getting louder and louder. On approaching their home they realized, with shocked amazement, that the patrol cars were coming from all directions and stopping in front of their house. The couple inside and found the place full of cops with drawn guns, about to arrest a puppy with the puppy greeting one and all in a most friendly manner. The only thing the police could find was that the telephone had been disconnected off the book, and this helped them reconstruct the “crime.” The puppy had become bored and lonely, and had entertained himself by tearing up a few magazines, then had yanked the phone off its table. The telephone operator told the rest of the story: “When I heard that loud, un-earthly cries I was sure a maniac was on the loose, I called the police.”

Barkless to be sure, but don't let anyone tell you the Basenji is a silent breed!

Eye Color Important

No point in the standards of perfection drawn up for the various breeds of pure-bred canines is apt to challenge a judge's attention more sharply, when he scrutinizes an individual dog, than the shape, placement, and especially the color of the dog's eyes.

Thus it is well for anyone, before setting out to choose a dog to check what the standard says about “eyes” for the breed in which the prospective buyer is interested.

The dog may never be scheduled to compete in the show ring under an official judge; but since the price may be affected the buyer does well to know the specification for bargaining purposes at least.

Dish Trial News Notes

The Bill Williams Field Trial Grounds at the Cecil Webb Game Management Area will be one of the finest in the nation when present plans are completed, according to county agent, N. H. McQueen.

Hoyt Carlton, agent for the State Game and Fresh Water Fish Commission is supervising the construction of an elaborate lodge building which will be used as field trial headquarters and also for wildlife and recreational events. A huge lodge room with rustic fireplace, kitchen, restrooms and office will be the main building.

Recently completed is a stable for 25 horses, which are used in the dog field trials. Also finished in the past year is a kennel which will house 150 dogs.

The trial grounds now hosts at least five dog trials a year.

News From NFARC

Our sincere congratulations to the North Florida Amateur Retriever Club, directors and officers, and of course, the field trial committee for staging a wonderful and successful Inaugural Field Trial at Jacksonville in April. It was evident to those who attended that the Jacksonville members spared no expense or effort to make the inaugural trial a banner event.

Directors of the NFARC, and the field trial committee held a meeting and adopted the following changes. At all future NFARC club practice trials the open stake shall be changed to an amateur all age stake. No professional trainer or handler shall be able to enter and run in competition at any club practice trial, nothing herein will prohibit such professional trainer or handler from entering any stake of the trial however dogs handled will not receive awards or club points. In essence, the club trials are amateur trials for amateurs, however, the NFARC will welcome and invite professionals to compete but fee awards are for amateur dogs and handlers. Nothing in this standard shall apply insofar as any AKC licensed or sanctioned event is concerned.

Jacksonville Field Trial Results

North Florida Amateur Retriever Club

<table>
<thead>
<tr>
<th>DOG</th>
<th>BREED</th>
<th>OWNER</th>
<th>ADDRESS</th>
</tr>
</thead>
</table>
| Puppy Stake-7 Entries - Judges: Arlene Otto, John Clifton
1. Mike's Mod Chick Chesapeake F Mike Chovan        Pensacola  FL 32504
2. Aka Black Jack Chesapeake M Mike Chovan        Pensacola  FL 32504
3. Bags Chesapeake F Mike Chovan        Pensacola  FL 32504
4. Red's Cascade Rip Chesapeake M Mike Chovan        Pensacola  FL 32504
5. Calico Gal Chesapeake F Mike Chovan        Pensacola  FL 32504
| Derby Stake-11 Entries - Judges: Pete Garth, Dick Cheves
1. Brittaque Jase Jai Labrador M Joe Norton        Jacksonville  FL 32203
2. Longleaf Stripe Labrador M Joe Norton        Jacksonville  FL 32203
3. Pottburl Lab Labrador M Joe Norton        Jacksonville  FL 32203
4. Black Boy Labrador M Joe Norton        Jacksonville  FL 32203
5. Kenny's Cozy Labrador M Joe Norton        Jacksonville  FL 32203
6. CM Jon's Jassie Labrador M Joe Norton        Jacksonville  FL 32203
| Qualifying-14 Entries - Judges: Pete Garth, Dick Cheves
1. Mallard of Devils Garden Chesapeake M Dick Johnson       Tallahassee  FL 32301
2. Glenfield Slot Chesapeake M Dick Johnson       Tallahassee  FL 32301
3. Saturday Night Sport Labrador M Dick Johnson       Tallahassee  FL 32301
4. Northland Labrador M Dick Johnson       Tallahassee  FL 32301
5. Big Man Labrador M Joe Norton        Jacksonville  FL 32203
6. CM Charlie's Laboratory Labrador M Joe Norton        Jacksonville  FL 32203
| Open-9 Entries - Judges: Pete Garth, Jim Lumpkins
1. Golddie Labrador M Joe Norton        Jacksonville  FL 32203
2. Saturday Night Sport Labrador M Joe Norton        Jacksonville  FL 32203
3. Zara Labrador M Joe Norton        Jacksonville  FL 32203
4. Mallard Chesapeake M Joe Norton        Jacksonville  FL 32203
5. Red River Dartie Labrador M Joe Norton        Jacksonville  FL 32203
6. Chat's Charriss Labrador M Joe Norton        Jacksonville  FL 32203
7. CM Pottburl Labrador M Joe Norton        Jacksonville  FL 32203
8. CM Black Duke Labrador M Joe Norton        Jacksonville  FL 32203
| Hunter Special-5 Entries - Judges: Jim Rentz, Arden Otto
1. Sport Labrador M Joe Norton        Jacksonville  FL 32203
2. Beacon Dan Labrador M Joe Norton        Jacksonville  FL 32203
3. Red's Cascade Labrador M Joe Norton        Jacksonville  FL 32203
4. Black Boy Labrador M Joe Norton        Jacksonville  FL 32203
5. Shawn's Fettete Labrador M Joe Norton        Jacksonville  FL 32203

JULY, 1961
For fishermen, hunters and campers who desire a pictorial record of their trips, but are reluctant to use expensive camera under equipment-risk (camera with complicated camera adjustments, certain of the simple cameras in the Kodak line are made for this purpose.

Of recent months, FWFT&T has been field testing two cameras—the Brownie Stromatic Camera and the Brownie Twin 20 Camera, with very satisfactory results. Either of the two will produce quality black and white color photographs for the average person-user. The Brownie Stromatic Camera has a built-in light meter that automatically opens or closes down the camera shutter’s diaphragm in such a way that the exact amount of light is admitted to the film for correct exposure when making daytime pictures. For flash, manual control setting is required. The light meter flashes a warning in the viewfinder when existing light conditions need extra flash illumination.

The Stromatic makes 12 negatives on 1 1/2 x 2-inch film, black and white or color. Modern photofinishing gives you prints enlarged to 3 1/2 x 5-inch. This line can also be made. (Use Kodakolor Film when prints are desired. Ektamatic Film for slides in the Stromatic and Twin 20, however, is necessary.)

The Stromatic’s 1/8 lens is pre-focused and takes sharp pictures from four feet to infinity without need of adjustment. You can throw an eye-level optical-type viewfinder and shoot! A built-in automatic self-timer prevents any possibility of making a double exposure on a time frame of the Brownie Stromatic Camera. A plastic base with metal trim and comes with a neck strap. An Ektamatic Flashholder can be quickly attached to the camera. List price of the camera without flash unit or cover is now only $10.00.

The Brownie Twin 20 Camera is a bit larger, in that it has both waist and eye-level viewfinders. You get 12 large 2 1/4 x 2 1/4 negatives, printing average accomplished by choosing successive landmark points in line with the intended direction of travel, and walking to each.

Shot Model 9’s “Cruiser” wrist-worn style compass is orienteering type, induction dampened and features a very stable needle, free from excessive swaying on its sapphire jewel bearing. The face markings on the dial are graduated from 0 to 360 degrees, and are coated with luminous paint point for night reading of the instrument.

A long leather wrist strap adjusts so that the compass can be worn directly on the wrist or over layers of clothing.

Built for the use of boaters, the “Aye- Eye” is a “personal windshied” designed to protectHX tipnus from sun, wind and rain. It can be worn over regular sunglasses. Adopt my grinder’s mask but everyone seems to get an idea from my suggestion and I keep hearing from people who have gadgets of their own.

A slick idea for eye protection is the “Aye- Eye personal windshied” which was being manufactured before my deathless prose about the grinder’s mask. The shield, made by the Alfonso Company, 143 East State Street, Trenton, New Jersey, costs $3.58 and you can get it either tinted or clear plastic. This gadget is a good one, but in eye glasses and it is shatterproof, light weight and non-fogging. Somebody put a lot of thought into its construction.

It was designed for boaters.

Fish Out of Water

I hear too much about how bluefish will jump off a boat deck and take your thumb off and how a boat on Carracuda will chase you over the side.

The question is not whether these toothy rascals can bite you but whether they deliberately declare war after being taken out of the drink.

Most fish experts say the snapping bit is simply reflex although some fish out of water will bite anything that moves. Most land fish are engaged in simply doing what they do—bumping and snipping.

filter hard in his black and white filming of outdoor subjects, but says he seldom uses a filter when shooting outdoors in color.

Andreas Feininger, another internationally known photographer, also likes the K2 Yellow filter for most outdoor pictures. He says, “The surest way to improve tone quality of your outdoor pictures is to use a Yellow filter in combination with a less shade. The difference is enormous, the cost negligible.”

Jack Swensening, Florida West Coast professional who has probably made more Florida-scene photographs than any other resident photographer, says “Orange for outdoor work in black and white.”

Max Hush, Miami photo-journalist, uses various filters most dramatically. He is especially noted for his colored scenes, made with infrared film and proper filter.

Jack Derrald, photographer for NORTH CAROLINA WILDLIFE, says “Filters are among a photographer’s best friends, no matter how you evaluate them.”

FLORIDA WILDLIFE

JULY, 1961

Huntsman” took time to write in to say:

“...I was just about to quit when I was awakened and I was able to get him out of the...”
Muzzle Flashes

By EDMUND MCLARIN

Ventilated rib on a Winchester Model 12 shotgun. Note the spaced rib supports which require special soldering.

A shotgun with a ventilated rib is not a job for the average home workshop mechanic, no matter how expert he can solder or weld. There are a number of firms that do this type of gunsmithing, and some of the work they turn out is very good.

For durability, a rib must be strong enough to withstand the inadvertent bumps that seem to be the lot of all shotguns. Solder used to fasten the rib’s supports to the shotgun’s barrel must also be strong enough.

Soldered sections of the rib tend to create a narrow, well-defined, single sighting plane from breech to muzzle. Any twist, dent or high spot constitutes a defect and a likely distraction to the aiming eye.

For durability, a rib must be strong enough to withstand the inadvertent bumps that seem to be the lot of all shotguns. For my money, I prefer that my ventilated rib installations be done by Simmons Gun Specialties, Inc., 904 East 18th Street, Kansas City 8, Missouri. Back in 1943, I sent Ernie Simmons two (now obsolete) Remington Model 31 pump-action shotguns for ventilated rib installations. They are just as good today as when installed.

To be of any value to the shooter, a ventilated rib put on a shotgun has to provide a perfect, straight line sighting plane from breech to muzzle. Any twist, dent or high spot constitutes a defect and a likely distraction to the aiming eye.

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To be of any value to the shooter, a ventilated rib put on a shotgun has to provide a perfect, straight line sighting plane from breech to

Technically, there are supplementary considerations.

Although usually aware of the importance of proper gunstock fit, few shooters take into consideration the possible effect of barrel rib pitch. A shotgun with excessive rib pitch will shoot too high. Where there is not enough rib pitch the gun will shoot too low.

Usually stock fit and rib pitch are correctly combined when the tip of a forefinger placed over the top of the rear end of the rib of a shoulder-dered, aimed gun permits the front sight to be just clearly seen over the fingertip. So seen, the aiming eye is about right in relation to barrel pointing plane.

Desirably, targets shot at should be clearly seen above a shotgun’s front sight. Clean kills can be expected only when the stock fit and rib pitch are correct for your physique and aiming method.

That rib pitch cannot be discounted can be realized from the fact that a shotgun with excessive rib pitch will shoot high regardless of stock dimensions at comb and heel.

Installing a ventilated rib on a shotgun is not a job for the average home workshop mechanic, no matter how expert he can solder or weld. There are a number of firms that do this type of gunsmithing, and some of the work they turn out is very good.

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