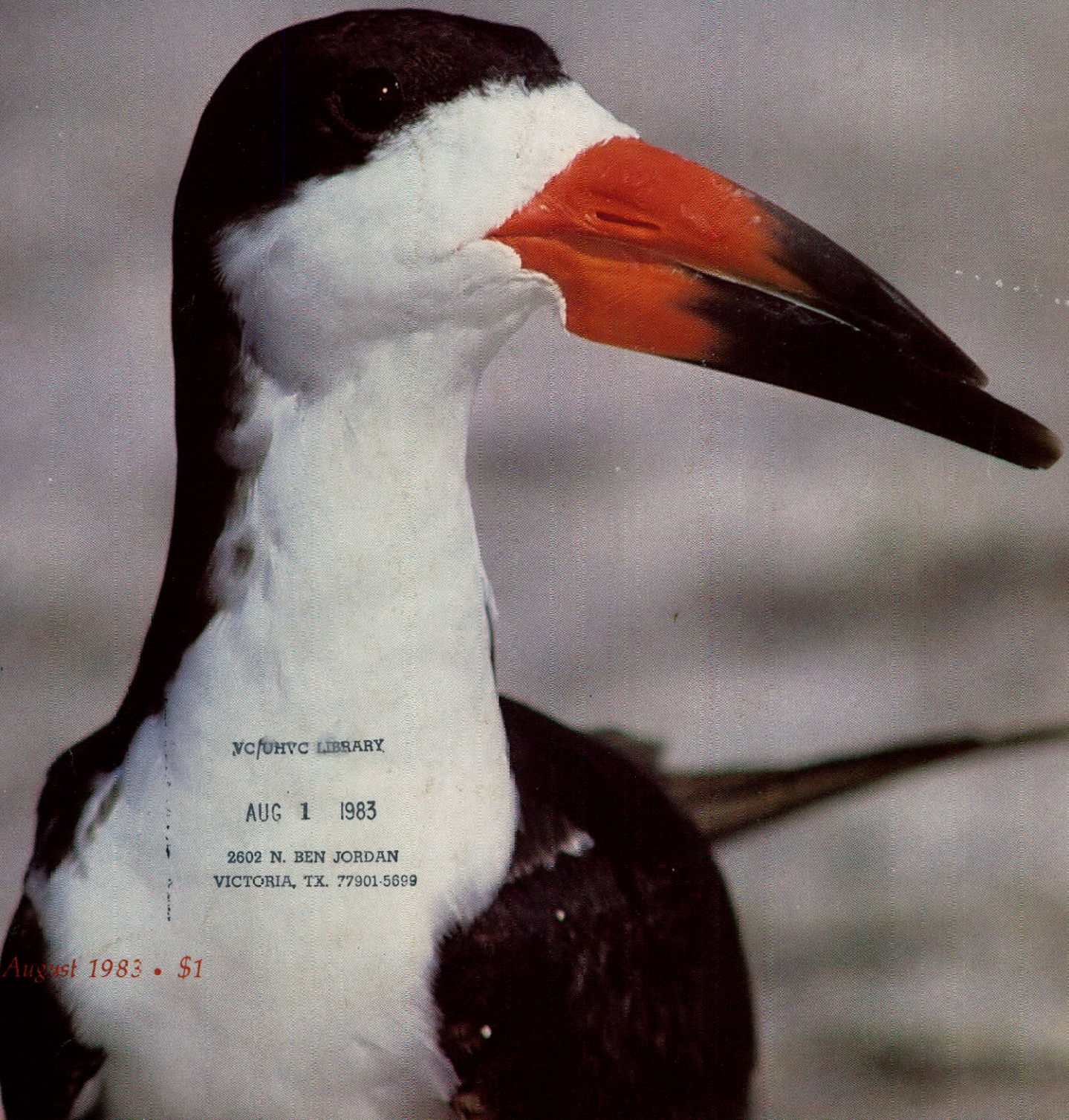


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# TEXAS

## PARKS & WILDLIFE



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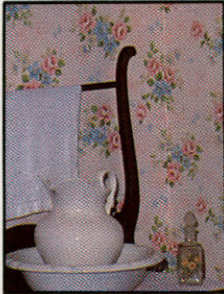
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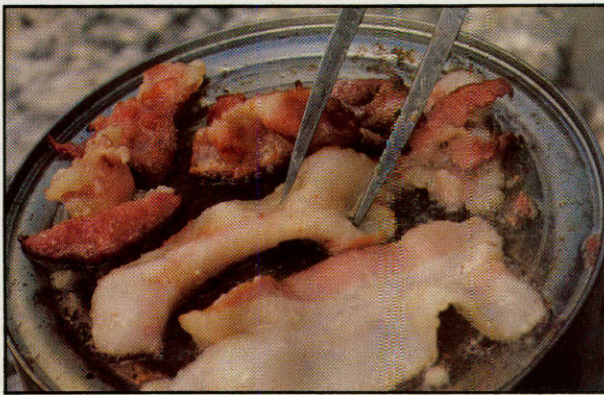
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**Front Cover:** Its flat, knifelike bill gives the black skimmer the most unusual feeding method of all Texas birds. (See story on page 14.) Photo by Glen Mills.

**Inside Front:** There was a time when almost every kid in Texas collected horned lizards on Saturday morning. But commercial exploitation and pesticides have reduced these gentle little reptiles' numbers to the point that they seldom are seen anymore. Horned lizards are now protected and collecting them is against the law. Photo by Wyman P. Meinzer Jr



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GOVERNOR OF TEXAS  
Mark White

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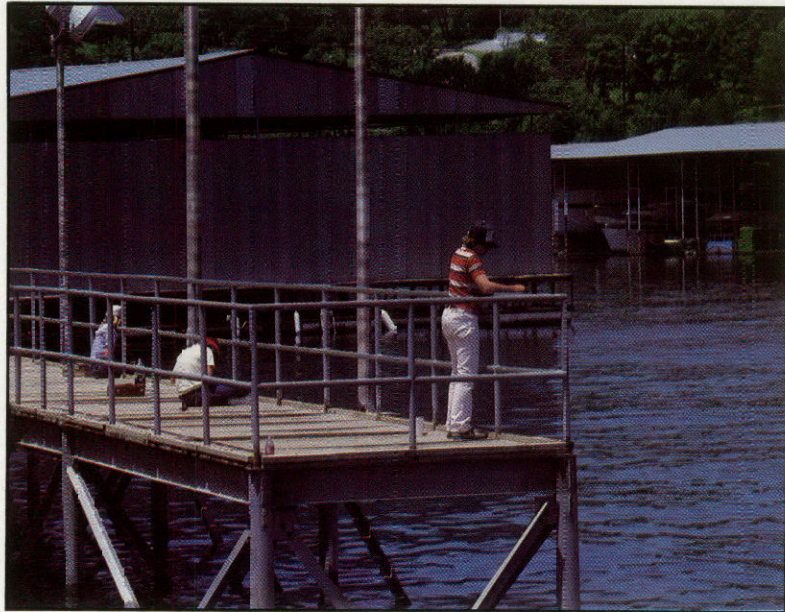
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## MAGAZINE (ISSN 0040-4586)

Dedicated to the conservation and enjoyment of Texas wildlife, parks, waters and all outdoors.

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# Eisenhower State Park On the Shores of Texoma

Article by Mary-Love Bigony and Photos by Glen Mills

**Up where** the Red River forms Texas' ragged northern border, two distinctly different state parks pay tribute to the 34th president of the United States. Dwight D. Eisenhower, born in Denison on October 14, 1890, left Texas with his family when he was only a few months old. But until 1963, Eisenhower was the only Texas-born U.S. president, and he remains one of only two chief executives with beginnings in the Lone Star State.

Eisenhower has not been forgotten in this area of North Texas. The two-story frame house in which he was born has been restored and furnished to reflect its appearance in the 1890s. And northwest of Denison, a recreational park on the shores of sprawling Lake Texoma bears the former president's name.

Lake Texoma is the focal point of Eisenhower State Recreation Area, with its steep cliffs, dramatic rocky bluffs and seemingly endless capacity to accommodate anglers and boaters. This huge reservoir, 40 miles long and covering 95,000 acres, was built

in 1943 by damming the Red River a few miles north of Denison. The park was authorized by the legislature in 1947, and the name selected to honor the renowned World War II general. By the time land for the park was acquired in 1954, Eisenhower was president of the United States.

Many of the people who visit Eisenhower come to fish, boat or water-ski on Lake Texoma. Fishing can be good all year for black bass, perch and catfish, and anglers frequently reel in white bass and stripers. Four fishing piers, including a lighted one, are scattered throughout the park, making them accessible to all the campgrounds. The fish-cleaning shelter equipped with running water and electricity gets a lot of use, testifying to the fishing success that can be had on Lake Texoma. A boat-launching ramp is located between two of the campgrounds in one of the lake's many coves.

But you don't have to have a boat or fishing tackle to enjoy Eisenhower. Campgrounds are set on rolling hills

covered with woodlands of oak, elm, ash and other hardwoods. Lake Texoma sparkles through the trees at many locations throughout the park as a scenic accessory to camping and picnicking. Campsites are shady and secluded, thanks to the trees and other vegetation. Many of the screened shelters, which will accommodate up to eight people, are near Texoma's steep shoreline and overlook the lake. In addition to individual campsites for tents and recreational vehicles, the Cedar Hollow rally area has 37 sites arranged in a group. An open-air pavilion is adjacent to the rally area. It is lighted and accessible to the handicapped and contains picnic tables and two grills.

Eisenhower's large recreation hall is a popular building and must be reserved well in advance. But groups

**Boaters who take off from Eisenhower State Park's launching ramp find themselves on 95,000-acre Lake Texoma. Four fishing piers scattered throughout the park make the lake's bass, perch and catfish available to all anglers.**



will find it worth the planning necessary to reserve this building. The hall is equipped with central air conditioning and heat, and has 10 tables, 100 chairs, a refrigerator, stove and serving counter. An amphitheater and barbecue pit are adjacent to the building. It may be rented from 8 a.m. to 10 p.m. for up to 100 people, or overnight for up to 48 people. Contact the park for rates.

One of the best ways to see and appreciate Eisenhower's scenery is from the 4.2-mile hiking trail that

runs the length of the park. The trail takes hikers through craggy ravines and grasslands and along the lakeshore. A walk along any part of the trail offers a good chance to see some of the park's wildlife. Cottontails and fox squirrels are abundant; white-tailed deer and raccoons also can be seen from time to time. Birds that are frequently seen or heard include the Carolina chickadee, tufted titmouse, mourning dove, bobwhite and red-tailed hawk. Hikers can pick up the trail at several points

in the park, since it passes through all the campgrounds and picnic areas and crosses the road at several points.

The Eisenhower Yacht Club, a privately operated concession, makes Eisenhower unique among state parks. The marina provides sheltered spaces for several hundred boats, most of which belong to people from the Dallas-Fort Worth area. It handles limited camping and fishing supplies, soft drinks, prepackaged snacks, crushed ice, boat gasoline and oil.

Because most of Lake Texoma's

### Eisenhower State Recreation Area

**Location:** Grayson County, five miles northwest from Denison on Texas 75A to FM 1310, then west on FM 1310 for 1.8 miles to Park Road 20 entrance. Also, approximately 75 miles north of Dallas on US 75.

**Facilities:** 41 picnic sites; 48 campsites with water; 45 campsites with water and electricity; 50 campsites with water, sewer and electricity; 35 shelters; group facility; 2 sanitary dump stations; 6 restrooms, 4 with showers, 2 without showers; fish-cleaning facility; launching ramp; 4 fishing piers; playgrounds; minibike area.

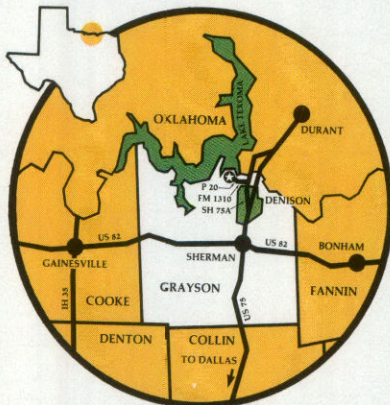
**For information or reservations:** call 214-465-1956 or write Eisenhower State Recreation Area, Route 2, Box 50K, Denison 75020.

### Eisenhower Birthplace State Historic Site

**Location:** 208 East Day, Denison 75020.

**Hours and fees:** 10 a.m. to 5 p.m. daily September through May; 8 a.m. to 5 p.m. daily June through August; closed noon to 1 p.m. Adults 50 cents, children 6 to 12, 25 cents.

**For information:** call 214-465-8908



shoreline is steep, swimming is limited in the park. An unsupervised beach near the Elm Point campground can be reached by a short hike down an incline, and swimmers are urged to use caution because of underwater hazards such as submerged logs and rocks.

Eisenhower is within 100 miles of the Dallas-Fort Worth area, and stays busy most weekends during the warm months. Reservations are essential for the overnight facilities. People who can work a camping trip into their schedules during the week will find the park far less crowded.

No account of Eisenhower State Recreation Area would be complete without a short discussion of this area's history. Some 100 million years ago, during the Cretaceous period, this region was covered by a huge, shallow sea that spread across much of what is now North America. Limestone and clay were deposited during that time, and now outcrop in horizontal layers. Marine fossils of mollusks that inhabited the sea are still being found in the park. One of the most common is the ammonite, a relative of the octopus that lived in a coiled shell.

In more recent times, the Red River brought French traders and trappers to the region in the 18th century. In 1837, Holland Coffee established an Indian trading post on the river at Preston Bend, a town that was inundated when Lake Texoma was built. In the mid-19th century steamboats moved along the Red River. Denison was established in 1858 as a stage stop where the Butterfield overland stage route crossed the river. Outlaws such as Belle Starr, Cole Younger and the James Brothers are said to have wandered in and out of the area. Railroads were constructed in the 1870s and 1880s and Denison became the site of the state's first electric railway in 1896.

A trip to the Denison area should include a stop at the home where

**Rolling hills and woodlands of oak, elm and ash are a literal stone's throw from the glimmering lake. There are some ideal settings for picnics and some shady spots to get ready for another fishing trip.**



Dwight D. Eisenhower's life began. The inviting white frame house sits on a huge lawn landscaped with plants such as holly and honeysuckle. A larger-than-life statue of Eisenhower dressed in a field jacket greets visitors. "This memorial is dedicated to young people everywhere that they may be inspired to greatness by the example of our most distinguished son," reads the inscription on the base of the statue.

It was through the determination and work of Miss Jennie Jackson, a Denison schoolteacher, that Eisenhower's birthplace was recognized and restored. When General Eisenhower gained national recognition

during World War II, Miss Jackson recalled that she used to rock an Eisenhower baby when a family of that name lived in a house on Day Street in Denison. She wrote to the general overseas to ask if he had been born in Denison. The general wrote back that he didn't know — as a cadet at West Point he had given his birthplace as Tyler, Texas. Miss Jackson then wrote to the general's mother in Abilene, Kansas, who confirmed that he was indeed born in Denison.

Miss Jackson got to work. By stressing the importance of preserving the birthplace of this notable American, she managed to interest a group of



A statue of the 34th president stands sentinel at the house in Denison where Dwight D. Eisenhower was born (above). The future president was born in the bedroom pictured on the opposite page. The quilt belonged to the Eisenhower family.

citizens in obtaining and preserving the house. This group bought the house and deeded it to the City of Denison. In 1953 the city deeded the house to the newly formed Eisenhower Birthplace Foundation, which bought all the surrounding houses and had them moved. The foundation also put out a call for items with which to furnish the house to create an 1890s atmosphere. In 1958 the house and surrounding property were turned over to the State Parks Board.

Furnishings in the Eisenhower Birthplace have come from many parts of the country. People have donated





furniture and household items used at the turn of the century, often in memory of family members in whose homes the things had been. A quilt in the bedroom where the future president was born is the only item that actually was used by the Eisenhower family. Other authentic pieces of that period were gifts from various people. They include a wicker baby carriage, sewing machine, wash bowl, 115-year-old calendar clock made in Connecticut, 100-year old mustache cup and kitchen tools typical of that time, as well as some impressive pieces of antique furniture. Vegetables on the kitchen shelf were canned at the Sauer-Beckman living

history farm in LBJ State Park, which portrays the early 20th century.

The house also displays personal photos of the Eisenhower family: the first known picture of Dwight Eisenhower, one of the first photos made after his inauguration that he autographed for the birthplace, a picture of President and Mrs. Eisenhower at Gettysburg on their 50th wedding anniversary in 1966 and the Eisenhowers and their grandchildren. There also is a painting done by Eisenhower in 1950.

A crank-type telephone in the hallway delivers a message from the president urging the listener to "pause to contemplate for a moment

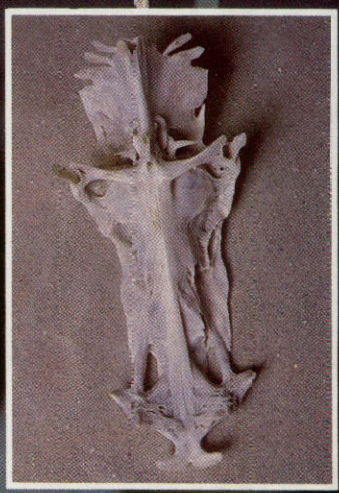
the history of this great State of Texas and its importance to our great country." He recorded it for the birthplace in 1952. A bust of Eisenhower presented to the birthplace by Sid Richardson sits near the telephone.

This white frame house is a tribute not only to the 34th president, but to people such as Jennie Jackson who have made sure many of this country's old homes continue to be part of today's cities. The Eisenhower birthplace provides a realistic glimpse into a turn of the century home, and illustrates the fact that this country's leaders often come from modest beginnings. \*\*





Gafftopsail Catfish  
**Crucifix fish**



by A. W. Moffett,  
Environmental Biologist

**Among fish**, the marine gafftopsail catfish, *Bagre marinus*, is something of an oddity.

If you get a chance to examine the dried skull of a gafftopsail, often found along shores or lying on beaches, you will find bones on the underside that resemble a man's figure stretched out on a cross. Because of this, some people call it the crucifix fish. Actually, the crossed bones were the supporting bones of the skull's base.

Turn the skull over and you will see bones that look like the robes of a monk. These were the hard plate bones that protected the fish's brain. Another bone is believed to symbolize the breastplate of a Roman soldier. This breastplate bone fastened strong neck muscles that gave the live fish its powerful swimming ability. The bone also protected the muscles that raised and lowered the tall dorsal fin, known as the gaff-topsail fin.

And what is a gaff-topsail? It's a boat's triangular topsail with its foot extended upon the gaff (spar) and its luff upon the topmast. Apparently this marine catfish is appropriately named because it does indeed raise a tall sail-like dorsal fin. I have seen these fins break the surface of Galveston Bay even though the fish seem to spend most of their time seeking food near the bottom.

Pioneers in the field of fish science have devoted years to the study of the gafftopsail catfish. Although many questions remain to be answered, much has been learned about the nature of this species.

Dr. Eugene Gudger was the first to watch gafftopsails feed. His observations were based on experiments in aquaria at the American Museum of Natural History. To find food, even when swimming fast, Gudger's fish would dangle their barbels near bottom. When one of these sensitive organs touched a suitable food item, the catfish would stop and snatch the morsel into its mouth before swimming off.

To my knowledge, no one has observed gafftopsails feeding in nature, since they frequent muddy bays and

deeper waters off the Gulf and South Atlantic where it is difficult to see. In fact, their favorite feeding grounds are bay mud flats covered with shallow water. There they find an abundance of their preferred foodstuffs: blue crabs and shrimp. But they are not particular. Biologists have found marine worms, aquatic plants, barnacles, croakers, anchovies, menhaden and other catfish in their stomachs.

Generally, gafftopsail catfish spawn in coastal bays during springtime. Spawning, however, can be delayed if the bays are overly salty or if the spring warming is late.



Glen Mills

**Crossed bones on the underside of the gafftopsail's skull (opposite page) resemble a man's figure on a cross, thus the name crucifix fish. Gafftopsails are mouth-breeders. The males incubate 10 to 30 developing eggs (above) in their mouths for two months.**

After spawning, rearing begins, a critical period in the life of all fish when the eggs hatch and develop into small fish. But early researchers could find no factual information on rearing habits of the gafftopsail. In fact, they could not find the eggs or young free in nature. This, no doubt, was puzzling since the eggs of the gafftopsail, three fifths to one inch in diameter, are among the largest fish eggs in the world. So, in the early 1900s, Dr. Gudger launched a full-scale study to resolve this mystery.

The next summer he and some friends discovered the truth when they netted a school of large gafftopsails near Beaufort, North Carolina. From this catch they learned that the remarkable gafftopsail carried

egg protection to its highest degree. Each adult male was sheltering and incubating 10 to 30 developing eggs in his mouth. Of all things, the gafftopsail catfish turned out to be a mouth-breeder.

Today we know that protection of the eggs and hatchlings by mouth breeding is practiced by many species of saltwater catfish all over the world. Immediately after the female lays the eggs, the male gathers them into his large mouth where they remain for nearly two months. Meanwhile, the embryos are nourished by the yolk in the eggs. The male must maintain a stream of water running into his mouth, over the eggs and out through the gill openings. Apparently, this keeps the eggs clean and insures aeration at the same time.

Since the male cannot feed with a mouth full of marble-sized eggs, he is not apt to be caught by a sportfisherman while carrying the eggs. By the time the three-inch hatchlings are finally released, the father is nearly emaciated. But, at last he can feed.

The liberated fry grow rapidly in Texas bays where they find abundant food. As the bays cool in late fall and winter the young gafftopsails swim to the warmer, deeper waters of the near-shore Gulf and return the following spring as adults.

This fish with its strange anatomy and unusual breeding habits is a powerful fighting fish. Large ones weigh up to six pounds, but some are known to reach nine pounds. Sportfishermen catch most gafftopsail along the South Atlantic and Gulf Coasts but they have been taken north to Massachusetts and south to Panama.

All fishermen should be cautious of gafftopsails since the fish can inflict painful stab wounds with their spines. For safe handling, grasp the fish from the front so the fingers push against the back of the pectoral spines and the front of the erect dorsal spine. In fact, all catfish should be handled in this manner.

Catching gafftopsails can be a lot of fun. In Texas, fish the bays during spring and summer using cut or live bait. For best results fish near the bottom. Gafftopsails put up a good fight and are a fine food fish. \*\*



**Crane, Texas**

*Sullivan '05*

# WHAT'S IN A NAME?

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Article by Gordon Whittington and Illustrations by Andrew Saldaña

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**Is there a state** in which you can find Antelope, Buffalo, Crane, Marlin, Quail, Salmon, Turkey and even White Deer?

Careful now — this question is loaded, and should be considered dangerous. The answer is yes, and the state is Texas.

Every outdoorsman who has spent much time traveling across the Lone Star State probably has noted with curiosity a number of cities and towns with names that appear to have come straight from the pages of hunting and fishing magazines. Travel Interstate 45 from Houston to Dallas, and you're certain to notice the exit leading to Buffalo, in Leon County. Or on U.S. Highway 60 between Amarillo and Pampa in the Panhandle, you'll pass right by the Carson County town of White Deer. Head southeast of Waco on State Highway 6, and you'll go through Marlin, in central Falls County. In fact, if you travel very far down almost any Texas highway, chances are good that you will come to a city or town with a name only an outdoorsman could love.

Finding out just how such names originated has taken a good portion of the last two decades for Dr. Fred Tarpley, a professor in the Department of Languages at East Texas State University in Commerce. A director of the Place Name Survey and a past president

of the American Name Society, he is the state's leading researcher of place-name origins, and author of several books on the subject. After so many hours of looking into the origins of place names in Texas and elsewhere, he has made one great discovery: there is no room in this business for idle speculation.

"You definitely cannot just look at place names and consistently guess their origins," says Dr. Tarpley. "We've found that the only real way to figure them out is through scholarly research. Some of them seem fairly obvious, but when you start digging, you turn up unexpected origins."

The town of Crane, in the county of the same name south of Odessa, is a perfect case in point. Bird hunters from across the nation know that parts of West Texas serve as the winter home for thousands of raucous sandhill cranes, one of the state's most challenging game birds. Why, even the local high school athletic teams are named the Golden Cranes. It would seem logical, then, to assume that the county and the town both were named by 19th-century settlers who found huge concentrations of sandhill cranes there. A perfect example of wildlife leaving a visible mark on the modern world, right?

Well, it makes a good story, but the fact is, Crane



really wasn't named after its birds, but rather, for a man: William Carey Crane, a one-time president of Baylor University, and a staunch supporter of American education. So much for that one.

The stories behind Marlin (Falls County) and Snook (Burlleson) read pretty much the same way. At first glance, any seasoned angler would be tempted to believe the two towns were named after saltwater fishes. It is true that an occasional snook is caught in Texas coastal waters, and a number of marlin have been taken farther offshore. But, when you pull out a map and look over the whole picture, this explanation certainly doesn't hold any water — fresh or salt. Snook is slightly more than 100 miles from the nearest brackish water, Marlin more than 150. Given this, it should come as no real shock to learn that neither town was named after a fish. Marlin honors early leader John Marlin, while Snook pays tribute to Caldwell postmaster J. S. Snook, who lobbied long and hard for a post office in this community near the Brazos.

There are many more Texas place names that can fool the outdoorsman, as well. The old town of Peacock, in Stonewall County, drew its monicker from early merchant J. W. Peacock, not from any colorful bird. Falcon Reservoir, on the Rio Grande near Zapata, was named after the old town of Falcon, which it inundated earlier in this century. However, the town was named after no bird. Instead, it honored Rita Falcon, wife of the man to whom the land was granted more than 200 years ago.

There are many "fish names" that turn out not to be. Pike (Collin County), Trout (Lamar), Bass Hollow (Stephens) and Salmon (Houston) all can be a bit deceiving. Pike seems to have been named for Pike, Kentucky, a town which may or may not have been named for the fish somewhere back there. Trout honored a pioneer family with the same surname, and a similar explanation apparently lies behind the naming of Salmon. Bass Hollow wasn't named for the native largemouths that inhabit streams in that part of the state; rather, it got its name from the fact that notorious 19th-century outlaw Sam Bass and his gang once holed up in the brush and rocks there.

If all of these near misses have you just a bit disappointed in our forefathers, take heart. There still are plenty of place names to go — and a number of them really do owe their origins to wildlife.

For openers, there is Buffalo, in Leon County. Right off, you might figure this to be just another wild goose chase — after all, whoever heard of real buffaloes on the edge of East Texas?

Well, former mayor and noted local historian W. C. Coleman says he has, and folks around there listen to him. "As best we can tell," he says, "the city got its name from the herds of buffaloes (actually bison, but who's being picky) that watered here when the first settlers came in to live."

Armed with this knowledge, we now can proceed to claim that Buffalo Bayou, which flows all the way across Houston, also was named for the thundering herds, right? Wrong, says Dr. Tarpley. "Most of the evidence we have show that the bayou was named not

for the animals, but for the large numbers of buffalo fish caught there," he says. So much for jumping the gun. As cautioned in the beginning, that is a good way to be shot down.

We already have seen that Crane and Peacock are false alarms in West Texas. However, that part of the state boasts at least a couple of spots which aren't: Turkey (Hall County) and Quail (Collingsworth). Turkey originally was known to settlers as Turkey Roost because of the wild turkeys that gathered there, but this name later was shortened to the present one. Quail, a tiny Panhandle town just outside of Wellington, also was named for its bounty of game birds in the early days.

Move eastward, to Jack County south of Wichita Falls, and you find Antelope, which drew its name from the herds of pronghorns which lived there in the first years of settlement. As human activity in North Texas increased, the pronghorns either fled or died out. Hunting and changing land-use patterns forced these animals to find new homes on the range. Today, all Texas pronghorns live considerably farther west, where their numbers have stabilized and they still provide a hunting resource.

Anyone who doubts that Texas pioneers were aware of honeybees probably would reconsider after looking at the number of towns, creeks and other places which note the presence of these social insects. Honey was an important food to settlers when they could get it, and they did just that in such spots as Honey Grove (Fannin County), Bee Cave (Travis) and Bee Creek (Ellis). But, don't get carried away on this one. Beeville, in Bee County, was named after Barnard E. Bee, who founded the upstart Texas Army and later served as treasurer for the Republic of Texas.

With the origins of many of these place names so difficult and time-consuming to ferret out, it is refreshing to find that at least one Texas community — White Deer, in Carson County of the Panhandle — hangs out its history for all to see. For longer than most of today's residents can recall, the city has featured a large statue of a white deer. According to Indian legend, a snow-white deer lived near a creek in the area, and when settlers moved in, they adopted the name for their new town. Today the statue draws attention to the legend, but it also has resulted in an increased bond among townspeople, says city secretary Paulette Craig. "We're awfully proud of our white deer," she claims. "There's no telling how many times we've had to repair and repaint it, because at least once every football season, one of the rival schools we play will sneak into town and paint the deer black, or saw off the antlers and steal them. But we just keep putting the statue back together. We've gotten attached to it, I guess."

In less visible ways, of course, Texans in other such distinctively named places also have become endeared to their pasts. While you won't find statues of animals, fishes or birds in many of these cities and towns, you will find, as Dr. Tarpley and others have learned, a healthy supply of interesting stories. Then, it's just a matter of separating the wheat from the chaff. \*\*





# THEY PLOW THE WAVES

Article by Mary-Love Bigony  
Photos by Glen Mills

**T**o a naturalist there are few more reassuring sounds than the soft barks of a pair or more of black skimmers as they go about their night's fishing . . ." wrote ornithologist Harry C. Oberholser. "As long as skimmers thus bark it is a sign that the world is not yet completely poisoned."

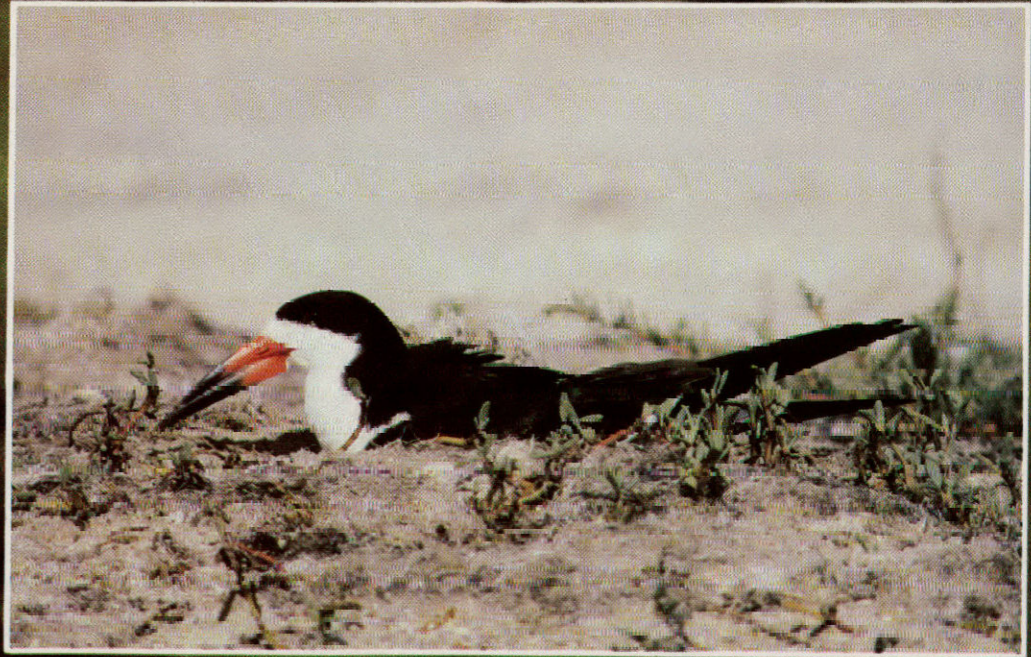
Even in an area as saturated with birdlife as the Texas Coast, black skimmers manage to stand out from the crowd. The barks Oberholser referred to are grating *kak's*, guttural *kuk's* and mellow *kaup's*. They are outrageous looking birds—dignified black and white plumage studded with orange bills, legs and feet that look like they might have been borrowed from some other bird.

The black-tipped bill's flat, knifelike lower mandible juts out past the upper, giving the bird a cocky look but also affording it a feeding method not found among other Texas birds. Like a finely tuned aircraft, the skimmer flies low over the surf and bays, slitting the water with its long lower mandible. It manages to keep about two-thirds of the mandible—no more, no less—in the water at all times. Using its short upper mandible, the bird clamps down on small fish, shrimp and other crustaceans. Then it reskims the same area, possibly catching other organisms that were attracted to the disturbance. Most feeding is done at night, but daytime feeding is not too uncommon. Skimmers are as clumsy on land as they are graceful when gliding over the water.

Skimmers breed in Texas from March to early September. They don't go to much trouble building nests—a scrape in the sand will do (page 17). These colonial nesters are gregarious all year and winter finds them gathering into even larger flocks. Skimmer eggs sport various blotches and splashes (page 18), and the newly hatched chicks' camouflage is nearly impeccable (pages 18 and 19), especially when the little birds flatten themselves against the sand.

Spend a few minutes with the black skimmers and their chicks on the next four pages. And then keep an eye out for them on Texas' sand and seashell beaches for indisputable proof of their contribution to the Gulf Coast ambience.

\*\*







# Outdoor Roundup

COMPILED BY THE  
PARKS AND WILDLIFE  
DEPARTMENT'S NEWS SERVICE

## SNAGGERS CAUGHT WITH 11 PADDLEFISH

Two Dallas men paid \$1,090 in fines in a Sherman justice of the peace court in June after being arrested below the Lake Texoma Dam in possession of 11 paddlefish.

Paddlefish are classified by state law as an endangered species, and are protected statewide.

Texas Parks and Wildlife Department Game Warden Larry Rowe said he observed the men using large weighted treble hooks to snag the fish in the swift tailrace waters below the dam at 3 a.m. June 18. He said the fish ranged in size from 10 to 16 pounds.

Rowe was assisted in the arrest by Mike Gaddis, parks law enforcement officer from near-by Eisenhower State Park. "We

have caught people snagging paddlefish below the dam in the past, but this was by far the most fish involved in any case so far," Rowe said.

Paddlefish are one of the most unusual appearing fish in Texas, with a flat, elongated snout believed to be used for stirring up food organisms from the river bottom. The fish require free-flowing rivers for survival, and are not normally found in reservoirs, biologists said.

## BIGHORN BROOD PEN DEDICATED

Texas Parks and Wildlife Department officials and others interested in the restoration of desert bighorn sheep in West Texas gathered at the Sierra Diablo Wildlife Management Area in Culberson County June 18 to dedicate newly constructed brood pens.

The \$200,000 fencing project was made possible by fund-

raising efforts of the Texas Bighorn Society, a coalition of conservation organizations.

Charles Winkler, the department's big game program director, said the eight-foot fences enclose four 10-acre pens designed to protect the bighorns from predation and provide brood stock for restocking.

Winkler said the compound could accommodate up to 40 sheep and produce 20 animals per year for release. "We have been notified by Nevada game department officials that they will give us as many as 20 surplus bighorns later this summer, which would be a tremendous boost to the program," said Winkler.

He added that negotiations are underway also with Arizona for a possible swap of pronghorn antelope for bighorns. Additional sheep may be obtained from Utah, he said.

## SEPTEMBER IN...

# TEXAS PARKS & WILDLIFE

This year marks the 50th anniversary of the Civilian Conservation Corps, a New Deal recovery program that put thousands of unemployed men to work during the 1930s. In Texas, CCC camps played a big part in shaping the fledgling state park system into significant recreation areas. Articles and photos in the September issue will pay tribute to the CCC men and their work in 34 state parks. Archery deer season gets underway soon, and the Aransas National Wildlife Refuge is open to bowhunters at no charge for nine days, usually the last week of September and the first week of October. Next month we'll offer some tips for bowhunting on the Aransas Refuge. Also in September are stories on the River Recreation Association's cleanup of the Guadalupe River, the John Wilson Redfish Hatchery, a redfish "rescue" at Houston Lighting and Power Company's Cedar Bayou Generating Station and a game warden's experience moving a deer from the city to the country.

## GUADALUPE RIVER PARK OPENED

Officials of the Texas Parks and Wildlife Department have opened Guadalupe River State Park for public visitation.

The park, featuring 1½ miles of frontage on the scenic Guadalupe River, is located 32 miles west of New Braunfels off State Highway 46 in Kendall and Comal Counties.

Officials said a 1,239-acre portion of the park on the south side of the river is open, while an additional 661 acres on the north side will remain closed for approximately a year pending development.

A day-use area along a half-mile section of the river offers 50 picnic sites and ample parking. A 48-unit multi-use camping area with electricity and water can accommodate recreational vehicles and trailers, and another area with 37 sites with drinking water at each site was provided for tent campers. An additional 20 walk-in tent campsites are available.

The standard \$2 per vehicle entry fee is in effect, and fees for camping and other facilities are the same as other parks in the system. Reservations for campsites may be obtained by calling the park superintendent at (512) 438-2656.

## OYSTERMEN REAP RECORD HARVEST

Oystermen along the Texas Gulf Coast harvested an all-time record 6.3 million pounds of oysters during the 1982-83 season.

C. E. Bryan, director of Texas Parks and Wildlife Department shellfish programs, said the estimated \$8.4 million dockside value of the catch also was an all-time high.

Previous high for the six-month oystering season was 1965-66, when 4.9 million pounds were brought in, Bryan

said. The season usually is November 1-April 30 each year.

As in the past, about 80 percent of the Texas oyster harvest occurred in the Galveston Bay system, where placement of clean oyster shell on 700 acres of the bay in July 1980 was believed to be a factor in the good 1982-83 harvest.

Generally favorable environmental conditions on the upper Texas coast since 1978 also enhanced oyster reproduction and survival, Bryan noted.

## BASS MAY BE LARGEST CAUGHT IN WEST TEXAS

An 11-pound, 13-ounce largemouth bass caught from a private lake in Callahan County may be the largest ever taken in West Texas, according to Texas Parks and Wildlife Department biologist Roy Bamberg.

Bamberg said Ed Alford of Abilene caught the fish May 21 on a grape-colored plastic worm.

Bamberg said the landowner stocked the 150-acre lake with Florida largemouth bass upon impoundment seven years ago. "I checked the fish's scales and it was seven years old, so it was one of the original stockers," Bamberg said.

Since the department started introducing Florida-strain bass in Texas waters in the early 1970s, numerous bass over 12 pounds have been caught. However, most have been caught from East Texas reservoirs.

The Callahan County catch was significant, Bamberg believes, because it shows that Florida bass can grow to trophy size in West Texas waters. He said the landowner purchased the bass in Florida and flew them to his ranch.

## FULTON MANSION NOT OPEN YET

Restoration work still is underway at Fulton Mansion State Historic Structure and Texas Parks and Wildlife Department officials say the facility will remain closed to the public until this fall.

Superintendent June Secrist said she has received numerous inquiries from persons anxious to visit the historic house which overlooks Aransas Bay in the City of Fulton.

The stately mansion, formerly the home of entrepreneur George Ware Fulton, was built in 1874-77 and it was a focal point for South Texas social activities during Fulton's lifetime.

Although not yet completed, the department's restoration efforts already have received the Texas Historical Commission's "Texas Award for Historic Preservation."

The mansion, acquired in 1976, is located between Fulton and Rockport on Fulton Beach Road.

## CADDOAN MOUNDS SITE OPENED FOR VISITATION

Caddoan Mounds State Historic Site, featuring a dramatic look at Caddo Indian life around 750 A.D., opened for public visitation June 24.

The site is located off State Highway 21 between Crockett and Alto and has been the center of intensive study by archaeologists who have learned that it was occupied by the Caddos and Archaic and Paleoindian cultures dating back as far as 10,000 B.C.

Caddo Indian life is illustrated in the Interpretive Center with murals and artifacts, and a thatched Caddo House reconstructed with traditional tools and materials.

Hours of operation are 8 a.m. to 5 p.m. Wednesday through Sunday. Group tours are conducted by appointment only.

For further information, contact Park Superintendent, Caddoan Mounds State Historic Site, Rt. 2, Box 85C, Alto, TX 75925, (713) 858-3218.

## LEGISLATION FINALIZED

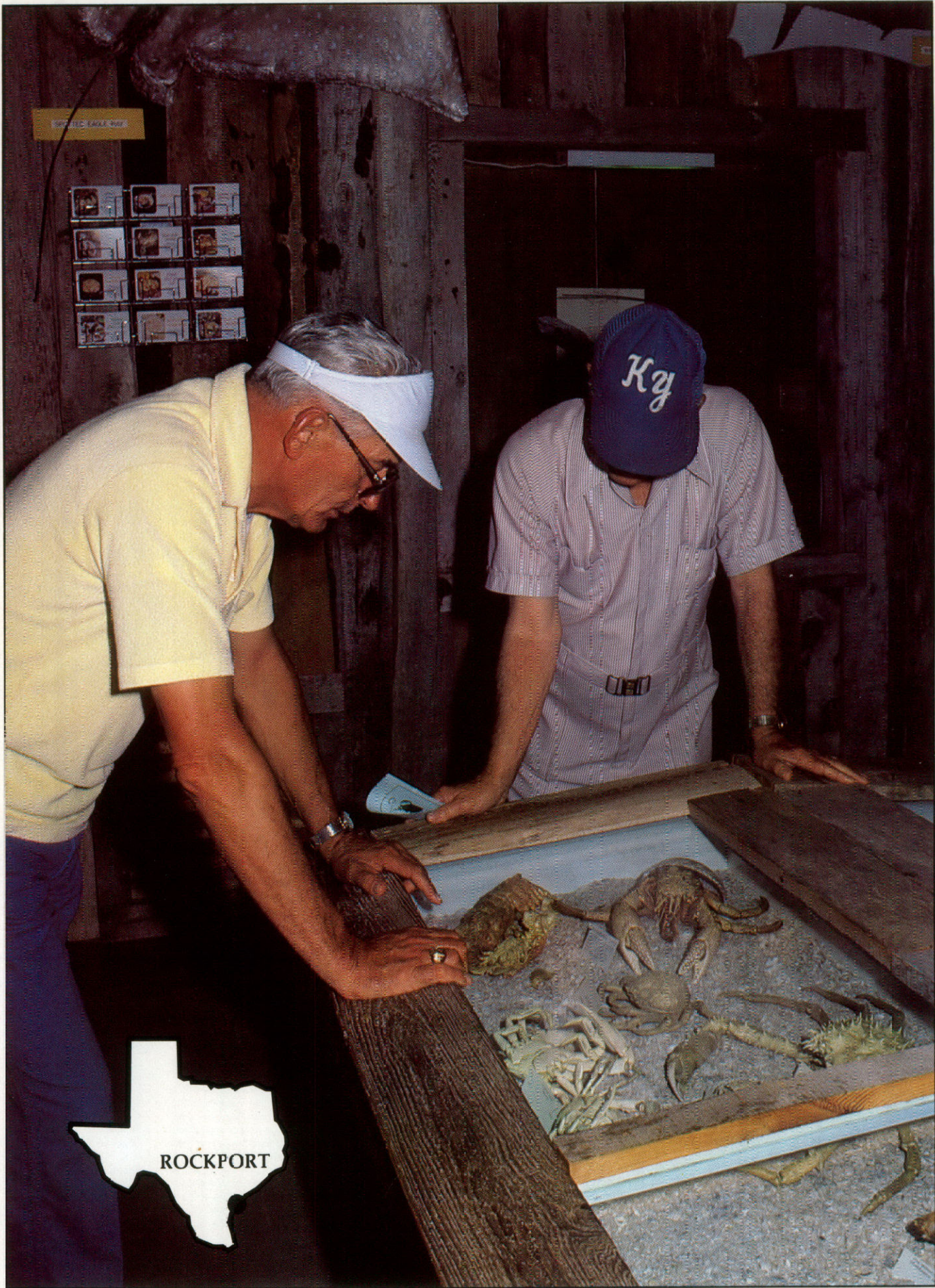
The following is a list of legislative bills affecting department operations or interests which have been passed by the Legislature.

### SENATE BILLS

Bill Number	Author	Effect of Legislation	Status
94	Lyon	Gives the department regulatory authority for management of hunting, fishing and conservation of wildlife resources in Texas counties.	Signed. Effective 8/29/83.
216	Leedom	Increases fees for most licenses sold by the department and delegates to the Commission the authority to increase license fees in the future to cover increased operating costs incurred by the department.	Filed without signature. Effective 9/1/83.
249	Sharp	Clarifies the authority of the department to manage Matagorda Island for wildlife conservation as a wildlife management area in addition to use for state park purposes.	Signed. Effective 4/19/83.
250	Santiesteban	Provides for use of goods and services provided by grazing lease operations on all wildlife management areas and clarifies the language relating to permits required for hunting on wildlife management areas.	Signed. Effective 8/29/83.
251	Santiesteban	Clarifies the status of game wardens as peace officers and removes the \$200 upper limit on rewards disbursed by the Operation Game Thief Committee. Permits the committee to set reward amounts based on the merits of each case.	Signed. Effective 4/19/83.
262	Sharp	Clarifies the Parks and Wildlife Code concerning security interests in motorboats and outboard motors to conform with the Business and Commerce Code.	Signed. Effective 8/29/83.
325	Truan	Provides the continuation of the one-cent cigarette tax allocation for local parks effective September 1, 1985 and also makes provision for rural areas to be eligible for funding. Also appropriates \$4.2 million from the state parks fund for such projects.	Signed. Effective 9/1/83, except Section 6 which is effective 9/1/85. Vetoed Section 7(b). (\$500,000 appropriation to the Texas Sesquicentennial Museum Board.)
586	Williams	Increases the Parks and Wildlife Commission to nine members.	Signed. Effective 6/19/83.
808	Whitmire	Prohibits the retention of redfish and speckled trout caught in a shrimp trawl and by any person on board a boat licensed as a Commercial Shrimping Vessel which has a shrimp trawl on board the boat.	Signed. Effective 8/29/83.
834	Brown	Requires bill of lading associated with transport of redfish and speckled trout to their place of final sale to the consumer. Requires commercial transports of redfish and speckled trout to be clearly identified.	Signed. Effective 8/29/83.
1000	Brown	Would have established a \$5 saltwater sportfishing stamp for sport fishing in all salt water of the state, in addition to a valid fishing license unless otherwise exempted.	Vetoed.
1022	Lyon	Prohibits retention of redfish and speckled seatrout by persons on commercial fishing boats, with licensed sport fishing guides and their clients excepted.	Signed. Effective 9/1/83.
1023	Lyon	Increases the penalties for taking redfish and speckled seatrout to include the confiscation of all equipment, including vessels used for taking redfish or trout upon third violation of Section 66.2011 within a five-year period.	Signed. Effective 9/1/83.
1027	Sharp	Provides statutory authority for the processing of boat registration and titling transactions involving mechanic/storage liens.	Signed. Effective 8/29/83.

### HOUSE BILLS

480	Collazo	Expands authority to utilize certain funds for research and management of furbearers and alligators and the taking of same from wildlife management areas.	Signed. Effective 8/29/83.
501	Polumbo	Extends the requirement to have written consent of the landowner for target shooting as well as hunting in counties of two million residents or more.	Signed. Effective 8/29/83.
586	Criss	Transfers the jurisdiction of the Battleship Texas to the department and provides for a Battleship Texas Advisory Board	Signed. Effective 9/1/83.
930	Uher	Extends authority relating to predator control from aircraft to Jackson and Matagorda Counties.	Signed. Effective 8/29/83.
1064	Agnich	Establishes a special fund to receive donations and proceeds from print and stamp sales to be used for research, management and acquisition and development of habitat for nongame and endangered species.	Signed. Effective 6/16/83.
1376	Schlueter	Gives the Commission authority to adjust bag, size and possession limits on redfish and speckled trout. Previously, the Commission only had the authority to make the limits more restrictive.	Signed. Effective 9/1/83.
1406	Wright	Persons legally transporting redfish and speckled seatrout for sale are required to have documentation as stipulated by the Commission.	Signed. Effective 9/1/83.
1731	Danburg	Establishes a Texas Trails System under the administration of the department and makes provision for a Texas Trails Advisory Council.	Signed. Effective 8/29/83.
2061	Evans	Directs the department to acquire land in Tarrant County for Gateway State Park and permits the acquisition of land for Trinity River State Park. The department would lease the parks back to the controlling authorities for operation.	Signed. Effective 8/29/83.



# Marine Life on Display

## Rockport Lab Open to the Public

Article by H.R. Osburn, Fisheries Biologist, Rockport, and Photos by Glen Mills

**Rockport is nestled** in the heart of one of America's most diverse marine and estuarine ecosystems. Just a few miles east, across the broad expanse of Aransas Bay and the dune-covered San Jose barrier island, lies the salty Gulf of Mexico. To the west and north, fresh water from numerous creeks and rivers dilutes the brackish waters of several secondary bays. And to the south, just beyond the shallow-water grass flats of Redfish Bay, is a deep flowing channel to the Gulf called Aransas Pass, in which all these waters are mixed.

The tides flow, the waters mix and the marine life abounds. And what better place to display a few examples of these varied life forms than the Rockport Marine Laboratory Aquaria, part of the Coastal Fisheries Branch of the Texas Parks and Wildlife Department. Located on the north side of the Turning Basin near downtown Rockport, the three-story brick Marine Lab has been part of the coastal scenery since 1948. Eight marine biologists, a chemist and ten technicians work on various coastal projects at the lab, but most of the first floor always has been devoted to exhibiting interesting creatures and artifacts from the surrounding area.

The aquaria room was remodeled in 1977 using strips of driftwood as paneling. Several display cases, also built of driftwood, contain shell collections and other items of beachcombing interest. Many of these items have been donated. Some very impressive mounted fish specimens hang on the walls, and one corner of the room displays free marine literature and recipes. But all these items just build interest for the aquaria themselves. There are eight in all,

**Exhibits and saltwater aquaria at the Rockport Marine Lab display an impressive variety of animals and sea creatures from the surrounding area.**

two of which contain 958 gallons of salt water each. The other six range from 115 to 140 gallons.

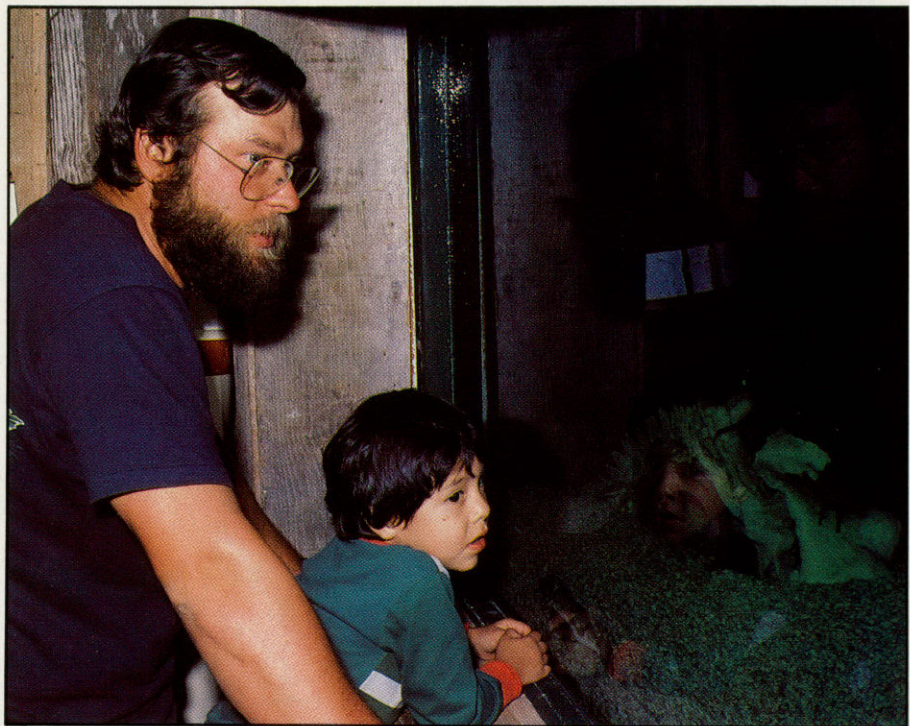
An amazing variety of animals can be seen here. Specimens vary with the seasons since most come from samples collected throughout the year by the lab biologists in the near-shore gulf, the main bays and the back estuaries. Local fishermen and shrimpers also may bring in some interesting catches. Fish and invertebrates on display have included sea horses, starfish, colorful reef fish, groupers, octopi, huge hermit crabs, sea anemones, filefish, stingrays, sharksuckers, sea urchins and many other species of sea life.

Since being remodeled, the lab aquaria have been seen by some 13,000 people per year, and that number represents only those who sign the register. It's estimated that at least a third of these visitors are from out of state while many more come from the far corners of Texas; after all, the Rockport area is a fantastic vacation site. But whether the

visitors are vacationers, locals returning for a seasonal show or classes of excited school children, they all seem to enjoy seeing what swims behind the thick plates of aquarium glass.

But their pleasure might be even greater if they knew about the inner workings of these aquaria and the behind-the-scenes activities. The aquaria provide and maintain homes for creatures whose normal habitats are the volumes of water covering muddy bay bottoms, oyster reefs, grassy shoals and sandy beaches, all part of an "open" exchanging system. How is the high quality of life found in the open ocean and bays maintained in such a relatively small, non-exchanging, "closed" system? Feeding the residents and cleaning and general maintenance of the aquaria is, of course, essential, but the secret of keeping good water quality for these organisms is, surprising enough, the presence of two types of bacteria—*Nitrosomonas* and *Nitrobacter*, to be downright scientific.

Fish excrete ammonia as a toxic





waste product. Once released in the water, the ammonia is changed to ammonium, but it too is toxic to fish, and if not removed from an aquarium, would soon kill them. However, the bacteria *Nitrosomonas* feed upon ammonium, changing it to nitrite. Unfortunately, in high quantities nitrite is also toxic to fish. By now, you probably have guessed that nitrite is just what the *Nitrobacter* likes to feed upon, changing it to nitrate which is relatively harmless to fish. These bacteria live in the gravel on the bottom of the aquarium and as long as water flows through the gravel, bringing them oxygen and their favorite food stuff, they will make it possible for the fish to survive in the aquaria. This complete cycle is called biological filtration.

Chemical and mechanical filtration also insure the salt water is pure of contaminants. Mechanical filtering simply means passing the water

through a flosslike material to trap particles accumulating in the tank. Chemical filtration involves percolating the water over bits of activated (highly absorbent) carbon which collect many of the dissolved organic molecules responsible for odors. A host of other water-quality parameters also need monitoring including pH, dissolved oxygen, salinity and temperature. Any one of these factors too far out of balance can spell disaster. Perhaps electricity also should be added to the list of necessities since the most recent kills in the aquaria have resulted from major power failures, such as the one accompanying Hurricane Allen which shut off air compressors for nearly four days.

Disease is another potential hazard in the aquarium system. Bacterium, virus, fungus and protozoan parasites all can be lethal when they attack, sometimes just overnight.

And treating these diseases with chemicals often will stress the fish as well as kill the beneficial bacteria.

Even after all these health and water-quality problems are solved, it is possible that yesterday's newest addition to the tank will become today's dinner for another resident. Working out the proper compatibility for all the organisms is an important consideration for long-term survival.

Hopefully, these cautions about maintaining an aquarium will not discourage anyone interested in setting one up, for it can be a rewarding hobby. In any case, visitors can always view the Marine Lab's exhibits free of charge. It is open Monday through Friday 8 a.m. to 5 p.m. Group tours also are possible when biologists are available. So if you're in the Rockport neighborhood, be sure and take time to see the department's coastal aquaria. \*\*



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# TEXAS III MAYNARD REECE

## 1983 Texas Duck Stamp Print

No other state series approaches the success of the Texas Duck Stamp and Print Program. Its inauguration in 1981 introduced Larry Hayden's exceptional design of a mallard pair, followed by Ken Carlson's graceful 1982 entry of pintails. The two editions sold 26,000 prints and established the highest standards for Texas waterfowl stamp design. A pair of American widgeons by Maynard Reece, the dean of duck stamp artists, becomes Texas III, enhancing a series which will surely continue as the most widely collected of all.

Maynard Reece has been at the forefront of wildlife art for almost 40 years. He has won virtually every award available to a wildlife artist. Maynard is the only artist to have won the Federal duck stamp contest five times, the first in 1948. He has twice designed the Iowa duck stamp. In 1973, he was honored by

Ducks Unlimited as Artist of the Year and has been made an Honorary Trustee by that organization. Maynard's rendering of wood ducks was selected as the design for the 1982 Arkansas duck stamp. His selection as the artist for the 1983 Ruffed Grouse Society Conservation Stamp and Print continues his unprecedented list of honors and awards.

The image size of the full-color signed and numbered limited edition print is 6½" x 9"; overall size is 12½" x 14". The print will be \$125; the accompanying stamp is \$5. The edition size will be limited to wholesale orders received by August 31, 1983. There will be no remarques. Shipment of print is expected in fall of 1983.

A special Conservation Edition of 350 prints will be made available to the Texas Parks and Wildlife Department. There will be 75 artist's proofs.

Price subject to change after August 31, 1983



AMERICAN WIDGEONS by Maynard Reece

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# Young Naturalist

# Tin Can Cooking

Article by Ilo Hiller and Photos by Glen Mills

**Editor's Note: We can't stress safety enough around fire. Use caution and common sense with fires and hot cooking utensils. The cooking techniques suggested in this article should always be supervised by an adult.**

**Appetites** always seem to increase when we are enjoying ourselves in the outdoors, so it is easy to see why food and its preparation play such an important role in camping. You may have considered outdoor cooking as an adult activity, but nothing could be farther from the truth. With a little instruction, a bit of caution and a few basic pieces of equipment, you can turn out some delicious food and have fun doing it.

If you have been a boy or girl scout, you may already know about tin can cooking. However, some new ideas developed by Dian Thomas in her book "Roughing It Easy" have expanded the uses of the tin can stove beyond what you probably learned. This versatile camp stove can be used for frying, boiling and baking. What more could you ask? Although it is all-purpose, it does have one major drawback. The limited amount of cooking surface restricts its use to preparing food for only one or two people.

The basic part of the tin can stove is made from a one-gallon can. The first step is to cut out one end, remove the contents, peel the paper label from the outside so it will not catch fire and wash the can and lid. Next, slide the cut-out lid into the can so it rests firmly against the closed end. Use a beverage opener (the type that cuts triangular holes in a can) to make the four or five smoke holes around the top edge. The metal tabs bent inside as the smoke ventilation holes are cut will

hold the loose lid in place, and the double thickness of metal will conduct the stove's heat more effectively.

Your stove now needs a door through which the heat source can be controlled. Use tin snips to make two three-inch cuts up one side from the open end of the can. These cuts should be about four inches apart. Bend the cut flap outward, leaving it attached at the top. This completes the basic stove except for its heat source.

Briquets or hot coals can be used for cooking, but a more efficient and controllable heat source is the buddy burner. At the touch of a match it is lit and ready to use. This burner is made from cardboard, wax and a tuna can. Cut strips of corrugated cardboard as wide as the height of the tuna can. They should be cut across the corrugation so the holes or hollow areas show along the edges. Roll the cardboard strips, adding one to the end of the other, until you have a roll large enough to fill the tuna can. Melt a piece of wax in a can set in a double boiler. (The double boiler is a safety measure since overheated wax will burst into flames. As an added safety precaution, some adult assistance with this phase of construction is recommended.)

Slowly pour the melted wax into the tuna can, filling up the spaces in and around the cardboard. Once the can is full of wax, you will have a heat candle that will burn for 1½ to two hours. The cardboard is the wick and the wax is the fuel. Since wax burns at a lower temperature than cardboard, adding wax as it is used will make your cardboard buddy burner last almost indefinitely. To replace the missing wax, just place a piece of it on top of the lit

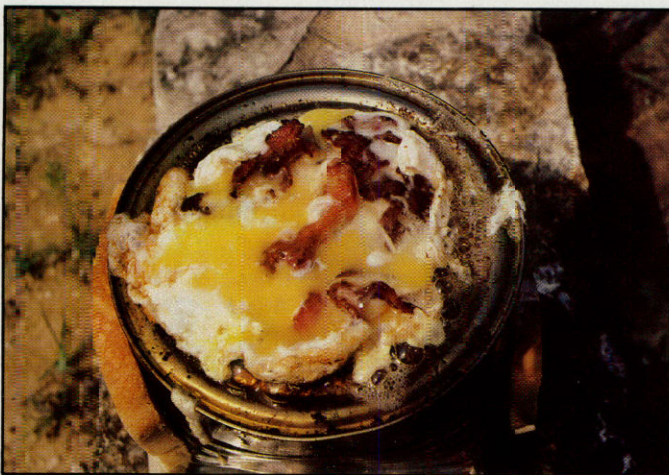
burner. The wax block will melt down into the cardboard and provide more fuel.

Dian recommends using a damper or cover to control the amount of heat the buddy burner produces. This damper can be made from the lid of a can just a little smaller than the tuna can. When it is placed on the burner, it snuffs out the flames in the center while permitting the exposed edges to burn. This produces a low heat for the stove. When the damper is placed so half the burner is uncovered, it produces a medium heat. Completely uncovered allows the highest heat, and the many different positions between high and low will give you almost as much control over the temperature as a burner knob on a kitchen stove. Experimenting will show you the amount of heat that is best for whatever food you are cooking.

To make it easy to adjust the damper while the burner is in use, attach a wire coat-hanger handle to the lid. Place a 90 degree bend the height of the tuna can in the end of the handle not attached to the lid. This bent handle will rest on the ground outside the stove to support the damper and keep the lid flat on the burner.

With the lit burner in place under the stove and the heat adjusted to the desired level, you are ready to fry foods directly on top of the can or on a piece of foil placed there. Liquids in a container set on top of the stove also can be brought to a boil. Many foods can be prepared by these two methods of cooking, but if you plan to do some baking, you need to add an oven to your stove ensemble.

The oven can be made from a shortening can that will fit on top of the tin can stove. Dian suggests



**A tuna can filled with cardboard and wax (top left) provides plenty of heat for a tin can stove. Just light it as you would a candle, adjust the amount of flame with the damper and cover it with the stove. Your first breakfast of bacon, eggs and toast may not win a prize for beauty, but taste rather than looks is a better way to judge the success of your cooking efforts. One of the easiest things to cook on top of your stove is a delicious hamburger patty.**



you cut both ends out of the shortening can so you can see inside the oven as your food bakes. Cover the top with see-through oven wrap, wiring it tightly to the can. (Part of a clear oven-roasting bag can be used for this purpose.) A wire handle attached to either side of the can will make it easier to remove the hot oven when your food is done. Small, flat rocks placed on top of the stove will hold your baking pan (a tuna can) off the stove's hot surface. This allows the oven's heat to circulate under the baking pan and keeps the contents from burning on the bottom.

When you finish making the complete stove, you are ready to cook a meal. Let's start with breakfast. You can bake a canned biscuit or two on a large can lid. Just place the lid on the rocks on the top of your stove and cover it with your oven. When the biscuits are done, butter them, wrap them in foil and set them aside until the rest of the meal is finished. Set the oven aside, too. (Be sure to use hot pads or baking gloves to handle the parts of the stove. Remember those tin cans get very hot.)

Now you are ready to cook your bacon and egg. Lay a couple of strips of bacon directly on top of

**A shortening can oven (above right) added to your basic tin can stove will make it possible for you to bake things such as individual pineapple upside-down cakes. Don't forget to use some flat rocks to hold the cake can off the stove's hot surface and allow the hot air to circulate under it. While your cake is baking, prepare some coffee-can ice cream to go along with it. Both should be ready to eat in about the same length of time.**

the stove. You might want to cut the strips in half to make them easier to manage. When the bacon is almost done, break an egg on top of it. Turn the egg when it is ready, cook its other side and breakfast is ready.

If you prefer toast to biscuits, Dian suggests you press two slices of bread firmly to the sides of your stove while you are cooking the bacon and egg. The bread should stick to the hot can. By the time the egg is done, the toasted bread will be ready to peel from the sides of the can. A little butter on the bread and you will have the makings for a bacon and egg sandwich.

Your menus are limited only by your imagination and planning. Instead of baking biscuits, you might want to try baking a breakfast muffin in a clean, greased tuna can. Dian's tip to make removal of the muffin easier is to put a folded strip of foil at least an inch wide into the can before the batter is poured in. Fold the foil strip over the edge. The foil hanging outside can be pulled up-

ward when the muffin or cake is done. It should help remove the food easily.

You also might want to try one of Dian's individual pineapple upside-down cakes as a special treat. Put the strip of foil in your greased tuna can. Place a pineapple slice on top of it. Put a cherry in the hole and sprinkle one tablespoon of brown sugar on the pineapple. Add a tablespoon of juice and then spoon in the cake batter, filling the can about two-thirds full. Bake in the tin can oven for about 20 minutes.

Hamburgers, always a favorite, can be fried directly on top of the stove, and you can fry-toast the bun in the meat juices when the hamburger is done. Canned soups, stews, beans and other vegetables can be heated by setting them on the stove. Be sure to open the cans first so they won't explode. Stir the contents occasionally.

If you have a container of some type in which to boil water (a clean, empty shortening can will do) you



can prepare macaroni and cheese. Adding a can of drained tuna fish to the finished dish will turn it into a tuna casserole.

Put your thinking caps on and you will be able to come up with all kinds of food you can cook. If it can be fried, boiled or baked, you should be able to fix it. And making two basic stoves will allow you to bake on one while you fry or boil on the other. With a little cooking experience, there is no reason why you couldn't bake an individual meatloaf in a tuna can in your oven, bring a container of water to boil for instant mashed potatoes and then warm a can of green beans or ranch-style beans to go with the rest of the meal. Such a nice hot meal could then be topped off with a delicious cold treat — coffee-can ice cream.

To make coffee-can ice cream you will need a three-pound coffee can, a one-pound coffee can, some crushed ice, rock salt (or table salt if the other isn't available) and your ice cream mixture.

Pour enough of the mixture into the small can to fill it a little past the half-way mark. Put the plastic lid on the can and set it inside the three-pound can. Fill the space between the two cans about half full of ice. Sprinkle a handful of rock

salt on top of the ice and then finish filling the can with ice. Sprinkle on some more rock salt and seal the large can with its plastic lid. The freezing is accomplished by rolling the can back and forth on the floor or another smooth surface such as a picnic table or by seesawing it in a towel. For the towel method, take hold of one end of the towel and put a friend on the other end. Lay the can in the towel cradle and roll it back and forth between you by raising and lowering the ends of the towel. When rolling the can back and forth on the floor, the bottom of the feet can be used to kick-roll the can. Don't kick it with your toe as the can will dent and could pop open.

A frosty layer of ice should build up on the outside of the large can as it is rolled. After 10 minutes or so of continuous rolling, open the cans and check the contents. Remove the small can, wipe it off with a towel or rag to make sure no salty water gets inside and then open it up. The ice cream should be freezing around the insides of the can. Slip a table knife between the ice cream and the can to release the frozen part. Stir it into the part that has not frozen. Now put the lid back on the can and set it back in

the larger can. Add more ice and salt before resealing. Continue to roll the can back and forth for another 10 minutes or so and the ice cream should be completely frozen and ready to eat.

For a variety of flavors, stir up a basic vanilla ice cream mixture and divide it among several one-pound cans. To one add strawberries, peaches or cherries; to another add a tablespoon or two of chocolate, lemon or pistachio instant pudding mix; to another add some crushed Oreo cookies, chopped nuts, crushed peppermint sticks or any other items you think would be good in ice cream. A visit to one of those many-flavored ice cream parlors should give you some ideas.

Cooking and experimenting with foods can become an entertaining part of your outdoor experiences. The tin can stove and coffee-can ice cream are but two ways to enjoy this activity. If you are interested in learning how to cook in some other ways, such as a aluminum foil, a dutch oven or a reflector over, Dian Thomas' book "Roughing It Easy" will show you how. If your local library does not have a copy, you can order one for \$6.95 from the Brigham Young University Press, Provo, Utah 84602. \*\*

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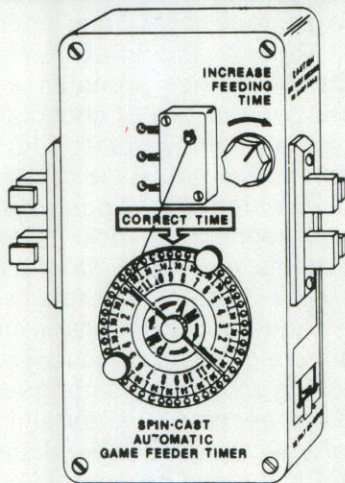
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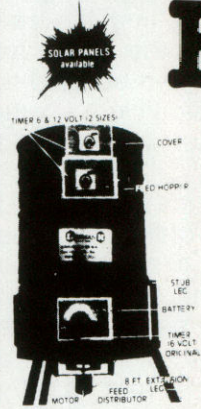
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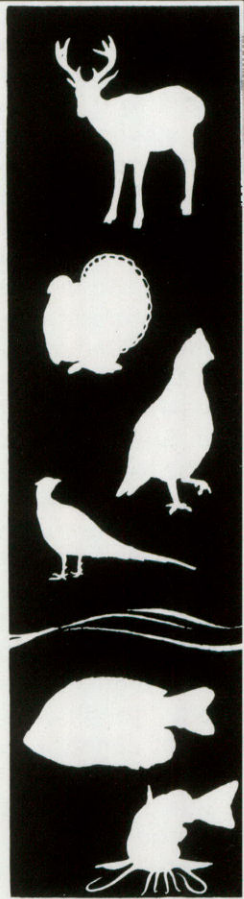
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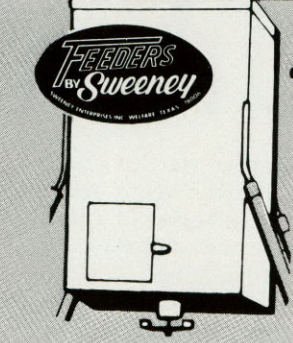
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# Letters to the Editor

## Where Are The Squirrels?

After reading the squirrel hunting article by Ray Sasser in the May issue, a party of us went to explore the free hunting grounds in the Davy Crockett National Forest. We covered the entire area from Crockett to the Neches River, then some 500 miles in the center south and west. Near the Neches River bridge on Highway 21 was the only place we could see that might be squirrel country, but we found no way to get there through the swamp. The roads all ended at the lookout.

Through this marked off green area it is nothing but tall pines. We found no pecan trees or oak trees that the squirrels could feed on. The trees are thinned, tall and not suited for squirrels. There were no hunters, no empty shells or gunshots, no squirrels and no cars.

I am writing so no one else will get involved in this fiasco.

Cecil V. Hale  
Waco

■ Ray Sasser replies: "Davy Crockett National Forest covers 161,497 acres. As noted in the article, only a small area within any tract of East Texas woods produces good squirrel hunting. The key to any squirrel hunting effort is to locate the pockets of optimum habitat. This is particularly true on public hunting lands. Locating the squirrel hotspots requires homework and actual scouting, but the effort is worthwhile because prime woods produce good hunting year after year."

## Floating-heart

The June 1983 cover showed *Nymphoides aquatica*, floating-heart. It is not closely related to the water lily, as the caption implied.

Marshall C. Johnston  
Austin

## Trained Heifers?

Early in May, my wife and I saw the following event on our place in Freestone County:

Seven deer came out of the woods and started nibbling on clover in the pasture, about 300 yards from the house. Several head of cattle were near the house, and the deer kept looking in that direction.

Suddenly the deer startled and began running back into the woods. A Brangus heifer, about 15 months old, chased the deer into the woods and stayed in the woods about 10 minutes.

Is this a common occurrence? Also, has anyone trained heifers to chase deer out of the woods into the pasture?

John E. Simmons  
Lancaster

## Old Magazines Never Die

We received the following letter at Braubach Equipment Company recently:

"I came across an October 1967 issue of *Texas Parks & Wildlife*. As I was looking through it, I found your ad for reconditioned and guaranteed jeeps. Even though the issue was 16 years old, I decided to write and see if you still deal in these jeeps."

This letter is not unusual. We get ones like it from time to time. It clearly shows how issues of *Texas Parks & Wildlife* never die. They just continue to be read.

Our answer to the letter was, "Yes, we still have jeeps but the prices have changed!"

John H. Braubach  
San Antonio

## Blacktip Cooking

The article "Blacktips Save the Day" in the May 1983 issue states that the blacktip shark is a tasty dish. However, no information was included on how to clean and prepare the fish. Could you please tell your other readers and me how to clean the blacktip, what part of the fish is preferred for eating and how to cook it. Does it need to be tenderized like abalone?

Kenneth Wagner  
Houston

■ Blacktip sharks are easily filleted in the same manner as most other popular food fish. They have no true bones, but the fillets have to be separated from the cartilaginous backbone. Once filleted,

the meat can be sliced to the thickness desired and cooked by any of the traditional methods, including frying, broiling and smoking. The meat requires no special treatment, although it tends to spoil quickly if not kept cold. Recipes may be found in a number of cookbooks, and from Annette Hegen, c/o Texas Agriculture Extension Service, P.O. Box 158, Port Aransas, Texas 78373.

## Creationist

As a subscriber and one who thoroughly enjoys your magazine each month, I feel I must tell you that I do not share your obvious belief in evolution. Recent articles have referred to new findings and old caverns being millions of years old—500 million years in the case of Longhorn Cavern.

I just can't buy that. You see, I happen to be a creationist along with quite a lot of other subscribers, and I don't believe the world is more than 10,000 years old. So you see there is quite a difference in thinking here. Perhaps you could state in these articles that the age of these particular items is based on scientific theory and is not by any means factual. Then you wouldn't put yourself in the position of trying to sway others' beliefs.

Your sincere consideration of this matter would be greatly appreciated, not to mention the reading would be much less offensive.

Tom Estes  
Dallas

## BACK COVERS

**Inside:** Life is full of hazards for cottontails. They are preyed upon by foxes, hawks, owls and countless other animals, and only 15 percent of them live longer than one year. But cottontails are prolific animals so the species is not in danger. They breed throughout the year and produce four to five litters each year. Photo by Wyman P. Meinzer Jr.

**Outside:** Few summer activities are more exhilarating than zipping along the Gulf beneath a catamaran's vividly colored sail. Photo by Glen Mills.



