

VOLUME XCIII

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# THE NATIONAL GEOGRAPHIC MAGAZINE

FEBRUARY, 1948

## Haunting Heart of the Everglades

With 8 Illustrations and Map  
21 Natural Color Photographs

ANDREW H. BROWN  
WILLARD R. CULVER

## Indians of the Far West

With 5 Illustrations  
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MATTHEW W. STIRLING  
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## Rubber-cushioned Liberia

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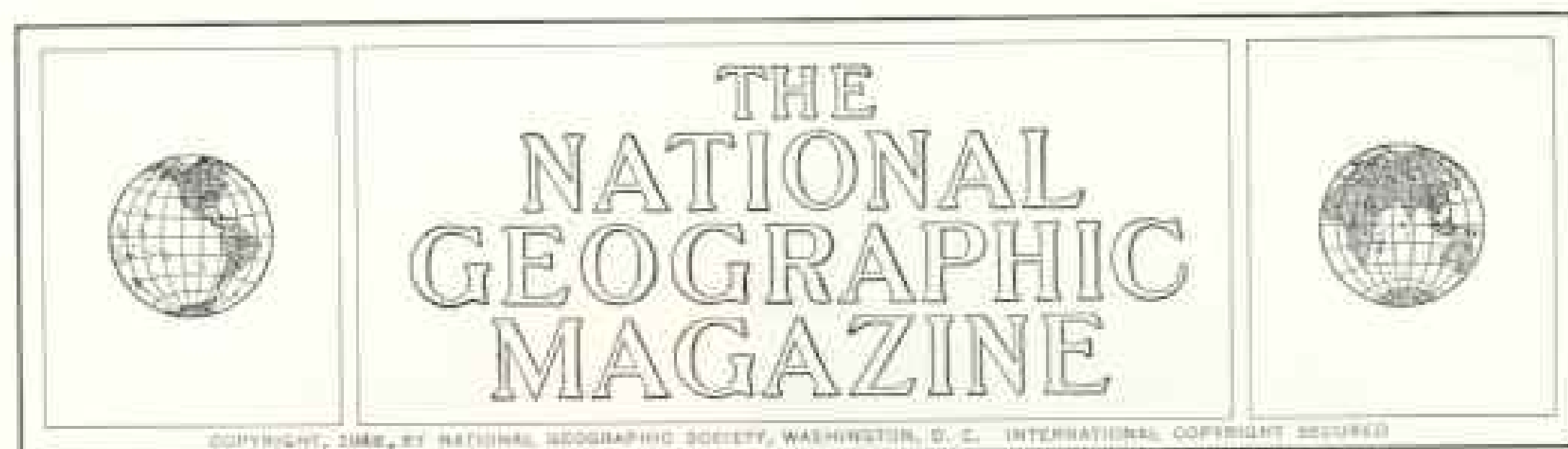
WILLIAM H. NICHOLAS

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## Haunting Heart of the Everglades

BY ANDREW H. BROWN

**B**IG BRAKES on four war-surplus bomber tires ground our 'Glades buggy' to a sliding stop.

"There they go—into the high grass!"

I jumped down from my seat, climbed to the snake box in the back of George Espenlaub's swamp chariot, and stepped up to the cab roof. Two buck deer had sprung from the trackless Everglades ten yards ahead. They dropped out of sight in a swale.

"I'll beat the marsh and try to flush them," George proposed. "Maybe they'll run out past the buggy."

My companion pushed through head-high saw grass, flailing the thick growth with a stick. Suddenly the graceful animals bounced up almost from George's feet. They fled across the prairie, two tawny blurs with bobbing white "taillights."

The bounding deer gave the crowning touch of life to flat, rippling grasslands. Dips in the plain cupped mirrors of rain water floating white water lilies and edged with wild iris. Cloud castles billowed in a hot blue sky.

### Wild Land of Swamp and Cypress

Our vantage point was deep in the wild heart of south Florida's Everglades, that alluring expanse of swamp and savanna, cypress head and hammock jungle, which Miamians jestingly style their city's 4½-million-acre backyard.

Technically, the Everglades are a broad sweep of saw-grass plains curving around the southeast side of vast Lake Okeechobee and extending south to Florida Bay and the Gulf of Mexico.

By freer interpretation the name "Everglades" takes in Big Cypress Swamp and Okaloacoochee Slough and hence most of Florida south of Lake Okeechobee.

During late winter and early spring of 1947 Willard Culver, National Geographic photographer, and I wandered foot-loose in this greater area.

Natural conditions long hampered development of the Everglades. Today, onetime "impediments" are being turned to man's benefit.

Water control has opened thousands of acres of black earth to truck crops. Sugar cane thrives on the peaty nitrogenous soil. Drier flatlands have been cleared for pasture. Remote sloughs are yielding hidden riches of pine and cypress timber.

Big stretches of the country devoid of economic value are being set aside for water and wildlife conservation—and for recreation.

The Nation has recently received a magnificent "gift," Everglades National Park, which President Truman dedicated on December 6, 1947. Twenty-eighth such public reserve, it is the only subtropical national park in the United States. A new three-cent stamp has been issued to celebrate the event.

Justified at last were the vision, faith, and unrelenting efforts of 81-year-old Ernest F. Coe, Director of the Everglades National Park Association. For 20 years Coe fought, often single-handed, for creation of a national park in south Florida's unique wilderness.

The Everglades National Park Commission also was instrumental in making the park a reality.

Limits of the park eventually are expected to embrace most of Florida Bay, including nesting keys of the striking, but scarce, roseate spoonbill (Plate IV). The park's preliminary 710-square-mile area takes in a broad patch of the tip of Florida south of the Tamiami Trail (map, page 149).

About half the protected region is marshy grasslands and the rest mangrove swamps



Ernest Bennett from Miami Daily News

### To Picture an Air Plant, the NATIONAL GEOGRAPHIC Photographer Shinnied up a Cypress

Willard Culver reaches for the camera passed up to him by the author, Andrew H. Brown. The bushy epiphyte, left, is one of thousands that bedeck trees in the western Everglades (Plate V).

veined by blue tracery of lakes, rivers, and tidal channels.

We struck out for the park area from Homestead, swaying down the narrow road towards Cape Sable, ultima Thule of mainland Florida.

### Roads and Canals Are "Siamese Twins"

In the Everglades, road and parallel canal are inseparable. To build a highway in this soggy land you dig a ditch (which fills with water as fast as you shovel it out) and throw up the excavated rock (limestone lies everywhere just below the surface) in an embankment to form the new roadbed.

A clear, cold sunrise found us outward bound from Coot Bay on the Fish and Wildlife Service patrol boat, *Osprey*. We were off on a 100-mile cruise to Shark River. (Before the park took over, this section was part of the Everglades National Wildlife Refuge.)

At the launch's helm stood big, weatherbeaten Warden Barney Parker. He cants a ranger's felt on the back of his head, rests a generous paunch against the wheel, handles a revolver like one of the James brothers, and has a heart soft as a June sunrise.

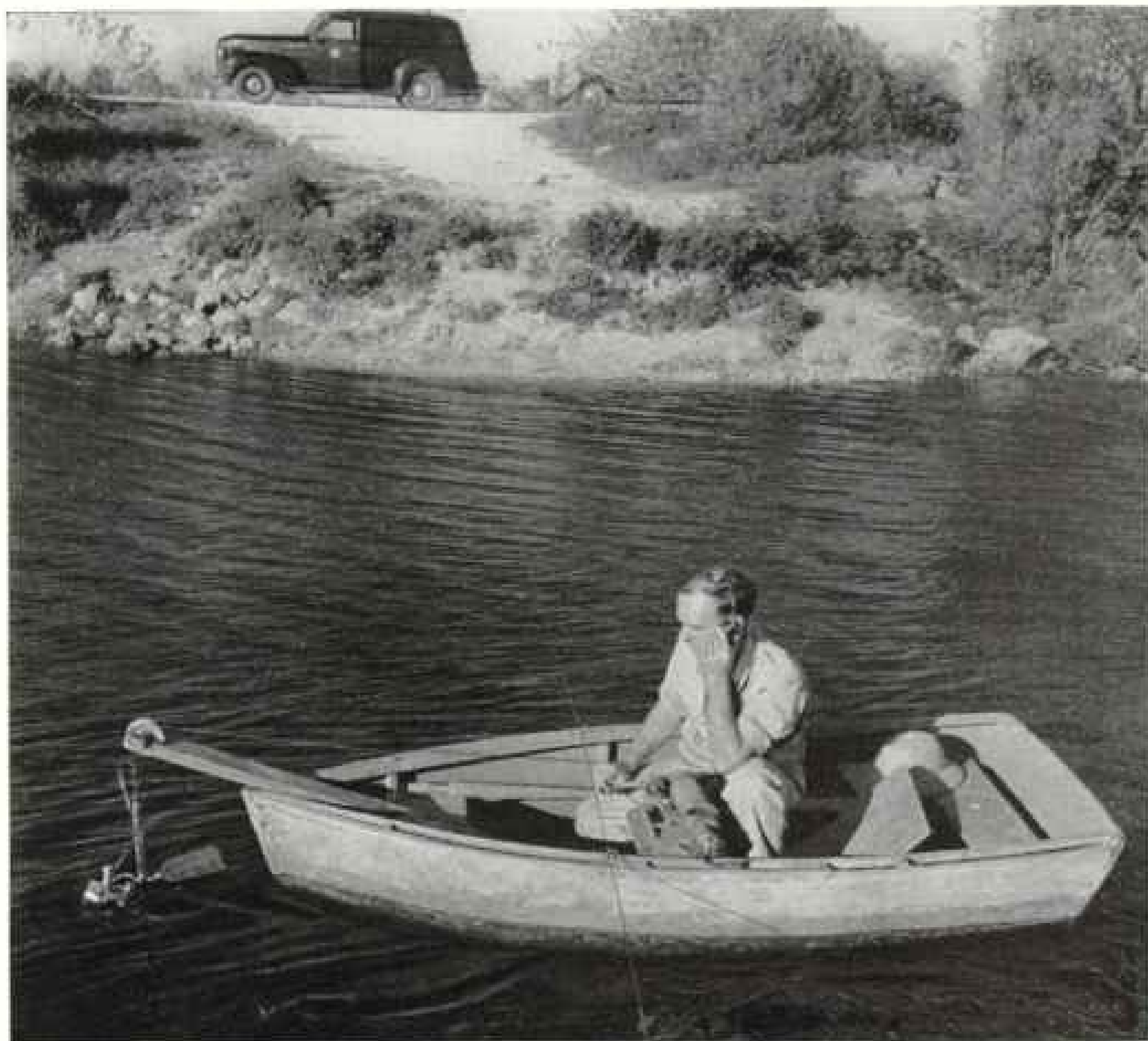
Even Barney has been lost in the maze of winding creeks that patterns this area.

Far up Shark River, where the tranquil stream splits into two reedy branches, we hove to off the Little Banana Patch, a favorite camping spot for a century. Here Daniel B. Beard, then Refuge Superintendent, now Superintendent of the Everglades National Park, and Walter Weber, wildlife painter, set up a base camp to use while Walt sketched birds in their native habitat.\*

A few banana trees, planted long ago by Indians, name the place. Under a vine-hung *Ficus* tree was a flat site for a tent (Plate I). Giant ferns gave Weber and Beard a soft foundation for the floorcloth.

Leaving Weber and Beard to feather their new nest, Barney, Culver, and I whisked upstream in the outboard dinghy. A big alligator slid off a mud bank (page 172). The winding creek unveiled an amazing abundance of birds.

\* Walter Weber's paintings of wildlife of southern Florida, with descriptive text, will appear in a subsequent issue of the NATIONAL GEOGRAPHIC MAGAZINE.



Staff Photographer Willard H. Carter

### Through Headphones He "Hears" How Much Water Flows Past

His boat held in place by a cable, a hydraulic engineer of the U. S. Geological Survey counts clicks caused electrically as the current of Miami Canal turns the rotor suspended from the boom (left). By taking readings at varying depths and at several stations across the stream, the technician computes the volume of fresh water passing this point. Geologists recommend keeping selected areas of the Everglades wet, by use of control dams on drainage canals, to help maintain a high water table along Florida's populous Atlantic coast.

Flushed by the whine of our motor, clouds of hundreds of snowy egrets, white ibis, little blue herons, and Louisiana herons rose from trees along the stream. They flew upriver ahead of us, alighted again, only to flap away when we buzzed around the bend (page 171).

Lesser numbers of ducks, wood ibis, white pelicans, black-crowned night herons, cormorants, anhingas, skimmers, kingfishers, and grebes added to the rich variety of this ornithological field day.

### Indian Villages Flank Tamiami Trail

Returning to Miami, we drove west across the waist of the Everglades.

Our highway was the famed Tamiami Trail, the name a contraction of Tampa and Miami,

terminal cities of the 270-mile-long nature-way (page 150).

Apart from the road, planted Australian pines, and canal there were few signs of man's intrusion. We visited Seminole Indian villages which stand opposite the infrequent filling stations (Plate III).

Colorful natives, descended from survivors of the Seminole War of bitter memory, lived much in the manner of their more aloof cousins back in the bush.

Facing the highway were counters laden with cypress boat models, with multihued aprons, capes, and skirts, with dolls fashioned in their makers' image.

Just east of the boundary between Dade and Collier Counties saw-grass prairie merged





Staff Photographer William B. Carter

### A Mechanical "Mole" Digs a Pipeless Conduit to Drain and Water Fields

A tractor pulls this caterpillar-tread device across vegetable fields near Lake Okechobee. The worker lowers the thin vertical blade, at the bottom of which is a torpedolike cylinder closed at the forward end. As the caterpillar clanks along, the blade cuts the soft muck as a knife slices cheese, and the cylinder burrows through the ground two to three feet below the surface. In its wake it leaves a tunnel of the same diameter as the "mole." Soil here is so adhesive that the excavated tube does not collapse and may last for years. Spaced at intervals across a field, these subterranean channels drain farm lands that are too wet, and irrigate the soil from canals when drought prevails.

into open woods of scrub cypress and scattered palms, like parkland. Then the road plunged into real forest, mostly cypress, but with more and more palm and pine as we rolled west (page 146).

We came to the remote and shady town of Everglades (population 518), seat of Collier County, just as a fleet of brightly trimmed sponge boats chugged up the sweeping curves of Barron River (Plate XVI).

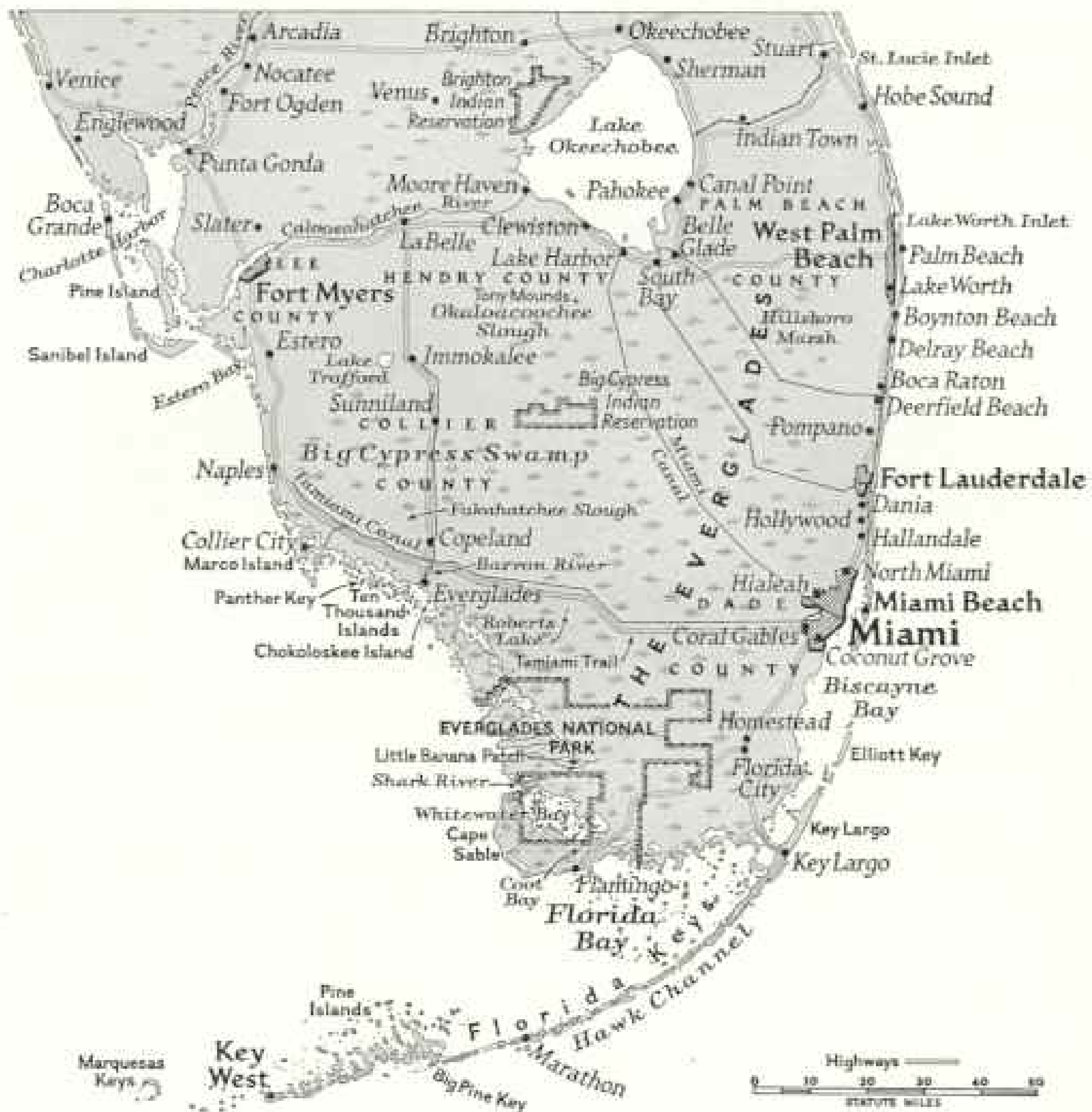
It was a warm sunny evening with a skyful of fluffy clouds. I watched the return of

weary but triumphant anglers, guests of the famous Rod and Gun Club, sport-fishing center for the Ten Thousand Islands region.

A gleaming tarpon tipped the scales at 40 pounds. Snook, redfish, red snapper, amberjack, and other kinds lay on the sea wall.

### County Named for Car-Card Booster

Collier County, established in 1923, takes its name from Barron Collier of streetcar-card advertising fame, who bought up tens of thousands of acres of southwest Florida in the



Drawn by Theodoris Price

### A New National Park Protects a Wild Stretch of the Everglades; Adjacent Lands, Unreclaimed Swamp a Generation Ago, Yield Lumber, Crops, and Cattle

Everglades National Park is 710 square miles of marshy prairies, mangrove thickets, and cypress swamps fringed on the seaward margins with tidal rivers, lakes, and bays. It is the only subtropical national park in the United States. The recently dedicated reserve will afford refuge for nesting colonies of egrets, ibises, herons, and other birds decimated in the past by ruthless hunting. Visitors also may see deer, alligators, snakes, bobcats, and turtles. The region features strange and beautiful trees and flowers, including air plants and wild orchids (Plates V and VII, and page 146).

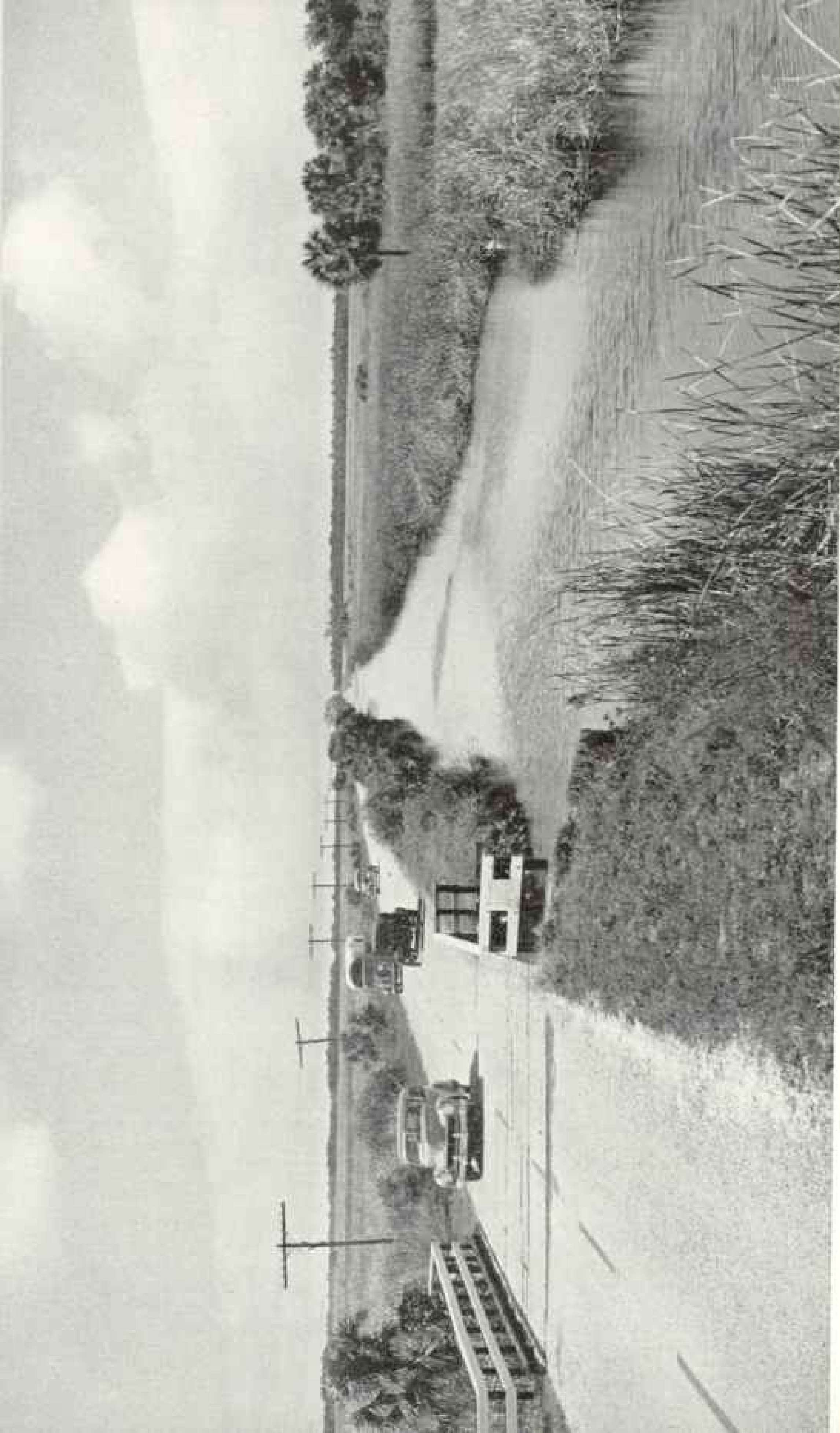
early twenties. The Barron Collier Interests helped complete the Tamiami Trail, and planned a second Miami Beach on Marco Island, a project still in blueprint stage.

The Collier Interests' land holdings of one-and-a-quarter million acres (an area the size of Delaware) include 60 percent of Collier County and overlap into adjacent Lee and Hendry Counties.

D. Graham Copeland, recently retired resident manager of the Collier Interests, listed the sources of Collier County's income in

order of importance: wood products (mostly pine and cypress lumber), early truck crops, commercial fishing, cattle ranching, and tourist trade. Only producing oil wells in Florida are at Sunniland in the north of the county.

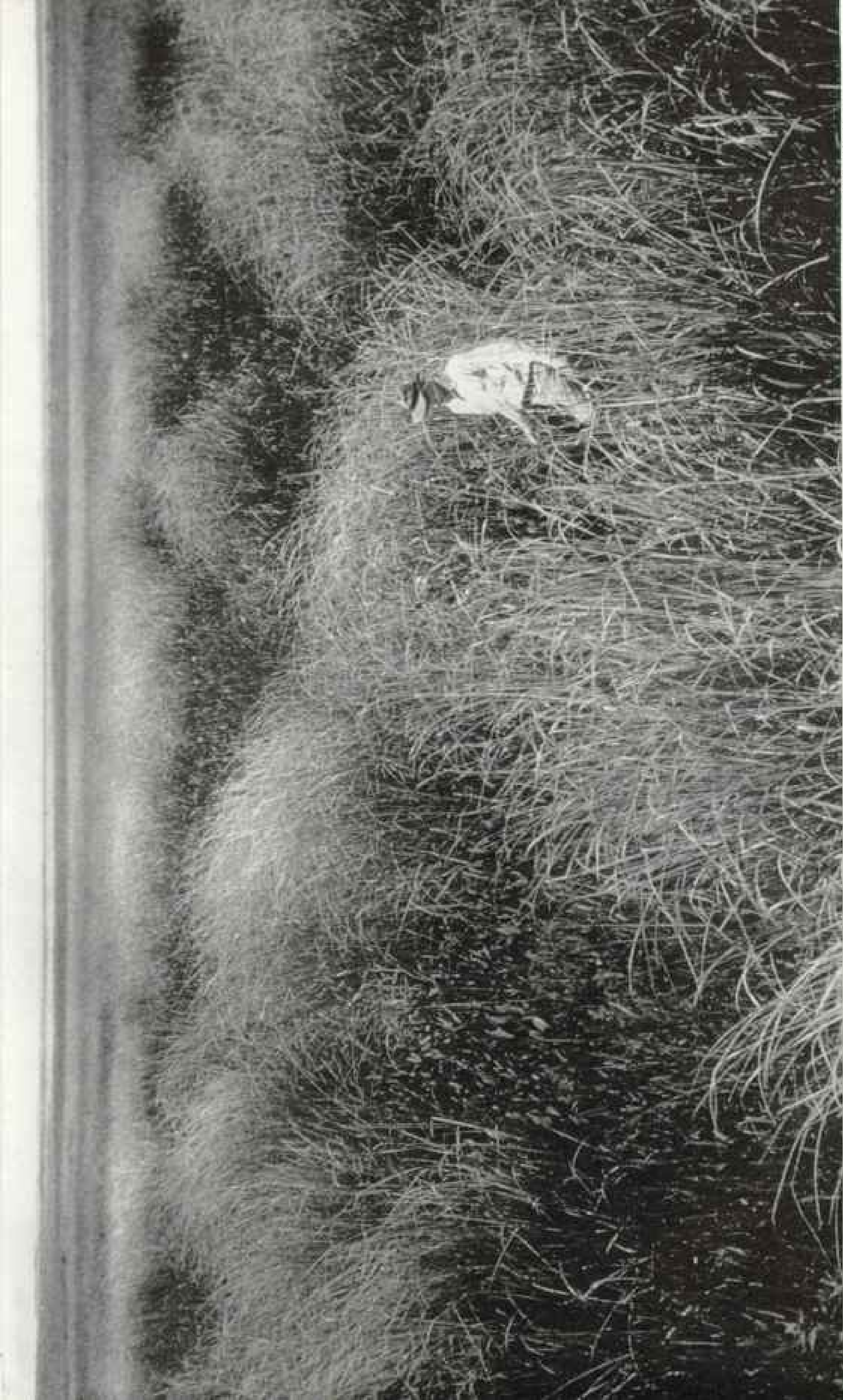
Collier County was the scene of last engagements of the Seminole War. To document early events, Copeland has assembled a six-foot pile of reminiscences, statements, newspaper clippings, and letters. I was allowed to look through this absorbing material.



Staff Photographer Willard H. Glaser

### Telephone Poles, Road, and Canal Seem to Merge in the Flat Distance of the Everglades

From Miami on the Atlantic coast to Naples on the Gulf of Mexico there are no sharp turns and only a few tiny hamlets to slow down traffic speeding across the Tamiami Trail. The highway (named by contraction of Tampa and Miami), its terminal cities) was completed in 1928 at a cost of \$3,700,000.



Arthur H. Brown

Grass Higher than a Man's Head, Stretching to Horizons of the 'Glades, Ripples Like Wheat in the Wind



Among the region's memorable characters was Juan (Old John) Gómez, claimed by many to have been a pirate with Gasparilla. When he died early in the 1900's, estimates of his age varied from 115 to 137 years!

Born a Roman Catholic, he became a Methodist at the age of 110 or 115. The local minister was so impressed that he designated every fifth Sunday of months that had five Sundays "Gómez Sunday." On those days Methodists of the vicinity piled into boats and went out to worship at Gómez's home on Panther Key.

An article in the *American Eagle* of Estero, Florida, published on January 20, 1927, added these details: "He (Juan Gómez) had heavy calluses on his feet and could run across an oyster bed as comfortably as on a hardwood floor. He was uneducated but spoke seven languages. . . . He declared when his age was discussed, 'God has forgotten me; it is past my time to die.'"

#### Reckless Harvest of Birds and Gators

"Wildlife was incredibly abundant hereabouts last century and even in the early part of this one," Copeland attested.

"Early settlers told me of shooting enough plume birds in one day to furnish aigrettes worth \$500, then in demand to decorate women's hats. Plume hunting was prohibited by law in 1891, but there was no attempt at enforcement for years after that. I heard of hunters slaughtering 77 deer in one drive, and 135 alligators in a single mudhole."

Some men only pulled the gators' teeth. For these ivory fangs, used for watch fobs, earrings, charms, bracelets, and other gewgaws, the reptile dentists got from \$1 to \$5 a pound.

Mr. R. B. Storter of Naples told me: "I carried over 10,000 alligator hides to Tampa in February, March, and April of 1898. They were shipped to Boyer Brothers in New York. About 1,000 of the skins were taken from Roberts Lake alone—one of the most fabulous gator 'mines' in the country."

"That was an unusually dry year, and the big creatures collected in places where water could be found. Crowded in small areas, they were easy victims of hunters."

Egret shooters would search for rookeries. When they found one, they ruthlessly wiped it out—destroying up to 15,000 birds.

On near-by Chokoloskee Island, C. S. (Ted) Smallwood, island patriarch, led me cheerfully up and down dim aisles of his big store. It stands on pilings above the tide wash. Counters and shelves bulged and overflowed with masses of jumbled merchandise in a pic-

ture of country-store abundance the like of which I had never seen. He cut me a generous slab from a huge wheel of yellow cheese.

"I've turned over the shop to my children," he said, introducing two daughters, a son, a son-in-law, and two grandchildren.

Smallwood, whose keen blue eyes give the lie to his 74 years of age, led me over the heart of the strange island. Little sand and shell-mound hills framed the steepest landscape I had yet seen in south Florida.

"Once I had a lot of good fruit trees." My guide turned back the years. "Most of them have gone to seed."

Like a friendly old pirate, Smallwood favored one leg as he climbed firmly up and down the hillocks, showing off scattered wind-tortured guavas, avocados, olives, papayas. Shade trees were native gumbo-limbos, palms, and Australian pines he planted long ago.

I met 90-year-old Susan McKinney, whose late husband, C. G. McKinney, opened the first general store on Chokoloskee Island in 1886. A sound, if firmly negative, business policy used to be emblazoned on his billhead: "No Banking, No Mortgaging, No Insurance, No Borrowing, No Loaning. I must have cash to buy more hash."

North from the Tamiami Trail, the Immokalee road, State Route 29, bisects Big Cypress Swamp, then straightens and arrows through range land to meet the Fort Myers-West Palm Beach road.

#### Big Cypress Going Fast

East of Route 29, lumbering is gobbling up big chunks of mixed pine and cypress forests. West of the highway, in the almost impenetrable Fakahatchee Slough, a long strip of virgin cypress is the largest remaining single stand in the United States.

A black plume of smoke from a tall stack guided us to the Copeland camp of the Lee Tidewater Cypress Company, which owns most of this magnificent forest.

J. R. Terrill, logging superintendent, showed us the operation.

We saw one of the semiweekly 40-car trains puff out of the yard, hauling away 400,000 board feet of huge rusty-hued logs to the sawmill at Perry in north Florida. Weather-resistant cypress is in demand for siding, shingles, and wood trim as well as for paneling and other interior finishing.

Terrill piled us on a gasoline speeder and we rattled up the line into the woods. Gray stumps dotted a logged-over area, where thick vines trailed on the ground.

"The fallers claim the vines are so tough," Terrill said with a smile, "that if one clings



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Photograph by Willard B. Carter

### A Famed Wildlife Painter Studies Wing Detail of an Egret, Once Hunted for Its Plumes

Walter Weber inspects an American egret picked up dead from Shark River, deep in Florida's Everglades. The artist made sketches for bird and animal paintings especially for the NATIONAL GEOGRAPHIC MAGAZINE.



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## A Power Derrick Plays a Giant Game of "Pick-up-Sticks." Flatcars Roll Huge Cypress Logs Out of Fakahatchee Slough

The Lee Tidewater Cypress Company ships the big russet boles of weather-resistant wood to its sawmill at Perry, Florida.

Photograph by Winifred R. Connor



Car and Passengers "Refuel" Together in Mid-Everglades. Beyond the Tamiami Trail Seminole Indians Welcome Travelers to Their Village

© National Geographic Society

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Illustration by WILLIAM H. CLAYTON







Showy Roseate Spoonbills; the Adult White and Pink with Carmine Patches, Crown a Mangrove with a Living Frieze

### Using a Smoker, Barchanded Keepers Dope Bees

Drugged by the fumes, Collier County bees are rarely shifted about on the frames. Everglades hives yield thousands of pounds of honey every year.

© National Geographic Society



### Red-spiked Air Plants Are Miniature "Hanging Gardens"

The striking bromeliads favor rough-barked trees, but also grow on stumps and fence posts. They draw sustenance from the air.

Red-spiked bromeliads by William H. Culver



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© National Geographic Society

VI

Reproduction by Andrew H. Brown

### Flames Race and Crackle Through Sugar Cane to Burn Off Excess Leafage Just Before Stalks Are Harvested

Firing the cane saves much labor in cutting and does slight damage. In these fields of the United States Sugar Corporation, in the "sugar bowl" area around Clowiston, sugar cane planting is staggered so harvesting continues for seven months.



Steel Claws Dump Bunches of Cane into Tractor Wagons. Rail Cars Will Carry It the Last Lap to the Sugar Mill

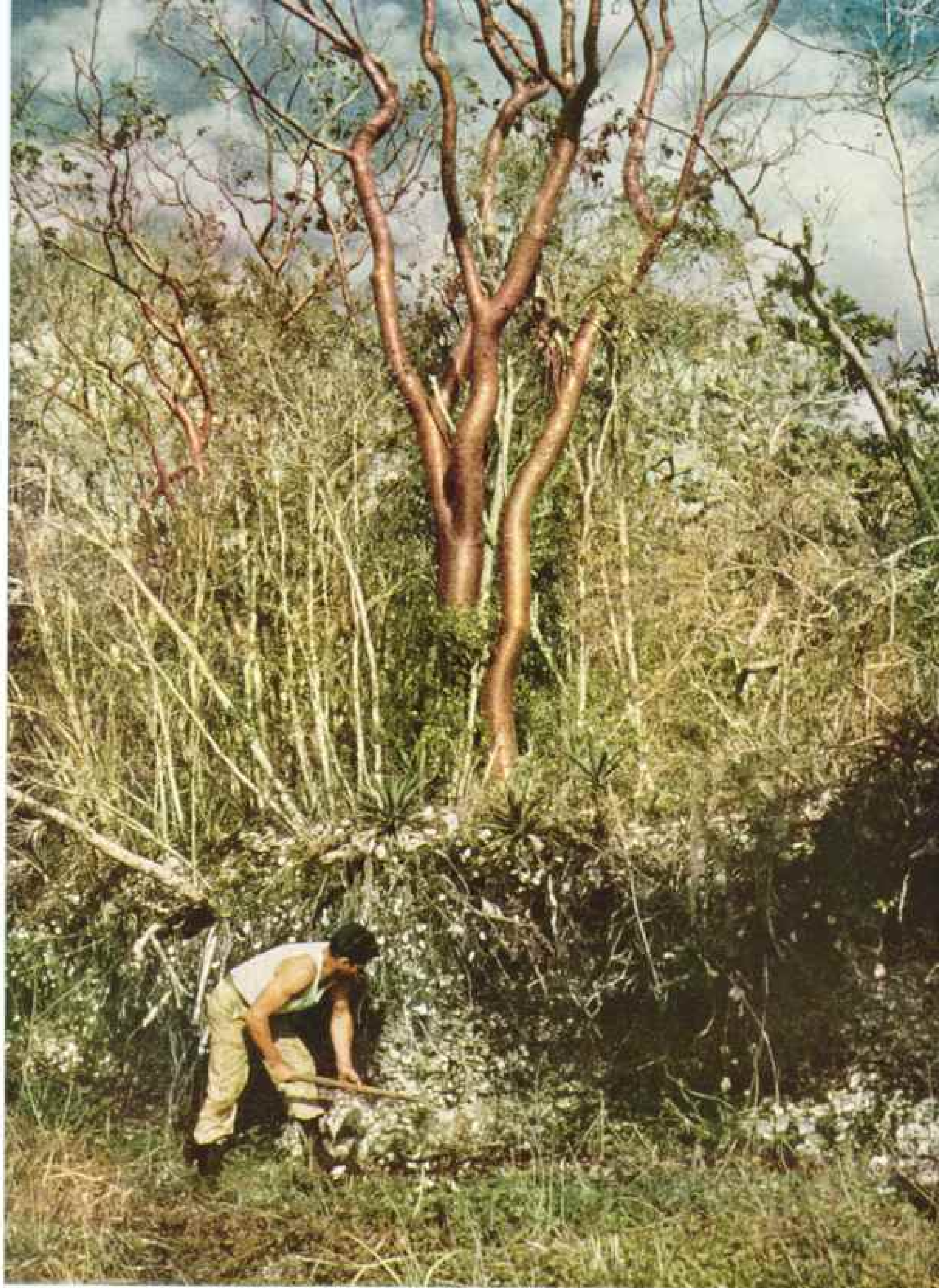
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VII

Continued to Willard B. Carter







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Exhibition by Willard B. Carter

**A Gumbo-limbo Tree Writhes Skyward from Shell Mounds Where a Digger Probes for Relics**  
 Archeologists have uncovered important artifacts of early Indian dwellers from shell beds on Marco Island. Mysterious piles, some 30 feet high, apparently were discards from aboriginal shore dinners.



### Sledlike Craft Push Air to Speed Through Water Only Inches Deep

Appropriate to the sky-and-water landscape of Hillsboro Marsh are ingenious air boats. Old auto engines turning airplane propellers drive the flat-bottomed boats. Screening prevents injury from whirling blades.



© National Geographic Society

Re-illustrated by Willard R. Carter

### An Air Boat Roars Faster over Grassy Shallows than Across Open Water

Grass and reeds, leveled by its passage, provide a slippery "runway" and reduce water drag. Skimming over such shoals the craft may speed at 50 miles an hour. Big rudder, deflecting the slipstream, is plywood.





Photographs by Willard B. Colver

### Sonny Turns the Sewing Machine to Help Mama Make a Skirt

Daughter fits a doll with a hair-do just like mother's. The family sits cross-legged on the table in their cool, thatched *chicke*. Rainbow-hued handicrafts tempt motorists along the Tamiami Trail.



© National Geographic Society

Photographs by Willard B. Colver

### Proud of His Fine Saddle, a Seminole Cowboy Relaxes During a Lunchtime Break



**"Ten Little, Nine Little, Eight Little Indians" Find School Can Be Fun**

One young lady watches to see that teacher sticks to the lesson! W. D. Boehmer, Government instructor at Brighton Reservation, teaches a first grade group. Girls wear native costume or modern dress, as they please.



© National Geographic Society

Illustrations by William H. Cutler

**Earnest Young Day Pupils Go Home at Night to Forebears' Age-old Way of Life**





Straight-backed Seminole Women Prepare the Evening's Food with Dignity and Grace

In fastnesses of Big Cypress Swamp thatched family *chickies* cluster on cleared, drained land. Close by looms the wild, wet forest. Pots, pans, and sacks of white potatoes come from stores in the distant town, but bananas, pork, chicken, yams, lima beans, and sugar cane are grown in the village.

### Stolid Face Softens as a Junior Tribesman Soaks Up Lunch

Jimmió Boy, motherless soon after birth, basks in gentle care of his aunt.

© National Geographic Society



### Charlie Cypress Works the Skill of Ages into a Bow

Like other Seminole elders, he clings to old-time tunics (under the sweater).

Illustrations by Willard H. Carter





© National Geographic Society

XIV

Reproduction by Willard R. Odum

### Everglades Cattle "Were Lapping Blackstrap Molasses with All the Gusto of Pickaninnies Ear-deep in Watermelon"

The author thus reports the zest of beef cattle for a molasses-enriched diet on the United States Sugar Corporation's Sugarland Ranch near Clewiston. Steers grow fat on the novel ration. The company has developed four purebred herds on choice pasturage reclaimed from marsh.



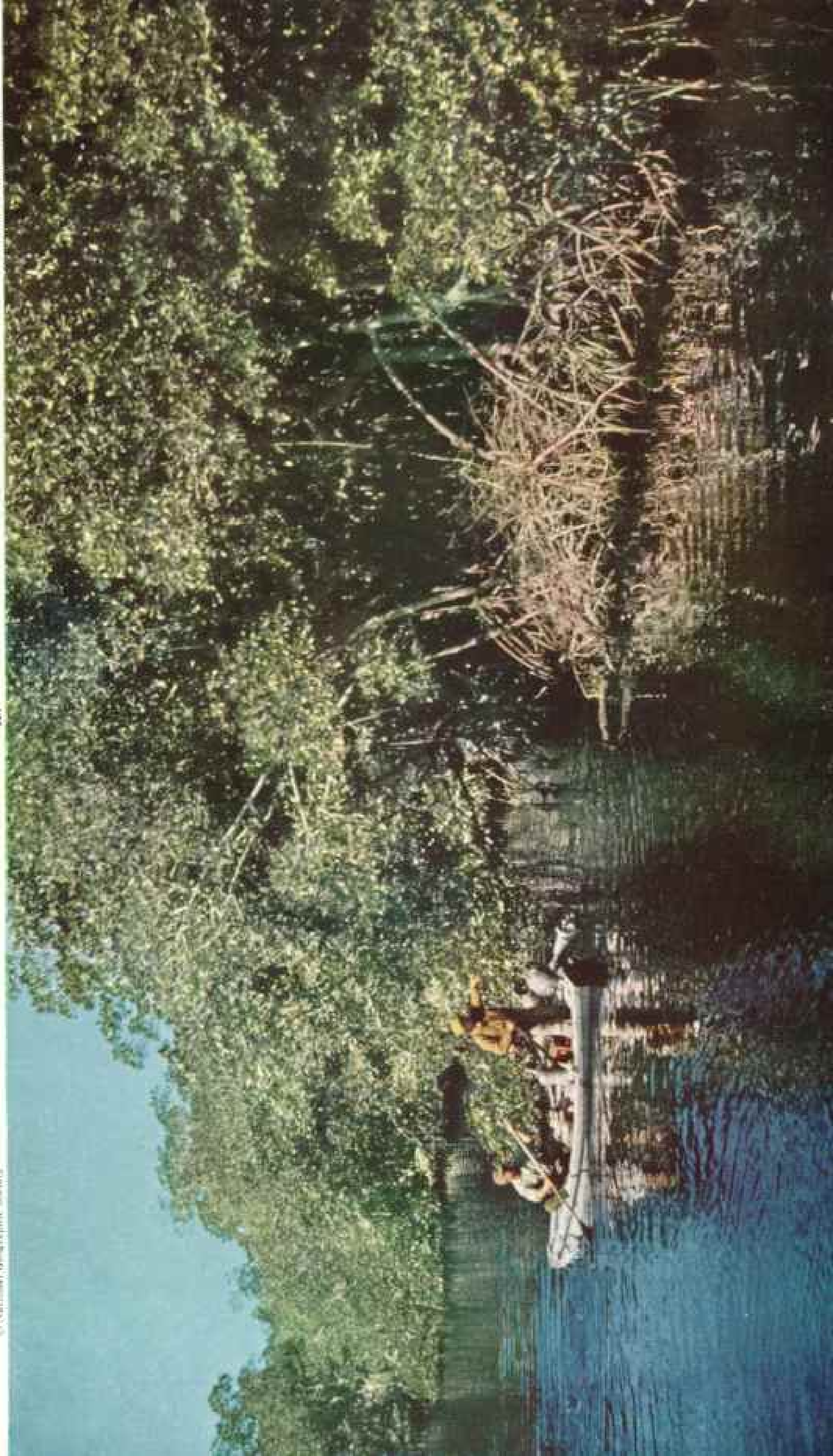
## A Wildlife Refuge Superintendent Sculls Photographer Culver Close to Tangled Mangroves along Shark River

Daniel B. Beard guided Tim Geomarcus's field men through the maze of channels in Whitewater Bay and Shark River areas. Mangroves in almost impenetrable ranks hedge the streams, thrusting arching, stiltlike roots into the salty or brackish waters. Near the river's mouth groves of giant mangroves reach a height of 80 feet.

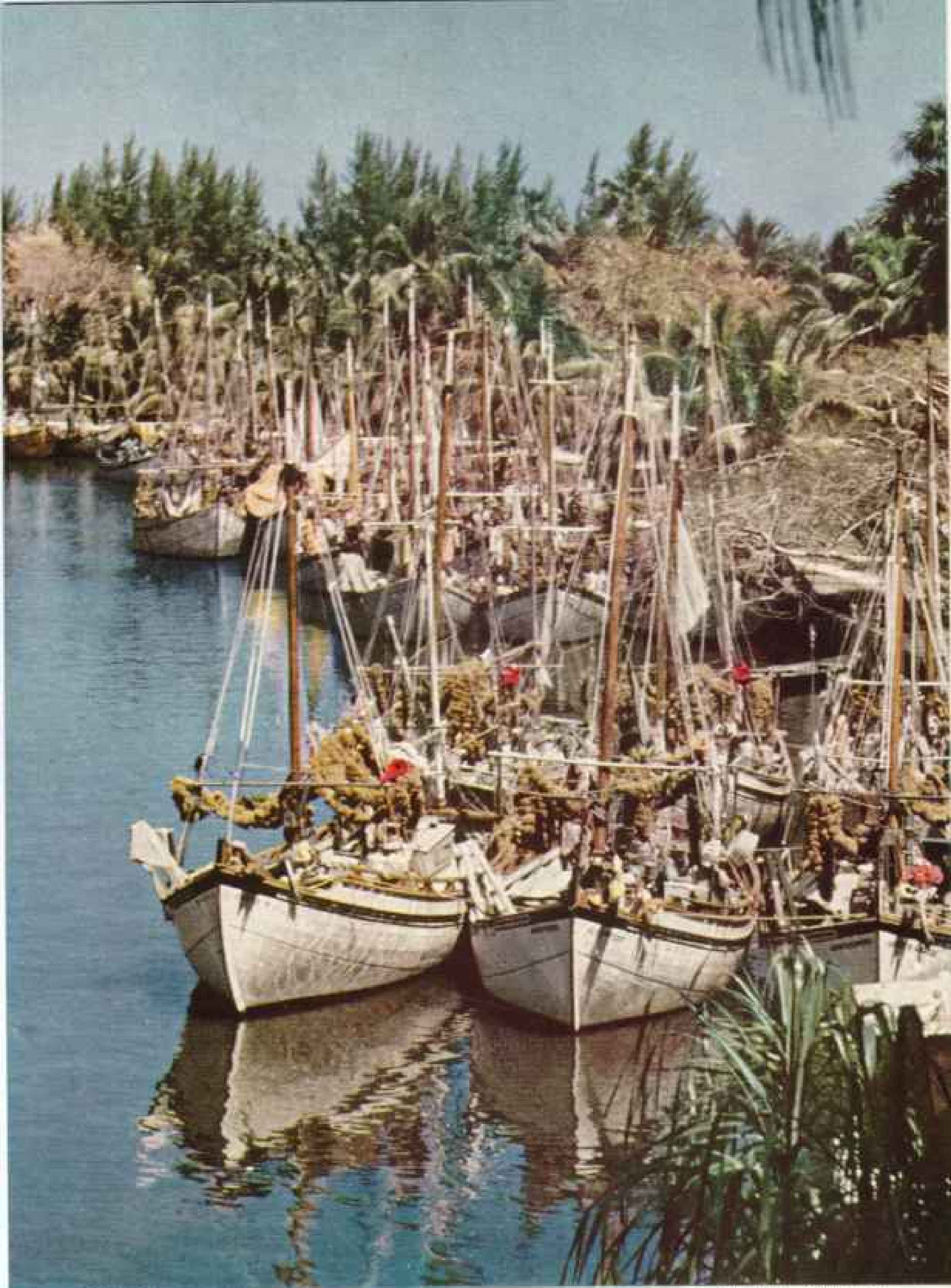
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XV

Redrawn by Andrew H. Brown







© National Geographic Society

Exhibition by Willard B. Carter

### Fresh-caught Prizes Festoon the Gay Sponge Fleet, Moored in Barron River

Fleeing a storm in the Gulf of Mexico, the colorful vessels found shelter in the flowing "Main Street" of the town of Everglades. Manned by Greek-Americans, almost all the boats were out of Tarpon Springs, Florida sponging center.

to a log it'll stretch from woods to camp without breaking!"

We reached the cutting area. A high line run from a skidder was snaking fat trees out of jungle so thick we could see only a few yards into it. Native royal palms lifted 100-foot-tall green crowns (Plate II).

"It would give a rattlesnake a headache to try to run in that bush," the speeder driver commented.

We watched a team of fallers topple a big cypress with a double-handled saw. With a sound like close thunder the soaring giant crashed through lower growth to smite the ground with a booming thud.

"That one is between 500 and 750 years old," stated Terrill. "Not a very old one. It's surprising how sound and healthy they are, after standing up to their knees in water all their lives—and without their rubbers!"

As we rode out of the swamp, Culver asked, "Isn't it hot and miserable in the woods in summer?"

"Well, the heat's bad, but the bugs are awful," Terrill replied. "One man's whole job is just to sweep flies off the backs of the men operatin' the levers on the high line.

"Horseflies get so thick in late April, if you're settin' on a screened porch, you can't see a person walkin' by in the street. Why, I know a man whose chicken run was beside a street light. Horseflies and other bugs flew into that light at night and fell so thick, he didn't have t' feed his hens for two-three weeks!"

#### Reservations Are Indians' "Kingdoms"

That evening we drove northwest to Fort Myers where we looked up Kenneth A. Marmon, Superintendent of the Seminole Indian Agency.\*

Marmon offered to show us the two major Seminole Indian reservations in south Florida: Brighton, northwest of Lake Okeechobee, and Big Cypress, 30 miles south of the Lake. On the latter reserve 90 to 120 Indians live on 42,663 acres—or 356 acres, minimum, per Indian!

These lands are the Indians' exclusive hunting and cattle grazing domain.

Of the 700 Seminoles in south Florida, only 42 are mixed bloods. About 15 or 20 percent understand English. Some won't talk the white man's language, but they understand it well enough.

Receiving no dole, proud aborigines must work for their living. Many, therefore, have left the reserves to get jobs ranging from wrestling alligators in Miami animal exhibits to cutting sugar cane, and picking tomatoes,

beans, and fruit crops. Others work on ranches or in lumber mills, drive trucks, or sell handicrafts along the highways.

In 1936 Florida's Governor David Sholtz and his cabinet met an assemblage of 273 Seminoles and asked them what they would like from the white man.

After a brief huddle, the native spokesman answered succinctly, "Just let us alone!"

"We have high hopes for cattle raising on the reservations," Marmon told us. "We've undertaken the range program to improve the Indians' lot.

"The Seminoles face a dilemma," Marmon explained. "Instinct and custom make them cling to the traditions of their ancestors, while civilization knocks at their door, urging them to join the big parade of progress."

Wednesday, March 5, was dipping day for cattle on Brighton Reservation. Marmon drove us out to see 2,000 Hereford cattle run through the tick-killing bath.

#### Crisp Beef Spareribs—Delicious!

Lunch break was half over when we drove up to the camp. Great fire-crisped hunks of fresh beef spareribs were proffered us by Fred Montsdeoca, white extension agent who supervises all cattle operations. Live-oak firewood imparted spicy flavor to the meat.

Plump, cheerful Seminole women, clad in their usual modest, rainbow-colored capes and vast skirts, brought us hot biscuits and black coffee. A coonskin stretched on palmetto ribs hung on a near-by tree. Tripe from the steer whose flesh had fed us was drying in the sun. Lunch out of the way, the women got busy on bead bracelets and dolls' clothing.

"At present we have a tribal herd," Montsdeoca said. "Everybody has an equal interest in it. Our aim is to build up the herd to a level that'll allow us to deal out a number of animals—say 20 head—to individual Indians."

We met Charlie Micco, Frank Shore, John Josh, and John Henry Gopher, Seminole trustees of the cattle enterprise. They were appointed by the tribe and approved by the Commissioner of Indian Affairs.

"Indians make fine cowboys," Montsdeoca commented. "They take naturally to horseback and are fearless riders."

We watched the slim, wiry men rounding up the cattle. They wore checked shirts, broad-brimmed hats of felt or straw, boots and spurs, dungarees and neckerchiefs, like any Western cowpoke (Plate X).

Sunset silhouetted islands of cabbage palms

\* See, in the NATIONAL GEOGRAPHIC MAGAZINE: "Indians of the Southeastern United States," by Matthew W. Stirling, January, 1946.



Harriet Rhode, Jr.

### When Rains Flood the 'Glades, a Deer Needs Wings or Fins

Thrashing through the deep water, this exhausted yearling deer was found up to his neck in trouble 35 miles north of the Tamiami Trail. After torrential downpours, such as drowned out vast stretches of the Everglades in the fall of 1947, deer may easily be captured alive.

scattered over the green land. The Indians packed their women into a truck and followed them home, sitting their horses with the loose-limbed, straight-backed grace of men grown to the saddle.

Another day Marmon led us 30 miles south of Lake Okeechobee through Okaloacoochee Slough to the second Seminole reservation in the Big Cypress Swamp.

The primitive road grade was washed out, so we plunged across the open countryside, navigating by tree clumps and larger ponds and sloughs.

What a ride!

A young Seminole buck, Willie Tommie, drove us over a trail half-submerged by recent rains. Willie got us there and back, proving as trailwise as his pathfinding forebears.

Far from towns or traffic the pattern of life was primitive but peaceful. An Indian mother beat dirt from her family's clothing on the shore of a pond. Another woman pounded corn to meal with a cypress pestle in a mortar

cut from a live oak log. Everyone went bare-foot, from beady-eyed toddler to most ancient tribal patriarch. Pigs and friendly brown dogs roamed at will around the cook table (Plate XII).

Between La Belle and Lake Okeechobee we were wizarded from the Florida of palm and pine, cypress swamp and saw-grass marsh, to what looked like rangeland of eastern Wyoming. Cattle by the thousand, many of them pearl-gray Brahms, grazed on flat land that had been cleared almost to the last palmetto patch.

Brahms, introduced from India, are remarkably tolerant of heat and resistant to ticks and mosquitoes.

Horsemen cantered across the distance to tie up at weather-beaten cattle camps. At a modest ranch house we stopped for a visit with one of the leading Everglades cattle men. On 80,000 acres (there is nothing small about *this* country!), Joe B. Hendry runs about 8,000 head of cattle.





Harvey Rhode, Jr.

**An American Egret (Right) Deftly Flips a Small Fish into Position for Swallowing**  
The bird at left, a snowy egret, seems to sulk because his larger angling mate has all the luck. The fishing hole is an Everglades canal.

With vast cattle ranges, early truck crops, and sugar cane the Everglades are discrediting early prophets of gloom who called the region useless. The future is evoked with caution, however, for in many sections thin soils, fire damage, and vexing water control problems put a checkrein on landlords' rosy dreams.

#### Land Suffered from Overdrainage

Land use history in the Everglades may be divided into two periods identified by a "B.C." and an "A.D." of special meaning. "Before Canals" land was too wet to cultivate. "After Drainage" it sometimes was too dry.

In the last 40 years, and particularly between 1913 and 1929, the Everglades were furrowed with hundreds of miles of costly canals. Drainage was overextended—at least from the farmers' point of view. Under construction today are check dams and locks which promise better balanced water control (page 147).

Largest agricultural operator in south Flor-

ida is the United States Sugar Corporation at Clewiston, on the southwest shore of Lake Okeechobee. The U.S.S.C. is the major producer of raw cane sugar in the continental United States (Plates VI and VII).

East and west of Clewiston, in an arc around the lake shores, the company owns 150,000 acres of land. A fifth of these holdings are in sugar cane production.

"We ship enough raw sugar every year," vice-president Josiah Ferris, Jr., informed me (before the end of sugar rationing), "to cash the civilian ration coupons of every man, woman, and child in the United States for 30 days."

The company cuts a million tons of cane a year, which yield approximately 100,000 tons of raw sugar.

The corporation devotes 20,000 acres to cattle pasture and agricultural crops other than sugar cane. For Newport Industries, Inc., it grows ramie, versatile "new" fiber that seems destined for large-scale development for



William H. Bischoff

### Motionless as a Floating Log, a Big Alligator Lies in Wait for Unwary Waterfowl, Fish, or Small Mammals

He is not choosy about his diet; he will eat anything that flies, walks, crawls, or swims, and is small enough for him to kill. This specimen, now in captivity, was taken in the Everglades. Alligators more than four feet long still may be hunted in many Florida counties during a nine-month open season. Nine counties give the long-victimized creatures year-round protection by law.

nets, twines, fabric fire hose, packings, and upholstery—even for cigarette papers and vitamin A.

A sign beside farm buildings just west of Clewiston read: "Sugarland Ranch, Home of Molasses Fed Beef."

"What's this about cows eating molasses?" I asked Mr. Ferris.

"Come out on the range and I'll show you," was the rejoinder.

Astride his favorite horse, Cracker Boy, Ferris followed the jeep I shared with the head rancher. We took a sack of cottonseed pellets to throw as bait to the bovines.

A mixed group of Brahman, Angus, Hereford, and Shorthorn cattle had their heads in a feed trough.

"There you are!" grinned Ferris.

Sure enough, the blocky animals were lapping blackstrap molasses with all the gusto of pickaninnies ear-deep in watermelon (Plate XIV).

"We've found that blackstrap, supplemented with proper roughage, adds pounds to steers like bonbons plump a dowager," Ferris stated. "Sweets spoil human appetites; molasses makes our cows hungrier."

U. S. Sugar's Sugarland Ranch pampers 5,000 cattle in four purebred herds on 4,400 acres of improved pasturage.

### Truck Gardening Is Big Business

Agriculture has boomed all around the south and east shores of Lake Okeechobee, ringed with a broad band of deep, organic muck. Bumper winter crops of green beans, cabbage, escarole, celery, radishes, peppers, eggplant, lima beans, peas, potatoes, and lettuce are annually bringing wealth and work to this thriving region.

Farming still is something of a gamble, however, for floods and frosts inflict heavy damage almost every year.

Despite climatic uncertainties, demand for south Florida winter truck crops has made Belle Glade one of the largest vegetable shipping points in the United States.

Palm Beach County, where most of these Everglades agricultural lands are situated, is one of the major vegetable-producing counties in the United States. Last season, 13,300 carloads of fresh vegetables rolled away from the lake area alone. Truck shipments swelled the totals cleared to hungry markets.

R. Y. Creech, Belle Glade farmer, took me out to black-soil fields where workers were cutting the last of a whopping crop of Pascal and Golden celery. They were taking out 700 crates to the acre!

George Espenlaub of Clewiston guided me to ancient Calusa Indian remains "lost" in the Everglades south of town.

The pre-Seminole Tony Mounds rise only five to ten feet above surrounding flatlands. Built along one of their canoe routes by aboriginal Calusas, the primitive earthworks are eroded and grass-grown.

Returning, "we" captured alive a three-foot cottonmouth moccasin with snake hook and bare hands. (My part in this exploit was simply to "let George do it!")

George regaled me with yarns of snake-hunting trips. He sells reptiles to live snake exhibitors.

### Capturing Snakes by the Mile

Later, in Miami, I met a man who lives on snakes—not eating them, but selling them, made up in handbags, shoes, hats, belts, and wallets.

Edward B. Mulloy, owner of the Florida Reptile Craft Company, does a volume trade in snakeskins mostly taken in the Everglades.

"Last year," he told me, "I handled over seven miles of snakeskins, mainly cottonmouth moccasins, green and banded water snakes, and king snakes. They have the handsomest patterns and are very strong.

"On a five-day trip, with two helpers and three days of hunting," Mulloy calculated as he spoke, "a good catch would be 900 snakes. It's a fair take if we get 3,000 feet of skins."

"How do you catch 'em?"

"We capture all except rattlers and kings at night, spotting our quarry with lights strapped to our foreheads. We pick up snakes in the water with tongs like the grocery hook the clerk uses to pull down boxes of cereal. On land, we press down on the snake's neck with the curved wire head of a T-stick, then grab him with thumb and forefinger."

"If you get stuck in the swamp and run out of grub, what can you eat?" I inquired.

"Well, roast wild pig is nice. I've killed them with bow and arrow. Spearing frogs is easy, and their kickers are mighty sweet.

"In canals and sloughs we jump soft-shelled turtles. Tail of gator makes good stew [alligator hunting is legal in many counties], and I wouldn't pass up rattlesnake fillets.

"Heart of cabbage palm, cooked or in a cold salad, soothes my palate. And in season wild turkey and deer are not too hard to come by. Then, if you like fish . . ."

"Stop, please!" I implored. "My mouth's watering!"

C. Kay Davis, at that time district conservationist of the U. S. Soil Conservation Service, wanted us to see the Hillsboro Marsh area west of Delray Beach, a "valueless" area scheduled for protection as a wildlife refuge.

"How do we get around out there?" I asked.

"We have a brace of air boats," Davis said. "They can step over that half-drowned grass."

On the "shores" of a vast swamp we met the air boat, water plane, or "whooshmobile." This is a flat-bottomed, square-ended craft with an old auto engine mounted astern in a latticework of rods and struts (Plate IX).

The motor drives an airplane propeller which blasts air backward and thus shoves the boat forward—at speeds up to 50 miles an hour! It took both craft to hold our party. Our pilots were old hunters, Lewis ("Cal") Henderson and Johnny Lamb.

From a narrow reedy channel we suddenly burst out upon the open marsh. A film of water lay on the land. From the saw grass wild carrot lifted dry flower clusters. Islands of myrtle, bay, and Florida holly framed-lakelike expanses strewn with waxy spider lilies.

Lamb and Henderson opened the throttles. Like huge angry water bugs the yellow air boats leaped across the shallows. White wakes foamed to either side.

"The Ashley gang of bank robbers hid out here," Johnny Lamb shouted. "They wuz never caught till they went outside."

"Recently as the early twenties," Davis added, "if you ran into a stranger in these swamps, you didn't just casually ask his name. If he volunteered his moniker—O.K.!—but it probably wouldn't be his right one, anyway."

Weeks before, an old Seminole headman had given us a placid ride in his cypress dugout canoe, vanishing symbol of the Everglades. Now here we were skating along in an ingenious travel contraption at 40 miles an hour!

While the whooshmobile trip certainly was tops for speed, zing, and thrills, it ran a poor second to the cypress pirogue for a quiet, restful cruise.

Perhaps the contrast epitomized the Everglades, where the new Everglades National Park strives to restore "waste" land to unspoiled conditions of 60 years ago, and where farmers and ranchers rush production of cattle, truck crops, fruits, fibers, and sugar cane.\*

\* See, in the NATIONAL GEOGRAPHIC MAGAZINE, "Florida—The Fountain of Youth," by John Oliver La Gorce, January, 1930; "South Florida's Amazing Everglades," by John O'Reilly, January, 1940; and "How We Use the Gulf of Mexico," by Frederick Simpich, January, 1944.