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The Charleston Natural History Society is a chapter of the National Audubon Society. Members of Audubon that live in the Charleston area automatically become members of CNHS. A portion of the annual dues paid to Audubon are returned to CNHS to cover operating expenses.

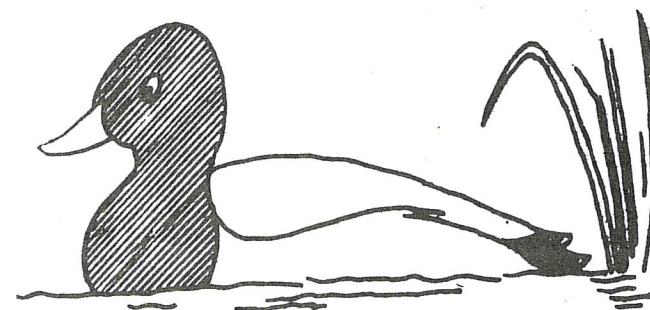
CNHS normally meets on the second Tuesday of each month(except June, July, and August) at 8:00 p.m.

One field trip a month is scheduled on a Saturday or Sunday to any of a variety of local natural areas.

THE LESSER SQUAWK welcomes any written contributions from the membership. The deadline for each issue is the 20th day of the preceeding month.

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Volume XXVII, No. 9

October 1976

MONTHLY MEETING

Speaker: Ann Townsend Adkins

Topic: Kenya On Horseback - A Saddle Safari

Date: October 12, 1976, 8:00 p.m.

Place: Baruch Auditorium

Ann will show slides of her three week horseback safari in Kenya during the summer of 1975. Ann's slides include elephants, lions, giraffes, and rhinos.

FIELD TRIP: FOUR HOLE SWAMP

Field Trip Chairman David Huff has scheduled a day-long trip to Four Hole Swamp Sanctuary north of Charleston for Sunday, October 31.

Fall migrants and the typical flora and fauna of the southern cypress-tupelo swamp should make for an interesting trip. The proposed route of the boardwalk and plans for the visitor's center will be discussed by sanctuary manager Norman

Brunswick who will lead the trip.

Participants should bring lunch, insect repellent, and wet ground footwear. The group will leave the Charleston Museum at 7:00 a.m. and meet Norman at the Hwy. 78-Hwy. 178 cross roads at 8:00 a.m.

BIRD STUDY GROUP

In addition to the regular October field trip(to Four Hole Swamp) a half-day bird study trip to I'on Swamp has been scheduled for Sunday, October 10.

This will be the first of three such bird study trips(one each month) planned for this fall. The purpose is to help instruct beginning and intermediate birders so that they can play a more important role in the annual Christmas and Spring Bird Counts.

Anyone interested in learning more about birds of the area or birding in general is welcome. Perry Nugent, Pete Laurie and others familiar with the I'on Swamp area will lead this trip.

The group will leave the Charleston Museum at 7:30 a.m. We will return to Charleston at about noon.

MEETING PLACE CHANGED TO BARUCH

The Executive Committee voted at its September meeting to tentatively change the location of the monthly meeting of the Society to the Baruch Auditorium at the Medical University.

The change of meeting place, or date, became necessary because the Charleston Museum expressed a desire to use the meeting room at the museum on Tuesday evenings in order that it might participate with the Charleston Travel Industry Development Council in a film series. As explained to me. Tuesday night was the only night that the sponsor of the film (Eastern Airlines) could make the film available.

I was requested by the Museum to ask the members of CNHS if they would be willing to change the night of the monthly meeting. The Executive Committee decided that rather than change the night it would be easier to change the meeting place. Our reasoning for this decision was that we believed that many members for years have arranged their social and business schedules so that the second Tuesday of each month is set aside for CNHS; therefore, the Committee decided that to change the meeting place rather than the meeting date might be less of a hardship on the members.

The Committee did vote, however, to bring this question before the entire membership at the October meeting for we recognized that the final decision should be made by the membership. Obviously, however, a tentative decision had to be made before the October meeting.

The Executive Committee also expressed a desire to inform the museum that the Society did not wish to permanently sever its relationship with the museum, and that if the membership agreed with the decision of the Executive Committee on changing the meeting place for this year, the Society would like to again meet at the museum when it is again convenient.

Richard D. Porcher
President

SEPTEMBER FIELD TRIP CALLED BEST EVER

The September field trip was one of the most informative and enjoyable that I have attended since becoming a member of CNHS.

Thirty members and guests accompanied me to the Francis Marion National Forest and Silk Hope Plantation on Huger Creek. The first stop, in the National Forest, was a pine barren along Highway 41 north of Huger. The profusion and diversity of fall wildflowers in this pine barren almost defies description. Two species of meadow beauty, blazing star, toothache grass (when crushed it produced a most pleasing citrus odor), yellow-eyed grass, rayless goldenrod, goldenrod, and many others. Two species of orchids, yellow fringless-orchid, and yellow fringed-orchid, were also in bloom.

The next stop was the hardwood forest along Huger Creek on Silk Hope Plantation. We parked our cars at the Huger Recreation Area and followed the Swamp Fox Trail. As we crossed the bridge over Huger Creek, a large cottonmouth, mindless of our presence, or so it seemed, was observed swimming along the creek edge. We also collected some wild rice (*Zizania aquatica*) at the edge of an old abandoned rice field (this is the native wild rice, not the cultivated rice, *Oryza sativa*). Wild rice is abundant along the marshes and banks of Huger and Quinby Creeks; unfortunately, it was not ripe in early fall so we were unable to collect any for cooking.

The Swamp Fox Trail on the Silk Hope side of Huger Creek leads along an abandoned rice field (the swamps along most of the tidal creeks in S. C. were cleared for rice production during the late 1700's and early 1800's, but today many have reverted back to swamp). This hardwood swamp habitat is also home for two rare orchids, Florida adder's mouth and the southern rein-orchid. We were fortunate to find both species; however, the latter had not flowered.

Another denizen of the hardwood forest, the copperhead, gave Katie Huger quite a

NOTES FROM ALL AROUND

For the last two or three weeks we have had a cardinal family feeding in our yard. The two young are as large as the parents. One is uniformly rosy brown, probably a female; the other is developing bright red patches and will be a male. What has been interesting to us is that the immature female is always with the adult female and asks only her to feed her (very persistently). Vice versa with the young male and "Pop". They often come in separate pairs, but even when all four come together, they separate as to sex in feeding. Is this customary or does it depend on an early fixation?

This afternoon three immature wood ibis were feeding in "our" shallow creek at low tide. They made widely sweeping motions in the water with their bills open. Occasionally, each would spread just one wing as though to make a shadow on the water. It was not always the same wing, but never both at once. We have noticed this another time recently, but have not found it mentioned in the literature.

Peg Metcalf
Battery Point
August 23, 1976

On August 28, C. J. Geilfuss III and I saw a Philadelphia Vireo at Wackendaw Lake in Mt. Pleasant, S. C. The bird sat preening for about 20 minutes on a branch 15 feet above the path, so we had an excellent view of it with 7x binoculars. The vireo bill, yellowish wash across its breast, and dark line between eye and bill, below eyebrow line were all well seen.

Dr. Edmund Farrar Jr.

(I am glad to have this observation because I have seen 5 Philadelphia vireos in the Charleston area since 1970. Unfortunately, I was alone on each occasion and cannot confirm the sightings. Perry Nugent)

In the late afternoon of September 22, I discovered a small flock of warblers in a thick hedgerow at the U. S. Vegetable Lab., Charleston S.C. One bird flew into a tree about 100 feet from me. The black triangular throat patch and white breast made me think it was a chickadee. However, at 25 feet I could see yellow crown, yellow wing patch and a black eye patch surrounded with white. Even without binoculars this strikingly beautiful bird was obviously my first golden-winged warbler.

Perry Nugent

On August 28, at the Pitt St. Bridge, Mt. Pleasant, S. C., C. J. Geilfuss and I saw a great egret catch an eel over 2 feet long. After several minutes of trying to pull it apart, the egret gave up and swallowed the eel whole, without much difficulty, in 4 or 5 gulps. The bird resumed feeding after a short rest.

Dr. Edmund Farrar Jr.

August 29, while walking along the back fence line of the U. S. Vegetable Lab, I found a small, very plain bird playing hide and seek in a thicket below a sweet gum tree. It was busy catching insects and trying to stay out of my sight. In the five minutes I watched it through 10x binoculars, the most obvious characteristic was the vireo bill. There was a light eye-line and the breast was whitish. This is one of those birds that are identified by the process of elimination. The lack of good identifying marks makes this a warbling vireo.

Perry Nugent

NOTES FROM ALL AROUND

September 13, while checking my research plots at the U. S. Vegetable Lab., I flushed 7 killdeer and one unusual little sandpiper that flew very like a snipe. At forty feet without binoculars it appeared like a very small buffy upland sandpiper.

The next day with the aid of 10x binoculars at 40-100 feet I was able to study the sandpiper for an hour and compare it to its killdeer, black-bellied and semi-palmated plover companions. It was slightly larger than the semi-palmated plover and smaller than the killdeer, although its shape, upright stance and feeding habits made for difficult size comparisons. The buffy underparts, from head to tail, white eye ring, pale legs, white wing linings, and buffy feather edgings on its back all confirmed my original thought that this was a buff-breasted sandpiper, whose home range is the prairies west of the Mississippi in the U. S. and Canada.

On the 16th I watched it for 3-4 hours, as I worked on one of my experiments. This was somewhat surprising since Pete Laurie and I couldn't find it the previous morning. Later on the 16th Pete joined me for another attempt to see the bird which was successful, and we spent the early evening, until it flew, watching this rare and unusual visitor.

As we were discussing why a buff-breasted sandpiper would come here, several shore birds flew back to a nearby field. When I put my binoculars on one that I thought might be the buff-breasted sandpiper, I couldn't believe my eyes: there were two of them!

These birds preferred the dry part of a particular that had recently been harrowed and where scattered grass clumps remained. They foraged for insects while walking at a rather fast pace, usually finding their prey on the grass, although occasionally picking a worm or beetle from the ground.

Perry Nugent

Several weeks ago (August) I was pleasantly surprised to discover a Carolina Wren nest on my front porch. (According to South Carolina Birdlife the latest that these birds nest is July.) The nest had been built in the straw basket attached to the front of my bicycle. One of the two screen doors on the porch is permanently left ajar for my German shepherd to get in and out, so the birds had no problem entering and leaving the porch.

I presume that the pair of wrens responsible for the nest are the same pair which built on my porch earlier this summer. Unfortunately, of a brood of five only one survived as my dog discovered the fledglings before I did. I caught the lucky survivor which had not yet found its way out of the rather deep box in which the first nest had been built. As I helped it escape through the fence around my home, I watched its parents lead it away toward greater safety. I hope it managed to survive.

On finding the second nest, and a few days later, four eggs, I was tempted to destroy them, knowing that when the fledglings left their home I probably would not be there to help them escape. I decided, however, to let nature take its course.

Of the four eggs, three hatched on August 23rd. From that time I had twelve days to observe the development of the baby wrens from naked little helpless creatures to healthy, well developed fledglings. Luck was with them when they left the nest. It was a Saturday morning (September 4), and I was at home to give each one a head start to safety.

I am grateful for the experience of observing our state bird at close range and am curious to know whether anyone else has discovered its nesting so late in the season.

Ann Townsend Adkins

start. As usual, we all admired its ability to conceal itself among the litter of the forest. I also noticed that everyone seemed to be walking more circumspectly, perhaps thinking of how many copperheads they had already walked by but had failed to see.

The group next surveyed the hardwood forest that covers the bluff adjacent to the rice field. This forest, referred to as a mixed hardwood mesophytic forest, represents a relic community floristically related to the Appalachian Upland. The floristic similarity was evidenced by some of the species of plants that we observed. The dominant tree was beech, and growing on many of the roots of the beech trees was a parasitic plant called beechdrops. Numerous specimens of the autumn coral-root were seen. This orchid is a saprophytic orchid that is primarily found in the mountains of S. C.

Four ferns were noted: ebony spleenwort, christmas fern, southern lady fern, and grape fern. Many other species, too numerous to list here, so delighted our group that it was suggested that we make a return visit in the spring.

Perhaps the most spectacular find of the day was a large timber rattlesnake that had evidently just shed its skin. It, like the copper head, displayed a degree of camouflage that made us all walk even more circumspectly as we made our way back to the rest area and our waiting lunches.

Richard Porcher
Trip Leader

THE SKY-WATCHERS' GUIDE

Two planets only may be seen during the evening hours of October, this year. With the shortening of daylight, Venus is more readily perceived in the west, and since it continues to climb higher into view, it may be observed until it sets in the darkening twilight.

Over the opposite horizon, Jupiter will appear. At the beginning of the month, this will take place about 8:30 p.m., and earlier each night thereafter. On the 20th, the setting of Venus and the rising of Jupiter will occur simultaneously.

During the course of the year, regular Sky-watchers could not fail to notice that, just as the sun follows a definite "path" across the sky, from the time of its rising until it sets, so at night the moon and the planets do the same. In the northern hemisphere, the "path" pursues a southerly curve westward from the eastern horizon. On the equator, the curve is directly from the east, upward to the zenith at noon, then downward to the west. In the southern hemisphere, the path curves northward, so that there, the sun, moon, and planets are all seen in the northern sky. This phenomenon is due to the fact that, as the earth revolves around the sun, it maintains a position in which the North Pole is tilted toward Polaris, and the equator is constantly in line with the sun.

It must be remembered that the earth is one of nine planets, all of which are orbiting the sun in the same general plane. Thus, viewed from Earth, these heavenly bodies always appear to follow the sun's "path", and all, including Earth, are traveling counter-clockwise on their several orbits.

The moon, also, is to be seen along the same "path" as the planets. Next month, the motion and changing phases of this brightest object in the night sky will be discussed.

By mid-October, from 8-10 p. m., the Summer Triangle of bright stars may be seen in the western half of the sky. Deneb, in Cygnus, is highest in view, with brilliant Vega to the west of it, and red Altair some 20 degrees southwest of it.

The Square of Pegasus is approaching the meridian, and will soon be at the zenith. The star at the northeast corner of the Square belongs, also, to another constellation. It represents the head of Andromeda, the daughter of Queen Cassiopeia. Extending northeastward from this are two other stars of the same magnitude, representing her body and her feet.

When facing north, the observer may

see a figure resembling a crooked letter "M". It is formed of three second magnitude and two third magnitude stars. (Polaris, which is located about 20 degrees nearer to the northern horizon than this figure, it is a second magnitude star). This is Cassiopeia, who is supposed to be sitting in a chair. Unfortunately for her, at this time of the year, the chair is upside down! By connecting the middle star of the "M" with a very faint one just east of it, persons with good imagination may be able to visualize this object.

As the night advances, and these constellations pursue their westward curve, the bright stars of winter will begin to make their appearance. For the "night-hawks" among us who retire late enough to watch Orion come into full view, Saturn may be seen rising slightly north of east. At the beginning of the month, it will clear the horizon between 1:00 and 2:00 o'clock, and about 30 minutes later by the 15th.

Early risers, on the other hand, will be able to see Mercury. It will reach its greatest western elongation on the 7th of the month, and for about a week, it should be visible for at least an hour before sunrise.

Mars, which has been visible during the night hours since early January, is now lost to sight for the next few months. Twice as far away from the sun as is the earth, it will soon be around the other side of the sun. When it reappears, in 1977, it will be a "Morning Star".

Elizabeth D. Simons

BLAZING STARS

Some of the most attractive plants of October are those of the blazing stars, Liatrus. All bear showy spikes or racemes of pink or lavender-purple blooms on leafy stems that arise from rootstocks that usually have a swollen, tuberous portion just below the soil line.

In damp pine woods L. spicata is a common sight, forming purplish streaks among the drifts of yellow daisies. Its leaves are long and narrow, as are those of most of the other species, which easily distinguishes it from the somewhat similar Trillisa paniculata. Another frequently found blazing star, particularly along sandy roadsides in Charleston County, is Liatrus elegans. Its flowers are of a pinkish hue and in addition, have expanded bracts of the same color. An uncommonly beautiful stand of these plants, along with hundreds of sunflowers, may be seen in the town of Ravenel.

Farther inland, especially in the sand hill region, you may expect to find L. graminifolia, L. secunda with arching stems, L. tenuifolia in turkey oak forests, and L. carlei which has rather wide, elliptical leaves. Usually found on basic soils and decidedly uncommon in the Low Country is L. squarrosa. Ted Beckett found the latter species growing in the Francis Marion National Forest a year or two ago. Equally rare in S. C. is L. gracilis, being known from only Colleton and Beaufort Counties which it reaches from its distribution center in Georgia and Florida.

The blazing stars are members of the family Asteraceae (Compositae). They are natives of North America but have been introduced as garden subjects in other areas. The etymology of the word Liatrus is variously listed as obscure or unknown.

Edmund R. Cuthbert

BIRD MOVEMENTS IN OCTOBER BY DATE

ARRIVALS

- | | |
|----------------------------|----------------------|
| 2 Gannet | 17 Common Loon |
| Red-breasted Merganser | Robin |
| Brown Creeper | 19 Rusty Blackbird |
| White-throated Sparrow | 20 Lesser Scaup |
| 4 Yellow-bellied Sapsucker | 21 Ring-necked Duck |
| Western Kingbird | Henslow's Sparrow |
| Kirtland's Warbler | 22 Whistling Swan |
| Slate-colored Junco | 23 Long-eared Owl |
| 5 Green-winged Teal | 24 Surf Scoter |
| Rudy Duck | 25 LeConte's Sparrow |
| 7 Canada Goose | Horned Grebe |
| 8 Purple Finch | 26 Short-eared Owl |
| 9 White-crowned Sparrow | Snowy Owl |
| 10 Red-necked Grebe | 29 Hooded Merganser |
| Golden-crowned Kinglet | Dovekie |
| 11 Common Scoter | 31 Canvasback |
| Bonaparte's Gull | Greater Scaup |
| 13 Solitary Vireo | Pine Siskin |
| Savannah Sparrow | |
| 15 Red-throated Loon | |
| Yellow Rail | |
| 16 Snow Goose | |

DEPARTURES

- | | |
|---------------------------------|-----------------------------|
| 6 Black Rail | 22 Wood Thrush |
| 9 Black Tern | Blackburnian Warbler |
| Acadian Flycatcher | Northern Waterthrush |
| 14 Roseate Spoonbill | 23 Mississippi Kite |
| Summer Tanager | 24 Kentucky Warbler |
| 15 Wilson's Petrel | 25 Northern Phalarope |
| Rough-winged Swallow | Black-billed Cuckoo |
| Hooded Warbler | 26 Great-crested Flycatcher |
| Blue Grosbeak | Chestnut-sided Warbler |
| Lark Sparrow | 27 Swainson's Thrush |
| 16 Gull-billed Tern | 29 Upland Plover |
| Eastern Kingbird | Least Tern |
| 17 Wilson's Plover | Cliff Swallow |
| 19 Black-throated Green Warbler | Parula Warbler |
| Louisiana Waterthrush | 30 Pectoral Sandpiper |
| 20 White-rumped Sandpiper | Eastern Wood Peewee |
| Stilt Sandpiper | Sandwich Tern |
| Least Bittern | Tennessee Warbler |
| | Yellow Warbler |
| | Kirkland's Warbler |



Shell Shocked

by

Maggi Yergin

Of the many types of shells that are available in our area on the low tide line, the Olivella mutica (Variable Olivella), Oliva sayana (Lettered Olive), and the Neosimnia uniplacata (Single-toothed Simnia) are my most favorites. The Olivella, which has an operculum, and the Lettered Olive, which has no operculum belong to the same family, Olividae. They are carnivorous and live in the sand. The Simnia belongs to the family Ovulidae. It is found living on the coral whips and feeds on the little polyps.

The Variable Olivella is my most favorite of the three. Their colors vary from white, yellow, purple, or brown. One that I have in my own special collection is a deep rich brown color. The size of the shell is about one half inch, although they may sometimes reach the length of one inch.

When looking for the Olivella you need to go to the shallow parts of a tidal pool. Sometimes the shells will be on top of the sand but usually they burrow underneath, leaving a trail of raised sand. As with most sand dwellers, the trails are at first difficult to recognize. With practice it becomes easier to identify the animal by its trail. An excellent spot for finding the Olivellas is at the north end of the Isle of Palms where the large tidal pool is on the front beach.

The Lettered Olive is a larger shell which averages about two and a half inches long. The Olive shell is quite common to our beaches. Their glossy shine makes

them desirable to most beachcombers. The best place that I have found the Olive shell is at the Coast Guard Station on Folly Beach. It has been about a year since I have been over there and I understand that the sand has filled in over the sand bags so the collecting there may not be as good as it once was.

Of the many Olive shells that I have collected I have never found one alive. Apparently they must be in deeper water. If any of you have found the Lettered Olive alive I hope that you will let me know. I want to keep one in the aquarium to study its habits.

The one mollusk that I hunted for but never so much as found a shell fragment of was the Single-toothed Simnia. Finally last December my husband found a whole colony of Simnias. The amazing thing is that they were in an area that I had done collecting before and within easy reach at low tide but I had never noticed them. Since then we've been fortunate to find many other areas that the Simnia seem to do well.

One of the attractive qualities of the Simnia is that their color is that of the sea whip in which they live. If the sea whip is yellow so is the mollusk. What we found fascinating about them in the aquarium is that if a Simnia was yellow and we put in purple or white sea whips they would slowly change to the color of the sea whip.

The Single-toothed Simnia averages about one half inch in length. Their shell is glossy because of the mantle that extends over the top of the shell. They have no operculum.

All of these shells are easily cleaned by a simple boiling. Place in boiling water for about five minutes. The lettered Olives may take longer as the shell is thicker. When cool enough to touch use a probe to scrape out the meat of the animal. If you wish to save the operculum it is best to clean the shell under a magnifying glass as the operculum is so small that it is easily lost.

Of the three mollusks mentioned the Simnia are best for the aquarium as the others like to burrow into the sand and often die and foul the tank. If keeping

the Simnia, be sure that there is enough food in the form of sea whips for them. The longest that I have kept them in the aquarium is three months with very little care.

Just a not to shell hunters: winter is coming on fast and the shelling should pick up about mid-October and get really good in January. With all the winds and storms we've been having, the outer islands will be abundant in shells this winter. If you'd like a treat and have all day, try Sandy Point in the Raccoon Keys. You'll be amazed at the shell there.

Til next time, Happy Shelling

Maggi Yergin

OBSERVATIONS

August	7	Louisiana Waterthrush
	15	Louisiana Waterthrush
	18	Worm-eating Warbler
	22	3 Lesser Yellowlegs
	28	Philadelphia Vireo
	29	Warbling Vireo
Sept.	11	Cooper's Hawk
		Northern Waterthrush
		10 Blue-winged Teal
		30 Wood Duck
		Hermit Thrush
		Alligator nest since Aug.
	13-17	2 Buff-breasted Sandpiper
	15	Lesser Blackbacked Gull
	16	8 Pectoral Sandpiper
		Black Tern
	18	2 Ovenbird
	21	Peregrine Falcon
		Tennessee Warbler
	22	Brewer's Blackbird
		Golden-winged Warbler
	5	28 Avocet
		35 Black-necked Stilt
		3 Stilt Sandpiper

Tower Kills Warblers

On the morning of August 31, WCBD TV, Channel 2 in Mt. Pleasant, called my office to report that a substantial number of migrating birds had hit their transmitting tower during the night.

I arrived at Channel 2 about noon and picked up 103 birds of 17 species. Dr. Dennis Forsythe of The Citadel later found about an equal number of birds under the Channel 4 tower also in Mt. Pleasant.

Dennis preserved all the birds for The Citadel's collection.

My list from Channel 2: sora rail, 2; veery, 1; bobolink, 1; red-eyed vireo, 39; white-eyed vireo, 3; redstart, 16; prothonotary warbler, 8; ovenbird, 14; black and white warbler, 10; yellowthroat, 1; worm-eating warbler, 1; northern waterthrush, 3; Louisiana waterthrush, 1; parula warbler, 1; yellow warbler, 1; hooded warbler, 1; Kentucky warbler, 1.

Pete Laurie

Mt. Pleasant	E. Farrar
Mt. Pleasant	E. Farrar
Mt. Pleasant	E. Farrar, C. Geilfuss
Mt. Pleasant	E. Farrar, C. Geilfuss
Wackendaw Lake	E. Farrar, C. Geilfuss
U. S. Veg. Lab.	P. Nugent
Magnolia Gardens	S. Roche, T. Beckett
Magnolia Gardens	S. Roche, T. Beckett
Magnolia Gardens	S. Roche, T. Beckett
Magnolia Gardens	S. Roche, T. Beckett
Magnolia Gardens	S. Roche, T. Beckett
U. S. Veg Lab	P. Nugent, P. Laurie
N. Chas. dump	D. Forsythe
U. S. Veg Lab	P. Nugent, P. Laurie
U. S. Veg Lab	P. Nugent, P. Laurie
Wackendaw Lake	C. Geilfuss
James Island	P. Laurie
James Island	P. Laurie
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Daniels Is.	W. Wingfield
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