



See a Social Security Number? Say Something!
Report Privacy Problems to <https://public.resource.org/privacy>
Or call the IRS Identity Theft Hotline at 1-800-908-4490



**Return of Private Foundation
or Section 4947(a)(1) Nonexempt Charitable Trust
Treated as a Private Foundation**

Note. The foundation may be able to use a copy of this return to satisfy state reporting requirements

2011

For calendar year 2011 or tax year beginning January 01, 2011, and ending December 31, 2011

Name of foundation Ichauway, Inc dba Joseph W. Jones Ecological Research Center		A Employer identification number 58-1824778	
Number and street (or P.O. box number if mail is not delivered to street address) 3988 Jones Center Drive		B Telephone number (see instructions) (229) 734-4706	
City or town, state, and ZIP code Newton, GA 39870		C If exemption application is pending, check here ☐	
G Check all that apply: ☐ Initial return ☐ Initial return of a former public charity ☐ Final return ☐ Amended return ☐ Address change ☐ Name change		D 1. Foreign organizations, check here ☐ 2. Foreign organizations meeting the 85% test, check here and attach computation ☐	
H Check type of organization: ☒ Section 501(c)(3) exempt private foundation ☐ Section 4947(a)(1) nonexempt charitable trust ☐ Other taxable private foundation		E If private foundation status was terminated under section 507(b)(1)(A), check here ☐ F If the foundation is in a 60-month termination under section 507(b)(1)(B), check here ☐	
I Fair market value of all assets at end of year (from Part II, col. (c), line 16) \$ 5,419,950		J Accounting method: ☐ Cash ☒ Accrual ☐ Other (specify) _____	

Part I Analysis of Revenue and Expenses (The total of amounts in columns (b), (c), and (d) may not necessarily equal the amounts in column (a) (see instructions))		(a) Revenue and expenses per books	(b) Net investment income	(c) Adjusted net income	(d) Disbursements for charitable purposes (cash basis only)
Revenue	1 Contributions, gifts, grants, etc., received (attach schedule)	8,035,376			
	2 Check ☐ if the foundation is not required to attach Sch. B				
	3 Interest on savings and temporary cash investments	15,114	15,114	15,114	
	4 Dividends and interest from securities	0	0	0	
	5a Gross rents	240	240	240	
	b Net rental income or (loss)	240			
	6a Net gain or (loss) from sale of assets not on line 10	1,550			
	b Gross sales price for all assets on line 6a	1,550			
	7 Capital gain net income (from Part IV, line 2)		0		
	8 Net short-term capital gain			0	
	9 Income modifications			0	
	10a Gross sales less returns and allowances	0			
b Less: Cost of goods sold	0				
c Gross profit or (loss) (attach schedule)			0		
11 Other income (attach schedule)		0	0		
12 Total. Add lines 1 through 11	8,052,280	15,354	15,354		
Operating and Administrative Expenses	13 Compensation of officers, directors, trustees, etc	0	0	0	0
	14 Other employee salaries and wages	4,115,300	69,427	69,427	4,041,773
	15 Pension plans, employee benefits	1,758,746	31,201	31,201	1,727,022
	16a Legal fees (attach schedule)	1,450	0	0	1,450
	b Accounting fees (attach schedule)	31,348	10,972	10,972	20,376
	c Other professional fees (attach schedule)	100,696	697	697	105,569
	17 Interest	0	0	0	0
	18 Taxes (attach schedule) (see instructions)	142,293	0	0	142,293
	19 Depreciation (attach schedule) and depletion	536,061	0	0	
	20 Occupancy	403,302	0	0	412,967
	21 Travel, conferences, and meetings	133,932	0	0	135,913
	22 Printing and publications	26,584	0	0	25,388
	23 Other expenses (attach schedule)	1,780,298	0	0	1,773,324
	24 Total operating and administrative expenses. Add lines 13 through 23	9,030,010	112,297	112,297	8,386,075
	25 Contributions, gifts, grants paid	180,257			187,105
26 Total expenses and disbursements. Add lines 24 and 25	9,210,267	112,297	112,297	8,573,180	
27 Subtract line 26 from line 12:					
a Excess of revenue over expenses and disbursements	(1,157,987)				
b Net investment income (if negative, enter -0-)		0			
c Adjusted net income (if negative, enter -0-)			0		

 COPIED MAY 31 2012
 RECEIVED
 MAY 21 2012
 IRS-OC
 OGDEN, UT

Part II Balance Sheets		Attached schedules and amounts in the description column should be for end-of-year amounts only (See instructions.)	Beginning of year	End of year	
			(a) Book Value	(b) Book Value	(c) Fair Market Value
Assets	1	Cash—non-interest-bearing	35,614	114,324	114,324
	2	Savings and temporary cash investments	1,855,340	2,402,810	2,402,810
	3	Accounts receivable ▶ 1,688			
		Less: allowance for doubtful accounts ▶ 0	13,112	1,688	1,688
	4	Pledges receivable ▶ 0			
		Less: allowance for doubtful accounts ▶ 0	0	0	0
	5	Grants receivable	136,146	99,281	99,281
	6	Receivables due from officers, directors, trustees, and other disqualified persons (attach schedule) (see instructions) . .	0	0	0
	7	Other notes and loans receivable (attach schedule) ▶ 0			
		Less: allowance for doubtful accounts ▶ 0	0	0	0
	8	Inventories for sale or use	0	0	0
	9	Prepaid expenses and deferred charges	106,203	94,117	94,117
	10a	Investments—U.S. and state government obligations (attach schedule)	0	0	0
	b	Investments—corporate stock (attach schedule)	0	0	0
	c	Investments—corporate bonds (attach schedule)	0	0	0
Liabilities	11	Investments—land, buildings, and equipment: basis ▶ 0			
		Less: accumulated depreciation (attach schedule) ▶ 0	0	0	0
	12	Investments—mortgage loans	0	0	0
	13	Investments—other (attach schedule)	1,500,000	0	0
	14	Land, buildings, and equipment: basis ▶ 16,877,885			
		Less: accumulated depreciation (attach schedule) ▶ 14,170,155	2,973,801	2,707,730	2,707,730
	15	Other assets (describe ▶ 0)	0	0	0
	16	Total assets (to be completed by all filers—see the instructions. Also, see page 1, item I)	6,620,216	5,419,950	5,419,950
	17	Accounts payable and accrued expenses	584,577	523,137	
	18	Grants payable	0	0	
	19	Deferred revenue	98,875	118,036	
	20	Loans from officers, directors, trustees, and other disqualified persons	0	0	
	21	Mortgages and other notes payable (attach schedule) . . .	0	0	
	22	Other liabilities (describe ▶ 0)	0	0	
	23	Total liabilities (add lines 17 through 22)	683,452	641,173	
Net Assets or Fund Balances		Foundations that follow SFAS 117, check here and complete lines 24 through 26 and lines 30 and 31. ☒			
	24	Unrestricted	5,936,764	4,778,777	
	25	Temporarily restricted	0	0	
	26	Permanently restricted	0	0	
		Foundations that do not follow SFAS 117, check here and complete lines 27 through 31. ☐			
	27	Capital stock, trust principal, or current funds			
	28	Paid-in or capital surplus, or land, bldg., and equipment fund			
	29	Retained earnings, accumulated income, endowment, or other funds			
	30	Total net assets or fund balances (see instructions) . . .	5,936,764	4,778,777	
	31	Total liabilities and net assets/fund balances (see instructions)	6,620,216	5,419,950	

Part III Analysis of Changes in Net Assets or Fund Balances

1	Total net assets or fund balances at beginning of year—Part II, column (a), line 30 (must agree with end-of-year figure reported on prior year's return)	1	5,936,764
2	Enter amount from Part I, line 27a	2	(1,157,987)
3	Other increases not included in line 2 (itemize) ▶	3	0
4	Add lines 1, 2, and 3	4	4,778,777
5	Decreases not included in line 2 (itemize) ▶	5	0
6	Total net assets or fund balances at end of year (line 4 minus line 5)—Part II, column (b), line 30	6	4,778,777

Part IV Capital Gains and Losses for Tax on Investment Income

(a) List and describe the kind(s) of property sold (e.g., real estate, 2-story brick warehouse, or common stock, 200 shs MLC Co.)		(b) How acquired P—Purchase D—Donation	(c) Date acquired (mo., day, yr.)	(d) Date sold (mo., day, yr.)
1a				
b				
c				
d				
e				
(e) Gross sales price	(f) Depreciation allowed (or allowable)	(g) Cost or other basis plus expense of sale	(h) Gain or (loss) (e) plus (f) minus (g)	
a				
b				
c				
d				
e				
Complete only for assets showing gain in column (h) and owned by the foundation on 12/31/69				
(i) F.M.V. as of 12/31/69	(j) Adjusted basis as of 12/31/69	(k) Excess of col. (i) over col. (j), if any	(l) Gains (Col. (h) gain minus col. (k), but not less than -0-) or Losses (from col. (h))	
a				
b				
c				
d				
e				
2 Capital gain net income or (net capital loss)	If gain, also enter in Part I, line 7 If (loss), enter -0- in Part I, line 7		2	
3 Net short-term capital gain or (loss) as defined in sections 1222(5) and (6): If gain, also enter in Part I, line 8, column (c) (see instructions). If (loss), enter -0- in Part I, line 8			3	

Part V Qualification Under Section 4940(e) for Reduced Tax on Net Investment Income

(For optional use by domestic private foundations subject to the section 4940(a) tax on net investment income.)

If section 4940(d)(2) applies, leave this part blank.

Was the foundation liable for the section 4942 tax on the distributable amount of any year in the base period? ☐ Yes ☒ No

If "Yes," the foundation does not qualify under section 4940(e). Do not complete this part.

1 Enter the appropriate amount in each column for each year; see the instructions before making any entries.			
(a) Base period years Calendar year (or tax year beginning in)	(b) Adjusted qualifying distributions	(c) Net value of noncharitable-use assets	(d) Distribution ratio (col. (b) divided by col. (c))
2010	8,381,419	1,000,000	8.381419
2009	8,220,233	1,000,000	8.220233
2008	8,390,502	1,000,000	8.390502
2007	8,603,383	1,000,000	8.603383
2006	8,015,180	1,000,000	8.015180
2 Total of line 1, column (d)			2 41.610717
3 Average distribution ratio for the 5-year base period—divide the total on line 2 by 5, or by the number of years the foundation has been in existence if less than 5 years			3 8.322143
4 Enter the net value of noncharitable-use assets for 2011 from Part X, line 5			4 846,993
5 Multiply line 4 by line 3			5 7,048,797
6 Enter 1% of net investment income (1% of Part I, line 27b)			6 0
7 Add lines 5 and 6			7 7,048,797
8 Enter qualifying distributions from Part XII, line 4 If line 8 is equal to or greater than line 7, check the box in Part VI, line 1b, and complete that part using a 1% tax rate. See the Part VI instructions.			8 8,843,171

Part VI Excise Tax Based on Investment Income (Section 4940(a), 4940(b), 4940(e), or 4948—see instructions)

1a	Exempt operating foundations described in section 4940(d)(2), check here ☐ and enter "N/A" on line 1. Date of ruling or determination letter: _____ (attach copy of letter if necessary—see instructions)			
b	Domestic foundations that meet the section 4940(e) requirements in Part V, check here ☒ and enter 1% of Part I, line 27b	1		0
c	All other domestic foundations enter 2% of line 27b. Exempt foreign organizations enter 4% of Part I, line 12, col. (b).			
2	Tax under section 511 (domestic section 4947(a)(1) trusts and taxable foundations only. Others enter -0-)	2		0
3	Add lines 1 and 2	3		0
4	Subtitle A (income) tax (domestic section 4947(a)(1) trusts and taxable foundations only. Others enter -0-)	4		0
5	Tax based on investment income. Subtract line 4 from line 3. If zero or less, enter -0-	5		0
6	Credits/Payments:			
a	2011 estimated tax payments and 2010 overpayment credited to 2011	6a		0
b	Exempt foreign organizations—tax withheld at source	6b		0
c	Tax paid with application for extension of time to file (Form 8868)	6c		0
d	Backup withholding erroneously withheld	6d		0
7	Total credits and payments. Add lines 6a through 6d	7		0
8	Enter any penalty for underpayment of estimated tax. Check here ☐ if Form 2220 is attached	8		0
9	Tax due. If the total of lines 5 and 8 is more than line 7, enter amount owed	9		0
10	Overpayment. If line 7 is more than the total of lines 5 and 8, enter the amount overpaid	10		0
11	Enter the amount of line 10 to be: Credited to 2012 estimated tax 0 Refunded	11		0

Part VII-A Statements Regarding Activities

	Yes	No
1a During the tax year, did the foundation attempt to influence any national, state, or local legislation or did it participate or intervene in any political campaign?		☒
b Did it spend more than \$100 during the year (either directly or indirectly) for political purposes (see page 19 of the instructions for definition)? <i>If the answer is "Yes" to 1a or 1b, attach a detailed description of the activities and copies of any materials published or distributed by the foundation in connection with the activities.</i>		☒
c Did the foundation file Form 1120-POL for this year?		☒
d Enter the amount (if any) of tax on political expenditures (section 4955) imposed during the year: (1) On the foundation. ▶ \$ 0 (2) On foundation managers. ▶ \$ 0		
e Enter the reimbursement (if any) paid by the foundation during the year for political expenditure tax imposed on foundation managers. ▶ \$ 0		
2 Has the foundation engaged in any activities that have not previously been reported to the IRS? <i>If "Yes," attach a detailed description of the activities.</i>		☒
3 Has the foundation made any changes, not previously reported to the IRS, in its governing instrument, articles of incorporation, or bylaws, or other similar instruments? <i>If "Yes," attach a conformed copy of the changes.</i>		☒
4a Did the foundation have unrelated business gross income of \$1,000 or more during the year?		☒
b If "Yes," has it filed a tax return on Form 990-T for this year?		☒
5 Was there a liquidation, termination, dissolution, or substantial contraction during the year? <i>If "Yes," attach the statement required by General Instruction T.</i>		☒
6 Are the requirements of section 508(e) (relating to sections 4941 through 4945) satisfied either: • By language in the governing instrument, or • By state legislation that effectively amends the governing instrument so that no mandatory directions that conflict with the state law remain in the governing instrument?	☒	
7 Did the foundation have at least \$5,000 in assets at any time during the year? <i>If "Yes," complete Part II, col. (c), and Part XV</i>	☒	
8a Enter the states to which the foundation reports or with which it is registered (see instructions) ▶ Georgia		
b If the answer is "Yes" to line 7, has the foundation furnished a copy of Form 990-PF to the Attorney General (or designate) of each state as required by General Instruction G? <i>If "No," attach explanation</i>	☒	
9 Is the foundation claiming status as a private operating foundation within the meaning of section 4942(j)(3) or 4942(j)(5) for calendar year 2011 or the taxable year beginning in 2011 (see instructions for Part XIV)? <i>If "Yes," complete Part XIV</i>	☒	
10 Did any persons become substantial contributors during the tax year? <i>If "Yes," attach a schedule listing their names and addresses</i>		☒

Part VII-A Statements Regarding Activities (continued)

11	At any time during the year, did the foundation, directly or indirectly, own a controlled entity within the meaning of section 512(b)(13)? If "Yes," attach schedule (see instructions)	11		✓
12	Did the foundation make a distribution to a donor advised fund over which the foundation or a disqualified person had advisory privileges? If "Yes," attach statement (see instructions)	12		✓
13	Did the foundation comply with the public inspection requirements for its annual returns and exemption application?	13	✓	
Website address ▶ N/A				
14	The books are in care of ▶ Erik S. Johnson, Secretary	Telephone no. ▶	(404) 522-6755	
	Located at ▶ 191 Peachtree Street, NE, Suite 3540 Atlanta, GA	ZIP+4 ▶	30303	
15	Section 4947(a)(1) nonexempt charitable trusts filing Form 990-PF in lieu of Form 1041—Check here.	15		N/A
16	At any time during calendar year 2011, did the foundation have an interest in or a signature or other authority over a bank, securities, or other financial account in a foreign country?	16	Yes	No
	See the instructions for exceptions and filing requirements for Form TD F 90-22.1. If "Yes," enter the name of the foreign country ▶			✓
	N/A			

Part VII-B Statements Regarding Activities for Which Form 4720 May Be Required

File Form 4720 if any item is checked in the "Yes" column, unless an exception applies.

	Yes	No
1a During the year did the foundation (either directly or indirectly):		
(1) Engage in the sale or exchange, or leasing of property with a disqualified person?	☐ Yes	☒ No
(2) Borrow money from, lend money to, or otherwise extend credit to (or accept it from) a disqualified person?	☐ Yes	☒ No
(3) Furnish goods, services, or facilities to (or accept them from) a disqualified person?	☒ Yes	☐ No
(4) Pay compensation to, or pay or reimburse the expenses of, a disqualified person?	☒ Yes	☐ No
(5) Transfer any income or assets to a disqualified person (or make any of either available for the benefit or use of a disqualified person)?	☐ Yes	☒ No
(6) Agree to pay money or property to a government official? (Exception. Check "No" if the foundation agreed to make a grant to or to employ the official for a period after termination of government service, if terminating within 90 days.)	☐ Yes	☒ No
b If any answer is "Yes" to 1a(1)–(6), did any of the acts fail to qualify under the exceptions described in Regulations section 53.4941(d)-3 or in a current notice regarding disaster assistance (see instructions)?	1b	✓
Organizations relying on a current notice regarding disaster assistance check here		☐
c Did the foundation engage in a prior year in any of the acts described in 1a, other than excepted acts, that were not corrected before the first day of the tax year beginning in 2011?	1c	✓
2 Taxes on failure to distribute income (section 4942) (does not apply for years the foundation was a private operating foundation defined in section 4942(j)(3) or 4942(j)(5)):		
a At the end of tax year 2011, did the foundation have any undistributed income (lines 6d and 6e, Part XIII) for tax year(s) beginning before 2011?	☐ Yes	☒ No
If "Yes," list the years ▶ 20____, 20____, 20____, 20____		
b Are there any years listed in 2a for which the foundation is not applying the provisions of section 4942(a)(2) (relating to incorrect valuation of assets) to the year's undistributed income? (If applying section 4942(a)(2) to all years listed, answer "No" and attach statement—see instructions.)	2b	N/A
c If the provisions of section 4942(a)(2) are being applied to any of the years listed in 2a, list the years here. ▶ 20____, 20____, 20____, 20____		
3a Did the foundation hold more than a 2% direct or indirect interest in any business enterprise at any time during the year?	☐ Yes	☒ No
b If "Yes," did it have excess business holdings in 2011 as a result of (1) any purchase by the foundation or disqualified persons after May 26, 1969; (2) the lapse of the 5-year period (or longer period approved by the Commissioner under section 4943(c)(7)) to dispose of holdings acquired by gift or bequest; or (3) the lapse of the 10-, 15-, or 20-year first phase holding period? (Use Schedule C, Form 4720, to determine if the foundation had excess business holdings in 2011.)	3b	N/A
4a Did the foundation invest during the year any amount in a manner that would jeopardize its charitable purposes?	4a	✓
b Did the foundation make any investment in a prior year (but after December 31, 1969) that could jeopardize its charitable purpose that had not been removed from jeopardy before the first day of the tax year beginning in 2011?	4b	✓

Part VII-B Statements Regarding Activities for Which Form 4720 May Be Required (continued)**5a** During the year did the foundation pay or incur any amount to:(1) Carry on propaganda, or otherwise attempt to influence legislation (section 4945(e))? ☐ Yes ☒ No(2) Influence the outcome of any specific public election (see section 4955); or to carry on, directly or indirectly, any voter registration drive? ☐ Yes ☒ No(3) Provide a grant to an individual for travel, study, or other similar purposes? ☐ Yes ☒ No(4) Provide a grant to an organization other than a charitable, etc., organization described in section 509(a)(1), (2), or (3), or section 4940(d)(2)? (see instructions) ☐ Yes ☒ No(5) Provide for any purpose other than religious, charitable, scientific, literary, or educational purposes, or for the prevention of cruelty to children or animals? ☐ Yes ☒ No**b** If any answer is "Yes" to 5a(1)–(5), did any of the transactions fail to qualify under the exceptions described in Regulations section 53.4945 or in a current notice regarding disaster assistance (see instructions)? ☐ Yes ☒ NoOrganizations relying on a current notice regarding disaster assistance check here ☐ ☒**c** If the answer is "Yes" to question 5a(4), does the foundation claim exemption from the tax because it maintained expenditure responsibility for the grant? ☐ Yes ☒ No

If "Yes," attach the statement required by Regulations section 53.4945–5(d).

6a Did the foundation, during the year, receive any funds, directly or indirectly, to pay premiums on a personal benefit contract? ☐ Yes ☒ No**b** Did the foundation, during the year, pay premiums, directly or indirectly, on a personal benefit contract? ☐ Yes ☒ No

If "Yes" to 6b, file Form 8870.

7a At any time during the tax year, was the foundation a party to a prohibited tax shelter transaction? ☐ Yes ☒ No**b** If "Yes," did the foundation receive any proceeds or have any net income attributable to the transaction? ☐ Yes ☒ No**5b**

N/A

6b

✓

7b

N/A

Part VIII Information About Officers, Directors, Trustees, Foundation Managers, Highly Paid Employees, and Contractors**1** List all officers, directors, trustees, foundation managers and their compensation (see instructions).

(a) Name and address	(b) Title, and average hours per week devoted to position	(c) Compensation (If not paid, enter -0-)	(d) Contributions to employee benefit plans and deferred compensation	(e) Expense account, other allowances
See attached statement				

2 Compensation of five highest-paid employees (other than those included on line 1—see instructions). If none, enter "NONE."

(a) Name and address of each employee paid more than \$50,000	(b) Title, and average hours per week devoted to position	(c) Compensation	(d) Contributions to employee benefit plans and deferred compensation	(e) Expense account, other allowances
Lindsay R. Boring 3988 Jones Center Drive Newton, GA 39870	Director 40.00	192,147	27,499	9,600
Robert J. Mitchell 3988 Jones Center Drive Newton, GA 39870	Scientist 40.00	156,083	23,839	0
James B. Atkinson 3988 Jones Center Drive Newton, GA 39870	Nat. Res Manager 40.00	117,020	32,174	0
Becky H. Gay 3988 Jones Center Drive Newton, GA 39870	Bus. Administrator 40.00	110,838	31,547	0
Stephen W. Golladay 3988 Jones Center Drive Newton, GA 39870	Scientist 40.00	107,303	31,188	0
Total number of other employees paid over \$50,000				17

Part VIII Information About Officers, Directors, Trustees, Foundation Managers, Highly Paid Employees, and Contractors *(continued)***3 Five highest-paid independent contractors for professional services (see instructions). If none, enter "NONE."**

(a) Name and address of each person paid more than \$50,000	(b) Type of service	(c) Compensation
None		
Total number of others receiving over \$50,000 for professional services		▶

Part IX-A Summary of Direct Charitable Activities

List the foundation's four largest direct charitable activities during the tax year. Include relevant statistical information such as the number of organizations and other beneficiaries served, conferences convened, research papers produced, etc	Expenses
1 Substantially all of the foundation's resources are devoted to the environmental research, education, and conservation programs of the Joseph W. Jones Ecological Research Center	8,573,180
2 See attached report from the Director	0
3	0
4	0

Part IX-B Summary of Program-Related Investments (see instructions)

Describe the two largest program-related investments made by the foundation during the tax year on lines 1 and 2	Amount
1 None	0
2	0
All other program-related investments See instructions	
3	0
Total. Add lines 1 through 3	▶ 0

Part X Minimum Investment Return (All domestic foundations must complete this part. Foreign foundations, see instructions.)

1	Fair market value of assets not used (or held for use) directly in carrying out charitable, etc., purposes:		
a	Average monthly fair market value of securities	1a	0
b	Average of monthly cash balances	1b	3,141,385
c	Fair market value of all other assets (see instructions)	1c	0
d	Total (add lines 1a, b, and c)	1d	3,141,385
e	Reduction claimed for blockage or other factors reported on lines 1a and 1c (attach detailed explanation)	1e	0
2	Acquisition indebtedness applicable to line 1 assets	2	0
3	Subtract line 2 from line 1d	3	3,141,385
4	Cash deemed held for charitable activities. Enter 1 1/2 % of line 3 (for greater amount, see instructions)	4	2,294,392
5	Net value of noncharitable-use assets. Subtract line 4 from line 3. Enter here and on Part V, line 4	5	846,993
6	Minimum investment return. Enter 5% of line 5	6	42,350

Part XI Distributable Amount (see instructions) (Section 4942(j)(3) and (j)(5) private operating foundations and certain foreign organizations check here ☒ and do not complete this part.)

1	Minimum investment return from Part X, line 6		1
2a	Tax on investment income for 2011 from Part VI, line 5	2a	
b	Income tax for 2011. (This does not include the tax from Part VI.)	2b	
c	Add lines 2a and 2b	2c	
3	Distributable amount before adjustments. Subtract line 2c from line 1	3	
4	Recoveries of amounts treated as qualifying distributions	4	
5	Add lines 3 and 4	5	
6	Deduction from distributable amount (see instructions)	6	
7	Distributable amount as adjusted. Subtract line 6 from line 5. Enter here and on Part XIII, line 1	7	

Part XII Qualifying Distributions (see instructions)

1	Amounts paid (including administrative expenses) to accomplish charitable, etc., purposes:		
a	Expenses, contributions, gifts, etc.—total from Part I, column (d), line 26	1a	8,573,180
b	Program-related investments—total from Part IX-B	1b	0
2	Amounts paid to acquire assets used (or held for use) directly in carrying out charitable, etc., purposes	2	269,991
3	Amounts set aside for specific charitable projects that satisfy the:		
a	Suitability test (prior IRS approval required)	3a	0
b	Cash distribution test (attach the required schedule)	3b	0
4	Qualifying distributions. Add lines 1a through 3b. Enter here and on Part V, line 8, and Part XIII, line 4	4	8,843,171
5	Foundations that qualify under section 4940(e) for the reduced rate of tax on net investment income. Enter 1% of Part I, line 27b (see instructions)	5	0
6	Adjusted qualifying distributions. Subtract line 5 from line 4	6	8,843,171

Note. The amount on line 6 will be used in Part V, column (b), in subsequent years when calculating whether the foundation qualifies for the section 4940(e) reduction of tax in those years.

Part XIII Undistributed Income (see instructions)

	(a) Corpus	(b) Years prior to 2010	(c) 2010	(d) 2011
1 Distributable amount for 2011 from Part XI, line 7				0
2 Undistributed income, if any, as of the end of 2011:				
a Enter amount for 2010 only			0	
b Total for prior years: 20____, 20____, 20____		0		
3 Excess distributions carryover, if any, to 2011:				
a From 2006				None
b From 2007				None
c From 2008				None
d From 2009				None
e From 2010				None
f Total of lines 3a through e	0			
4 Qualifying distributions for 2011 from Part XII, line 4: ► \$ _____				
a Applied to 2010, but not more than line 2a			0	
b Applied to undistributed income of prior years (Election required—see instructions)		0		
c Treated as distributions out of corpus (Election required—see instructions)	0			
d Applied to 2011 distributable amount				0
e Remaining amount distributed out of corpus	0			
5 Excess distributions carryover applied to 2011 (If an amount appears in column (d), the same amount must be shown in column (a).)	0			0
6 Enter the net total of each column as indicated below:				
a Corpus. Add lines 3f, 4c, and 4e. Subtract line 5	0			
b Prior years' undistributed income. Subtract line 4b from line 2b		0		
c Enter the amount of prior years' undistributed income for which a notice of deficiency has been issued, or on which the section 4942(a) tax has been previously assessed		0		
d Subtract line 6c from line 6b. Taxable amount—see instructions		0		
e Undistributed income for 2010. Subtract line 4a from line 2a. Taxable amount—see instructions			0	
f Undistributed income for 2011. Subtract lines 4d and 5 from line 1. This amount must be distributed in 2012				0
7 Amounts treated as distributions out of corpus to satisfy requirements imposed by section 170(b)(1)(F) or 4942(g)(3) (see instructions)	0			
8 Excess distributions carryover from 2006 not applied on line 5 or line 7 (see instructions)	0			
9 Excess distributions carryover to 2012. Subtract lines 7 and 8 from line 6a	0			
10 Analysis of line 9:				
a Excess from 2007				0
b Excess from 2008				0
c Excess from 2009				0
d Excess from 2010				0
e Excess from 2011				0

Part XIV Private Operating Foundations (see instructions and Part VII-A, question 9)

1a	If the foundation has received a ruling or determination letter that it is a private operating foundation, and the ruling is effective for 2011, enter the date of the ruling	7/25/1989				
b	Check box to indicate whether the foundation is a private operating foundation described in section ☒ 4942(j)(3) or ☐ 4942(j)(5)					
2a	Enter the lesser of the adjusted net income from Part I or the minimum investment return from Part X for each year listed	Tax year (a) 2011	Prior 3 years (b) 2010 (c) 2009 (d) 2008			(e) Total
		0	0	0	0	0
b	85% of line 2a	0	0	0	0	0
c	Qualifying distributions from Part XII, line 4 for each year listed	8,843,171	8,381,419	8,220,233	8,390,502	33,835,325
d	Amounts included in line 2c not used directly for active conduct of exempt activities	0	0	0	0	0
e	Qualifying distributions made directly for active conduct of exempt activities. Subtract line 2d from line 2c	8,843,171	8,381,419	8,220,233	8,390,502	33,835,325
3	Complete 3a, b, or c for the alternative test relied upon:					
a	"Assets" alternative test—enter:					
	(1) Value of all assets					0
	(2) Value of assets qualifying under section 4942(j)(3)(B)(i)					0
b	"Endowment" alternative test—enter 2/3 of minimum investment return shown in Part X, line 6 for each year listed	28,233	33,333	33,333	33,333	128,232
c	"Support" alternative test—enter:					
	(1) Total support other than gross investment income (interest, dividends, rents, payments on securities loans (section 512(a)(5)), or royalties)					0
	(2) Support from general public and 5 or more exempt organizations as provided in section 4942(j)(3)(B)(iii)					0
	(3) Largest amount of support from an exempt organization					0
	(4) Gross investment income					0

Part XV Supplementary Information (Complete this part only if the foundation had \$5,000 or more in assets at any time during the year—see instructions.)

1 Information Regarding Foundation Managers:

a List any managers of the foundation who have contributed more than 2% of the total contributions received by the foundation before the close of any tax year (but only if they have contributed more than \$5,000). (See section 507(d)(2).)

None

b List any managers of the foundation who own 10% or more of the stock of a corporation (or an equally large portion of the ownership of a partnership or other entity) of which the foundation has a 10% or greater interest.

None

2 Information Regarding Contribution, Grant, Gift, Loan, Scholarship, etc., Programs:

Check here ☐ if the foundation only makes contributions to preselected charitable organizations and does not accept unsolicited requests for funds. If the foundation makes gifts, grants, etc. (see instructions) to individuals or organizations under other conditions, complete items 2a, b, c, and d.

a The name, address, and telephone number of the person to whom applications should be addressed:

Lindsay R. Boring
3988 Jones Center Drive Newton, GA 39870 (229)734-4706

b The form in which applications should be submitted and information and materials they should include:

No set application form

c Any submission deadlines:

None, except as established and published for specific programs

d Any restrictions or limitations on awards, such as by geographical areas, charitable fields, kinds of institutions, or other factors:

Ecological research, education, and conservation that fit the mission of the Center.

Part XV Supplementary Information (continued)**3 Grants and Contributions Paid During the Year or Approved for Future Payment**

Recipient Name and address (home or business)	If recipient is an individual, show any relationship to any foundation manager or substantial contributor	Foundation status of recipient	Purpose of grant or contribution	Amount
a Paid during the year				
Virginia Polytechnic Institute and State University 1880 Pratt Drive, Suite 2006 Blacksburg, VA 24060		509(a)(2)	Research	104,538
University of Florida Board of Trustees P.O. Box 113001 Gainesville, FL 32611		509(a)(1)	Research	36,953
The Nature Conservancy of Florida 222 South Westmonte Drive, Suite 300 Altamonte Springs, FL 32714		509(a)(2)	Research	19,794
University of New Hampshire 8 College Road Durham, NH 03824		509(a)(2)	Research	18,472
Baker County 4-H Club P.O. Box 220 Newton, GA 39870		509(a)(1)	Misc Contribution	500
				180,257
			2010 Accrual	26,946
			2011 Accrual	(20,098)
Total			▶ 3a	187,105
b Approved for future payment				
Total			▶ 3b	0

Enter gross amounts unless otherwise indicated.

Enter gross amounts unless otherwise indicated.					
		Unrelated business income		Excluded by section 512, 513, or 514	
		(a) Business code	(b) Amount	(c) Exclusion code	(d) Amount
		(e) Related or exempt function income (See instructions.)			
1	Program service revenue:				
a			0		0
b			0		0
c			0		0
d			0		0
e			0		0
f			0		0
g	Fees and contracts from government agencies		0		0
2	Membership dues and assessments		0		0
3	Interest on savings and temporary cash investments		0	14	15,114
4	Dividends and interest from securities		0		0
5	Net rental income or (loss) from real estate:				
a	Debt-financed property		0		0
b	Not debt-financed property		0		0
6	Net rental income or (loss) from personal property		0	16	240
7	Other investment income		0		0
8	Gain or (loss) from sales of assets other than inventory		0	18	1,550
9	Net income or (loss) from special events		0		0
10	Gross profit or (loss) from sales of inventory		0		0
11	Other revenue: a		0		0
b			0		0
c			0		0
d			0		0
e			0		0
12	Subtotal. Add columns (b), (d), and (e)		0		16,904
13	Total. Add line 12, columns (b), (d), and (e)				16,904

(See worksheet in line 13 instructions to verify calculations.)

Line No. ▼	Explain below how each activity for which income is reported in column (e) of Part XVI-A contributed importantly to the accomplishment of the foundation's exempt purposes (other than by providing funds for such purposes) (See instructions)
----------------------	---

[illegible]

1 Did the organization directly or indirectly engage in any of the following with any other organization described in section 501(c) of the Code (other than section 501(c)(3) organizations) or in section 527, relating to political organizations?

- | | |
|------------------|--|
| (1) Cash | |
| (2) Other assets | |

- | | |
|--|--|
| (1) Sales of assets to a noncharitable exempt organization | |
| (2) Purchases of assets from a noncharitable exempt organization | |
| (3) Rental of facilities, equipment, or other assets | |
| (4) Reimbursement arrangements | |
| (5) Loans or loan guarantees | |
| (6) Performance of services or membership or fundraising solicitations | |

- d** If the answer to any of the above is "Yes," complete the following schedule. Column **(b)** should always show the fair market value of the goods, other assets, or services given by the reporting foundation. If the foundation received less than fair market value in any transaction or sharing arrangement, show in column **(d)** the value of the goods, other assets, or services received.

[illegible]

- 2a** Is the foundation directly or indirectly affiliated with, or related to, one or more tax-exempt organizations described in section 501(c) of the Code (other than section 501(c)(3)) or in section 527? ☐ Yes ☒ No
- b** If "Yes," complete the following schedule.

(a) Name of organization	(b) Type of organization	(c) Description of relationship

Under penalties of perjury, I declare that I have examined this return, including accompanying schedules and statements, and to the best of my knowledge and belief, it is true, correct, and complete. Declaration of preparer (other than taxpayer) is based on all information of which preparer has any knowledge.

President

May the IRS discuss this return with the preparer shown below (see instructions)? ☐ Yes ☐ No

Print/Type preparer's name	Preparer's signature	Date	Check ☐ if self-employed	PTIN
Firm's name ▶			Firm's EIN ▶	
Firm's address ▶			Phone no	

Schedule B(Form 990, 990-EZ,
or 990-PF)Department of the Treasury
Internal Revenue Service**Schedule of Contributors**

OMB No 1545-0047

2011

▶ Attach to Form 990, Form 990-EZ, or Form 990-PF.

Name of the organization

Ichauway, Inc.

Employer identification number

58-1824778

Organization type (check one)**Filers of:****Section:**

Form 990 or 990-EZ

☐ 501(c)() (enter number) organization☐ 4947(a)(1) nonexempt charitable trust **not** treated as a private foundation☐ 527 political organization

Form 990-PF

☒ 501(c)(3) exempt private foundation☐ 4947(a)(1) nonexempt charitable trust treated as a private foundation☐ 501(c)(3) taxable private foundationCheck if your organization is covered by the **General Rule** or a **Special Rule**.**Note.** Only a section 501(c)(7), (8), or (10) organization can check boxes for both the General Rule and a Special Rule. See instructions.**General Rule**

- ☒
- For an organization filing Form 990, 990-EZ, or 990-PF that received, during the year, \$5,000 or more (in money or property) from any one contributor. Complete Parts I and II.

Special Rules

- ☐ For a section 501(c)(3) organization filing Form 990 or 990-EZ that met the 33 $\frac{1}{3}$ % support test of the regulations under sections 509(a)(1) and 170(b)(1)(A)(vi) and received from any one contributor, during the year, a contribution of the greater of (1) \$5,000 or (2) 2% of the amount on (i) Form 990, Part VIII, line 1h, or (ii) Form 990-EZ, line 1. Complete Parts I and II.
- ☐ For a section 501(c)(7), (8), or (10) organization filing Form 990 or 990-EZ that received from any one contributor, during the year, total contributions of more than \$1,000 for use *exclusively* for religious, charitable, scientific, literary, or educational purposes, or the prevention of cruelty to children or animals. Complete Parts I, II, and III.
- ☐ For a section 501(c)(7), (8), or (10) organization filing Form 990 or 990-EZ that received from any one contributor, during the year, contributions for use *exclusively* for religious, charitable, etc., purposes, but these contributions did not total to more than \$1,000. If this box is checked, enter here the total contributions that were received during the year for an *exclusively* religious, charitable, etc., purpose. Do not complete any of the parts unless the **General Rule** applies to this organization because it received nonexclusively religious, charitable, etc., contributions of \$5,000 or more during the year ▶ \$ _____

Caution. An organization that is not covered by the General Rule and/or the Special Rules does not file Schedule B (Form 990, 990-EZ, or 990-PF), but it **must** answer "No" on Part IV, line 2, of its Form 990; or check the box on line H of its Form 990-EZ or on Part I, line 2, of its Form 990-PF, to certify that it does not meet the filing requirements of Schedule B (Form 990, 990-EZ, or 990-PF).

Name of organization

Ichauway, Inc.

Employer identification number

58-1824778

Part I **Contributors** (see instructions). Use duplicate copies of Part I if additional space is needed.

(a) No.	(b) Name, address, and ZIP + 4	(c) Total contributions	(d) Type of contribution
1	Robert W. Woodruff Foundation 191 Peachtree Street, NE, Suite 3540 Atlanta, GA 30303	\$ 7,500,000	Person ☒ Payroll ☐ Noncash ☐ (Complete Part II if there is a noncash contribution.)
2	Strategic Environmental Research Development Program 801 North Stuart Street, Suite 303 Arlington, VA 22203	\$ 344,887	Person ☒ Payroll ☐ Noncash ☐ (Complete Part II if there is a noncash contribution.)
3	Georgia Department of Natural Resources, Wildlife Resources 2070 U.S. Highway 278, SE Social Circle, GA 30025	\$ 56,966	Person ☒ Payroll ☐ Noncash ☐ (Complete Part II if there is a noncash contribution.)
4	National Institute for Climatic Change Research c/o Duke Univ. 2200 W. Main Street, Suite 710 Durham, NC 27705	\$ 23,898	Person ☒ Payroll ☐ Noncash ☐ (Complete Part II if there is a noncash contribution.)
5	USDA Forest Service - Southern Research Station 200 Weaver Boulevard Asheville, NC 28804	\$ 20,159	Person ☒ Payroll ☐ Noncash ☐ (Complete Part II if there is a noncash contribution.)
6	National Fish and Wildlife Foundation 1120 Connecticut Ave., NW, Suite 900 Washington, DC 20036	\$ 19,921	Person ☒ Payroll ☐ Noncash ☐ (Complete Part II if there is a noncash contribution.)

Name of organization Ichauway, Inc.	Employer identification number 58-1824778
---	---

Part I **Contributors** (see instructions). Use duplicate copies of Part I if additional space is needed.

(a) No.	(b) Name, address, and ZIP + 4	(c) Total contributions	(d) Type of contribution
7	U.S. Army c/o Moody AFB 23 CES/ CEAN 3485 Georgia Street Moody AFB, GA 31699-1707	\$ 18,675	Person ☒ Payroll ☐ Noncash ☐ (Complete Part II if there is a noncash contribution.)
8	Western Institute for Food Safety and Security c/o UC Davis 279 Cousteau PL, Suite 100 Davis, CA 95616	\$ 13,026	Person ☒ Payroll ☐ Noncash ☐ (Complete Part II if there is a noncash contribution.)
9	The Nature Conservancy - Sewee to Santee Office P.O. Box 626 McClellanville, SC 29458	\$ 12,400	Person ☒ Payroll ☐ Noncash ☐ (Complete Part II if there is a noncash contribution.)
10	National Wild Turkey Federation P.O. Box 566 Waynesboro, GA 30830	\$ 11,700	Person ☒ Payroll ☐ Noncash ☐ (Complete Part II if there is a noncash contribution.)
11	Mississippi State University P.O. Box 6156 - 449 Hardy Road Mississippi State, MS 39762	\$ 10,000	Person ☒ Payroll ☐ Noncash ☐ (Complete Part II if there is a noncash contribution.)
		\$	Person ☐ Payroll ☐ Noncash ☐ (Complete Part II if there is a noncash contribution.)

Ichauway, Inc.
Form 990-PF, Year 2011, Page 1, Part I, Line 1.
Contributors During 2011

58-1824778

Robert W Woodruff Foundation, Inc
191 Peachtree Street, NE, Suite 3540
Atlanta, Georgia 30303
\$7,500,000

Strategic Environmental Research Development Program
801 North Stuart Street, Suite 303
Arlington, VA 22203
\$344,887

Georgia Department of Natural Resources, Wildlife Resources Division
2070 U S Highway 278, SE
Social Circle, GA 30025
\$56,966

National Institute for Climatic Change Research c/o Duke University
2200 W. Main Street, Suite 710
Durham, NC 27705
\$23,898

USDA Forest Service - Southern Research Station
200 Weaver Blvd
Asheville, NC 28804
\$20,159

National Fish and Wildlife Foundation
1120 Connecticut Ave , NW, Suite 900
Washington, DC 20036
\$19,921

U S Army c/o Moody AFB
23 CES/CEAN
3485 Georgia Street
Moody AFB, GA 31699-1707
\$18,675

Western Institute for Food Safety and Security
279 Cousteau PL, STE 100
Davis, CA 95616
\$13,026

The Nature Conservancy - Sewee to Santee Office
P O Box 626
McClellanville, SC 29458
\$12,400

National Wild Turkey Federation
P.O Box 566
Waynesboro, GA 30830
\$11,700

Mississippi State University
P O Box 6156 - 449 Hardy Road
Mississippi State, MS 39762
\$10,000

Tall Timbers Research Station
13093 Henry Beadel Drive
Tallahassee, FL 32312
\$2,344

The Greentree Foundation
220 Community Drive
Manhasset, NY 11030
\$1,400

\$8,035,376

[illegible]

Line 16(a). Legal Fees

R C. Richardson	\$	1,450
Total	\$	1,450

Line 16(b). Accounting Fees

Deloitte & Touche	\$	31,348
Total	\$	31,348

Line 16(c). Other Professional Fees

Suntrust Investment Fees	\$	697
Scientific Advisors		28,000
Service Consultants		71,999
Total	\$	100,696

Line 18. Taxes

Real Estate/Property Taxes	\$	133,891
Baker County Taxes		7,947
Misc. Taxes		455
Total	\$	142,283

[illegible]

Ichauway, Inc.

58-1824778

Form 990-PF, Year 2011, Page 1, Part 1, Line 23(a)(d).

Other Expenses

General Supplies	\$	65,108
Office Supplies		11,638
Household Supplies		2,275
Misc Supplies		7,439
Field Supplies		107,608
Grounds Supplies		164,079
Computer Supplies		7,609
Lab Supplies		24,084
Postage		8,936
Library Supplies		24,719
Uniforms		24,875
Fuel		252,406
Memberships & Dues		4,569
Miscellaneous		18,578
Maintenance Contracts		57,374
Equipment Lease		16,210
Contract Services		111,850
Repairs		208,580
Contract Services/Computers		110,978
General Insurance		200,449
Graduate Assistantships		191,686
Minor Equipment		25,574
Maintenance & Repairs		133,674
Total, Line 23(a)	\$	1,780,298
12/31/10 accrual of payables		56,808
12/31/11 accrual of payables		(63,782)
Total, Line 23(d)	\$	1,773,324

Ichauway, Inc.

58-1824778

Form 990-PF, Year 2011, Page 2, Part II, Line 13.

Investments - other

	<u>Date Purchased</u>	<u>BOY Book Value</u>	<u>Maturity Date</u>	<u>EOY Book Value</u>
CD 1	2/11/2010	750,000.00	2/11/2011	-
CD 2	2/11/2010	<u>750,000 00</u>	2/11/2011	<u>-</u>
	Total	1,500,000.00	Total	-

Part II, Line 14 (990-PF) - Land, Buildings, and Equipment

		16,877,885	13,852,900	14,170,155	2,973,801	2,707,730	2,707,730
	Item or Category	Cost or Other Basis	Accumulated Depreciation beg. Of year	Accumulated Depreciation end Of year	(a) Book value beg. of year	(b) Book value end of year	(c) FMV end of year
1	Buildings and improvements	8,761,192	6,614,063	6,839,249	2,147,129	1,921,943	1,921,943
2	Furniture and Fixtures	692,757	740,931	689,824	4,888	2,933	2,933
3	Equipment	1,844,571	1,702,515	1,753,531	134,352	91,040	91,040
4	Vehicles	1,578,277	1,345,598	1,428,674	195,620	149,603	149,603
5	Lab Equipment	1,533,801	1,407,574	1,327,083	154,977	206,718	206,718
6	Computer Equipment	632,636	270,273	354,852	300,792	277,784	277,784
7	Infrastructure	1,241,072	1,222,003	1,228,424	19,069	12,648	12,648
8	Other Equipment	563,667	549,943	548,518	16,974	15,149	15,149
9	Construction in Progress	29,912	0	0	0	29,912	29,912
10							
11							
12							
13							
14							
15							
16							
17							

(a) Name and Address	(b) Title, and average hours per week devoted to position	(c) Compensation	(d) Contributions to employee benefit plans	(e) Expense account Other allowances
OFFICERS				
P Russell Hardin 191 Peachtree Street NE, Suite 3540 Atlanta, Georgia 30303	President 5 hours per week	\$0	\$0	\$0
J Lee Tribble 191 Peachtree Street NE, Suite 3540 Atlanta, Georgia 30303	Treasurer 5 hours per week	0	0	0
Erik S Johnson 191 Peachtree Street NE, Suite 3540 Atlanta, Georgia 30303	Secretary 5 hours per week	0	0	0
TRUSTEES				
James B Williams 191 Peachtree Street NE, Suite 3540 Atlanta, Georgia 30303	Chairman Trustee 5 hours per week	0	0	0
James M Sibley 191 Peachtree Street NE, Suite 3540 Atlanta, Georgia 30303	V-Chairman 1 hour per week	0	0	0
Wilton Looney 191 Peachtree Street NE, Suite 3540 Atlanta, Georgia 30303	Trustee 1 hour per week	0	0	0
Charles H McTier 191 Peachtree Street NE, Suite 3540 Atlanta, Georgia 30303	Trustee 1 hour per week	0	0	0
E Jenner Wood III 191 Peachtree Street NE, Suite 3540 Atlanta, Georgia 30303	Trustee 1 hour per week	0	0	0
Total		\$0	\$0	\$0

Ichauway, Inc.

58-1824778

Form 990-PF, Year 2011, Page 8, Part X, Line 4

Cash held for charitable activities

The organization's budget is funded at a level of revenue and expenses being equal during the fiscal year. However, due to the timing of the procurement of goods and services, and also the timing of contributions, expenditures may not equal revenue during the reporting period. All cash on hand will be used for charitable purposes

Director's 2011 Annual Report to the Trustees of Ichauway, Inc.



*Flint River at Ichauway, Horseshoe Bend
Photo by Richard T. Bryant*

April 3, 2012

**Submitted by
Lindsay R. Boring, Ph.D.
Director**

Introduction and Summary

The Joseph W. Jones Ecological Research Center at Ichauway seeks to understand, to demonstrate, and to promote excellence in natural resource management and conservation on the landscape of the southeastern Coastal Plain of the United States.

The Jones Center effectively integrates natural resource conservation with research and education/outreach. Our programs continue to be productive and of high quality. External funding increased in 2011. The number of scientific publications was sustained, and the quality remained high. The Center sponsored over 32 onsite educational/outreach events with approximately 495 participants. Open House also attracted over 800 visitors. The exemplary natural resource management of Ichauway and its demonstration areas continues to enhance our research and education programs.

Scientific Advisory Committee

The Scientific Advisory Committee (SAC) Dr. Jerry Franklin, Bob Larimore, Dr. Gene Likens (Chair) and Dr. Nova Silvy [Dr. Robert Naiman – on sabbatical leave in Australia and did not attend], of the Joseph W. Jones Ecological Research Center, convened at Ichauway during 5-10 February 2012. The SAC spent this period in meetings and discussions with members of the Robert W. Woodruff Foundation (RWWF), Center staff, graduate students and support personnel. It was announced by the RWWF that Dr. Likens and Dr. Franklin will become "Founding" members of the SAC in 2013 and 2014, respectively; two new members will be added to the SAC, and Dr. Naiman will become SAC chair in 2013.

We quote their summary: "We are extremely pleased to observe the continuing intellectual growth, productivity and maturity of the Center's programs and staff. The SAC has routinely stressed the need for greater integration and synthesis among the various programs of research, conservation and education for many years and we note the outstanding progress, particularly during the past few years as the programs have matured and partnerships formed. However, we believe there is still much to be achieved. We think the proposed initiative in "Restoration in the Longleaf Pine Forest" provides great opportunities in this regard. We compliment the Center and its staff on this outstanding progress. We see this restoration effort as the next major challenge in pursuing a higher-level of synthesis and integration as we have called for in the past."

Research

General

Our Center funded long-term research is organized into five projects:

- 1) Productivity and biodiversity of longleaf pine ecosystems
- 2) Longleaf pine forestry and prescribed fire
- 3) Lower Flint River Basin ecology and water resources
- 4) Wildlife predator ecology and habitat relationships
- 5) Wetlands ecology and restoration

These projects were enhanced by six visiting scientists, 33 other collaborators, 26 graduate students, four newly-awarded grants for 2011 and by education activities and events associated with each project.

Program Development

While many of our long-term themes continue to develop from historical legacies of earlier programs, newer elements continue to grow such as research that links the ecological services of healthy forests, wetlands, rivers and wildlife to human health and well being. This includes research on the linkages between decreased ticks and prescribed burning, wetland conditions and mosquito populations, environmental flows and sustainability of river ecosystems and the values of longleaf pine ecosystems in the storage of carbon in biomass and soils. Prescribed fire continues to be a unifying theme for many of our research, education and conservation programs. These activities range from regional studies of fire-maintained habitat for wild turkey populations to outreach programs that increase society's awareness of the importance of prescribed fire at the national scale. Our staff effectively leverages our research resources with outside funding and over 40 collaborators and visiting scientists who expand and enhance our internal resources. The following are key highlights:

- 1) University of Georgia Press published *Conserving Southern Longleaf*, by Dr. Albert Way. This project was initiated, funded and facilitated by the Center.
- 2) Presented a half-day Longleaf Pine and southern prescribed fire orientation to the Chief of the U.S. Forest Service and the Southeastern Regional Foresters from the Atlanta Office. This is related to the Longleaf Partnership Council initiatives.
- 3) Organized an outreach event for water resource stakeholders of the ACF Basin.
- 4) Conducted a three-day Longleaf Pine Groundcover and Restoration course for USDA field staff who administer Farm Bill reforestation programs.

- 5) Center staff supported the Georgia Prescribed Fire Council and hosted an annual meeting in Tifton with 120 attendees.
- 6) Concluded negotiations with the National Ecological Observatory Network (NEON) on a site-use agreement.

Productivity

Our research program continues to achieve a high level of productivity. Staff published fifteen articles in peer-reviewed research journals, eleven articles in other publications, including outreach publications and had 26 papers in press. Presentations were given at national and regional professional meetings. A total of 26 graduate students from seven universities were supported by the Center in 2011.

External Support and Collaboration

Our staff secured external funding for research and outreach programs that is compatible with organizational objectives. These awards for 2011 were \$533,976 for fourteen projects from the following sources:

- 1) Department of Energy (DOE), National Institute for Climate Change Research through Duke University (1)
- 2) National Fish and Wildlife Foundation (NFWF) (2)
- 3) Department of Defense Strategic Environmental Research and Development Program (DOD-SERDP) (1)
- 4) Department of Defense (Moody Air Force Base) (1)
- 5) The Nature Conservancy (TNC) (1)
- 6) GA Department of Natural Resources (2)
- 7) National Wild Turkey Federation (2)
- 8) U.S. Department of Agriculture (USDA), Forest Service Southern Research Station (1)
- 9) U.S. Department of Agriculture (USDA) through Mississippi State University (1)
- 10) Western Institute for Food Safety through University of California, Davis (1)
- 11) U.S. Fish and Wildlife Service through Tall Timbers Research Station (1)

Personnel Changes

Dr. Paul McCormick joined the Jones Center as a Senior Aquatic Ecologist in August. He was formerly with the Restoration Sciences Department of the South Florida Water Management District (SFWMD) where he was a Chief Scientist. He has a broad background in the ecological and aquatic sciences and more than 25 years experience conducting research supporting various aspects of water resources management. His studies have focused on the environmental effects of changes in both water quality and quantity on wetlands, streams and lakes at spatial scales ranging from individual habitats and waterbodies to large watersheds.

During the past eighteen years, he has overseen and participated in several projects related to the protection and management of human impacted water resources of south Florida, including the Everglades, Lake Okeechobee and other lakes and wetlands within the region.

Education and Outreach

Overall

Our Education and Outreach program had a very active year with 32 groups and approximately 495 participants visiting the Center for workshops, field tours, short courses and special events. In addition, approximately 800 people attended our Open House. All staff participated in these programs, which are generally led and coordinated by Education Staff. Both Research and Conservation Staff are key participants in the activities. Highlights are below with details listed in the Appendix.

University Classes

- A variety of university classes visited the Center. Visits ranged from two to three days and included classes such as forest ecology, fire ecology, wildlife management, forestry, conservation biology and wetland ecology. Universities represented included the University of Georgia (UGA), University of Florida (UF), Abraham Baldwin Agricultural College (ABAC), Arkansas Tech University (ATU) and Emory University
- Conducted two week-long "Maymester" classes. The 2011 courses were prescribed fire (UGA) and wildlife management (UGA).
- Hosted the UGA Institute for Georgia Environmental Leadership class for a one-day visit to learn about water, forestry and fire topics.

Landowner Outreach

- Continued Native Groundcover Partnership, working with regional landowners on longleaf ecosystem restoration. Cooperative efforts with commercial producers and the Georgia Forestry Commission have been conducted for research and demonstration, and for distribution of native seeds and plant materials. Two understory identification and restoration workshops were held, with one specifically targeting USDA Natural Resources Conservation Service (NRCS) field staff.

- Hosted a landowner field day focused on prescribed fire for 44 participants.
- Hosted the staff from Pineland Plantation for an overview of longleaf restoration and management efforts on Ichauway.
- One of our graduate students, Albert Way, published a book with UGA press based his doctoral dissertation, Conserving Southern Longleaf.
- Center staff conducted a review of the conservation easement for Medway Plantation, one of the most significant privately-held longleaf tracts in the Southeast.

Prescribed Fire Outreach

- Continued to develop the National Coalition of Prescribed Fire Councils under Jones Center leadership.
- Center staff supported the Georgia Prescribed Fire Council and hosted an annual meeting in Tifton with over 130 attendees, with a Center employee, Mark Melvin, serving as Vice-chair.
- Hosted a one-day field tour for the National Prescribed Fire Training Center focusing on prescribed fire use in the southeastern U.S. with 35 participants.
- Conducted a two-day course on prescribed fire for Center employees and graduate students.

Water Resources Outreach

- Organized and hosted a three-day ACF Stakeholders and University Collaboration Workshop at Ichauway to identify and evaluate institutional models that would allow for effective multi-state planning and management of the ACF Basin.
- Two staff served on the Albany-Dougherty Flint River Greenspace Advisory committee.
- Staff served on the Executive Committee of the ACF Stakeholders governing board and chaired the Data Needs and Sustainability work group.
- The Jones Center had a representative as co-organizer of the 2011 Georgia Water Resources Conference held at UGA in Athens, Georgia.
- Two staff served as members of the NOAA-NIDIS ACF Basin Drought Committee.

- Staff provided leadership for the Southwest Georgia Water Resources Task Force.
- Woody Hicks was awarded the Lifetime Achievement Award by the Flint Riverkeeper organization for his contributions to conservation and improved understanding of the water resources of the Flint River Basin.
- Staff provided leadership and technical support for the Georgia Adopt-A-Stream Board.
- Supported Keep Bainbridge Decatur County Beautiful as board membership.
- Supported and hosted the University of Georgia Institute for Georgia Environmental Leadership Class of 39 to learn more about regional water issues.
- Staff supported technical advisement of the Aquatic Technical Working Group of the National Ecological Observatory Network (NEON).

Government Agency and Conservation NGO Outreach

- Conducted a three-day Army Installation Management Command Southeastern Ecological Forestry Workshop for foresters from Army installations across the southeastern U.S. with 41 participants.
- Conducted a three-day Ecological Forestry Workshop for the U.S. Fish and Wildlife Service (USFWS) refuge managers and biologists from across the Southeast with twenty participants.
- Hosted the Georgia Forestry Commission Board and staff for a two-day visit including a field tour covering the topics of prescribed fire, water resources and ecological forestry.
- Hosted the chief of the U.S. Forest Service, Tom Tidwell, as well as the Atlanta-based Region 4 Forester, Liz Agpaoa, for an overnight visit and an overview of longleaf ecology, management and restoration programs at the Center.
- Aquatic staff continued to serve on the Board of Directors of Georgia Department of Natural Resources (DNR) "Adopt a Stream" program.
- Hosted staff and President of the Yawkey Foundation, which operates the 24,000-acre Tom Yawkey Wildlife Center in coastal South Carolina, for an overview of the Jones Center's programs.

- Hosted Tyndall AFB staff for an overview of longleaf management and restoration programs at the Center.
- Education/Outreach staff served on steering committee for the Longleaf Partnership Council, a collaborative effort for implementation of America's Longleaf, a range-wide conservation plan for Longleaf Pine.
- Education/Outreach and Conservation staff served on land management review committee for Suwannee River Water Management District.
- Education/Outreach and Conservation staff worked with South Carolina The Nature Conservancy, U.S. Forest Service (USFS) and private landowners on restoration of 2,000 acres of Longleaf Pine.

Public Relations

- Held an Open House with approximately 800 visitors from around the region.

Conservation and Land Management

Stewardship of Ichauway

- Our many land management activities continued routinely as in prior years in the major areas of agriculture, wildlife management, hunting, roads and firebreaks, restoration and research support.
- 12,945 acres were burned by prescription through September in 2011. This acreage was down relative to the annual targeted acreage due to the dry conditions during the late spring and early summer. In addition, more acres were burned during the growing season in comparison to "typical" years.
- Approximately 100 acres were treated for hardwood removal and cleanup by Jones Center personnel in targeted areas of the property (primarily wetland margins) using our feller-buncher. In 2011 most hardwood cleanup was carried out on the Big George around depressional wetlands, with Richardson Flat and Baldwin Pond receiving significant removal of encroaching hardwoods around their edges and additional hardwoods cut in the surrounding upland matrix.

- We routinely applied herbicides to further restoration efforts in hardwood removal areas and around overgrown field edges, for control of exotic and invasive species and for endangered species management (i.e., red-cockaded woodpecker-RCW). Some areas where hardwoods were removed and herbicides applied in previous years received targeted follow-up chemical and mechanical treatments (i.e., spot treatments) to provide additional control of hardwoods in areas under restoration.
- Operational treatments of Japanese climbing fern (Lygodium japonicum) continued in 2011 but at reduced levels compared to the previous year. In 2010 many large spots of Japanese climbing fern were treated along the Flint River corridor (along River Road) with herbicides; these previously treated areas were spot treated in 2011 to kill surviving plants, and the areas monitored to determine what plants first become established in the treated areas.
- The removal of feral hogs continued in 2011 with the majority of activity occurring in the first half of the year (before dry conditions set in). The acquisition and training of dogs to run down and capture the hogs greatly enhanced our ability to control this species.
- In 2011 we continued salvage operations to utilize dead trees that present hazard situations (primarily along roads or firebreaks). Recently dead trees—typically from lightning strikes or blowdown—are harvested, taken to the portable sawmill where they are cut into cants and stored under cover in an open-air shed. When needed this wood is cut for posts (4x4, 6x6 or 8x8) for sheds and fences or to dimensional sizes (utilizing the planer) for use in construction, repairs and renovations onsite.
- Three slash pine plantation stands, all planted in 1987, were marked and prepped for a second thinning. The wood was sold and will be harvested before the end of January 2012. Canopy gaps were created during the marking process, and these gaps will be planted with longleaf pine seedlings to begin the species conversion process.

Conservation Management Demonstration Area

- In 2011 only ongoing management activities, such as prescribed fire and agricultural field management, were carried out in the Conservation Management Demonstration Area (CMDA) with no major management treatments (such as timber harvest) conducted. The CMDA was also frequently visited during outreach events, and several active research projects within the unit were supported by Conservation personnel (primarily through implementing specific burning prescriptions).

Apprenticeship (Intern) Program

- Three apprentices participated in the program during 2011. Phillip "Buck" Booker was in the position through May when he left to take a permanent position with Langdale Timber Company. Bradley Bennett (a December 2010 UGA graduate) started the program in January 2011, and Allen Simms (a May 2011 UGA graduate) joined the program in August 2011.

Monitoring

- Measurements were continued in the long-term forest monitoring (LTM) plots in 2011. Characteristics recorded at each location were assessed prior to the field season to prioritize the information collected. Analysis of data and development of summaries continues, and research personnel (scientists, technicians and graduate students) are increasingly using information from these plots in their projects.
- We continued to utilize spotlight and track counts for monitoring mammal populations, especially the whitetail deer (WTD) population. The "spotlight" counts for WTD now use thermal cameras rather than high intensity lamps for detection because this technique requires fewer personnel and has a comparable detection rate. Population estimates for the WTD are used to determine harvest goals and hunting guidelines for the property.
- We continued our participation in Partners in Flight and other national bird inventory programs for bird community monitoring; sampling locations for these programs coincide (as much as possible) with the long-term forest monitoring plots.
- Quail covey counts were conducted once again in the early fall to assess bobwhite population levels before the hunting season.

Red-Cockaded Woodpecker Recovery and Management

- Successful restoration of the RCW population on Ichauway continued in 2011, with the population again increasing following the minor declines observed 3 to 4 years ago.
- In 2011 there were 24 active clusters, fifteen breeding pairs and a total of 60 birds in the population. The long-term restoration goal is to have 30 active clusters with at least 25 breeding pairs.
- The resident breeding pairs produced fifteen successful nests with 30 juveniles banded and fledged. Six birds (three pairs) were translocated to Ichauway in 2011 from the Appalachian National Forest.

Presentations, Publications, Service & Training

- Our staff continued to communicate through meetings, proceedings and workshops with other professionals about our conservation programs and collaborations including: presentations at the Biennial Southern Silvicultural Research Conference, North American Forest Ecology Workshop, Society for Ecological Restoration (SER) World Congress, Ecological Society of America annual meeting, Southeastern Chapter of the SER annual meeting, the Natural Areas Conference, a Department of Defense workshop, and numerous fire council meetings. Conservation staff also played a central role in conducting a multi-day ecological forestry shortcourse at Ichauway in 2011, in providing presentations to local civic club groups, and serving as officers in professional societies. Finally, conservation staff participated in producing refereed, non-refereed and technical publications as co-authors with other Center personnel.
- Conservation staff served in advisory roles with various regional conservation groups, including the Suwannee River Water Management District and the Chattahoochee Fall Line Conservation Partnership.
- Significant time was spent by several Conservation personnel in support of the Georgia Prescribed Fire Council, particularly by one individual (Mark Melvin) who has administrative duties with the Council. Mark also continued work as an executive vice president in implementation of the national coalition of prescribed fire councils and serving as a representative of the prescribed fire community to several regional and national organizations.

Personnel Changes

Brandon Rutledge was recruited to fill the Conservation Wildlife Biologist position and started in mid-January 2011. Brandon most recently was Senior Wildlife Biologist/Asst. Region Supervisor, Region V with Georgia DNR, but previously worked at the Jones Center as a lead research technician and a conservation management apprentice. In 2011 Brandon spend much of his time getting oriented in the new position and obtaining necessary certifications (for work with the endangered RCW).

Budget Summary

The total budget for Ichauway, Inc. and the Joseph W. Jones Ecological Research Center for 2011 was \$9,035,976 of which \$8,502,000 was the board-approved internally funded budget and \$533,976 was to be funded from outside grants. The major source of funding for this budget was a grant from the Robert W. Woodruff Foundation in the amount of \$7,500,000.

All divisions of Ichauway operated within budget in 2011. Expenses for Research and support activities were \$3,280,483. Conservation and Land Management expenses were \$2,037,424. The expenses for Education and Outreach activities were \$514,943. Expenses for Administration, Maintenance and Operations were \$2,841,356, which also includes overall Center operating expenses such as taxes, electric power and insurance costs.

APPENDIX

DIRECTOR'S 2011 ANNUAL REPORT to the TRUSTEES OF ICHAUWAY, INC.



*Dr. Kay Kirkman presents to USFS Chief Tom Tidwell at Native Seed Garden
Photo by Richard T. Bryant*

I	Publications, Presentations and Grants	14
II	Education and Outreach Activities	29
III	Graduate Students	32
IV	Scientific Advisory Committee	36
V	Staff	37
VI	Jones Center Guest Seminars	40

Publications, Presentations and Grants

2011 "In Press" Articles

Allums, S. E., S. P. Opsahl, S. W. Golladay, D. W. Hicks and L. M. Conner. Nitrate concentrations in springs flowing into the Lower Flint River Basin, Georgia U.S.A. *Journal of the American Water Resources Association (JAWRA)* 1-16. DOI: 10.1111/j.1752-1688.2011.00624.x. pdf.

Averill-Murray, R., L. Allison and L. L. Smith. Nesting and reproductive output among North American tortoises. In: D. Rostal, H. R. Mushinsky and E.D. McCoy (eds.), *Biology and Conservation of North American Tortoises*, University of California Press.

Batzer, D., F. Day and S. W. Golladay. Southeastern swamp complexes. In: D. A. Batzer, and A. H. Baldwin (eds.). *Wetland Habitats of North America: Ecology and Conservation Concerns*. University of California Press, Berkeley, California.

Boring, L. R., K. J. Elliott and T. W. Swank. Successional forest dynamics: 20 years following clearcutting. In W. T. Swank (ed.). *Forest watershed ecosystem recovery*. Oxford University Press.

Creech, M. N., L. K. Kirkman and L. A. Morris. Alteration and recovery of slash pile burn sites in the restoration of a fire-maintained ecosystem. *Restoration Ecology*. DOI: 10.1111/j.1526-100x.2011.00780.x. pdf.

Edwards, L., J. Ambrose and L. K. Kirkman. *Natural Communities of Georgia*. University of GA Press, Athens, GA.

Ford, C. R., J. D. McGee, F. Scandellari, E. A. Hobbie and R. J. Mitchell. Long- and short-term precipitation effects on soil CO₂ efflux and total belowground carbon allocation. *Agricultural and Forest Meteorology* 156:54-64.

Hiers, J. K., R. J. Mitchell, A. Barnett, J. W. Walters, M. Mack, B. Williams and R. Sutter. The Dynamic Reference Concept: Measuring restoration success in a rapidly changing no-analogue future. *Ecological Restoration* 30:27-36.

Howze, J. M., and L. L. Smith. Factors influencing eastern kingsnake diel activity. *Copeia*.

Jones, D. D., L. M. Conner, R. J. Warren and G. O. Ware. Effects of a supplemental food source and nest density on success of artificial ground nests. *Proceedings of the Southeastern Association of Fish and Wildlife Agencies* 64:56-60.

Karmacharya, B., J. A. Hostetler, L. M. Conner, G. Morris and M. K. Oli. Longleaf pine management practices and their impact on small mammal populations. *Forest Ecology and Management* 271: 140-146.

Kirkman, L. K., L. L. Smith and S. W. Golladay. Southeastern depressional wetlands. In: D. A. Batzer and A. H. Baldwin (eds.). *Wetland habitats of North America: Ecology and Conservation Concerns*. University of California Press, Berkeley, California.

Kirkman, L. K., L. L. Smith, P. F. Quintana-Ascencio, M. J. Kaeser, S. W. Golladay, and A. L. Farmer. Is species richness congruent among taxa? Surrogacy, complementarity and environmental correlates among three disparate taxa in geographically isolated wetlands. *Ecological Indicators* 18:131-139. pdf.

Linehan, J. M., K. M. Stohlgren, E. M. Schlimm and L. L. Smith. Dispersal patterns of neonate timber rattlesnakes (*Crotalus horridus*) in southwestern Georgia. *Journal of Herpetology*.

Loudermilk, E. L., J. J. O'Brien, R. J. Mitchell, W. P. Cropper Jr., J. K. Hiers, S. Grunwald and J. Grego. Linking complex fuel behavior at fine scales. *International Journal of Wildland Fire*.

Martin, G. I., L. K. Kirkman and J. Hepinstall-Cymerman. Mapping geographically isolated wetlands in the Dougherty Plain, Georgia, USA. *Wetlands* 32:149-160. pdf

Miller, G. J., L. L. Smith, S. A. Johnson and D. Franz. Home range and habitat selection in the Florida pine snake (*Pituophis melanoleucus mugitus*). *Copeia*.

Rugel, K., C. R. Jackson, J. J. Romeis, S. W. Golladay, D. W. Hicks and J. F. Dowd. Effects of irrigation withdrawals on streamflows in a karst environment: Lower Flint River Basin, Georgia, USA. *Hydrological Processes* 26:523-534. pdf

Runion, G. B., J. R. Butnor, S. A. Prior, R. J. Mitchell and H. H. Rogers. Effects of atmospheric CO₂ enrichment on soil CO₂ efflux in a young Longleaf Pine system. *International Journal of Agronomy*.

Smith, L. L., S. K. Hoss, K. Wheeler, and S. Varner. *Farancia erythrogramma* (Rainbow snake). *Herpetological Review*.

Smith, L. L., D. A. Steen, L. M. Conner and J. Rutledge. Effects of predator exclusion on nest and hatchling survival in the gopher tortoise. *Journal of Wildlife Management*.

Steen, D. A., M. Baragona, C. W. McClure, K. C. Jones and L. L. Smith. Population structure and morphology of a small population of Loggerhead Musk Turtles (Sternotherus minor minor) in Okaloosa County, Florida. Florida Field-Naturalist.

Steen, D. A., C. Guyer and L. L. Smith. Relative abundance in snakes: A case study. Pages 287-294 in R. W. McDiarmid, M. S. Foster, C. Guyer, J. W. Gibbons and N. Chernoff (eds.). Reptile Biodiversity, Standard Methods for Inventory and Monitoring. University of California Press, Berkeley, California. © 2012 by the Regents of the University of California. pdf.

Steen, D. A., C. J. W. McClure, J. C. Brock, D. C. Rudolph, J. B. Pierce, J. R. Lee, W. J. Humphries, B. B. Gregory, W. B. Sutton, L. L. Smith, D. L. Baxley, D. J. Stevenson and C. Guyer. Landscape level influences of terrestrial snake occupancy within the southeastern United States. Ecological Applications.

Stuble, K. L., L. K. Kirkman, C. R. Carroll and N. J. Sanders. Relative effects of disturbance on red imported fire ants and native ant species in a longleaf pine ecosystem. Conservation Biology 25:618-622.

Webster, J. R., E. G. Benfield, S. W. Golladay and M. E. McTammany. Recovery of particulate organic matter dynamics in a stream draining a logged watershed-a pressing situation. In W. T. Swank (ed.). Forest watershed ecosystem recover. Oxford University Press.

2011 Published Refereed Journal Articles

Atkinson, C. L., M. R. First, A. P. Covich, S. P. Opsahl and S. W. Golladay. 2011. Suspended material availability and filtration-biodeposition processes performed by a native and invasive bivalve species in streams. Hydrobiologia 667:191-204. pdf.

Atkinson, C. L., S. W. Golladay and M. R. First. 2011. Water quality planktonic microbial assemblages of isolated wetlands in an agricultural landscape. Wetlands 31:885-894. pdf.

Buckner, E. A., M. S. Blackmore, S. W. Golladay and A. P. Covich. 2011. Weather and landscape factors associated with adult mosquito abundance in southwestern Georgia, U.S.A. Journal of Vector Ecology 36:269-278. pdf.

Clinton, B. D., C. A. Maier, C. R. Ford and R. J. Mitchell. 2011. Transient changes in transpiration, and stem and soil CO₂ efflux in longleaf pine (Pinus palustris Mill.) following fire-induced leaf area reduction. Trees 25:997-1007. pdf.

Conner, L. M., S. B. Castleberry and A. M. Derrick. 2011. Effects of mesopredators and prescribed fire on hispid cotton rat survival and cause-specific mortality. Journal of Wildlife Management 75:938-944. pdf.

- Hoss, S. K., G. W. Schuett, R. L. Earley and L. L. Smith. 2011. Reproduction in male Crotalus adamanteus (Eastern Diamond-backed Rattlesnake): Relationship of plasma testosterone to testis and kidney dimensions and the mating season. *Southeastern Naturalist* 10:95-108. pdf.
- Kirkman, L. K., E. A. Whitehead, S. W. Golladay, L. L. Smith and S. P. Opsahl. 2011. A research framework for identifying potential linkages between isolated wetlands and disease ecology. *Ecological Research* 26:875-883. pdf.
- Loudermilk, E. L., W. P. Cropper, Jr., R. J. Mitchell and H. Lee. 2011. Longleaf pine (Pinus palustris) and hardwood dynamics in a fire-maintained ecosystem: A simulation approach. *Ecological Modelling* 222:2733-2750. pdf.
- Morris, A. D., D. A. Miller and L. M. Conner. 2011. A comparison of ultrasonic detectors and radiotelemetry for studying bat-habitat relationships. *Wildlife Society Bulletin* 35:469-474. pdf.
- Morris, A. D., D. A. Miller and L. M. Conner. 2011. Home range size of evening bats (Nycticeius humeralis) in southwestern Georgia. *Southeastern Naturalist* 10:85-94. pdf.
- Morris, G., L. M. Conner and M. K. Oli. 2011. Effects of mammalian predator exclusion and supplemental feeding on space use by hispid cotton rats. *Journal of Mammalogy* 92:583-589. pdf.
- Morris, G., J. A. Hostetler, L. M. Conner and M. K. Oli. 2011. Effects of prescribed fire, supplemental feeding and mammalian predator exclusion on hispid cotton rat populations. *Oecologia* 167:1005-1016. pdf.
- Morris, G., J. A. Hostetler, M. K. Oli and L. M. Conner. 2011. Effects of predation, fire, and supplemental feeding on populations of two species of Peromyscus mice. *Journal of Mammalogy* 92:934-944. pdf.
- Sargent, L. W., S. W. Golladay, A. P. Covich and S. P. Opsahl. 2011. Physicochemical habitat association of a native and non-native crayfish in the lower Flint river, Georgia: Implications for invasion success. *Biological Invasions* 13:499-511. pdf.
- Sterrett, S. C., L. L. Smith, S. W. Golladay, S. H. Schweitzer and J. C. Maerz. 2011. The conservation implications of riparian land use on river turtles. *Animal Conservation* 14:38-46.

Books, Published Proceedings, Outreach and Other Publications

Golladay, S. W., E. Vendas, M. Blackmore and N. Smith. 2011. A comparison of Gulf Coastal Plain isolated wetlands: water quality and larval mosquito populations in agricultural and reference sites. Proceedings of the 2011 Georgia Water Resources Conference, held April 11-13, 2011, at the University of Georgia, Athens, Georgia. <http://gawrc.org/2011proceedings.html> pdf.

McIntyre, R. K. Medway Plantation conservation land management. White paper to The Nature Conservancy of South Carolina and Medway Plantation.

Pedrono, M. and L. L. Smith. 2011. Overview of the natural history of Madagascar's endemic tortoises and freshwater turtles: Essential components for effective conservation. In: Turtles on the Brink in Madagascar: Proceedings of two workshops on the status and conservation of Malagasy Tortoises and Freshwater Turtles. Chelonian Research Monographs.

Rugel, K., S. W. Golladay and C. R. Jackson. 2011. Identifying groundwater/stream interaction in the lower Flint River Basin using multiple stream parameters and remote sensing data sets. Proceedings of the 2011 Georgia Water Resources Conference, held April 11-13, 2011, at the University of Georgia, Athens, Georgia. <http://gawrc.org/2011proceedings.html>. pdf.

Sargent, L. W., S. W. Golladay, A. P. Covich and S. P. Opsahl. 2011. Physicochemical habitat association of a native and non-native crayfish in the lower Flint River, Georgia: Implications for invasion success. *Biological Invasions* 13:499-511.

Schlimm, E. M., K. M. Stohlgren, J. M. Linehan and L. L. Smith. 2011. Crotalus horridus (Timber Rattlesnake). Neonate growth. *Herpetological Review* 42:98. pdf.

Smith, N. D. and S. W. Golladay. 2011. Coleoptera indicator species in wet vs. dry climate regimes in three southwestern Georgia wetland types. Proceedings of the 2011 Georgia Water Resources Conference, held April 11-13, 2011, at the University of Georgia, Athens, Georgia. <http://gawrc.org/2011proceedings.html>. pdf.

Sterrett, S. 2011. Impact of agricultural land use on stream dwelling turtles. *Herpetological Review* 42:134. pdf.

Steen, D. A., J. A. Stiles, S. H. Stiles, C. Guyer, J. B. Pierce, D. C. Rudolph and L. L. Smith. 2011. Regina rigida (Glossy Crayfish Snake). Terrestrial movement. *Herpetological Review* 42:102. pdf.

Stevenson, D. J., K. M. Stohlgren, E. M. Schlimm, J. M. Bauder, M. P. Wallace, Sr. and W. Taylor. 2011. Additional geographic distribution records for amphibians and reptiles from Georgia, USA. *Herpetological Review* 42:255-257.

Presentations and Abstracts

Boring, L. R., R. S. Taylor, S. Cathey and T. Sinclair. Growth and nitrogen fixation activity of native legumes in response to light levels under longleaf pine canopies. Ecological Society of America Annual Meeting, Austin, Texas. Poster presentation.

Botello, G., S. W. Golladay and A. Covich. Larval mosquito distribution and development in isolated wetlands of Southwest Georgia. Odum School of Ecology Graduate Student Symposium, University of Georgia, Athens, Georgia. Oral Presentation.

Cherry, M. J. and S. B. Castleberry. University of Georgia-The Wildlife Society (UGA-TWS) Dove Field Program. Georgia Chapter of The Wildlife Society, Fall Meeting, University of Georgia, Athens, Georgia. Oral presentation.

Cherry, M. J., L. M. Conner, J. C. Rutledge, L. L. Smith and R. J. Warren. White-tailed deer behavioral response to predator exclusion. The Wildlife Society 18th Annual Conference, Waikoloa, Hawaii. Poster presentation.

Cherry, M. J., L. M. Conner, R. J. Warren. Coyote foraging behavior and impact on wild turkey and white-tailed deer production. Georgia Chapter of The Wildlife Society, Fall Meeting, University of Georgia, Athens, Georgia. Oral presentation.

Cherry, M. J., L. M. Conner and R. J. Warren. Coyote foraging behavior and impact on wild turkey and white-tailed deer production progress report. Georgia Department of Natural Resources, Wildlife Resources Division Research Meeting, Rum Creek, Georgia. Oral presentation.

Cherry, M. J., L. M. Conner and R. J. Warren. Coyote foraging behavior and impact on white-tailed deer recruitment in southwestern Georgia. Deer Management Research Group Meeting, Norcross, Georgia. Oral presentation.

Colbert, D., R. J. Warren, M. J. Chamberlain and L. M. Conner. Seasonal gobbling chronology in hunted and non-hunted wild turkey populations in southwestern Georgia. Georgia Chapter of The Wildlife Society, Fall Meeting, University of Georgia, Athens, Georgia. Oral presentation.

Conner, L. M. and L. L. Smith. Efficacy of predator control to enhance wild prey populations: some practical considerations. The Wildlife Society 18th Annual Conference, Waikoloa, Hawaii. Poster presentation.

Giencke, L. M., L. K. Kirkman, S. B. Jack, R. J. Mitchell. Initial ground cover recovery following silvicultural treatments in a Longleaf Pine forest. Natural Areas Conference, Tallahassee, Florida. Poster presentation.

Giencke, L., L. K. Kirkman, R. J. Mitchell and S. B. Jack. Ground cover recovery following silvicultural treatments in a longleaf pine forest. Natural Areas Conference, Tallahassee, Florida. Poster presentation.

Gleim, E., G. Zemstova, L. M. Conner, M. Levin and M. Yabsley. Effects of long-term prescribe burning on ticks and tick-borne pathogen prevalence. Georgia Chapter of The Wildlife Society, Fall Meeting, University of Georgia, Athens, Georgia. Oral presentation.

Gleim, E., G. Zemstova, L. M. Conner, M. Levin and M. Yabsley. Tick-borne pathogen prevalence in southwest Georgia and the effects of long-term prescribed burning on risk of tick-borne disease in humans: An ongoing study. Graduate Student Symposium, Warnell School of Forestry and Natural Resources, University of Georgia, Athens, Georgia. Oral presentation

Gleim, E., G. Zemstova, L. M. Conner, M. Levin and M. Yabsley. Tick seasonality and tick-borne pathogen prevalence in southwest Georgia: Providing tools to better determine risk to human public health in a region dominated by prescribed burning. The Annual Southeastern Society of Parasitologists Meeting at Unicoi State Park, Helen, Georgia. Oral presentation.

Golladay, S. W. and D. W. Hicks. Hydrologic change in the lower Flint River Basin: Spring Creek and Ichawaynochaway Creek. Flint River Keeper Board of Directors, Southern Georgia Technical College, Americus, Georgia. Oral presentation.

Golladay, S. W. and D. W. Hicks. Hydrologic change in the lower Flint River Basin: Implications for conservation. Lower Flint Conservation Workshop, Albany, Georgia. Oral presentation.

Golladay, S.W., G. Martin, L.K. Kirkman, J. Hepinstall-Cymerman. Using landscape development index (LDI) to assess isolated wetland condition in agricultural landscapes of the US Gulf Coastal Plain. North American Benthological Society (NABS) Annual Meeting, Providence, Rhode Island. Oral presentation.

Golladay, S.W., E. Vedas, M. Blackmore and N. Smith. A comparison of Gulf Coastal Plain isolated wetlands: Water quality and larval mosquito populations. Georgia Water Resources Conference, Athens, Georgia. Oral presentation.

Hicks, D. W. Achieving water resources sustainability through the stakeholder process. Leadership Georgia, Camilla, Georgia. Oral presentation.

Hicks, D. W. Georgia's water resources and our mangement challenges. Institute for Georgia Environmental Leadership, Albany, Georgia. Oral presentation.

Hicks, D. W. Hydrologic overview and alterations in the L Flint River Basin. Land Conservation Workshop, Albany, Georgia. Oral presentation.

Hicks, D. W. Impact of irrigation withdrawals on hydrology of lower Flint River. Lower Flint and Ochlockonee Water Planning Council, Camilla, Georgia. Oral presentation.

Hicks, D. W. Protected stream corridors in the Lower Flint River Basin through efforts of Alb-Dougherty Greenspace Advisory Committee. Dougherty County Commission, Albany, Georgia. Oral presentation.

Hicks, D. W. Use of Flow Duration Curves to Evaluate Flow Alterations in the ACF Basin. ACF Stakeholders. Lake Eufala, Alabama. Oral presentation.

Howze, J. M., D.A. Steen and L. L. Smith. Ecology of the Eastern Kingsnake in Southwest Georgia. Tall Timbers Lunch Bunch Seminar, Tallahassee, Florida. Oral presentation.

Howze, J. M., D. A. Steen and L. L. Smith. Ecology of the Eastern Kingsnake in Southwest Georgia. The Wildlife Society 18th Annual Conference, Waikoloa, Hawaii. Oral presentation.

Howze, J. M., K. M. Stohlgren, E. M. Schlimm and L. L. Smith. Dispersal of Timber Rattlesnakes in the southeastern Coastal Plain. Gopher Tortoise Council, Orlando, Florida. Oral presentation.

Jansen, N., J. D. McGee, S. B. Jack and R. J. Mitchell. Impacts of skidder traffic on soils and seedling growth in a Longleaf Pine forest. Ecological Society of America Annual Meeting, Austin, Texas. Poster presentation.

Jack, S. B., R. J. Mitchell, N. A. Jansen and J. D. McGee. Silviculture that sustains and restores native biodiversity of Longleaf Pine grasslands: A long-term project examining legacies, fire and recovery period. The 16th Biennial Southern Silvicultural Research Conference, Charleston, South Carolina. Poster presentation.

Jack, S. B., R. J. Mitchell, L. K. Kirkman, N. A. Jansen, J. D. McGee and M. J. Kaeser. Silviculture in longleaf pine grasslands: Initial results from a long-term study examining legacies, fire, and recovery periods. North American Forest Ecology Workshop, Roanoke, Virginia. Oral presentation.

Kirkman, L. K., J. K. Hiers, A. Barnett and R. J. Mitchell. Restoration of a longleaf pine ecosystem: Defining components of a dynamic reference model. Ecological Society of America Annual meeting, Austin, Texas. Poster presentation.

Kirkman, L. K., L. L. Smith, P. Quintana-Ascencio, M. J. Kaeser, S. W. Golladay and A. Farmer. Relationship of species richness among taxa in southeastern U.S. isolated wetlands. Society of Wetland Scientists South Atlantic and Mid Atlantic Meeting, Reston, Virginia. Poster presentation.

Martin, K. L. and L. K. Kirkman. Restoration of a species-rich herbaceous wetland community using management to overcome a hardwood threshold and re-establish a fire feedback in the longleaf pine landscape. North American Forest Ecology Workshop, Roanoke, Virginia. Oral presentation.

McGee, J. D., C. Ford, F. Scandallari, E. Hobbie and R. J. Mitchell. Long and short-term precipitation effects on soil CO₂ efflux and total belowground carbon allocation. Ecological Society of America Annual meeting, Austin, Texas. Poster presentation.

McGuire, J. L. Gopher tortoise tick ecology in Georgia. Tall Timbers Lunch Bunch Seminar, Tallahassee, Florida. Oral presentation.

McGuire, J. L. Gopher tortoise population health in a changing Georgia landscape. Herpetological Society, The University of Georgia, Athens, Georgia. Oral presentation.

McGuire, J. L., E. A. Miller, L. L. Smith and M. J. Yabsley. Parasites of gopher tortoises (Gopherus polyphemus) in Georgia. Southeastern Society of Parasitologists, Helen, Georgia. Oral presentation.

McGuire, J. L., L. L. Smith, E. Miller and M. J. Yabsley. Parasites of gopher tortoises (Gopherus polyphemus) in Georgia. Graduate Student Symposium, Warnell School of Forestry and Natural Resources, University of Georgia, Athens, Georgia. Oral presentation.

McGuire, J. L., L. L. Smith and M. J. Yabsley. Gopher tortoise ticks (Amblyomma tuberculatum) and a novel Rickettsia from gopher tortoises (Gopherus polyphemus) in Georgia. Gopher Tortoise Council, Orlando, Florida. Oral presentation.

McKee, A., G. L. Green and J. C. Maerz. An activity for teaching undergraduate students about the effects of drift and dispersal on distributions of species and genetic diversity. Graduate Student Symposium, Warnell School of Forestry and Natural Resources, University of Georgia, Athens, Georgia. Oral presentation.

McKee, A., J. C. Maerz, L. L. Smith and T. C. Glenn. Correlations between and habitat predictors of species and genetic diversity in pond-breeding amphibian communities. Graduate Student Symposium, Warnell School of Forestry and Natural Resources, University of Georgia, Athens, Georgia. Oral presentation.

McKee, A., J. C. Maerz, L. L. Smith and T. C. Glenn. Genetic population structure in two amphibian species with differing vagilities: Implications for metapopulation theory. Ecological Society of America Annual Meeting, Austin, Texas. Oral presentation.

McKee, A., L. L. Smith, J. C. Maerz and T. C. Glenn. Genetic population structure in two pond-breeding amphibian species with differing dispersal capabilities: Opposing inferences regarding metapopulation structure. Southeastern Ecology and Evolution Conference, Auburn University, Auburn, Alabama. Oral presentation.

McKee, A., J. C. Maerz, L.L. Smith and T. C. Glenn. Landscape predictors of genetic diversity in two amphibian species with differing vagilities. Joint Meeting of Ichthyologists and Herpetologists, Minneapolis, Minnesota. Oral presentation.

Mitchell, R. J., J. K. Hiers, L. K. Kirkman, A. Barnett, S. Zeigler, J. Walters and S. Pokswinski. The dynamic reference concept: Refining components of recovery in a Longleaf Pine ecosystem. Strategic Environmental Research and Development Program (SERDP). Oral presentation.

Mitchell, R. J., B. Mortazavi, J. J. O'Brien, J. D. McGee, J. J. Hendricks, K. A. Kuehn, R. O. Teskey and D. P. Aubrey. Stored carbohydrates decouple current photosynthate from soil CO₂ efflux in frequently disturbed ecosystems. Ecological Society of America Annual Meeting, Austin, Texas. Poster presentation.

Perez, C. M., M. J. Chamberlain, R. Warren and L. M. Conner. Movements and habitat use by wild turkey hens and poults in southwestern Georgia as influenced by season, prescribed fires and predation. Wildlife Resources Division for Georgia Department of Natural Resources, Social Circle, Georgia. Poster presentation.

Perez, C. M., L. M. Conner, R. Warren and M. J. Chamberlain. Movements and habitat use by wild turkey hens and poults in southwestern Georgia as influenced by prescribed fires. Georgia Chapter of The Wildlife Society, Fall Meeting, University of Georgia, Athens, Georgia. Oral presentation.

Pokswinski, S., L. K. Kirkman, K. Hiers, A. Barnett and R. J. Mitchell. Building a dynamic reference model: Developing tools for managing a changing ecosystem. Natural Areas Conference, Tallahassee, Florida. Poster presentation.

Rugel, K. S. W. Golladay, D. W. Hicks and J. Dowd. Use of remote sensing data and stream chemistry to predict groundwater/stream interaction in a karst region: Lower Flint River Basin, Georgia, USA. Odum School of Ecology Graduate Student Symposium, University of Georgia, Athens, Georgia. Oral presentation.

Rugel, K., S. W. Golladay, and R. Jackson. Combining isotopic and physiochemical analyses with remote sensing imagery to identify groundwater/stream interaction in a karst region. North American Benthological Society (NABS) Annual Meeting, Providence, Rhode Island. Oral presentation.

Rugel, K., S. W. Golladay and R. Jackson. Identifying groundwater/stream interaction in the lower Flint River Basin using multiple stream parameters and remote sensing datasets. Georgia Water Resources Conference, Athens, Georgia. Oral presentation.

Ruttinger, J., L. M. Conner, R. J. Warren and M. J. Chamberlain. Eastern wild turkey gobbler habitat and roost site selection in southwestern Georgia. Georgia Chapter of The Wildlife Society, Fall Meeting, University of Georgia, Athens, Georgia. Oral presentation.

Scott, J., S. Castleberry, R. Warren and L. M. Conner. Using empirically-based habitat modeling to predict management outcomes for northern bobwhite. Graduate Student Symposium, Warnell School of Forestry and Natural Resources, University of Georgia, Athens, Georgia. Oral presentation.

Shivers, S., S. P. Opsahl and A. P. Covich. Leaching and bioavailability of dissolved organic carbon among freshwater autotrophic macrophytes. Odum School of Ecology, University of Georgia, Athens, Georgia. Oral presentation.

Shivers, S., S. P. Opsahl and A. P. Covich. The diel and seasonal effects of submerged aquatic vegetation on nutrient dynamics and organic carbon bioavailability in a southeastern reservoir. Ecological Society of America Annual Meeting, Austin, Texas. Oral presentation.

Smith, L. L. Burrow scoping accuracy and tracking methods for juvenile gopher tortoises. Gopher Tortoise Council, Orlando, Florida. Poster presentation.

Smith, N. and S. W. Golladay. Coleoptera indicator species in wet versus dry climate regimes in three southwestern Georgia wetland types. Georgia Water Resources Conference, Athens, Georgia. Oral presentation.

Smith, N. and S.W. Golladay. Wetland hydrology and aquatic macroinvertebrate assemblages in three types of seasonally inundated wetlands. North American Benthological Society (NABS) Annual Meeting, Providence, Rhode Island. Oral presentation.

Smith, L. L. and J. M. Howze. Amphibian persistence in isolated wetlands in an agricultural landscape. Ecological Society of America Annual Meeting, Austin, Texas. Poster presentation.

Steen, D. A. Landscape level influences of terrestrial snake occupancy within the southeastern United States. Alabama Partners in Amphibian and Reptile Conservation (PARC) Annual Meeting, Nauvoo, Alabama. Oral presentation.

Steen, D. A. Restoration ecology of small vertebrates in Longleaf Pine forests. Strategic Environmental Research and Development Program (SERDP), Knowledge Transfer Meeting, Niceville, Florida. Oral presentation.

Steen, D. A. Restoration of reptile assemblages in fire-suppressed Longleaf Pine sandhills. Alabama Partners in Amphibian and Reptile Conservation (PARC) Annual Meeting, Nauvoo, Alabama. Oral presentation.

Steen, D. A. Terrestrial movements of the red-bellied mudsnake and rainbow snake. Alabama Partners in Amphibian and Reptile Conservation (PARC) Annual Meeting, Nauvoo, Alabama. Poster presentation.

Stuber, S., J. Hepinstall-Cymerman and L. K. Kirkman. Assessing isolated wetlands in the Dougherty Plain, Georgia: Linking past and present land use to current condition. Odum School of Ecology Graduate Student Symposium, University of Georgia, Athens, Georgia. Oral presentation.

Stuber, S., J. Hepinstall-Cymerman and L. K. Kirkman. Using GIS to develop a sampling scheme for assessing the effects of land use on the condition of geographically isolated wetlands in the Dougherty Plain, Georgia. 8th Annual Southern Forestry and Natural Resource Management GIS (SOFORGIS) Conference Athens, Georgia. Oral presentation, given by Dr. Jeff Hepinstall-Cymerman in lieu of Stribling Stuber.

Whelan, A., G. Starr, R. Mitchell, J. D. McGee, C. L. Staudhammer and J. Wright. Effects of the interactions of fire and water on Longleaf Pine carbon dynamics. 2nd Annual Frontiers in Biology Research Colloquium, Tuscaloosa, Alabama. Poster presentation.

Whelan, A., G. Starr, R. Mitchell, J. D. McGee, C. L. Staudhammer, J. Wright and H. Loescher. The role of prescribed fire on longleaf pine carbon dynamics along an edaphic moisture gradient. Department of Energy, AmeriFlux/NACP, All Investigators Meeting, New Orleans, Louisiana. Poster presentation.

Williams, M. M., C. M. Perez, J. A. Ruttinger, D. S. Colbert, M. J. Chamberlain, L. M. Conner and R. J. Warren. Effects of growing season prescribed fire on wild turkey nesting ecology and poult survival in southwest Georgia. Georgia Chapter of The Wildlife Society, Fall Meeting, University of Georgia, Athens, Georgia. Oral presentation.

Professional Seminars, Guest Lectures and Special Programs

Conner, L. M. Predation in the fire forest. University of Florida, Gainesville, Florida. Invited seminar.

Conner, L. M. The importance of hardwood trees in the longleaf pine forest for Sherman's fox squirrels. Sandhills Working Group, Tallahassee, Florida. Invited presentation.

Golladay, S.W. Changes in stream flow in the ACF Basin in response to human development: A comparison of regulated and unregulated rivers. University of Oklahoma Department of Zoology Seminar, Norman, Oklahoma. Invited presentation.

Golladay, S. W. We are in a drought: The view from the lower Flint River. National Oceanic and Atmospheric Administration/National Integrated Drought Information System (NOAA/NIDIS) Drought Update. Lake Lanier Islands Resort, Buford, Georgia. Invited presentation.

Jack, S. B. Ecological forestry: Basic concepts. The Ecological Forestry on Military Lands Workshop at the Department of Defense Sustaining Military Readiness Conference, Nashville, Tennessee. Invited oral presentation.

Jack, S. B. Ecological forestry: Concepts and examples in Longleaf Pine forests. Southeastern Chapter of the Society for Ecological Restoration 2011 Symposium, Quincy, Florida. Invited keynote presentation.

Jack, S. B. Silviculture to restore pine grasslands in the Southeast: Trees, ground cover and time. The Forest Restoration as a Dynamic Process: Concept and Application in Temperate Forests Symposium held during the Society for Ecological Restoration 2011 World Conference, Merida, Yucatan, Mexico. Invited presentation.

Smith, L. L. Forestry considerations for threatened and endangered reptiles and amphibians. Flint River Chapter of Society of American Foresters, Albany, Georgia. Invited presentation.

Smith, L. L. Gopher tortoise research priorities workshop. Gopher Tortoise Council, Orlando, Florida. Invited seminar.

Smith, L. L. Monitoring methods for the outdoor classroom. Southwest Georgia Regional Education Service Agency, Camilla, Georgia. Invited seminar.

Externally Funded Projects

Boring, L. R. and R. D. Sutter. Coordination of Eglin working group for ecosystem management. U.S. Department of Agriculture, Forest Service Southern Research Station. August 09, 2010 – June 30, 2011. \$20,159. Received in 2011, \$20,159.

Conner, L. M. Breeding bird response to longleaf pine restoration. National Wild Turkey Federation. February 22, 2011 – December 31, 2016. \$35,700. Received in 2011, \$11,700.

Conner, L. M. Effects of hunting on gobbling chronology. National Wild Turkey Federation. August 17, 2010 – December 31, 2011. \$9,974. Did not receive any funds in 2011.

Conner, L. M. The effect of removal of novel stimuli on trapping success of coyotes (*canis latrans*) in Southwestern Georgia. Mississippi State University. June 24, 2010 – September 30, 2011. \$10,000. Received in 2011, \$10,000.

Hicks, D. W. Grand Bay-Banks Lake long-term wetland evaluation. U.S. Army, Moody AFB. April 1, 2009 – December 31, 2013. \$104,644. Received in 2009, \$14,531. Received in 2010, \$19,086. Received in 2011, \$18,675.

Kirkman, L. K., L. M. Conner and R. K. McIntyre. Longleaf pine ecosystem conservation III. National Fish and Wildlife Foundation. September 1, 2007 – December 31, 2012. \$196,500. Did not receive any funds in 2011.

Kirkman, L. K., R. K. McIntyre and L. M. Conner. Enhancing longleaf ecosystem understory. National Fish and Wildlife Foundation. October 31, 2007 – June 31, 2011. \$82,000. Received in 2008, \$923. Received in 2011, \$19,921.

McIntyre, R. K. and S. B. Jack. Collaborative management and restoration of longleaf pine in lowcountry South Carolina. The Nature Conservancy. February 2, 2009 – December 31, 2011. \$53,423. Received in 2011, \$12,400.

Mitchell, R. J., E. A. Hobbie and C. R. Ford. Does increased precipitation alter belowground allocation and carbon storage by fine roots and mycorrhizal fungi in pine savannas? DOE, National Institute for Climate Change Research, Duke University. March 1, 2008 – November 30, 2011. \$375,000. Received in 2011, \$23,898.

Mitchell, R. J., L. K. Kirkman, L. M. Conner, L. L. Smith, J. Priddy, P. Yates, M. C. Mack, J. R. Walters and R. D. Sutter. Developing dynamic reference models and a decision support framework for southeastern ecosystems: An integrated approach. Strategic Environmental Research and Development Program. March 26, 2009 – March 25, 2014. \$1,351,138. Received in 2011, \$344,888.

Smith, L. L. Characterization and co-management of potential food safety risks from wildlife in riparian and wetland habitats near fresh produce fields. Western Institute for Food Safety, University of California, Davis. March 24, 2011 – December 31, 2011. \$13,026.

Smith, L. L. Linkages between upland habitat condition, burrowing vertebrates, and snake richness on protected areas in Georgia. Georgia Department of Natural Resources. July 15, 2011 – August 31, 2013. \$5,810. Did not receive any funds in 2011.

Smith, L. L. and J. M. Stober. Gopher tortoise surveys and population evaluation. Georgia Department of Natural Resources. May 01, 2010 – August 31, 2011. \$81,852. Received in 2011, \$56,966.

Smith, L. L. Warbick Farms tortoise survey. U.S. Fish and Wildlife Service, Tall timbers Research Station. February 10, 2011 – September 30, 2011. \$2,343. Received in 2011, \$2,343.

Longterm Research Internally Funded Projects

Conner, L. M. and L. L. Smith. The ecological role of mesopredators, the effects of mesopredator control and habitat approaches for managing predation.

Golladay, S. W., L. L. Smith and D. W. Hicks. Hydrologic variation and human development in the lower Flint River Basin: An ongoing landscape-scale experiment.

Kirkman, L. K., S. W. Golladay, L. L. Smith and D. W. Hicks. Depressional wetlands in the coastal plain landscape: Maintenance of regional biological diversity.

Mitchell, R. J., S. B. Jack, R. K. McIntyre, L. K. Kirkman and L. M. Conner. Ecological forestry project: Silviculture that sustains and restores native biodiversity of pinelands in the Southeastern Coastal Plain: Legacies, fire and recovery periods.

Mitchell, R. J., L. K. Kirkman, L. R. Boring and L. M. Conner. Productivity and biodiversity patterns: Controls in a southeastern coastal plain landscape (the forest productivity project).

Education and Outreach Activities

On-site Activities

University Class Visits

Abraham Baldwin Agricultural College. A one-day field tour focusing on hydrology. (23)

Arkansas Tech University. A two-day field tour focusing on forest ecology. (11)

Emory University. A three-day field experience focusing on longleaf pine ecology, conservation biology, and management. (16)

University of Georgia. A week-long Maymester short course in fire ecology. (15)

University of Georgia. A two-day field tour focusing on herpetology. (23)

University of Georgia. A week-long Maymester short course in wildlife ecology. (16)

University of Georgia. A two-day field experience focusing on mammalogy. (23)

University of Florida. A two-day field experience focusing on longleaf pine management and restoration. (24)

Natural Resource Conservation

Apalachicola-Chattahoochee-Flint Stakeholders and The University Collaborative. A two-day meeting to identify and evaluate institutional models that would allow for effective multi-state planning and management of the ACF basin. (19)

Army Installation Management Command Southeastern Red-cockaded Woodpecker Workshop. A three-day workshop for biologists, foresters, and range managers from Army installations across the southeastern U.S. (41)

Carol Denhoff. A one-day meeting to arrange details for the Understory Restoration Workshop. (1)

Freshwater Mussel Workshop. A four-day training workshop focusing on field survey techniques and identification of freshwater mussels. (20)

Georgia Forestry Commission Board. A two-day visit including a Board meeting and educational sessions on the Center's wildlife research, carbon sequestration research, longleaf pine restoration, and water policy and planning issues. (14)

Georgia Prescribed Fire Council. A one-day meeting of the steering committee. (10)

High Lonesome Ranch. A two-day visit to learn about the structure of our programs and how this might inform their formation of the High Lonesome Institute. (6)

Institute for Georgia Environmental Leadership (IGEL). A one-day field tour focusing on prescribed fire and water resources issues. (39)

Internal Prescribed Fire Course. A one-day course focusing on prescribed fire for Jones Center employees and graduate students. (13)

Landowner Field Day. A one-day workshop focusing on fire management and longleaf pine. (44)

Longleaf Alliance Meeting. A two-day visit including a strategic planning meeting and field tour focused on the Center's longleaf management and restoration activities. (13)

National Prescribed Fire Training Center. A one-day field tour focusing on prescribed fire use in the southeastern U.S. (35)

NRCS Native Warm Season Grasses Workshop. A three-day workshop focusing on native grasses identification. (21)

US Forest Service Chief and Regional Forester. A two-day field tour focusing on the Center's work with longleaf ecology, management and restoration. (2)

Pineland Plantation. A one-day field tour focusing on longleaf restoration on Ichauway. (4)

The Nature Conservancy of Georgia. A one-day field tour focusing on various longleaf ecosystem restoration techniques. (4)

The Rotary Foundation. A one-day field tour focusing on our research program and longleaf ecology. (6)

Tyndall Air Force Base. A one-day field tour focusing on conversion of slash pine stands to longleaf pine as well as other restoration projects. (2)

Understory Restoration Workshop. A three-day workshop focusing on plant identification, wildlife usage, seed production operations, restoration techniques and management methods. (20)

University of Georgia Alumni Society Executive Committee. A one-day visit including a board meeting and a field tour. (22)

USDA Wildlife Services. A four-day visit including a meeting on techniques training and a field tour focusing on the Center's ongoing predator research projects. (26)

USFWS Ecological Forestry Workshop. A three-day workshop for U.S. Fish and Wildlife Service refuge managers from across the Southeast. (17)

Yawkey Foundation. A one-day visit to learn about the Center's programmatic development. (3)

Public Relations

Columbus Museum. A three-day visit to film for an exhibition that explores the relationship between Southerners and the land. (2)

Open House. A one-day open house of Jones Center facilities. (800)

Graduate Students

Graduated 2011

Stored carbon decouples soil CO ₂ efflux in chronically disturbed ecosystems. (University of Georgia, Ph.D., R. J. Mitchell)	Doug Aubrey
A fast-running physics-based model for coupled atmosphere fire behavior. (Florida State University, Ph.D., R. J. Mitchell)	Jesse Canfield
Fine root herbivory by belowground beetle larvae and consequences for fine root productivity: An assessment of herbivore distribution, temporal dynamics and fine root consumption in a longleaf pine-wiregrass ecosystem. (Virginia Tech, M.S., R. J. Mitchell)	Matt Dittler
Population demography of southern flying squirrel in Longleaf Pine ecosystem. (University of Florida, M.S., L. M. Conner)	Binab Karmacharya
Developing wildlife habitat models for select species at Fort Bragg. (University of Georgia, Ph.D., L. M. Conner)	Jason Scott
Impacts of fire ants on seed dispersal. (University of Georgia, M.S., L. K. Kirkman)	Margaret Shearin
Associations between upland snake assemblages and longleaf pine forests. (Auburn University, Ph.D., L. L. Smith)	Dave Steen
Population dynamics and habitat use of shoal bass in the Lower Flint River, Georgia. (University of Georgia, M.S., S. W. Golladay)	Andrew Taylor

Current 2011 Projects

Spatiotemporal investigation of larval mosquitoes and their basal food resources in isolated reference and agricultural wetlands of southwestern Georgia. (University of Georgia, M.S., S. W. Golladay)	Gina Botello
Coyote foraging behavior, density dependent spatial distribution, and impact on white-tailed deer recruitment in southwestern Georgia. (University of Georgia, M.S., L. M. Conner)	Michael Cherry
Seasonal gobbling chronology in hunted and non-hunted eastern wild turkey populations in southwestern Georgia. (University of Georgia, M.S., L. M. Conner)	Derek Colbert
Population and site evaluations on gopher tortoises (<i>Gopherus polyphemus</i>) on public and private lands in Georgia. (University of Georgia, M.S., L. L. Smith)	Ashley Free
Tick-borne diseases and interactions with deer herds and prescribed fire. (University of Georgia, Ph.D., L. M. Conner)	Elizabeth Gleim
Ecology of upper respiratory disease in gopher tortoises and box turtles in Southeast Georgia. (University of Georgia, Ph.D., L. L. Smith)	Jess McGuire
Wildlife linkages between isolated wetlands and waters of the state. (University of Georgia, M.S., L. L. Smith)	Rachel King
Study of direct and indirect effects of imported fire ants on native vertebrate populations. (University of Florida, Ph.D., L. L. Smith and L. M. Conner)	Andrea Long
Correlations between community diversity and within-species genetic diversity in an amphibian assemblage: Potential processes and implications for conservation management. (University of Georgia, Ph.D., L. L. Smith)	Anna McKee

Movements and habitat use by wild turkey females and poult ^s in southwestern Georgia as influenced by season and prescribed fires. (University of Georgia, Ph.D., L. M. Connr ^t)	Christina Perez
Influence of human water use on streamflow characteristics in the lower Flint River, Georgia. (University of Georgia, Ph.D., S. W. Golladay)	Kathleen Rugel
Effects of prescribed fire, hunting and supplemental feeding on habitat selection and home range of male eastern wild turkeys in southwestern Georgia. (University of Georgia, M.S., L. M. Conner)	Drew Ruttinger
Patterns of snake diversity relative to gopher tortoise population size on protected areas in Georgia. (University of Georgia, M.S., L. L. Smith)	Beth Schlimm
The role of submerged aquatic vegetation (<i>Hydrilla verticillata</i>) on nutrient dynamics and freshwater aquatic food webs within Lake Seminole. (University of Georgia, Ph.D., S. W. Golladay)	Stephen Shivers
Assessing the effects of land use on the condition of geographically isolated wetlands in the Dougherty Plain Georgia: a multi scale approach. (University of Georgia, M.S., L. K. Kirkman)	Stribling Stuber
The interaction of soil moisture availability and prescribed fire on the exchange of carbon dioxide, energy and water in longleaf pine forests. (University of Alabama, M.S., R. J. Mitchell)	Andy Whelan
Effects of growing-season prescribed fire on eastern wild turkey nesting ecology and poult survival in southwestern Georgia. (University of Georgia, M.S., L. M. Conner)	Meg Williams
The influence of fire regime on carbon cycling in pine grassland savannas of the southeastern U.S. (University of Edinburgh, Ph.D., R. J. Mitchell)	Jenny Wright

Conservation Interns/Apprentices

Phillip "Buck" Booker. 2010-2011. M.S. Warnell School of Forestry and Natural Resources, University of Georgia.

Bradly Bennett. 2011-2012. M.S., Warnell School of Forestry and Natural Resources, University of Georgia.

Allen Simms. 2011-present. B.S., Warnell School of Forestry and Natural Resources, University of Georgia.

Scientific Advisory Committee

Dr. Gene E. Likens – Chair (1988- present)
Distinguished Senior Scientist, Ecologist
Founding Director and President Emeritus
Cary Institute of Ecosystem Studies

Dr. Jerry F. Franklin (1988-present)
Professor of Ecosystem Management
College of Forest Resources
University of Washington

Mr. Robert Larimore (2010-present)
Natural Resource Specialist
US Army Installation Management Command (IMCOM), Southeast Region
Fort McPherson, Atlanta, Georgia

Dr. Robert J. Naiman (1993-present)
Professor
School of Fisheries
University of Washington

Dr. Nova Silvy (2010-present)
Regents Professor
Department of Wildlife and Fisheries Sciences
Texas A&M University

Staff

Scientists

Lindsay R. Boring - Director, Scientist, Forest Ecology
Adjunct Associate Professor - University of Georgia
Courtesy Professor - University of Florida

L. Michael Conner - Scientist, Wildlife Ecology
Adjunct Assistant Professor - University of Georgia
Adjunct Assistant Professor - Louisiana State University
Adjunct Assistant Professor - Mississippi State University
Adjunct Assistant Professor - Utah State University
Adjunct Assistant Professor - University of Florida

Stephen W. Golladay - Associate Scientist, Aquatic Ecology
Adjunct Associate Professor - University of Georgia

D. Woody Hicks - Scientist, Groundwater Hydrology

Steven B. Jack - Conservation Ecologist, Applied Forest Scientist
Affiliate Assistant Professor-Auburn University
Courtesy Associate Professor-University of Florida

L. Katherine Kirkman - Associate Scientist, Plant Ecology
Adjunct Assistant Professor - University of Georgia
Affiliate Assistant Professor - Auburn University
Adjunct Assistant Professor - University of Florida

Paul V. McCormick - Scientist, Aquatic Ecology

Robert J. Mitchell – Scientist, Forest Ecology and Silviculture
Adjunct Associate Professor - University of Georgia
Adjunct Associate Professor - Auburn University
Adjunct Associate Professor - University of Florida
Adjunct Associate Professor - Virginia Tech
Adjunct Associate Professor - Florida State University

Lora L. Smith - Associate Scientist, Wildlife Ecology
Adjunct Assistant Professor - University of Georgia
Courtesy Assistant Professor - University of Florida
Affiliate Assistant Professor - Auburn University
Adjunct Assistant Professor - Texas A&M University
Adjunct Assistant Professor - University of Maine

Research Technicians

Brian A. Clayton - Monitoring Technician II, Groundwater Hydrology

Lisa Giencke. Lead Technician I, Plant Ecology

Noah Jansen – Lead Technician I, Forest Ecology

*Melanie J. Kaeser – Lead Technician II, Plant Ecology

Jennifer M. Linehan – Lead Technician I, Herpetology

*Jason D. McGee – Lead Technician II, Forest Ecology and Silviculture

Jessica C. Rutledge – Lead Technician II, Wildlife Ecology

Nathalie D. Smith – Lead Technician I, Aquatic Ecology

R. Scott Taylor – Lead Technician II, Forest Ecology

Research Support

Stephanie E. Allums – Central Lab Manager

Jean C. Brock - Information Technology Manager

Elizabeth P. Cox - Science Librarian

Noore Ghunaym - Network Manager

Micheal G. Simmons – Database / Data Analyst

Education

Jessica D. McCorvey - Education Program Assistant

R. Kevin McIntyre - Education Coordinator

Conservation

James B. Atkinson, Jr. - Natural Resource Manager

Bobby E. Bass - Conservation Technician II

*Thomas (Bradley) Bennett. Conservation Intern

*Phillip "Buck" Booker - Conservation Apprentice

Steven B. Jack - Conservation Ecologist

Mark A. Melvin - Conservation Management / Education Technician

Joel L. Rackley - Agricultural Specialist

T. Scott Smith - Assistant Natural Resource Manager

Brandon Rutledge - Conservation Biologist

Allen Simms. Conservation Intern

David C. Varnadoe - Conservation Horticulturist

Maintenance and Operations

Dennis J. Williams - Maintenance Manager

Administration

Lindsay R. Boring - Director

Rosanne B. Bohannon - Procurement Specialist / Accounting Assistant

Cindy C. Craft – Administrative and Human Resource Assistant

Larry E. Ethridge - Security Supervisor

Becky H. Gay – Business Administrator

Jessica A. Kelly - Receptionist

Robert S. Lynch - Accountant

Denise R. McWhorter - Assistant to the Director

*has left the Center

Guest Seminars

Binford, Dr. Michael. Professor, Department of Geography, University of Florida, Gainesville, Florida. Regional carbon exchange and storage and land-ownership changes in the Southeastern U.S. Coastal Plain

Binford, Dr. Michael. Professor, Department of Geography, University of Florida, Gainesville, Florida. Research and travels in Africa: Geographical locations including Uganda, Tanzania, Botswana and Namibia.

Brosi, Dr. Berry J. Assistant Professor, Department of Environmental Studies, Emory University, Atlanta, Georgia. Community feedbacks on pollinator foraging specialization.

Clayton, Dr. Jordan. Assistant Professor, Department of Geosciences, Georgia State University, Atlanta Georgia. Ecological and geomorphic implications of sediment sorting and entrainment in a gravel-bed river.

Clough, Dr. Wayne. Secretary, Smithsonian Institution, Washington, D.C. The new Smithsonian: Global impact, local access. 2011 Distinguished Lecturer.

Craft, Dr. Christopher. Janet Murphy Professor of Rural Land Policy, School of Public and Environmental Affairs, Indiana University, Bloomington, Indiana. Challenges of creating and restoring wetlands in natural, agricultural and urban landscapes.

Gue, Randy. Project Archivist, Robert W. Woodruff Papers, Manuscript, Archives and Rare Book Library (MARBL), Emory University, Atlanta, Georgia. The future belongs to the discontented: The life and legacy of Robert W. Woodruff.

Guyer, Dr. Craig. Professor, College of Science and Mathematics, Auburn University, Auburn, Alabama. An experimental release of eastern indigo snakes at Conecuh National Forest.

Harms, Dr. Kyle. Associate Professor, Department of Biological Sciences, Louisiana State University, Baton Rouge, Louisiana. Mechanisms maintaining high species-diversity in tropical forests.

Ike, Claire. M.S., Warnell School of Natural Resources, University of Georgia, Athens, Georgia. Spatial variability and land use change: Effects on total soil carbon contents in the coastal plain of Georgia.

Lemmon, Dr. Emily Moriarty. Assistant Professor, Department of Biological Science, Florida State University, Tallahassee, Florida. Behavioral, phylogenetic and genomic approaches to studying speciation in chorus frogs.

McCleery, Dr. Bob. Assistant Professor, Wildlife Ecology and Conservation, University of Florida, Gainesville, Florida. Small mammal conservation in anthropogenic landscapes.

McCormick, Dr. Paul. Chief Scientist, South Florida Water Management District, West Palm Beach, Florida. Managing water for environmental needs in south Florida.

O'Hara, Dr. Kevin. Professor, Department of Environmental Science, Policy and Management, College of Natural Resources, University of California, Berkeley, California. Myths of uneven-aged Silviculture: Implications of fire-dependent forests.

Poudyal, Dr. Neelam. Assistant Professor, Natural Resource Recreation and Tourism, Warnell School of Forestry and Natural Resources, University of Georgia, Athens, Georgia. Wildland fire risk and social vulnerability in the Southeast: An exploratory spatial data analysis approach.

Purucker, Dr. Tom. Research Ecologist, Ecosystems Research Division, National Exposure Research Laboratory, U.S. Environmental Protection Agency. Sterol signatures for source tracking of watershed pathogenic contamination.

Rashleigh, Dr. Brenda. Research Ecologist, Ecosystems Research Division, National Exposure Research Laboratory, U.S. Environmental Protection Agency. Fish metacommunity response to future land use and climate scenarios.

Shearin, Margaret. M.S. Student, Odum School of Ecology, University of Georgia, Athens, Georgia. The direct and indirect effects of the red imported fire ant (*Solenopsis invicta*) on seed fate in the Longleaf Pine ecosystem.

Smith, Dr. Lora. Wildlife Ecologist, Joseph W. Jones Ecological Research Center, Newton, Georgia. A recent visit to Baly Bay National Park, Madagascar: Home of the rarest tortoise on Earth.

Steen, David. Ph.D. Candidate, Department of Biological Sciences, Auburn University, Auburn, Alabama. Wildlife restoration in fire-suppressed longleaf pine sandhills.

Taylor, Dr. Chris. Professor, Aquatic Ecology, Department of Natural Resources
Management, Texas Tech University, Lubbock, Texas. Long-term effects of
altered flow regimes: A large-scale perspective.