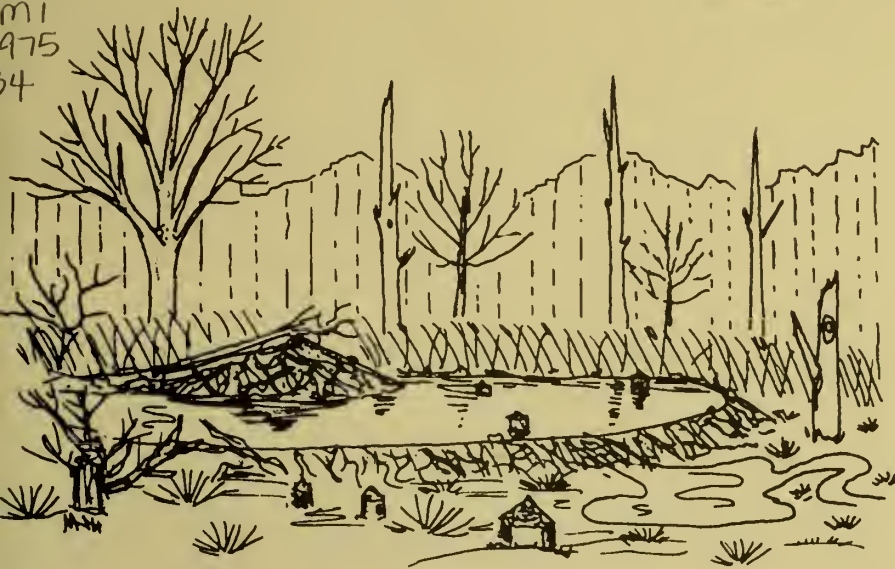


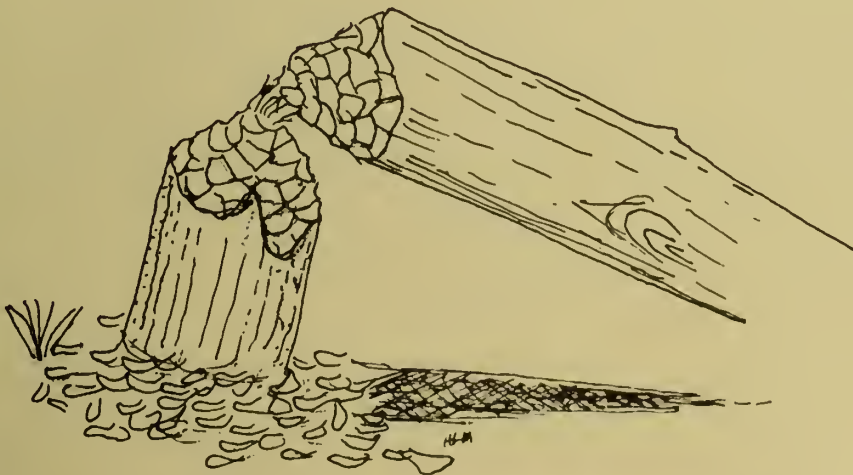
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1975 BEAVER DAMAGE SURVEY

Georgia Forestry Commission

A. R. SHIRLEY, Director



PREPARED BY: JOHN GODBEE
TERRY PRICE

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Due to computer error in dropping the seventh whole number in the below specified counties, these corrections should be made.

Page 3, Paragraph 2: The estimated total value of damaged timber was \$66,056,051.

Table 1, Pages 8 - 10:

		Value in Dollars					
		Pine		Hardwood		Total	
District	County	Pulpwood	Sawtimber	Pulpwood	Sawtimber	Value	Value
10	Appling		\$ 1,541,600				\$ 2,622,400
Dist. Total			\$ 1,853,692				\$ 3,292,030
11	Glynn		\$ 1,228,500				\$ 1,975,000
	Long				\$ 1,344,000		\$ 3,308,600
Dist. Total			\$ 2,981,225		\$ 1,954,800		\$ 7,688,580
13	Screven		\$ 1,071,600				\$ 2,107,800
Dist. Total			\$ 1,712,949				\$ 3,321,701
16	Laurens		\$ 1,589,160				\$ 2,954,710
	Montgomery	\$ 1,471,500	\$ 3,307,060				\$ 5,146,060
	Treutlen	\$ 1,161,000	\$ 1,968,000				\$ 3,190,750
	Wheeler	\$ 2,531,250	\$ 3,210,300				\$ 5,897,550
Dist. Total		\$ 7,272,487	\$11,463,395				\$20,174,507
17	Monroe				\$ 1,008,000		\$ 1,299,980
Dist. Total					\$ 2,354,740		\$ 4,247,650
18	Twiggs				\$ 1,239,000		\$ 2,363,250
	Washington		\$ 1,069,200		\$ 1,692,600		\$ 4,154,400
	Wilkinson				\$ 1,903,200		\$ 2,431,200
Dist. Total			\$ 2,415,175		\$ 5,842,560		\$11,069,960
State Total		\$14,740,497	\$26,348,188		\$18,879,592		\$66,056,051

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1975 BEAVER DAMAGE SURVEY

GEORGIA FORESTRY COMMISSION

INTRODUCTION

The beaver (Caster canadensis) is the largest North American rodent, weighing up to 50 pounds. It has a broad flat scaly tail, long front teeth, a rich brown fur and webbed hind feet. Beavers are vegetarians. They feed on leaves, twigs, and stems of small bushes and trees surrounding lakes and streams. Preferred summer foods include lespedeza, goldenrod, blackberry, honeysuckle, tearthumb, dog fennel, ludwigia, alder, river birch, black gum, sweetgum and dogwood. Winter foods include sweetgum, yellow poplar, pine, hornbeam, willow, dogwood and alder. In general, they are opportunistic feeders taking vegetation seasonally most abundant. In summer, they are primarily herbaceous; in winter, their diet is predominantly composed of woody material (4).

Beaver cause damage by cutting timber and crops such as corn, sugarcane, fruit and nut trees, and flooding bottomland forest, farmlands and roads. One family maintains a "home" dam and from one to several minor dams above and below it. The number depends on stream conditions and the length of time the family has been in the area. Dams occur most frequently away from larger streams and lakes, but these areas may supply many of the beavers which move into problem areas (1, 2).

Although the beaver has become a pest and caused considerable damage in many places, it has been beneficial in others. Control of erosion by slowing run-off, and creation of waterholes and ponds for livestock and game and use of ponds for fish production, ducks and irrigation are some of the many benefits of properly managed beaver populations.

Georgia farms and forests, especially in the Piedmont, are increasingly threatened by flooding created by rapidly expanding beaver populations (Fig. 1). The Georgia Forestry Commission and other land managing agencies have received reports and complaints from forest landowners concerning timber damage done by beavers (Fig. 2) (Tables 1, 4). As a result of complaints, the Georgia Forestry Commission conducted surveys of beaver damage in 1960 and 1967. Continuous growth of the beaver population prompted initiation of this survey in 1975.

The survey results are not a beaver population study. However, they provide insight into the current beaver situation in Georgia. Some counties showing only slight or no damage might have losses a more intensive survey would have revealed.

SURVEY METHODS

This survey was conducted on a county basis by local Georgia Forestry Commission personnel and management foresters in conjunction with the Soil Conservation Service, Game and Fish Division of the Department of Natural Resources, University of Georgia Cooperative Extension Service, and others. While the survey was carried out in a variety of ways, the primary objective was obtaining the most accurate information possible on questionnaires from each county. Questionnaires were distributed to members of the various agencies. After a period of time, a single copy representing the combined efforts of all agencies was developed. Field work was completed in October, 1975. A sample questionnaire is included in this report (Fig. 6).

RESULTS

Between the 1967 and 1975 survey, the area of damage has increased by 128 percent with approximately 287,700 acres in 156 counties presently inundated (Fig. 3).

Estimated volumes of timber damaged and estimated values of this timber are listed in Table 1. Volume figures were computed from figures listed in Table 2, providing acres inundated and average stocking per acre. Value of damaged timber was computed using average prices per district in each size class and is listed in Table 3. An estimated volume of 2,808,998 cords of pulpwood and 1,036,574 MBF (thousand board feet) of sawtimber was reported damaged. The estimated total value of damaged timber was \$45,056,051.

Heaviest timber losses were reported in the Piedmont and Coastal Plain regions. Many reports listed damage only to non-commercial timber lands. Pastures (11,838 acres) and croplands (6,236 acres) were frequently listed as flooded. There were reports of inundated county roads, utility and railroad right-of-ways, pond spillways and dams in urban areas. A total of 258,489 acres of commercial timber land was reported along with an additional 4,500 acres in timber reproduction. Timber lands accounted for 91 percent of the total inundated acres. Most counties reported landowners who desired to keep beaver for such benefits as increased wildlife habitat (duck-fish ponds), waterholes for irrigation, livestock and flood control.

The 1960 and 1967 surveys reported most beaver activity had been established from 1950 to 1960. Older established dams were reported as far back as the 1930's (3). Table 4 provides the approximate number of years beavers have been established in the districts. Beaver activity has continued to increase since the initial surveys. The total number of damage reports (landowners with

problems) increased from 519 in 1960 to 2,632 in 1967 and to 9,988 in 1975. Acreage affected figures for the three surveys were 15,702 acres in 1960, 126,409 acres in 1967, and 287,700 acres in 1975.

Observations concerning control measures are provided in Table 5. Trapping was the control measure most frequently reported and accounted for 35 percent of the total effort. In addition, 75 counties reported beaver trapped for fur (Fig. 4). Dynamiting, shooting and use of drain pipes were ranked behind trapping as types of control effort most frequently used. Trapping (18 percent) and dynamiting (6 percent) were listed as the control efforts most successful. Unsuccessful control (41 percent) and no response (25 percent) were most frequently listed.

Of approximately 10,000 landowners with beaver problems, 32 percent have registered complaints with various agencies. Approximately 700 or 7 percent have initiated some type of control program.

Benefits derived from beavers were thought to offset damages in 38 counties (Fig. 5). These assumptions constitute opinions of the County Committees. Benefit-damage ratios will vary within each county dependent on landowner circumstances. Benefits most frequently listed were establishment of wildlife habitat for ducks, fish and erosion control by slowing run-off.

CONTROL

Control of beavers, by any recommended method, is time consuming and expensive. The best control approach, based on information collected in this survey, appears to be trapping combined with mechanical alteration of the animal's habitat, i.e. dynamiting and installation of drain pipes.

Two Georgia publications available listing techniques for trapping, etc. are:

1. Beaver and Muskrat Control, (not dated), published by Information Education Division, Georgia Game and Fish Division, Department of Natural Resources.
2. Beaver Control. David Almand, December 1966, Circular 565, published by UGA, Cooperative Extension Service.

Copies are available from the respective agencies. In addition, the Soil Conservation Service and the Department of Natural Resources, Game Management Section are currently surveying fresh water wetlands (including beaver ponds) throughout Georgia. This information should be available from respective agencies in the near future.



Bottomland Hardwoods Inundated by Beaver Dam Construction

Table 1.--Volume of Timber Damage by County

District & County	Volume of Timber Damage					Value in Dollars					Total Value
	Pine		Hardwood			Pine		Hardwood			
	: Pulpwood : Cords	: Sawtimber : MBF	: Pulpwood : Cords	: Sawtimber : MBF		: Pulpwood : Sawtimber	: Pulpwood : Sawtimber				
District 1											
Bartow	95	26	--	--	\$	571	\$	922	--	\$	1,493
Catoosa	--	--	263	75	--	--	--	--	788	2,187	2,975
Chattooga	28	4	28	6	168	--	158	83	174	--	583
Dade	--	--	336	126	--	--	--	--	1,008	3,654	4,662
Floyd	928	160	448	144	5,568	--	5,760	1,344	4,176	--	16,848
Gordon	29	6	--	--	171	--	205	--	--	--	376
Haralson	4,650	1,400	7,600	2,100	27,900	--	50,400	22,800	60,900	--	162,000
Paulding	2,945	930	7,560	1,890	17,670	--	33,480	22,680	54,810	--	128,640
Polk	9,130	1,870	1,640	600	54,780	--	67,320	4,920	17,400	--	144,420
Walker	256	22	79	20	1,536	--	792	237	580	--	3,145
Total	18,061	4,418	17,954	4,961	108,364	--	159,037	53,860	143,881	--	465,142
District 2											
Cherokee	--	--	--	--	--	--	--	--	--	--	--
Fannin	--	--	--	--	--	--	--	--	--	--	--
Gilmer	--	--	--	--	--	--	--	--	--	--	--
Murray	1,100	480	--	--	4,400	--	15,360	--	--	--	19,760
Pickens	75	19	--	--	300	--	608	--	--	--	908
Whitfield	--	--	143	41	--	--	--	285	1,013	--	1,298
Total	1,175	499	143	41	4,700	--	15,968	285	1,013	--	21,966
District 3											
Clayton	1,890	967	--	--	7,560	--	33,863	--	--	--	41,423
Cobb	250	83	--	--	1,000	--	2,887	--	--	--	3,887
Dekalb	--	--	--	--	--	--	--	--	--	--	--
Douglas	645	125	585	175	2,580	--	4,375	1,170	3,500	--	11,625
Fulton	1,380	420	1,210	590	5,520	--	14,700	2,420	11,800	--	34,440
Gwinnett	980	400	3,090	1,380	3,920	--	14,000	6,180	27,600	--	51,700
Rockdale	1,290	495	--	--	5,160	--	17,325	--	--	--	22,485
Total	6,435	2,490	4,885	2,145	25,740	--	87,150	9,770	42,900	--	165,560
District 4											
Carroll	--	--	23,000	5,250	--	--	--	69,000	105,000	--	174,000
Coweta	5,760	2,160	23,400	9,000	34,560	--	108,000	70,200	180,000	--	392,760
Heard	237	60	723	323	1,422	--	3,000	2,167	6,460	--	13,049
Meriwether	23,000	8,000	27,900	11,100	138,000	--	400,000	83,700	222,000	--	843,700
Troup	9	4	921	285	56	--	185	2,765	5,700	--	8,706
Total	29,006	10,224	75,944	25,958	174,038	--	511,185	227,832	519,160	--	1,432,215

Table 1 (Continued)

District & County	Volume of Timber Damage				Value in Dollars				Total Value	
	Pine		Hardwood		Pine		Hardwood			
	Pulpwood Cords	Sawtimber MBF	Pulpwood Cords	Sawtimber MBF	Pulpwood	Sawtimber	Pulpwood	Sawtimber		
District 5										
Butts	1,050	350	11,600	6,700	\$	15,750	\$	23,200	\$	181,350
Fayette	2,680	540	14,520	4,200		24,300		29,040		158,780
Henry	11,615	4,255	--	--		191,475		--		284,395
Lamar	25,440	6,240	18,720	6,720		280,800		37,440		656,160
Newton	--	--	8,750	2,100		--		17,500		59,500
Pike	2,220	1,200	44,400	18,800		54,000		88,800		536,560
Spalding	370	175	3,782	985		7,875		7,565		38,100
Upson	1,920	660	16,400	8,000		29,700		32,800		237,860
Total	45,295	13,420	118,172	47,505		603,900		236,345		2,152,705
District 6										
Chattahoochee	20	30	30	23		1,350		91		1,943
Harris	45	21	17	7		967		52		1,474
Muscogee	64	58	43	33		2,623		130		3,759
Quitman	781	263	3,082	1,127		11,826		9,246		44,226
Randolph	1,045	456	5,989	2,279		20,502		17,968		81,009
Stewart	1,505	568	3,087	1,039		25,560		9,261		62,455
Talbot	9,400	3,500	55,250	22,100		157,500		165,750		729,950
Webster	838	484	5,437	2,246		21,771		16,312		78,472
Total	13,698	5,380	72,935	28,854		242,099		218,810		1,003,288
District 7										
Crisp	3,080	990	1,699	581		59,400		5,095		103,648
Oooly	3,307	1,943	22,236	7,630		116,550		66,708		400,468
Macon	--	--	45,000	27,000		--		135,000		810,000
Marion	2,880	495	10,240	4,640		29,700		30,720		199,460
Schley	--	--	13,680	6,120		--		41,040		194,040
Sumter	6,816	1,633	15,900	4,500		97,980		47,700		312,708
Taylor	27,000	6,300	10,800	3,600		378,000		32,400		716,400
Total	43,083	11,361	119,555	54,071		681,630		358,663		2,736,724
District 8										
Ben Hill	720	400	2,775	1,424		26,800		8,325		75,145
Berrien	--	--	--	--		--		--		--
Brooks	2,340	1,230	--	--		82,410		--		119,850
Cook	--	--	64	23		--		192		652
Echols	82	29	--	--		1,943		--		3,255
Irwin	2,987	1,247	3,200	900		83,549		9,600		158,941
Lanier	--	--	--	--		--		--		--
Lowndes	445	145	--	--		9,715		--		16,835
Tift	1,080	440	3,570	750		29,480		10,710		72,470
Turner	396	216	1,670	860		14,472		5,010		43,018
Total	8,050	3,707	11,279	3,957		248,369		33,837		490,166

Table 1 (Continued)

District & County	Volume of Timber Damage						Value in Dollars					
	Pine			Hardwood			Pine			Hardwood		
	Pulpwood : Cords	Sawtimber : MBF	Pulpwood : Cords	Pulpwood : Cords	Sawtimber : MBF		Pulpwood : Pulpwood	Sawtimber : Sawtimber		Pulpwood : Pulpwood	Sawtimber : Sawtimber	Total Value
District 9												
Baker	1,240	580		1,020	540	\$	19,840	\$	46,400	\$	5,100	\$ 18,900
Calhoun	--	--		5,500	1,900		--		--		27,500	\$ 90,240
Clay	1,580	560		5,640	1,980		12,640		25,200		16,920	66,500
Colquitt	1,365	690		1,215	450		21,840		55,200		6,075	29,700
Decatur	1,380	615		--	--		22,080		49,200		--	15,750
Dougherty	4,000	2,000		6,700	2,850		64,000		160,000		33,500	99,750
Early	15,900	2,700		34,500	11,700		254,400		216,000		172,500	409,500
Grady	380	260		1,155	675		6,080		20,800		5,775	23,625
Lee	7,560	1,740		9,000	3,500		120,960		139,200		45,000	122,500
Miller	730	60		1,080	480		11,680		4,800		5,400	16,800
Mitchell	3,325	735		6,300	1,850		53,200		58,800		31,500	64,750
Seminole	--	--		--	--		--		--		--	--
Terrell	3,920	400		6,100	1,950		62,720		32,000		30,500	68,250
Thomas	329	334		--	--		5,258		26,712		--	31,970
Worth	4,900	4,130		10,320	4,200		78,400		330,400		51,600	147,000
Total	46,609	14,804		88,530	32,075		733,098		1,164,712		431,370	1,083,025
												3,412,205
District 10												
Appling	50,800	18,800		22,400	8,000		711,200		541,600		89,600	280,000
Bulloch	--	--		--	--		--		--		--	--
Candler	72	41		605	230		1,008		3,362		2,420	8,050
Evans	1,120	740		5,580	1,770		15,680		60,680		22,320	61,950
Jeff Davis	1,000	410		3,905	1,265		14,000		33,620		15,620	44,275
Tattnall	5,300	2,150		4,000	1,200		74,200		176,300		16,000	42,000
Toombs	2,175	465		685	195		30,450		38,130		2,740	6,825
Wayne	--	--		--	--		--		--		--	--
Total	60,467	22,606		37,175	12,660		846,538		853,692		148,700	443,100
												2,292,030
District 11												
Bryan	5,600	1,950		3,125	1,400		100,800		126,750		15,625	42,000
Camden	1,450	625		820	235		26,100		40,625		4,100	7,050
Chatham	--	--		--	--		--		--		--	--
Effingham	--	--		580	225		--		--		2,900	6,750
Glynn	36,000	18,900		5,900	2,300		648,000		228,500		29,500	69,000
Liberty	1,335	690		2,500	900		24,030		44,850		12,500	27,000
Long	31,200	14,100		97,300	44,800		561,600		916,500		486,500	344,000
McIntosh	36,300	9,600		37,500	15,300		653,400		624,000		187,500	459,000
Total	111,885	45,865		147,725	65,160		2,013,930		1,981,225		738,625	954,800
												5,683,580

Table 1 (Continued)

District & County	Volume of Timber Damage					Value in Dollars				Total Value
	Pine		Hardwood			Pine		Hardwood		
	Pulpwood Cords	Sawtimber MBF	Pulpwood Cords	Sawtimber MBF		Pulpwood Cords	Sawtimber MBF	Pulpwood Cords	Sawtimber MBF	
District 12										
Atkinson	--	--	--	--	\$	--	--	\$	--	\$
Bacon	--	--	--	--	--	--	--	--	--	--
Brantley	--	--	--	--	--	--	--	--	--	--
Charlton	--	--	--	--	--	--	--	--	--	--
Clinch	--	--	--	--	--	--	--	--	--	--
Coffee	1,900	640	--	--	--	39,900	46,080	--	--	85,980
Pierce	--	--	--	--	--	--	--	--	--	--
Ware	--	--	--	--	--	--	--	--	--	--
Total	1,900	640	--	--	--	39,900	46,080	--	--	85,980
District 13										
Burke	--	--	--	--	--	--	--	--	--	--
Columbia	1,180	620	1,340	450	--	11,800	47,120	--	4,020	75,540
Emanuel	2,760	1,110	6,180	2,520	--	27,600	84,360	--	18,540	201,060
Glascok	--	--	3,140	880	--	--	--	--	9,420	34,060
Jefferson	--	--	3,000	1,050	--	--	--	--	9,000	38,400
Jenkins	--	--	--	--	--	--	--	--	--	--
Lincoln	5,438	2,693	--	--	--	54,384	204,653	--	--	259,037
McDuffie	1,240	390	--	--	--	12,400	29,640	--	--	42,040
Richmond	--	--	2,520	960	--	--	--	7,560	26,880	34,440
Screven	26,700	14,100	43,600	22,800	--	267,000	71,600	130,800	638,400	1,107,800
Taliaferro	860	280	1,120	330	--	8,600	21,280	3,360	9,240	42,480
Warren	445	160	--	--	--	4,450	12,160	--	--	16,610
Wilkes	5,723	3,186	11,484	4,872	--	57,230	242,136	34,452	136,416	470,234
Total	44,346	22,539	72,384	33,862	--	443,464	712,949	217,152	948,136	2,321,701
District 14										
Banks	11,800	2,500	5,650	2,050	--	70,800	65,000	16,950	41,000	193,750
Dawson	1,725	270	350	65	--	10,350	7,020	1,050	1,300	19,720
Forsyth	11	3	8	2	--	69	76	25	36	206
Franklin	34,920	12,240	19,000	4,800	--	209,520	318,240	57,000	96,000	680,760
Habersham	5,695	510	870	240	--	34,170	13,260	2,610	4,800	54,840
Hall	4,360	920	2,080	540	--	26,160	23,920	6,240	10,800	67,120
Hart	3,099	63	5,650	900	--	18,592	1,628	16,950	18,000	55,170
Lumpkin	272	82	--	--	--	1,632	2,132	--	--	3,764
Rabun	462	66	303	81	--	2,772	1,729	909	1,620	7,030
Stephens	15,225	2,100	1,155	560	--	91,350	54,600	3,465	11,200	160,615
Towns	1,300	250	580	150	--	7,800	6,500	1,740	3,000	19,040
Union	1,410	160	303	90	--	8,460	4,160	907	1,800	15,327
White	4,560	480	1,160	300	--	27,360	12,480	3,480	6,000	49,320
Total	84,839	19,644	37,109	9,778	--	509,035	510,745	111,326	195,556	1,326,662

Table 1 (Continued)

District & County	Volume of Timber Damage				Value in Dollars				Total Value
	Pine		Hardwood		Pine		Hardwood		
	Pulpwood	Sawtimber	Pulpwood	Hardwood	Pulpwood	Sawtimber	Pulpwood	Sawtimber	
	Cords	MBF	Cords	MBF					
District 15									
Barrow	--	--	112	50	\$	--	\$	224	\$
Clarke	2,695	1,100	2,880	680		16,170		5,760	1,224
Elbert	1,056	220	4,500	1,485		6,336		9,000	79,530
Greene	8,480	4,480	5,460	2,640		50,880		10,920	53,836
Jackson	--	--	1,180	370		--		2,360	293,800
Madison	640	--	1,060	390		--		2,120	9,760
Morgan	6,180	2,880	36,900	10,800		3,840		7,800	18,360
Oconee	7,020	1,755	4,800	1,320		37,080		216,000	442,080
Oglethorpe	10,400	3,120	126,000	44,000		42,120		9,600	148,320
Walton	5,150	1,450	52,000	20,500		62,400		252,000	1,319,200
Total	41,621	15,120	234,892	82,235		30,900		104,000	602,900
						53,000		410,000	2,969,010
						604,800		469,784	
								1,644,700	
District 16									
Bleckley	8,843	1,417	15,125	5,250		132,637		116,235	105,000
Dodge	21,630	5,460	17,400	5,400		324,450		447,720	75,625
Laurens	66,120	19,380	29,750	11,250		991,800		589,160	87,000
Montgomery	98,100	40,330	22,500	12,750		471,500		307,060	108,000
Telfair	39,550	9,100	--	--		593,250		746,200	225,000
Treutlen	77,400	24,000	5,150	1,800		161,000		968,000	--
Wheeler	168,750	39,150	10,400	5,200		531,250		210,300	36,000
Wilcox	4,440	960	8,960	2,960		66,600		78,720	1,190,750
Total	484,833	139,797	109,285	44,610		3,272,487		3,463,395	52,000
								546,425	897,550
								44,800	249,320
								892,200	8,174,507
District 17									
Bibb	203	173	1,900	740		1,823		11,557	31,080
Crawford	16,800	9,870	16,800	9,600		151,200		661,290	7,600
Houston	1,350	310	19,800	9,750		12,150		20,770	403,200
Jasper	2,520	1,950	9,790	5,280		27,720		157,950	409,500
Jones	3,030	1,530	4,450	1,550		27,270		102,510	205,920
Monroe	2,120	700	56,500	24,000		19,080		46,900	65,100
Peach	--	--	1,710	570		--		--	212,680
Pulaski	4,200	550	18,200	10,400		63,000		45,100	299,980
Total	30,223	15,083	129,150	61,890		302,243		1,046,077	8,000
								544,590	30,780
								1,354,740	407,100
									3,247,650
District 18									
Baldwin	1,455	780	3,400	1,440		16,005		63,180	56,160
Hancock	1,440	630	9,600	2,800		15,840		51,030	109,200
Johnson	5,400	1,875	46,080	21,600		59,400		151,875	842,400
Putnam	9,180	4,440	--	--		100,930		359,640	--
Twiggs	20,000	10,750	56,000	29,500		180,000		720,250	239,000
Washington	63,600	13,200	136,600	43,400		699,600		69,200	692,600
Wilkinson	--	--	105,600	48,800		--		--	528,000
Total	101,075	31,675	359,280	147,540		1,071,825		1,415,175	903,200
								1,740,400	2,842,560
									7,069,960
STATE									
	1,172,601	379,272	1,636,397	657,302		10,740,497		14,348,188	13,879,592
								6,087,774	45,056,051

Table 2.--Estimated Acres Inundated^{1/} and Average Volume Per Acre^{2/}

District:	County	Pine -----			Hardwood -----		
		Total	Avg. Stocking	Per Acre	Total	Avg. Stocking	Per Acre
		Acres	Pulpwood	Sawtimber	Acres	Pulpwood	Sawtimber
		Inundated	Cords	MBF	Inundated	Cords	MBF
1	Bartow	8	11.9	3.2	--	7.9	1.7
	Catoosa	--	13.9 ^{3/}	3.1 ^{3/}	26	10.1	2.9
	Chattooga	2	14.0	2.2	3	9.2	2.0
	Dade	--	12.8 ^{3/}	1.1 ^{3/}	28	12.0	4.5
	Floyd	80	11.6	2.0	40	11.2	3.6
	Gordon	3	9.5	1.9	--	8.9	1.4
	Haralson	500	9.3	2.8	1,000	7.6	2.1
	Paulding	310	9.5	3.0	900	8.4	2.1
	Polk	1,100	8.3	1.7	200	8.2	3.0
2	Walker	20	12.8	1.1	10	7.9	2.0
	Cherokee	--	10.5	4.0	--	6.6	1.9
	Fannin	--	11.1	3.4 ^{3/}	--	12.2	2.4
	Gilmer	--	12.6	3.8	--	7.5	1.3
	Murray	100	11.0	4.8	--	13.6	3.6
	Pickens	10	7.5	1.9	--	6.7	1.9
	Whitfield	--	14.9	5.2	15	9.5	2.7
3	Clayton	225	8.4	4.3	--	9.6	4.5
	Cobb	25	10.0	3.3	--	12.1	6.2
	DeKalb	--	9.0	5.3	--	9.9	4.3
	Douglas	50	12.9	2.5	50	11.7	3.5
	Fulton	100	13.8	4.2	100	12.1	5.9
	Gwinnett	100	9.8	4.0	300	10.3	4.6
	Rockdale	150	8.6	3.3	--	7.2	1.2
4	Carroll	--	10.4	1.4	2,500	9.2	2.1
	Coweta	600	9.6	3.6	2,000	11.7	4.5
	Heard	15	15.8	4.0	85	8.5	3.8
	Meriwether	2,000	11.5	4.0	3,000	9.3	3.7
	Troup	1	9.3	3.7	95	9.7	3.0
5	Butts	100	10.5	3.5	1,000	11.6	6.7
	Fayette	200	13.4	2.7	1,200	12.1	3.5
	Henry	1,150	10.1	3.7	--	10.7	2.8
	Lamar	2,400	10.6	2.6	1,600	11.7	4.2
	Newton	--	9.4	2.3	700	12.5	3.0
	Pike	200	11.1	6.0	4,000	11.1	4.7
	Spalding	50	7.4	3.5	394	9.6	2.5
	Upson	200	9.6	3.3	2,000	8.2	4.0
6	Chattahoochee	5	4.0	6.0	4	7.6	5.7
	Harris	5	8.9	4.3	2	8.6	3.3
	Muscogee	11	5.8	5.3	6	7.2	5.5
	Quitman	73	10.7	3.6	230	13.4	4.9
	Randolph	134	7.8	3.4	651	9.2	3.5
	Stewart	142	10.6	4.0	315	9.8	3.3
	Talbot	1,000	9.4	3.5	8,500	6.5	2.6
	Webster	118	7.1	4.1	591	9.2	3.8
7	Crisp	40	11.2	3.6	215	7.9	2.7
	Dooly	46	6.3	3.7	2,180	10.2	3.5
	Macon	94	8.0	3.4	5,000	9.0	5.4
	Marion	96	6.4	1.1	1,600	6.4	2.9
	Schley	123	8.1	4.5	1,800	7.6	3.4
	Sumter	129	9.6	2.3	1,500	10.6	3.0
	Taylor	133	9.0	2.1	1,000	10.8	3.6

Table 2 (Continued)

District:	County	Pine			Hardwood		
		Total	Avg. Stocking Per Acre		Total	Avg. Stocking Per Acre	
		Acres	Pulpwood	Sawtimber	Acres	Pulpwood	Sawtimber
		Inundated	Cords	MBF	Inundated	Cords	MBF
8	Ben Hill	100	7.2	4.0	250	11.1	5.7
	Berrien	--	10.6	4.0	--	15.4	4.1
	Brooks	300	7.8	4.1	--	13.6	4.4
	Cook	--	13.6	4.1	5	12.8	4.6
	Echols	10	8.2	2.9	--	12.3	3.5
	Irwin	290	10.3	4.3	200	16.0	4.5
	Lanier	--	6.9	3.0	--	16.9	4.5
	Lowndes	50	8.9	2.9	--	11.2	4.5
	Tift	100	10.8	4.4	300	11.9	2.5
	Turner	60	6.6	3.6	100	16.7	8.6
9	Baker	200	6.2	2.9	--	6.8	3.6
	Calhoun	--	8.9	3.1	--	11.0	3.8
	Clay	200	7.9	2.8	600	9.4	3.3
	Colquitt	150	9.1	4.6	150	8.1	3.0
	Decatur	150	9.2	4.1	--	9.8	5.2
	Dougherty	500	8.0	4.0	500	13.4	5.7
	Early	1,500	10.6	1.8	3,000	11.5	3.9
	Grady	50	7.6	5.2	150	7.7	4.5
	Lee	600	12.6	2.9	1,000	9.0	3.5
	Miller	50	14.6	1.2	150	7.2	3.2
	Mitchell	350	9.5	2.1	500	12.6	3.7
	Seminole	--	11.1	8.8	--	8.1	2.7
	Terrell	400	9.8	1.0	500	12.2	3.9
	Thomas	53	6.2	6.3	--	8.5	5.6
	Worth	700	7.0	5.9	1,200	8.6	3.5
10	Appling	4,000	12.7	4.7	2,000	11.2	4.0
	Bulloch	--	8.8	6.2	--	11.2	4.4
	Candler	10	7.2	4.1	50	12.1	4.6
	Evans	200	5.6	3.7	300	18.6	5.9
	Jeff Davis	100	10.0	4.1	550	7.1	2.3
	Tattnall	500	10.6	4.3	250	16.0	4.8
	Toombs	150	14.5	3.1	50	13.7	3.9
	Wayne	--	12.9	4.4	--	9.8	4.5
11	Bryan	500	11.2	3.9	250	12.5	5.6
	Camden	125	11.6	5.0	50	16.4	4.7
	Chatham	--	12.6	10.3	--	13.8	4.0
	Effingham	--	9.2	4.5	50	11.6	4.5
	Glynn	3,000	12.0	6.3	500	11.8	4.6
	Liberty	150	8.9	4.6	200	12.5	4.5
	Long	3,000	10.4	4.7	7,000	13.9	6.4
	McIntosh	3,000	12.1	3.2	3,000	12.5	5.1
12	Atkinson	--	9.5	3.7	--	14.8	3.7
	Bacon	--	9.7	2.5	--	10.1	2.6
	Brantley	--	9.2	1.9	--	11.3	3.9
	Charlton	--	11.9	3.9	--	7.8	3.6
	Clinch	--	10.4	4.2	--	15.7	3.1
	Coffee	200	9.5	3.2	--	8.9	3.2
	Pierce	--	9.6	5.5	--	11.3	4.0
	Ware	--	9.1	3.0	--	14.4	3.3
13	Burke	--	7.4	1.3	--	9.7	3.3
	Columbia	100	11.8	6.2	100	13.4	4.5
	Emanuel	300	9.2	3.7	600	10.3	4.2
	Glascok	--	7.5	.8	200	15.7	4.4
	Jefferson	--	8.1	2.1	300	10.0	3.5
	Jenkins	--	8.6	2.1	--	16.5	7.8
	Lincoln	528	10.3	5.1	--	10.7	3.2
	McDuffie	100	12.4	3.9	--	10.2	2.7
	Richmond	--	11.0	3.1	200	12.6	4.8
	Screven	3,000	8.9	4.7	4,000	10.9	5.7
	Taliaferro	50	17.2	5.6	100	11.2	3.3
	Warren	50	8.9	3.2	--	9.9	3.1
	Wilkes	590	9.7	5.4	1,160	9.9	4.2

Table 2 (Continued)

District:	County	Pine			Hardwood		
		Total	Avg. Stocking Per Acre		Total	Avg. Stocking Per Acre	
		Acres	Pulpwood	Sawtimber	Acres	Pulpwood	Sawtimber
		Inundated	Cords	MBF	Inundated	Cords	MBF
14	Banks	1,000	11.8	2.5	500	11.3	4.1
	Dawson	150	11.5	1.8	50	7.0	1.3
	Forsyth	1	11.5	2.9	1	8.4	1.8
	Franklin	3,600	9.7	3.4	2,000	9.5	2.4
	Habersham	425	13.4	1.2	100	8.7	2.4
	Hall	400	10.9	2.3	200	10.4	2.7
	Hart	313	9.9	.2	500	11.3	1.8
	Lumpkin	20	13.6	4.1	--	10.5	2.5
	Rabun	35	13.2 ^{3/}	1.9 ^{3/}	30	10.1 ^{3/}	2.7 ^{3/}
	Stephens	1,050	14.5	2.0	175	6.6	3.2
	Towns	100	13.0 ^{3/}	2.5	50	11.6 ^{3/}	3.0 ^{3/}
	Union	100	14.1	1.6	25	12.1	3.6
	White	400	11.4	1.2	100	11.6	3.0
15	Barrow	--	8.9	2.0	10	11.2	5.0
	Clarke	275	9.8	4.0	200	14.4	3.4
	Elbert	110	9.6	2.0	450	10.0	3.3
	Greene	800	10.6	5.6	600	9.1	4.4
	Jackson	--	10.8	3.6	100	11.8	3.7
	Madison	50	12.8	2.3	100	10.6	3.9
	Morgan	600	10.3	4.8	3,000	12.3	3.6
	Oconee	650	10.8	2.7	400	12.0	3.3
	Oglethorpe	800	13.0	3.9	10,000	12.6	4.4
	Walton	500	10.3	2.9	5,000	10.4	4.1
16	Bleckley	675	13.1	2.1	1,250	12.1	4.2
	Dodge	2,100	10.3	2.6	2,000	8.7	2.7
	Laurens	5,700	11.6	3.4	2,500	11.9	4.5
	Montgomery	10,900	9.0	3.7	1,500	15.0	8.5
	Telfair	3,500	11.3	2.6	--	12.0	5.0
	Treutlen	6,000	12.9	4.0	500	10.3	3.6
	Wheeler	13,500	12.5	2.9	1,000	10.4	5.2
	Wilcox	600	7.4	1.6	800	11.2	3.7
17	Bibb	25	8.1	6.9	200	9.5	3.7
	Crawford	2,100	8.0	4.7	2,000	8.4	4.8
	Houston	100	13.5	3.1	1,500	13.2	6.5
	Jasper	300	8.4	6.5	1,100	8.9	4.8
	Jones	300	10.1	5.1	500	8.9	3.1
	Monroe	200	10.6	3.5	5,000	11.3	4.8
	Peach	--	2.9	4.8	150	11.4	3.8
	Pulaski	500	8.4	1.1	2,000	9.1	5.2
18	Baldwin	150	9.7	5.2	400	8.5	3.6
	Hancock	150	9.6	4.2	1,000	9.6	2.8
	Johnson	750	7.2	2.5	4,800	9.6	4.5
	Putnam	600	15.3	7.4	--	11.8	4.3
	Twiggs	2,500	8.0	4.3	5,000	11.2	5.9
	Washington	6,000	10.6	2.2	14,000	9.9	3.1
	Wilkinson	--	9.7	3.1	8,000	13.2	6.1

1/ Total acres inundated as reported by county committees consisting of representatives from UGA., Cooperative Extension Service, Soil Conservation Service, Ga. Dept. of Natural Resources Game and Fish Division and Georgia Forestry Commission.

2/ Computed from 1972 Georgia forest survey sample plot data. All non-stocked and seedling-sapling stand sizes, all xeric physiographic classes, and three mesic physiographic classes -- bluffs, mountain saddles and moist slopes, and mountain coves were excluded. All southern yellow pine types were grouped as pine type, and all remaining types were grouped as hardwood type. The process used to obtain mutually exclusive board-foot volume per acre and cords volume per acre was based on the Southeastern Forest Experiment Station, USFS Forest Survey, Asheville, North Carolina, best estimate of average log size in sawtimber trees for each of the two types. Estimated average log size was then used to get a board-foot per cubic foot ratio. Average board-foot volume per acre was summarized and equivalent cubic was

Table 2 (Continued)

computed. This computed cubic was subtracted from all growing-stock cubic and the remainder was converted to cords.

Assumptions

	<u>Pine Types</u>	<u>Hardwood Types</u>
Average Log	9" X 12'	12" X 12'
Log Bd. Ft. Volume	36 bd. ft.	69 bd. ft.
Log Cu. Ft. Volume	6.2 cu. ft.	10.6 cu. ft.
Bd. Ft. Per Cu. Ft.	5.8 bd.ft./cu.ft.	6.5 bd.ft./cu.ft.
Cubic Volume Per Cord	65 per cord	70 per cord

The cords factors were selected as most appropriate for converting poletimber-size trees (pulpwood) and upper-stem portions of sawtimber-size trees to cords, which is the cubic volume remaining after the saw-log portions of sawtimber trees are excluded.

3/ U. S. Forest Service figures not available. Volume figures are averages of contiguous counties.



Mortality Caused by Flooding and Feeding on Southern Pines

Table 3.--Figures Used for Computation of Value of Damaged Timber^{1/}

District	Pine		Hardwood	
	Pulpwood	Sawtimber	Pulpwood	Sawtimber
	Cords	MBF	Cords	MBF
1	\$ 6.00	\$ 36.00	\$ 3.00	\$ 29.00
2	4.00	32.00	2.00	25.00
3	4.00	35.00	2.00	20.00
4	6.00	50.00	3.00	20.00
5	8.00	45.00	2.00	20.00
6	8.00	45.00	3.00	15.00
7	8.00	60.00	3.00	25.00
8	16.00	67.00	3.00	20.00
9	16.00	80.00	5.00	35.00
10	14.00	82.00	4.00	35.00
11	18.00	65.00	5.00	30.00
12	21.00	72.00	4.00	32.00
13	10.00	76.00	3.00	28.00
14	6.00	26.00	3.00	20.00
15	6.00	40.00	2.00	20.00
16	15.00	82.00	5.00	20.00
17	9.00	67.00	4.00	42.00
18	11.00	81.00	5.00	39.00

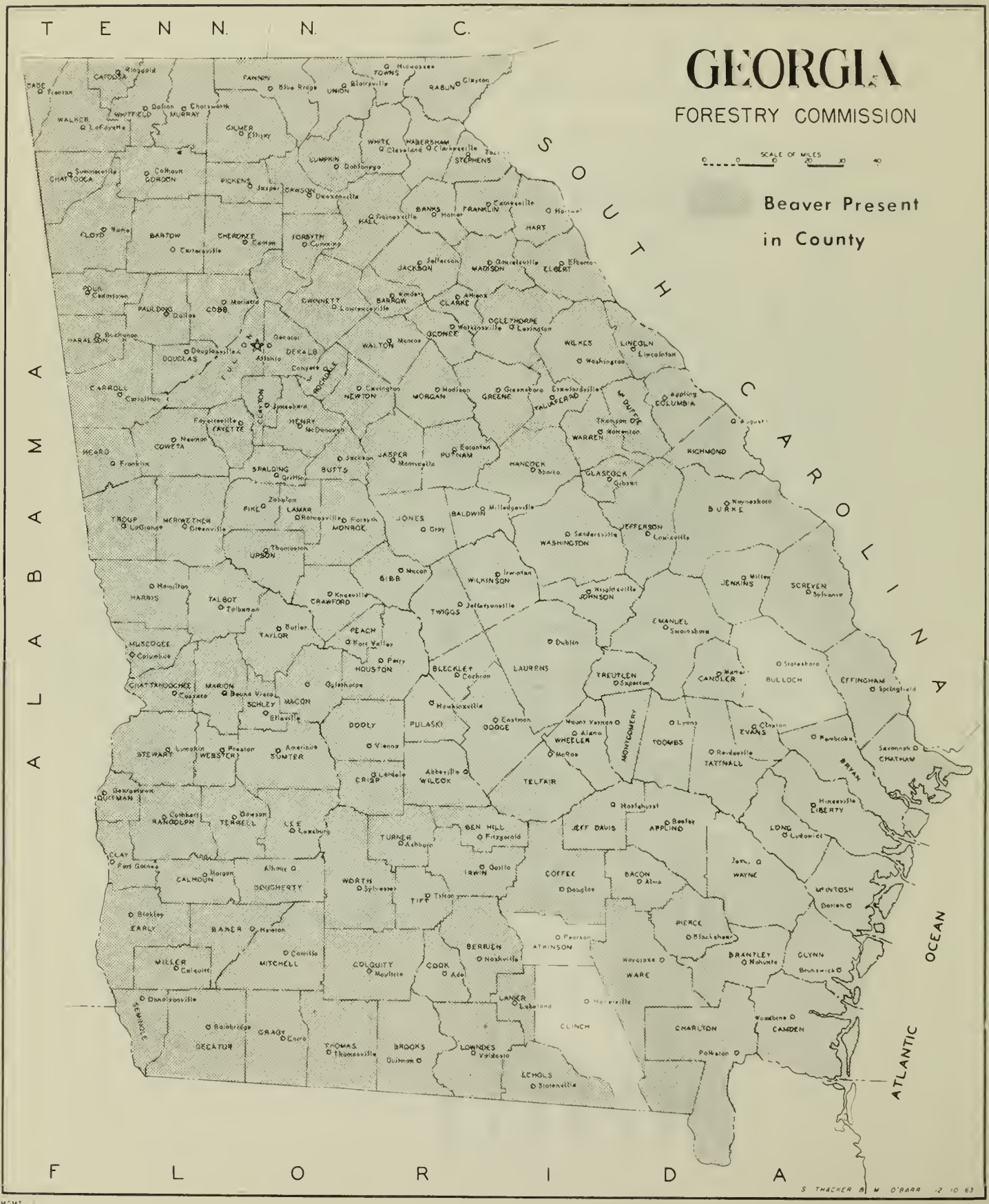
^{1/} Average price per district as of May 1975.

Table 4.-- Summary of Landowner Activities

District	: Avg. No. Years :	:	:	: No. Landowners
	: Beaver Present :	No. Landowners	: No. Complaints :	: With A
	in District	: With Problems	: Received	: Control Program
1	13	473	97	39
2	19	141	67	32
3	16	112	56	17
4	18	585	138	12
5	28	855	209	5
6	17	222	143	29
7	26	634	222	53
8	13	268	126	101
9	27	250	179	40
10	11	583	178	37
11	9	201	72	13
12	9	18	16	4
13	19	647	132	45
14	20	1,443	588	16
15	23	670	390	170
16	28	1,096	188	38
17	25	515	93	32
18	23	1,275	281	11
Total		9,988	3,175	694

Table 5.--Summary of Beaver Damage Control Efforts

[illegible]



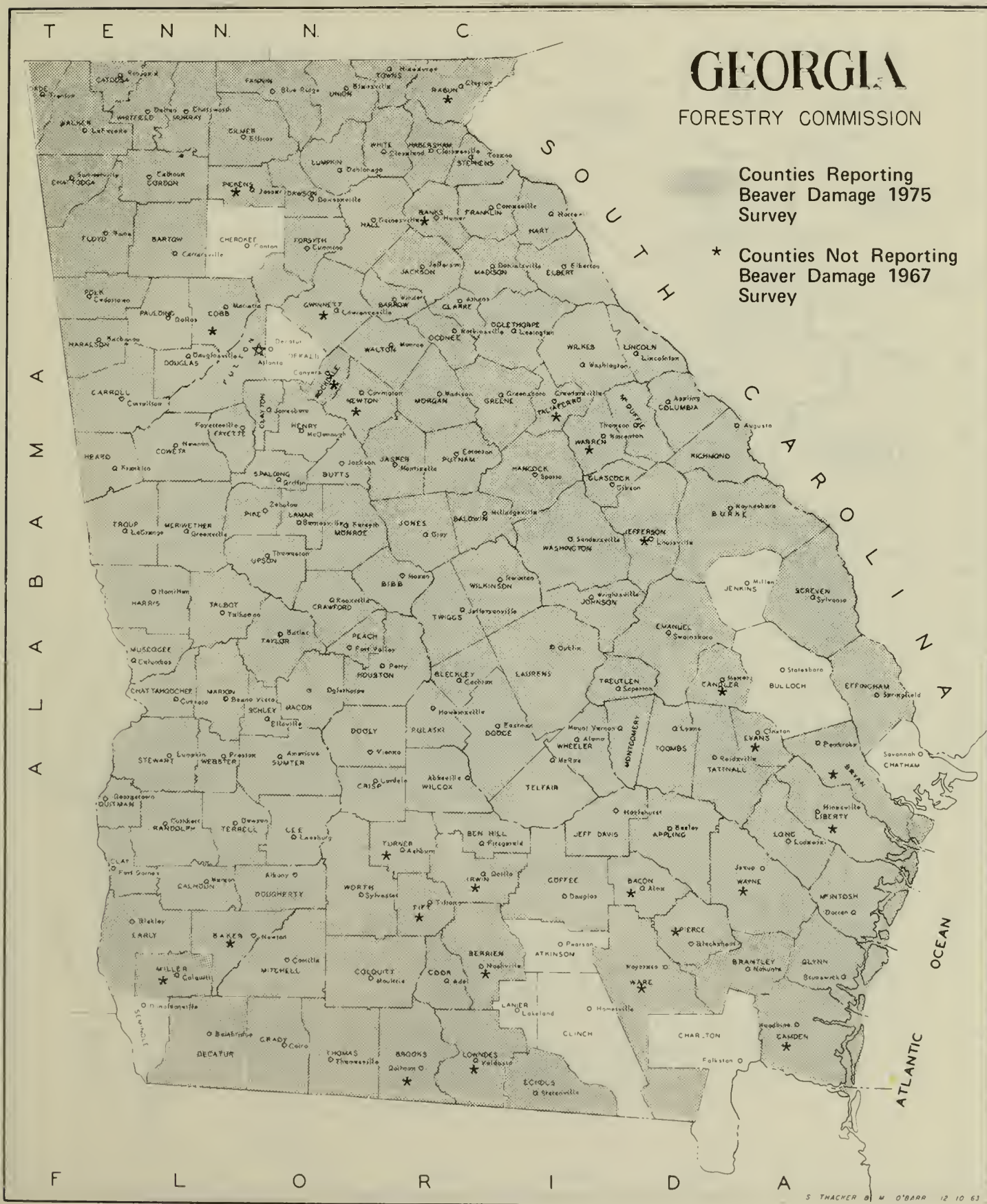


Fig. 3.--Total Acres Inundated by District

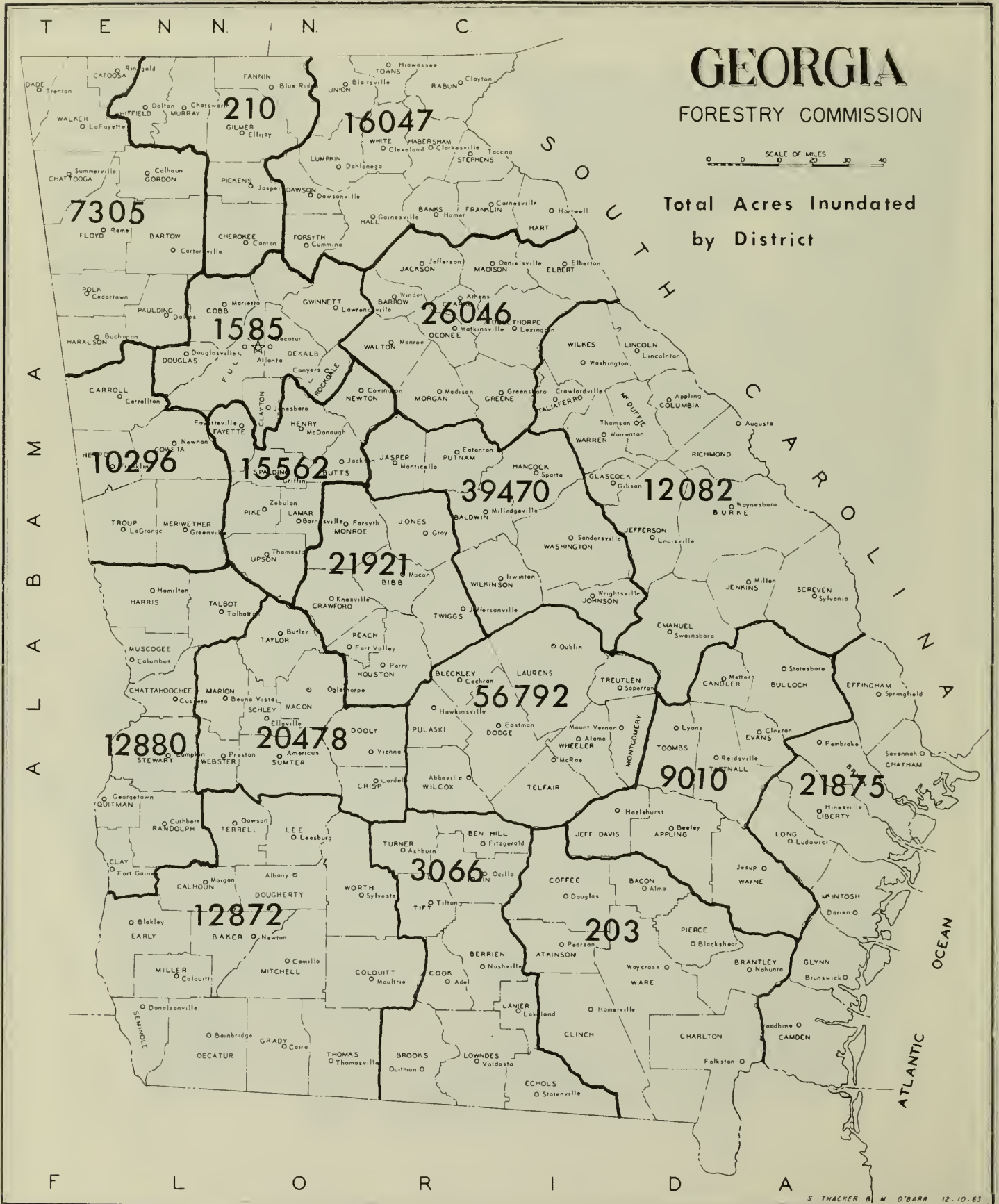


Fig. 4.--Counties Beaver Trapped for Fur

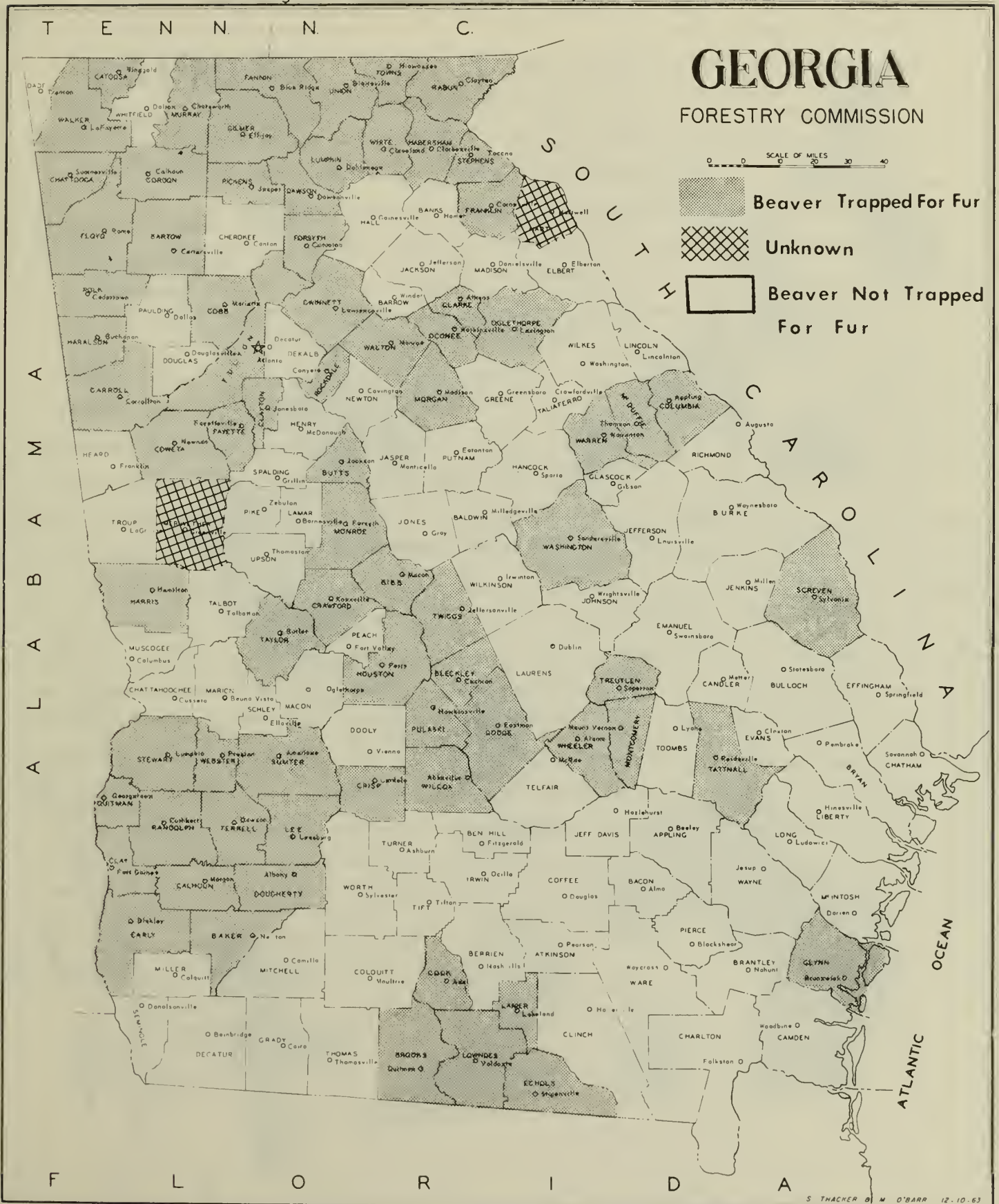


Fig. 5.--Counties Reporting Benefits Exceed the Damages

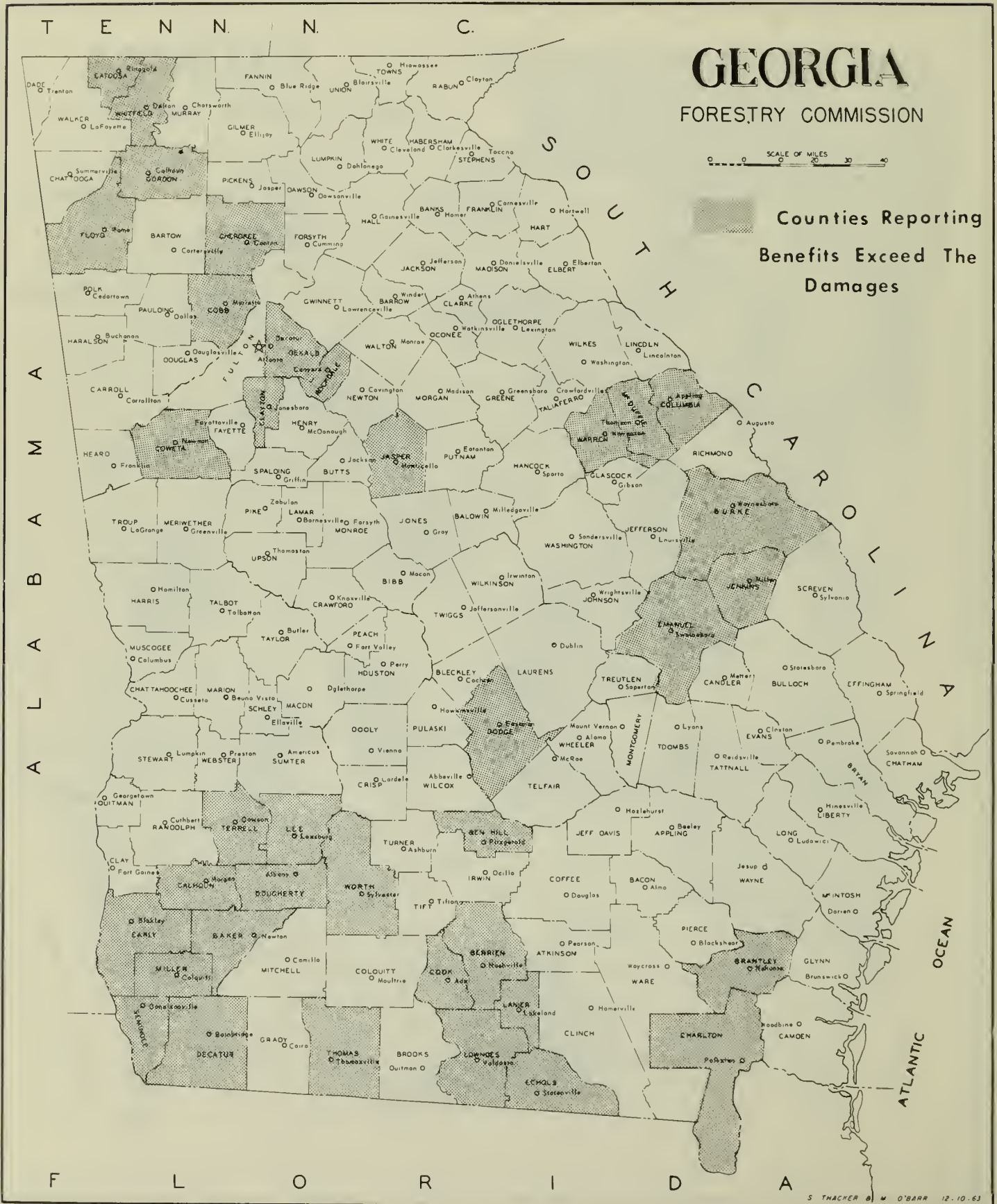


Fig. 6.--Sample Beaver Damage Report Form

County _____

Date _____

1. Are beaver present in your county? No ☐ Yes ☐ If yes, please answer the following questions.
2. How many years have you known the beaver to exist in your county? _____
3. Have beaver caused problems in your county? No ☐ Yes ☐ If yes, how many complaints received. _____
4. If you have flooding from beaver colonies in your county, estimate acres involved:

Pine	_____	Reproduction	_____	Urban (Est.No.Dams)	_____	Utility R/W	_____
Hardwoods	_____	Crop Land	_____	Roadways (No.)	_____	Other (Specify)	_____
Pine Hardwoods	_____	Pasture	_____	Railroads (No.)	_____		_____
5. How many landowners have a control program? _____ What methods of control have been used?:

Trapping	_____ % of Total Effort	Drain Pipes	_____ % of Total Effort
Shooting	_____ % of Total Effort	Other	_____ % of Total Effort (Specify) _____
Dynamiting Dams	_____ % of Total Effort		_____

Which method, if any, was satisfactory? _____
6. Are beaver trapped for fur in your county? No ☐ Yes ☐
7. Please estimate the number of landowners in your county that have beaver-associated problems. _____
8. What do you consider the major problems associated with beaver? _____

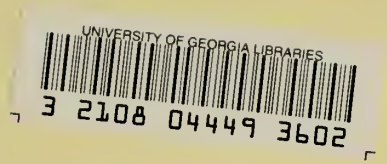
9. What do you consider the major benefits associated with beaver? _____

10. Do you feel the benefits to wildlife, fish or watershed offset the damages done by beavers? No ☐ Yes ☐

NOTE: RETURN COMPLETED FORM TO:

John F. Godbee
Forest Entomologist
Georgia Forestry Commission
Box 819
Macon, Georgia 31202





Cost	\$711.91
Quantity	2,500