

**ACADIA NATIONAL PARK
PURPLE LOOSESTRIFE MANAGEMENT
PROGRAM
1992 ANNUAL MANAGEMENT SUMMARY**

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1992 SUMMARY REPORT

PERSONNEL

Personnel involved in 1992 purple loosestrife work were natural resource specialist/integrated pest manager Judy Connery, park ranger Charlie Jacobi, seasonal biological technicians Karen Anderson and Bill Patterson IV, volunteer Brent Richardson, and Fire Crew members Homer Carter, Erik Carlson, Chad O'Conner, and Dave Hanlon. All spraying was done by Jacobi, Patterson, and the four Fire Crew members.

WETLAND AREAS SURVEYED

Visual inspections were made at several wetland areas in addition to areas that were treated. Approximately 12 personnel hours were spent checking MDI wetlands for purple loosestrife in 1992. The following is a list of wetlands checked this year:

- wetlands/ditches along the Witch Hole Pond Carriage Trail loop
- north end of the Tarn
- stream to the north of the Tarn up into the first 1/2 mile or so south of Great Meadow
- Kent Field/Precipice Marsh
- watershed north of Sand Beach
- access road to College of the Atlantic land/Blackwoods dump site

Purple loosestrife was found at two of these sites -- Kent Field and the Blackwoods Dump road. Flowering heads were removed at both sites and mature plants sprayed at Kent Field. A list of all known locations of purple loosestrife on Mount Desert Island in 1992 is located in Appendix A.

SAFETY CONCERNS

One member of the Fire Crew was exposed to herbicide mix when the hose connecting the spray wand to the sprayer tank failed. After rinsing in the field, he was sent home to take a shower and change clothes. An injury report was filed, but he experienced no adverse effects.

RESULTS

Transect Monitoring

Stem counts were made at all seven grids this year between July 20 and July 29. The data collected is listed in Appendix B, and summarized in Table 1. Fifty-six (56) personnel hours were spent counting stems in the monitoring grids this year.

Table 1. Summary of 1992 Monitoring Observations

GRID	n (# of m ²)	Reproductive Shoots				Non-Reproductive Shoots			
		Total Stems	X stem/m ²	SE	SD	Total Stems	X stem/m ²	SE	SD
1	31	0				0			
2	30	0				0			
3	52	0				0			
4	38	0				0			
5	240	3	0.01	0.01	0.19	10	0.04	0.02	0.24
6	119	4	0.03	0.02	0.22	16	0.13	0.04	0.48
7	150	9	0.06	0.03	0.33	248	1.65	0.43	5.22

In the 1991 Purple Loosestrife Summary Report, Anderson and Connery (1992) determined that the most effective way to display data trends would be through bar graphs of stem counts, rather than the statistical methods previously applied. For this reason, results of monitoring efforts at the seven grids will be presented in graphical form.

Total numbers of loosestrife stems over all grids have increased since July of 1991. In fact, more total loosestrife stems were counted this year than in any other year since monitoring began in 1989 (see Figure 1). However, the increase in stems overall is due to the dramatic increase in stem number at Grid 7, as shown in Figure 2. Figure 3 demonstrates that numbers of loosestrife stems have actually decreased in Grids 1 through 6 steadily since 1989. A possible explanation for the sudden rise in loosestrife in Grid 7 is given in the discussion section of this report.

Figures 2 and 4-7 show changes in loosestrife stem numbers from 1989 through 1992 for each individual grid. Loosestrife numbers have increased since 1991 in Grid 7 (Figure 2) and Grid 6 (Figure 4), decreased in Grid 1 (Figure 5) and Grid 5 (Figure 6), and remained constant without loosestrife stems in Grid 2 (Figure 7). Graphs are not included for Grids 3 and 4 because they have never contained loosestrife stems.

Figure 1. Number of stems in Grids 1-7,
1989 -1992

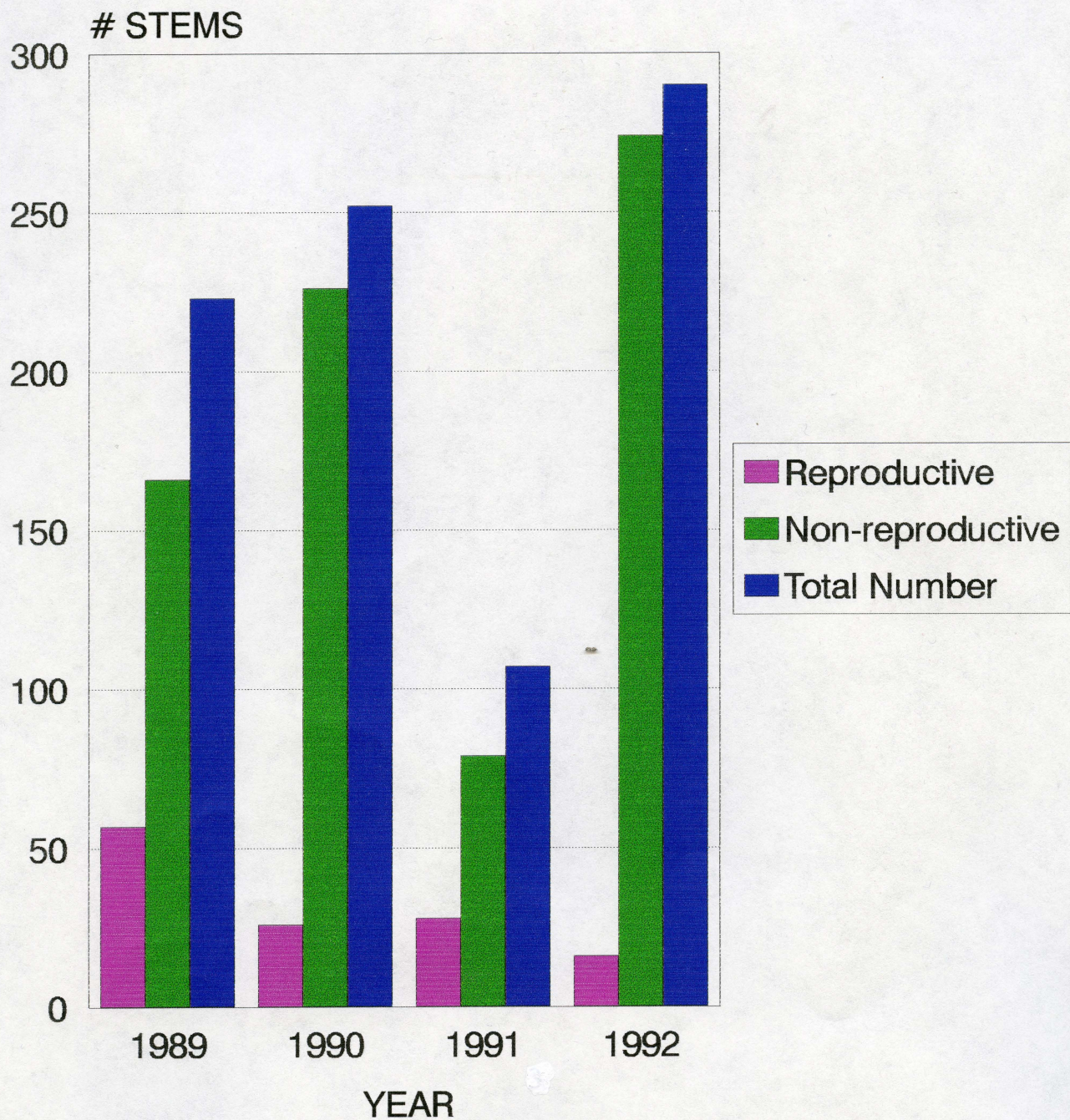


Figure 2. Number of stems in Grid 7
(Bear Brook), 1989-1992

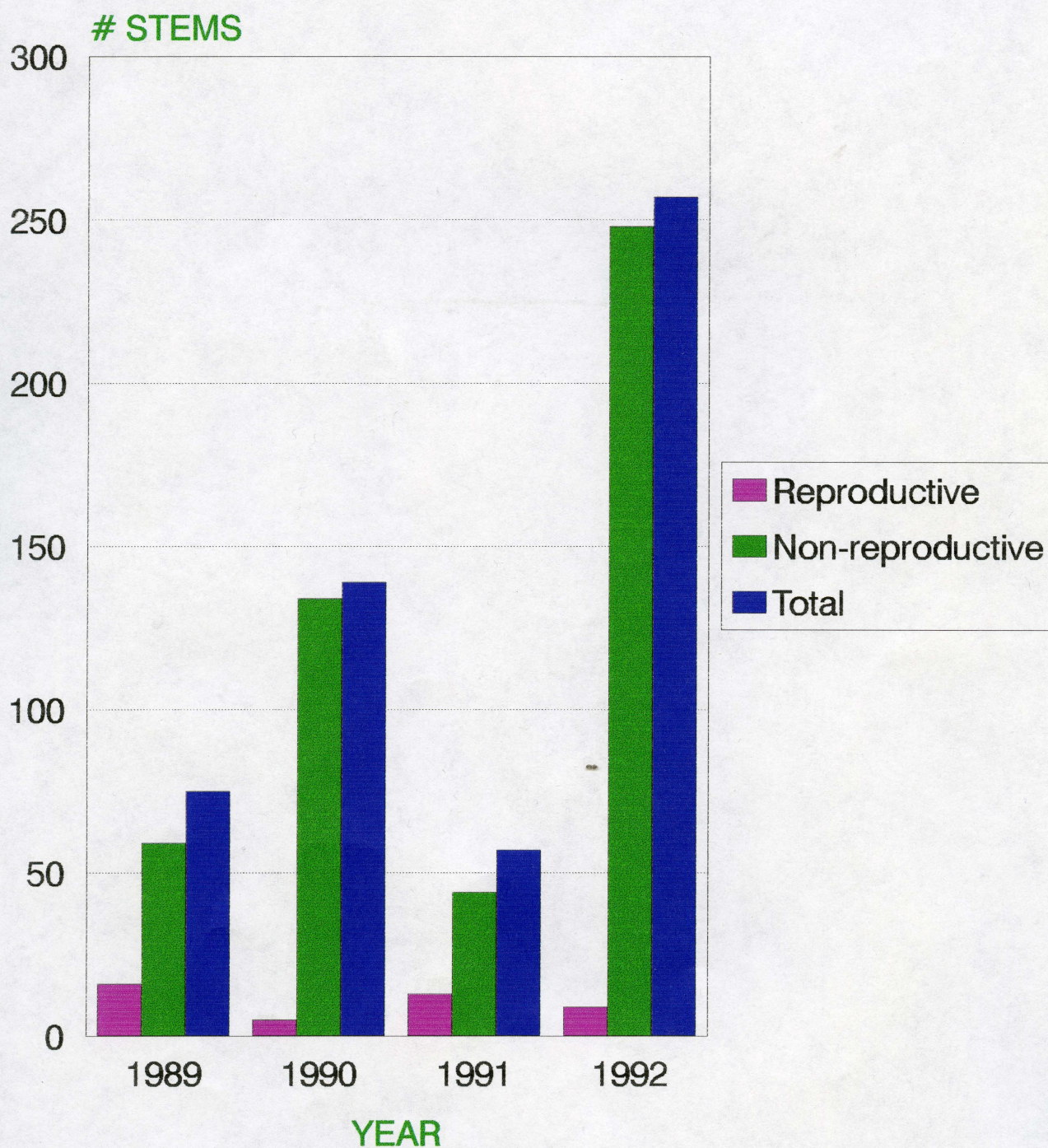


Figure 3. Number of stems in Grids 1-6 only,
1989-1992

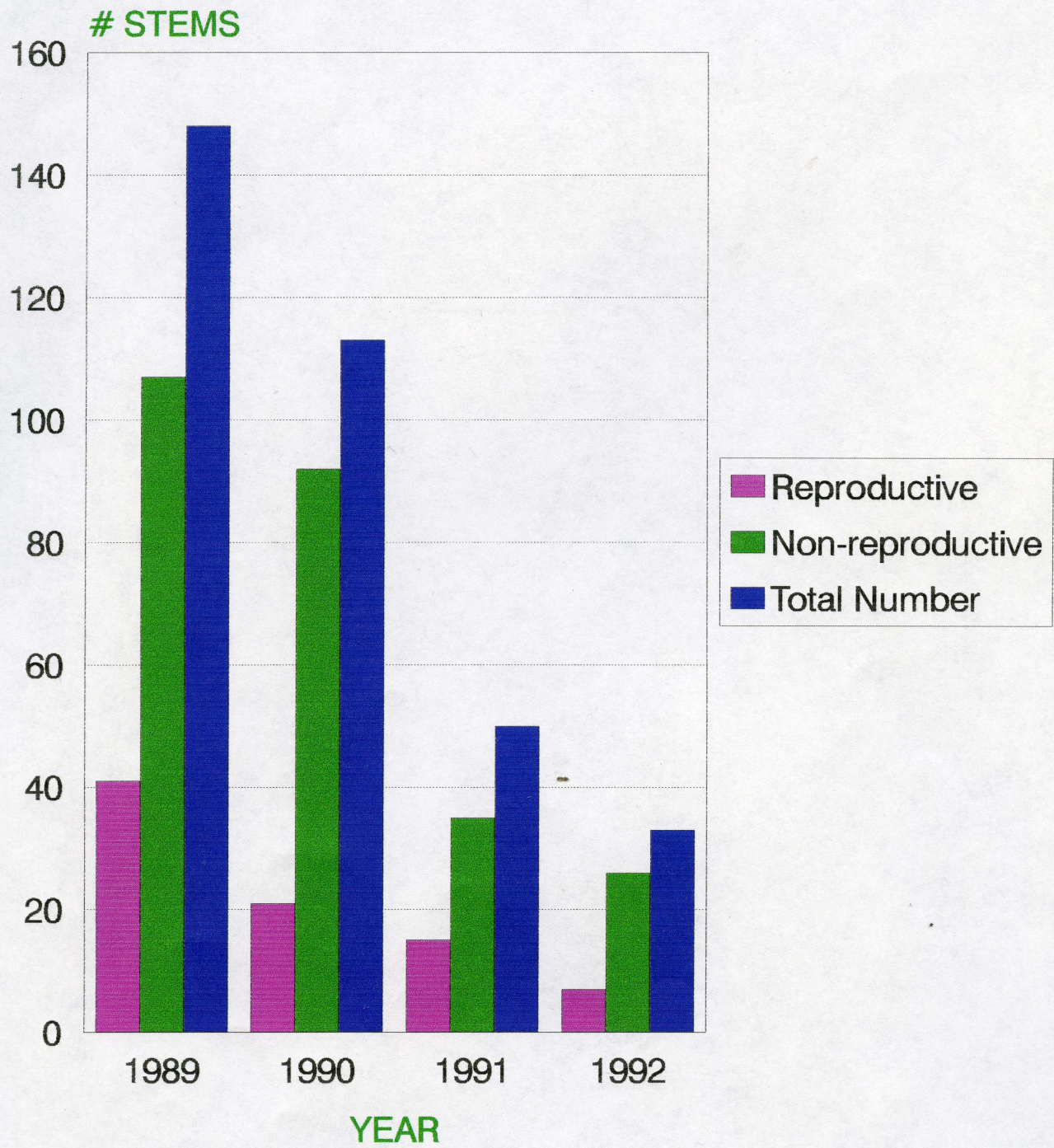


Figure 4. Number of stems in Grid 6
(Bear Brook), 1989-1992

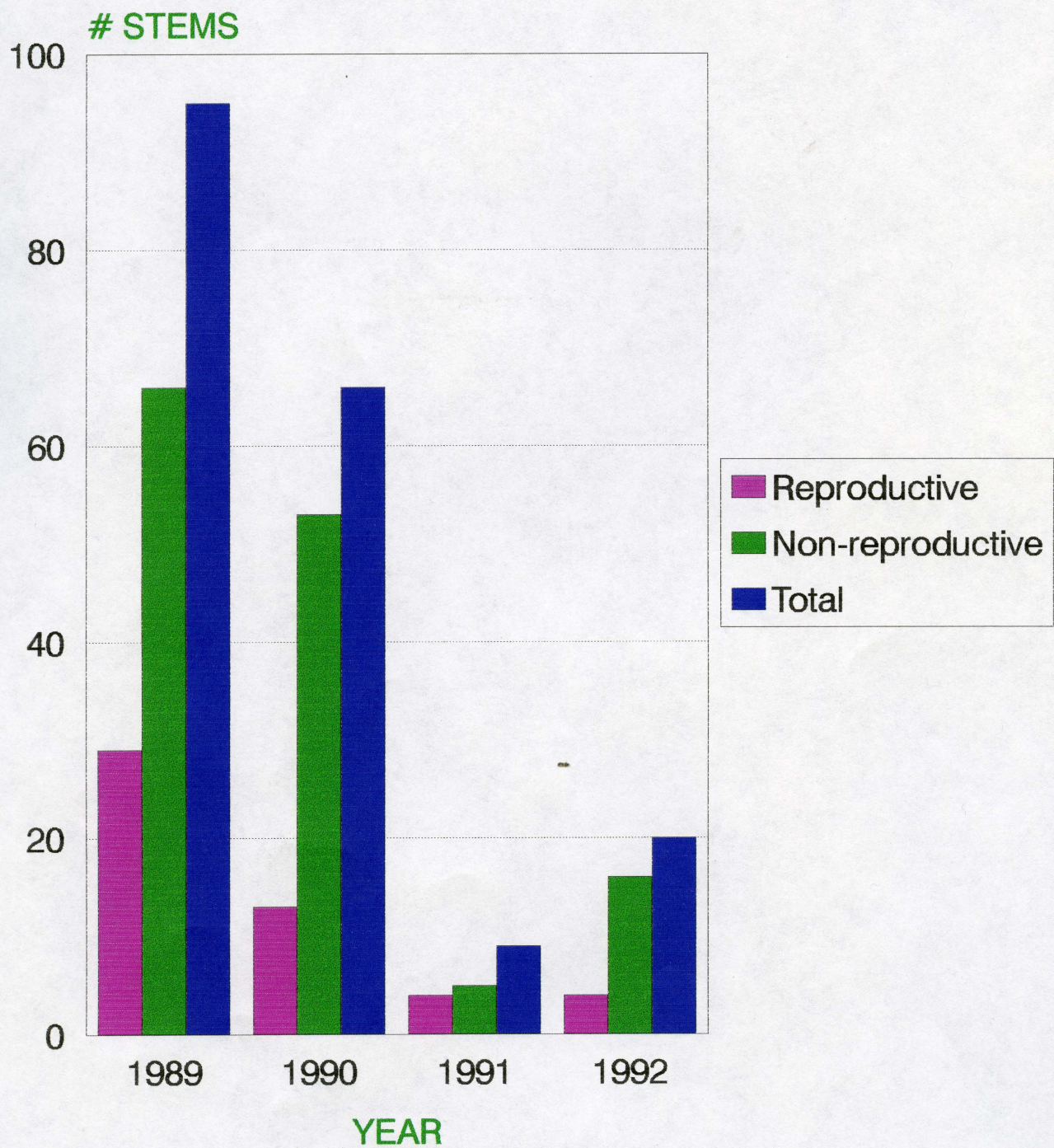


Figure 5. Number of stems in Grid 1
(Bear Brook Pond), 1989-1992

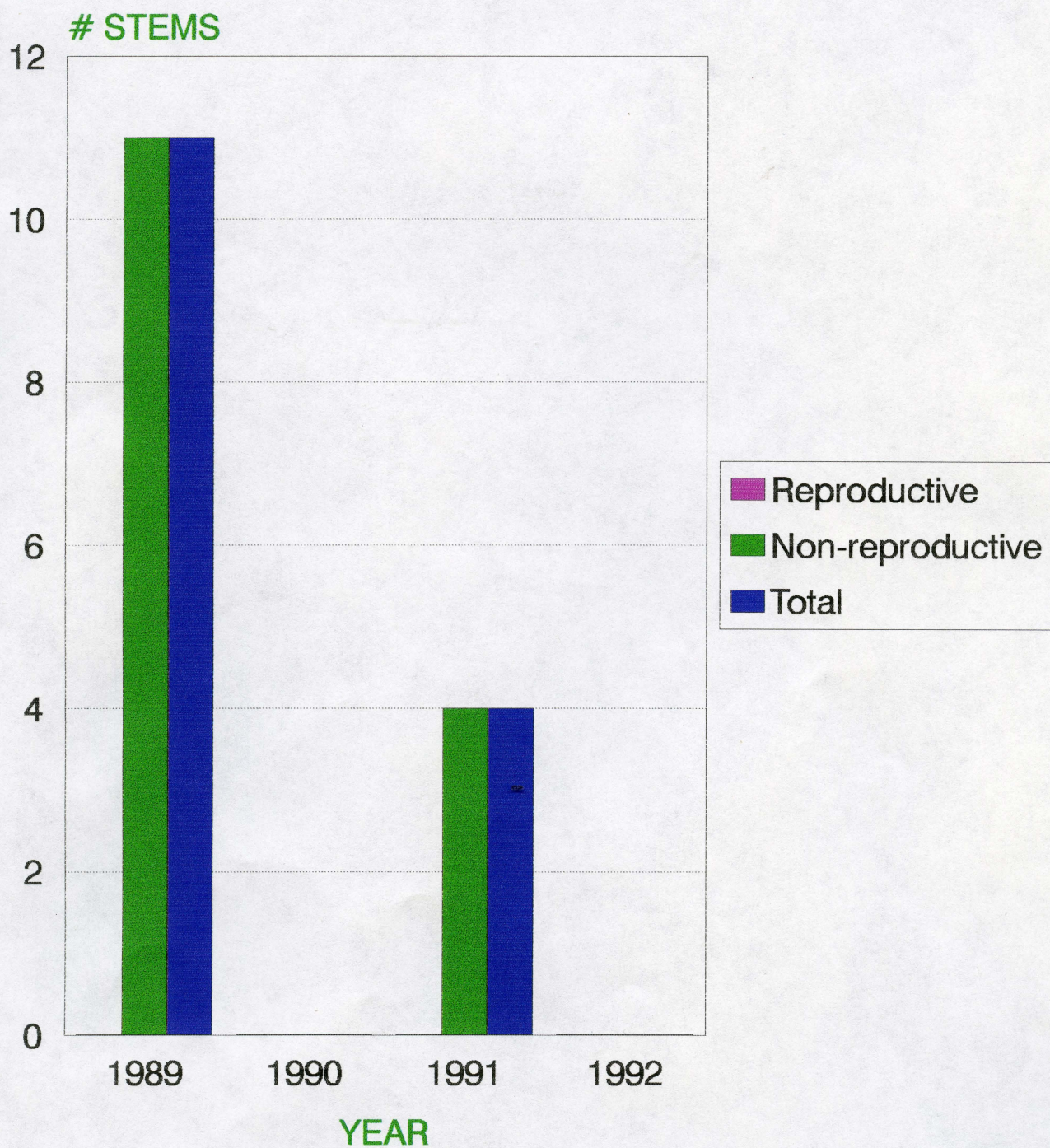


Figure 6. Number of stems in Grid 5
(The Tarn), 1989-1992

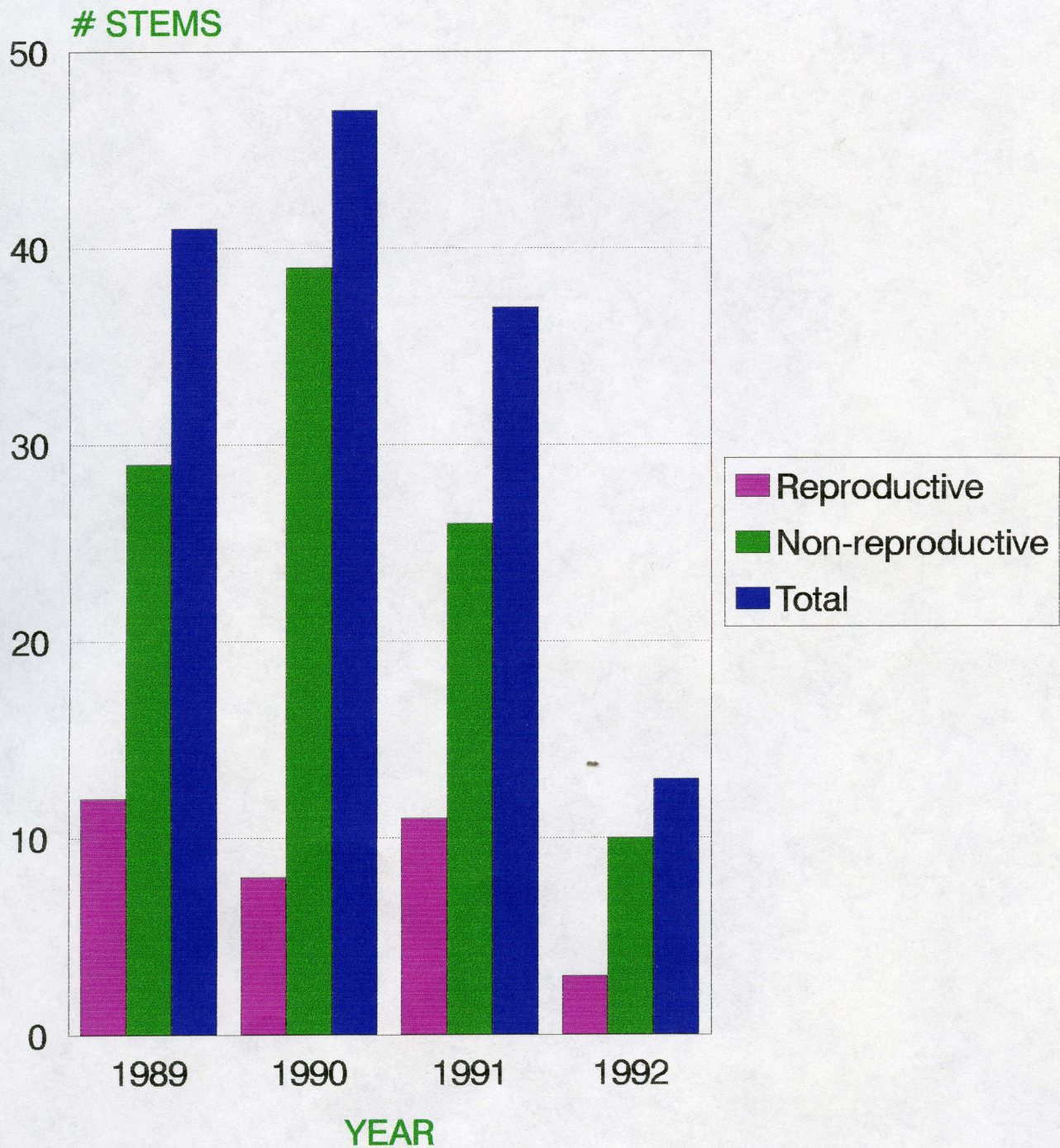
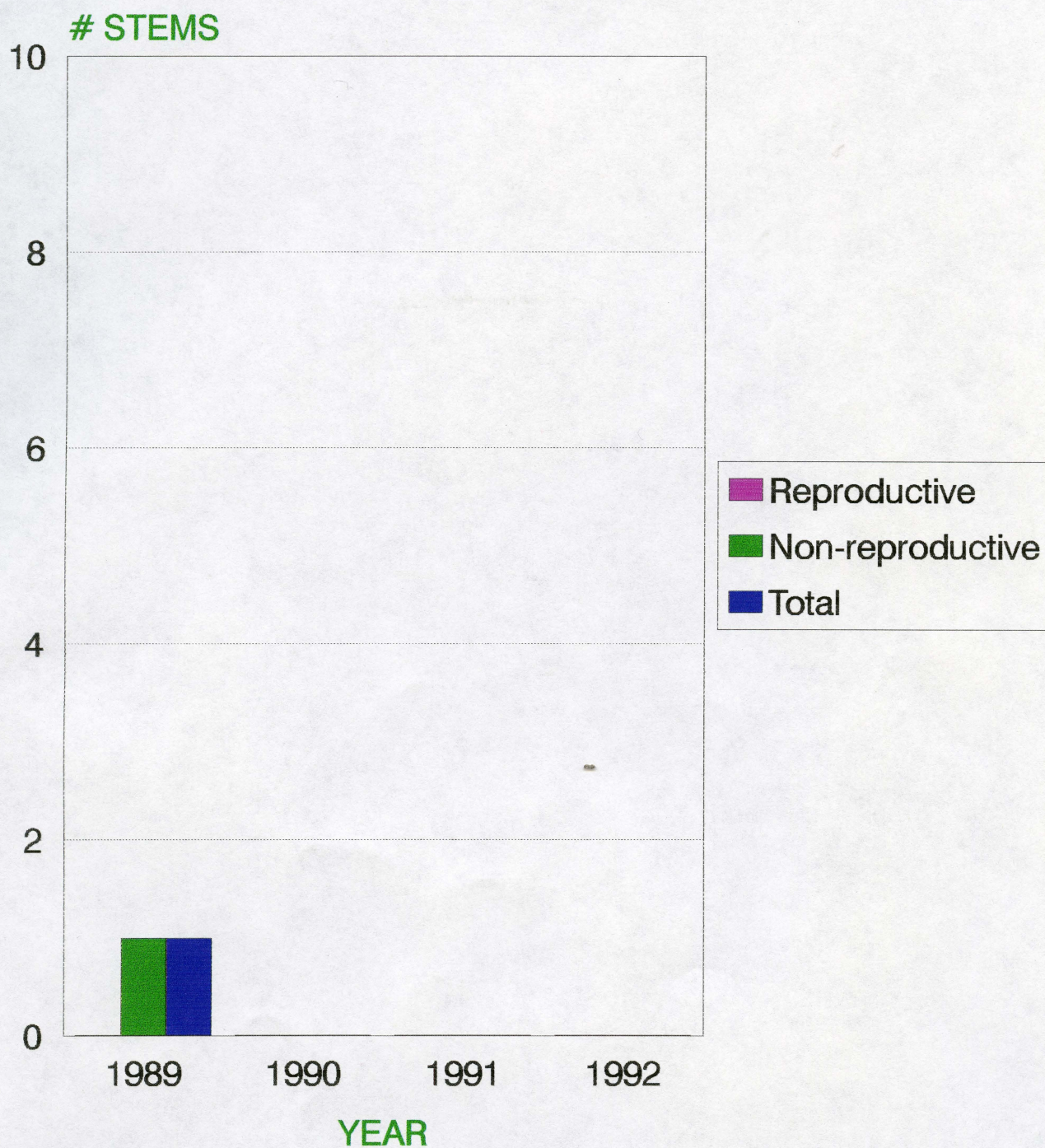


Figure 7. Number of stems in Grid 2
(Bear Brook Pond), 1989-1992



Suppression Effort by Area

Each area known to have loosestrife is described below with treatment dates, acreage, personnel time and the amount of herbicide used. Any special observations are noted. The areas included are: Bear Brook, The Tarn, Compass Harbor, Visitor's Center wetland, east of Duck Brook Road, Witch Hole Pond outflow, Breakneck Brook beaver pond, Kent Field, and the Blackwoods/COA Dump road.

BEAR BROOK WATERSHED

Treatment Dates: August 5, 6, 12, 13

Date Re-Checked: N/A

Approximate Personnel Hours: 93.0

Gallons of RODEO Mixture Applied: 17.75

Acreage Treated: 29.61 acres (11.96 ha)

Loosestrife Population: Around the pond only a few plants were found except for localized dense populations to the west and southwest in and around small beaver impoundments along inlet streams. North of the Park Loop Road plants are found throughout the area between the Park Loop Road and Schooner Head Road. Many plants were found in the wetland finger which runs west parallel to the Park Loop Road and in the lightly forested area behind that. A lot of loosestrife was found west of the brook on Jackson Lab's property. Many plants in the "tree-kill" area just south of Schooner Head Road.

Prospects for Control: Permission was again granted this year to control on Jackson Lab's part of the wetland. Because we can treat the whole affected watershed, we have a better chance of reducing the loosestrife population. However, due to the large area involved and the amount of beaver disturbance still occurring, it is unlikely that we could ever eradicate this population.

Other Notes: Norm Fletcher first documented this population in 1984, but park staff members recall the presence of the population since at least the 1970's.

BEAR BROOK WATERSHED SUMMARY

Year	Personnel Hours	Gallons Applied
1988 ¹	N/A	34.5
1989 ²	67.5	18.9375
1990 ³	68.75	24.4
1991 ⁴	102.3	11.25
1992	93.0	17.75

¹Willey, 1988

²Hazen and Anderson, 1990

³Connery and Anderson, 1991

⁴Anderson and Connery, 1992

THE TARN

Treatment Dates: August 21, 24

Date Re-Checked: N/A

Approximate Personnel Hours: 8.0

Gallons of RODEO Mixture Applied: 1.0

Acreage Treated: 2.96 acres (1.20 ha)

Loosestrife Population: The wetland south of and immediately adjacent to the Tarn contains a scattered population of both young and old plants. There is a small muddy area near the east side of the monitoring transects which has had a large number of seedling plants.

Prospects for Control: Continued control effort in this area might eventually lead to eradication. Control at the Tarn should remain a priority due to the extensive wetlands, both north and south, to which it is hydrologically connected.

Other Notes: Flower heads were removed from plants near the edge of the pond to reduce the chance of water-spread propagules. The population was first documented in 1987 (Smith).

THE TARN SUMMARY

Year	Personnel Hours	Gallons Applied
1988 ¹	N/A	N/A
1989 ²	5.0	1.75
1990 ³	17.0	1.8
1991 ⁴	18.0	1.25
1992	8.0	1.0

¹Willey, 1988

²Hazen and Anderson, 1990

³Connery and Anderson, 1991

⁴Anderson and Connery, 1992

COMPASS HARBOR

Treatment Dates: August 7

Date Re-Checked: N/A

Approximate Personnel Hours: 0.75

Gallons of RODEO Mixture Applied: 0.08

Acreage Treated: N/A

Loosestrife Population: This population of small plants is in an unlikely spot along the east shore of Dorr Point which is not a wetland. Most of the plants are young, but one had a flower head which was removed.

Prospects for Control: Due to the isolated nature of this small population, prospects appear good that with continued treatment it can be eradicated.

Other Notes: We noted 3 flowers and 11 stems this year. This population was first documented in 1987 (Smith).

COMPASS HARBOR SUMMARY

Year	Personnel Hours	Gallons Applied
1988 ¹	N/A	<0.1
1989 ²	0.5	0.1875
1990 ³	0.75	0.1
1991 ⁴	1.1	0.1
1992	0.75	0.08

¹Willey, 1988

²Hazen and Anderson, 1990

³Connery and Anderson, 1991

⁴Anderson and Connery, 1992

VISITOR CENTER/HULLS COVE HOUSE

Treatment Date: August 20
August 25 (re-spray)

Date Re-Checked: N/A

Approximate Personnel Hours: 4.0

Gallons of RODEO Mixture Applied: 2.75

Acreage Treated: 3.26 acres (1.32 ha)

Loosestrife Population: In the open area of this wetland there are very few plants. An extremely large infestation of young plants and seedlings (where the stand of mature, tall, flowering plants was in 1990) exists adjacent to the V.C. parking lot near where the culvert comes out from under parking lot in a stand of alders and cattails.

Prospects for Control: It will take a long time to control the loosestrife population in this wetland. While most of the mature plants in the alders were killed, the seedbank in the soil (evidenced by massive seedling growth) will provide plants for years to come. Luckily, this wetland is not hydrologically connected to any wetlands of significance, and hopefully, the infestation will not spread.

Other Notes: This population was first documented in 1986 (McInnes).

VISITOR CENTER/HULLS COVE HOUSE SUMMARY

Year	Personnel Hours	Gallons Applied
1988 ¹	N/A	1.0
1989 ²	N/A	N/A
1990 ³	12.5	3.9
1991 ⁴	6.75	2.75
1992	4.0	2.75

¹Willey, 1988

²Hazen and Anderson, 1990

³Connery and Anderson, 1991

⁴Anderson and Connery, 1992

EAST OF DUCK BROOK ROAD

Treatment Date: August 7

Date Re-Checked: N/A

Approximate Personnel Hours: 0.5

Gallons of RODEO Mixture Applied: 0.08

Acreage Treated: N/A

Loosestrife Population: A clump of six non-flowering stems was found on the dam of this impoundment.

Prospects for Control: After a year with no sprouts (1991), we found plants here this year.

Other Notes: The population was first documented in 1990 (Bob Packie, pers. com.).

EAST OF DUCK BROOK ROAD SUMMARY

Year	Personnel Hours	Gallons Applied
1990 ³	0.75	0.1
1991 ⁴	N/A	N/A
1992	0.5	0.08

³Connery and Anderson, 1991

⁴Anderson and Connery, 1992

WITCH HOLE POND OUTFLOW

Treatment Date: August 7

Date Re-Checked: N/A

Approximate Personnel Hours: 0.5

Gallons of RODEO Mixture Applied: 0.08

Acreage Treated: N/A

Loosestrife Population: We first noted one plant about 2/3 of the way down the wetland area from the beaver fooler on an old beaver structure, but not found here in 1991 or in 1992. NEW infestation area found in this wetland 1992 adjacent to the channel and closer to the outflow-- about 10 stems with 3 flowering heads in 3 clumps.

Prospects for Control: The originally noted infestation appears to be controlled (two years with no sprouting), but area should continue to be re-checked for a few years. The newly noted area will probably take a few years to control, but we are fairly confident that we would have seen these plants had they been flowering in previous years. Perhaps this means they have not had a chance to contribute seeds to the wetland.

Other Notes: Flowering heads were removed. This population was first documented in 1990 (Drury, pers. com.).

WITCH HOLE POND OUTFLOW SUMMARY

Year	Personnel Hours	Gallons Applied
1990 ³	1.75	0.1
1991 ⁴	0.75	N/A
1992	0.5	0.08

³Connery and Anderson, 1991

⁴Anderson and Connery, 1992

BREAKNECK BROOK/PARADISE HILL CARRIAGE ROAD ACCESS BEAVER POND

Treatment Date: N/A

Date Re-Checked: N/A

Approximate Personnel Hours: 0.5

Gallons of RODEO Mixture Applied: N/A (see Other Notes)

Acreage Treated: N/A

Loosestrife Population: All stems in this wetland are located between the main dam and the one below it. The stem near the fallen log was not found this year, but we found a new non-reproductive stem nearby, just to the east of the first stem where a little wet finger-like area joins with the main wet area. The stem is mixed in other vegetation and is difficult to find.

Prospects for Control: Should be good if there is no seed source upstream.

Other Notes: No treatment was applied this year because the plant could not be located when the crew went back to spray later in the season. Personnel hours listed reflect the time to check the area when they tried to spray. The population was first documented in 1987 (Smith).

BREAKNECK BROOK BEAVER POND SUMMARY

Year	Personnel Hours	Gallons Applied
1988 ¹	N/A	<0.1
1989 ²	N/A	N/A
1990 ³	0.75	0.1
1991 ⁴	0.5	<0.1
1992	0.5	N/A

¹Willey, 1988

²Hazen and Anderson, 1990

³Connery and Anderson, 1991

⁴Anderson and Connery, 1992

KENT FIELD WETLAND

Treatment Date: August 20

Date Re-Checked: N/A

Approximate Personnel Hours: 8.0

Gallons of RODEO Mixture Applied: 2.25

Acreage Treated: 1-3 acres (visual estimate)

Loosestrife Population: Access is from the short path from Schooner Head Road; the area is the southeast corner of the wetland, to the right of the end of the path; extends from grassy area down to and among cattails. Also there were a few stems in small pond/marsh adjacent to the path that goes across to the Park Loop Road.

Prospects for Control: Long-term. We should try to do a more thorough control job here next year and continue to check downstream for other infestations.

Other Notes: Treatment was not complete this year due to lack of personnel time and lateness of the season. The crew only looked for, sprayed, and removed flowering heads from flowering loosestrife plants. The area was checked for threatened and endangered species before spraying. Population first documented in 1992 during field checking.

KENT FIELD WETLAND SUMMARY

Year	Personnel Hours	Gallons Applied
1992	8.0	2.25

BLACKWOODS DUMP ROAD

Treatment Date: September 2

Date Re-Checked: N/A

Approximate Personnel Hours: 0.25

Gallons of RODEO Mixture Applied: N/A

Acreage Treated: N/A

Loosestrife Population: On the north side of the access road in an open area is a dense but limited patch with several flowering stems.

Prospects for Control: Possibly good. We'll need to check the area more thoroughly in 1993 since these were not found until the flowering season was nearly over.

Other Notes: The population was first documented in 1992. Flower heads were removed, but no spraying was done due to the lateness of the season.

BLACKWOODS DUMP SUMMARY

Year	Personnel Hours	Gallons Applied
1992	0.25	N/A

SUMMARY OF 1992 SUPPRESSION EFFORT

Location	Personnel Hours	Gallons Applied	Notes -
Bear Brook	93.0	17.75	-----
The Tarn	8.0	1.0	-----
Compass Harbor	0.75	0.08	small population
Visitors Center/ Hulls Cove House	4.0	2.75	-----
Witch Hole Pond Outflow	0.5	0.08	small population
East of Duck Brook Road	0.5	0.08	small population
Breakneck Brook Beaver Pond	0.5	N/A	small population not found
Kent Field	8.0	2.25	newly discovered
TOTAL	115.25	24.99	-----

DISCUSSION

For a variety of reasons, our coverage this year was not as thorough as in past years. Mostly, this was due to personnel constraints - lack of time and shortage of personnel. Also, we were hampered to an extent by weather. While all areas were sprayed initially, very little re-checking and no re-spraying was done. We did not have enough time to properly spray the newly discovered population at Kent Field; only flowering plants were removed. Also, the time spent checking other wetlands for infestations was minimal; in 1990 we spent 22 hours checking other wetlands, in 1991 we spent 38 hours, and this year only 12 hours.

Four Fire Crew members assisted us several days spraying at Bear Brook. They contributed 57.5 personnel hours, of which 5.0 hours were training. Two and one half hours were spent training the crew.

Resource management personnel noted that the Fire Crew applied the herbicide mix liberally, and had been seen spraying non-target species. It is important that we spend enough time training inexperienced crews in loosestrife identification and stress the importance of avoiding non-target plants. We also need to consider the attitudes of additional crews when deciding whether or not to employ their help. Nevertheless, spraying probably would not have been completed without the help of the Fire Crew this year.

The documented amount of time dedicated to purple loosestrife control in 1992 totalled 200.25 personnel hours (including Fire Crew hours) broken down by task as follows:

<u>Activity:</u>	<u>Number of Hours:</u>
Checking wetlands for infestations	12.00
Transect counts	56.00
Training (Fire Crew and ResMgt personnel)	16.75
Spraying	116.50
Re-spraying	0

In addition, C. Jacobi and W. Patterson spent time studying and taking the exam to become Maine Certified Pesticide Applicators and some unaccounted time was spent mixing chemicals, checking sprayers, and gearing up for the program.

Low water levels which expose muddy substrate followed by re-flooding favor the spread of purple loosestrife. We had wondered if the dry conditions in 1991 would allow more loosestrife to become established, but we did not note any increase in loosestrife populations around edges of wetlands in 1992.

During the winter of 1991/1992, heavy rains in January caused two beaver dams north of the Park Loop Road at Bear Brook to wash out (on either side of monitoring grid #7). We did note a drastic increase in seedlings here while doing the transect count this year. The beaver have rebuilt the upstream dam, but have not repaired the downstream one; the stream runs in a small channel through a wider, flat area that was previously flooded. The area still supports

cattails, but there is a preponderance of what appear to be loosestrife seedlings on the ground below.

The presence of these seedlings in our monitoring grid raises a question about sampling protocol. As some of our personnel have become more experienced at identifying purple loosestrife, they have tended to count seedlings even if they are smaller than the three inches specified. This could have a profound effect on our stem counts in areas such as Grid 7, illustrated in Figure 2. As addressed in the results section, the numbers of loosestrife stems in the grids have been decreasing until 1992, when it suddenly increases. However, if Grid 7 is excluded from the data, the trend continues downward in 1992 (Figure 3). We think that the tendency to count seedlings is influencing the data; Grid 7 has had the most change in the amount of substrate exposed for loosestrife propagation.

The first loosestrife flowers were noted on July 21 in 1992. If we note early flowering at certain wetlands, we should make an effort to spray these wetlands first. However, to date, notable trends have not been observed. Senescence was noted at Kent Field August 20, and at the Tarn August 21 and 24. Data from 1989-92 shows that flowers usually begin to senesce around the third week in August, so spraying should be completed before that time.

In 1990 we began removing flowering heads from plants in small populations. This year we removed flowers at Compass Harbor, Witch Hole Pond outflow, east of Duck Brook Road, Kent Field, Visitor's Center, Blackwoods Dump road, and the Tarn. While some of these populations are large, the extra time involved is minimal, and the removal of the year's seed source could, in the long run, greatly increase chances of reducing these populations. Due to extensive wetlands downstream, seed heads have been removed from purple loosestrife along the edge of the Tarn since 1990.

A beaver fooler was installed under the dam near the Park Loop Road at Bear Brook Beaver Pond in 1988. By 1989, it had already begun to silt up and not work effectively. Water levels in the pond have been very high, especially the past few years. In late June or early July this year, the dam was broken by resource management personnel several days in a row to lower water levels in the pond. We found beached tadpoles along the shore as we were spraying. This drastic summer draw down caused substrate to be exposed during peak loosestrife flowering season, and was in direct contradiction to management guidelines set out in the Integrated Pest Management Plan (Connery, 1991). But, by the winter of 1992/93, the water level was at least as high as it had been before. We are interested to see if there is an increase in loosestrife stem counts in 1993.

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APPENDIX A

LOCATIONS OF PURPLE LOOSESTRIFE

1992

WITHIN PARK BOUNDARIES (11):

- Bear Brook Pond (Beaver Dam Pond)
- Bear Brook Drainage below pond
- Compass Harbor
- Old Farm Road - small pond, south side of road
- The Tarn, south end only
- Visitor Center/Hulls Cove House wetland
- Breakneck Brook/Paradise Hill C.R. access beaver pond
- Kent Field wetland
- Beaver impoundment east of where culvert crosses east
to west under Duck Brook Road (New Eagle Lake
Road)
- Beaver impoundment on Witch Hole Pond outflow, within
and adjacent to C.R. loop (northeast section)
- Blackwoods/COA Dump access road

OUTSIDE PARK BOUNDARIES (4):

- Bear Brook Drainage
- Old Farm Road pond
- Drainage ditch or small stream southwest of Rt.3,
across from the Bayview, between the Bar
Harbor Motel and the Seaview Restaurant.
- Garden in front of The Burning Tree restaurant
in Otter Creek.

APPENDIX B
GRID SURVEY RESULTS 1992

Grid 1

Record #	R1	NR1	R2	NR2	R3	NR3	R4	NR4	R5	NR5
1	0	0	0	0	0	0	0	0	0	0
2	0	0	0	0	0	0	0	0	0	0
3	0	0	0	0	0	0	0	0	0	0
4	0	0	0	0	0	0	0	0	0	0
5	0	0	0	0	0	0	0	0	0	0
6	0	0	0	0	0	0	0	0	0	0
7					0	0				

Grid 2

Record #	R1	NR1	R2	NR2	R3	NR3	R4	NR4	R5	NR5
1	0	0	0	0	0	0	0	0	0	0
2	0	0	0	0	0	0	0	0	0	0
3	0	0	0	0	0	0	0	0	0	0
4	0	0	0	0	0	0	0	0	0	0
5	0	0	0	0	0	0	0	0	0	0
6	0	0	0	0	0	0	0	0	0	0

Grid 3

Record #	R1	NR1	R2	NR2	R3	NR3	R4	NR4	R5	NR5
1	0	0	0	0	0	0	0	0	0	0
2	0	0	0	0	0	0	0	0	0	0
3	0	0	0	0	0	0	0	0	0	0
4	0	0	0	0	0	0	0	0	0	0
5	0	0	0	0	0	0	0	0	0	0
6	0	0	0	0	0	0	0	0	0	0
7	0	0	0	0	0	0	0	0	0	0
8	0	0	0	0	0	0	0	0	0	0
9	0	0	0	0	0	0	0	0	0	0
10	0	0	0	0			0	0	0	0
11	0	0							0	0
12	0	0								

Grid 4

Record #	R1	NR1	R2	NR2	R3	NR3	R4	NR4	R5	NR5
1	0	0	0	0	0	0	0	0	0	0
2	0	0	0	0	0	0	0	0	0	0
3	0	0	0	0	0	0	0	0	0	0
4	0	0	0	0	0	0	0	0	0	0
5	0	0	0	0	0	0	0	0	0	0
6	0	0	0	0	0	0	0	0	0	0
7	0	0	0	0	0	0	0	0	0	0
8							0	0	0	0
9									0	0

Grid 5

Record #	R1	NR1	R2	NR2	R3	NR3	R4	NR4	R5	NR5
1	0	0	0	0	0	0	0	0	0	0
2	0	2	0	0	0	0	0	0	0	0
3	0	0	0	0	0	0	0	0	0	0
4	0	0	0	0	0	0	0	0	0	0
5	0	0	0	0	0	0	0	0	0	0
6	0	0	0	0	0	0	0	0	0	0
7	0	0	0	0	0	0	0	0	0	0
8	0	0	0	0	0	1	0	0	0	0
9	0	0	0	0	0	0	3	0	0	0
10	0	0	0	0	0	0	0	0	0	0
11	0	0	0	0	0	0	0	0	0	0
12	0	0	0	0	0	0	0	0	0	0
13	0	1	0	0	0	0	0	0	0	0
14	0	0	0	0	0	0	0	0	0	1
15	0	0	0	0	0	0	0	0	0	1
16	0	0	0	0	0	0	0	0	0	1
17	0	0	0	1	0	0	0	0	0	0
18	0	0	0	2	0	0	0	0	0	0
19	0	0	0	0	0	0	0	0	0	0
20	0	0	0	0	0	0	0	0	0	0
21	0	0	0	0	0	0	0	0	0	0
22	0	0	0	0	0	0	0	0	0	0
23	0	0	0	0	0	0	0	0	0	0
24	0	0	0	0	0	0	0	0	0	0
25	0	0	0	0	0	0	0	0	0	0
26	0	0	0	0	0	0	0	0	0	0
27	0	0	0	0	0	0	0	0	0	0
28	0	0	0	0	0	0	0	0	0	0
29	0	0	0	0	0	0	0	0	0	0
30	0	0	0	0	0	0	0	0	0	0
31	0	0	0	0	0	0	0	0	0	0
32	0	0	0	0	0	0	0	0	0	0
33	0	0	0	0	0	0	0	0	0	0
34	0	0	0	0	0	0	0	0	0	0
35	0	0	0	0	0	0	0	0	0	0
36	0	0	0	0	0	0	0	0	0	0
37	0	0	0	0	0	0	0	0	0	0
38	0	0	0	0	0	0	0	0	0	0
39	0	0	0	0	0	0	0	0	0	0

Grid 6

Record #	R1	NR1	R2	NR2	R3	NR3	R4	NR4	R5	NR5
1	0	0	0	0	0	0	0	0	0	0
2	0	0	0	0	0	0	0	0	0	0
3	0	0	0	0	0	0	0	0	0	0
4	0	0	0	0	0	0	0	0	0	0
5	0	0	0	0	0	0	0	0	0	0
6	0	0	0	0	0	0	0	0	0	0
7	0	0	0	0	0	0	0	0	0	0
8	0	2	0	0	0	0	0	0	0	0
9	0	0	0	0	0	0	0	0	0	0
10	0	0	0	0	1	0	0	0	0	0
11	0	0	0	0	0	0	0	0	0	0
12	0	0	0	0	0	0	0	0	0	0
13	0	0	0	3	0	0	0	0	0	0
14	0	0	0	2	0	0	0	0	0	0
15	0	0	0	0	0	0	0	0	0	1
16	0	0	0	0	0	0	0	0	0	1
17	0	0	0	0	0	0	0	0	0	0
18	0	0	1	0	0	0	0	0	2	4
19	0	0	0	3	0	0	0	0	0	0
20	0	0	0	0	0	0	0	0	0	0
21	0	0	0	0	0	0	0	0	0	0
22	0	0	0	0	0	1	0	0	0	0
23			0	0	0	0	0	0	0	0
24			0	0	0	0	0	0	0	0
25									0	0
26										

Grid 7

Record #	R1	NR1	R2	NR2	R3	NR3	R4	NR4	R5	NR5
1	0	0	0	0	0	0	0	0	0	0
2	0	0	0	0	0	0	0	0	0	0
3	0	0	0	0	0	0	0	1	0	0
4	0	0	0	0	0	0	0	3	0	3
5	0	17	0	0	0	0	0	0	0	6
6	0	1	1	5	0	1	1	1	1	6
7	0	0	0	0	0	0	0	0	0	0
8	1	38	0	0	0	0	0	2	0	0
9	0	6	0	0	0	0	0	0	0	0
10	0	2	0	5	0	2	0	0	0	0
11	0	13	0	7	3	0	0	0	0	2
12	0	1	0	4	0	0	0	0	0	0
13	0	0	0	0	0	0	0	0	0	0
14	0	0	0	0	0	0	0	0	0	3
15	0	0	0	0	0	0	0	0	0	0
16	0	0	0	0	0	0	0	0	0	1
17	0	0	0	0	0	0	0	0	0	3
18	0	0	0	0	0	0	0	0	0	3
19	0	0	0	0	0	0	0	0	0	0
20	0	0	0	0	0	0	0	0	0	0
21	0	0	0	0	0	0	0	0	0	0
22	0	0	0	0	0	0	0	0	0	0
23	0	0	0	0	0	0	0	0	0	0
24	0	0	0	0	0	0	0	0	0	0
25	0	0	0	0	0	21	0	0	0	0
26	0	0	1	12	0	10	0	0	0	0
27			0	1	0	21	0	1	0	11
28			2	3	0	0	0	0	0	32
29			0	0	0	0	0	0	0	0
30			0	0	0	0	0	0	0	1
31							0	0	0	0
32							0	0	0	0