

Massachusetts Audubon Society, Endicott Center  
 Long Range Phragmites Study  
 Location: Gloucester, Mill Pond

**Transect .5: Mill Pond**

Observers and dates N42 37.676'  
 2002 Duff/Kagle w070 40.610'  
 2003 Duff 06 Duff & Ess Ag  
 2004 Duff/Munson  
 2005 Duff/Janson

SPECIES

In 2003 Extra boards were put on top of the tide gate, flooding the marsh and killing areas of this marsh.  
 Algal mat in 2003 is remnant of this. In 2004 there was a lot of dead grass. Tide gates open 2004 and beyond.  
 upland end 1 METER SEGMENTS marsh end **# of intervals present in**

		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	
Phragmites australis	2002	1	1	1	1	1	1	1	1																		8
	2003	1	1	1	1	1	1	1	1																		8
Phragmites australis	2004	1	1	1	1	1	1	1	1																		8
	2005	1	1	1		1	1	1	1	1										1	1		1	1			9
	2006	1	1	1		1	1	1	1													1	1				6
	2007																										0
	Salt Marsh Hay <i>Spartina patens</i>	2002			1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
2003						1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	21
2004						1	1	1	1	1	1		1	1		1							1		1		10
2005				1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	23
2006								1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	17
2007																											0
Goldenrod <i>Solidago sempervirens</i>	2002			1	1	1	1	1																		4	
	2003																									0	
	2004																									0	
	2005																				1					1	
	2006																									0	
	2007																									0	
Creeping Bentgrass <i>Argostis stolonifera</i>	2002									1	1	1	1													4	
	2003																									0	
	2004																									0	
	2005																									0	
Orach <i>Atriplex patula</i>	2006																									2	
	2007																									0	
Saltmarsh Aster <i>(Aster subulatus)</i>	2006												1	1	1	1	1	1	1	1	1	1	1	1	1	11	
	2007																									0	
Spike Grass <i>Distichlis spicata</i>	2003										1	1	1													3	
	2004																									0	
Algal Mat	2002																									0	
	2003											1	1	1	1	1	1	1	1	1	1	1	1	1	1	14	
	2004																									0	
Dead *see file for % dead each meter	2003																									0	
	2004							1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	19	
	2005																									0	
	2006																							50%		0.5 Bird Skull !	
	2007																									0	
Fruit Tree	2002	1																								1	
	2003																									0	
	2004	1																								1	
	2005																									0	

upland end 1 METER SEGMENTS marsh end

**Transect 1: Mill Pond**

Observers and dates

1998 Liz, Teachers  
 1999 Liz/Cindy  
 2000  
 2001 11/8/2001, LD, NS

2002 Duff and Kagle  
 2003 Duff  
 2004 Duff/Munson  
 2005 Duff/Janson  
 2006 Duff

Boards were placed above the tide gate in 2003, raising the pond level. This killed vegetation on the marsh.

tide gates open in 2004 and beyond.

\* In 2004 this transect ends at the edge of the pond at meter 22. Meters 23-25 are mud, no vegetation.

**SPECIES**

upland end

**1 METER SEGMENTS**

marsh end

		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	# of intervals
Pragmites	1998	1	1	1																							3
<i>Phragmites australis</i>	1999	1	1	1	1																						4
	2000	1	1	1	1	1																					5
	2001	1	1	1	1	1	1																				6
	2002	1	1	1																							3
	2003	1	1	1																							2
Tide Gates opened----	2004	1	1																				*	*	*		2
	2005	1	1	1					1	1									1	1	1	1					9
0 is immature	2006																										5
	2007																										0
Salt marsh Hay	1998	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	25
<i>Spartina patens</i>	1999	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	25
	2000	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	25
	2001	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	22
	2002	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	25
<b>ALL DEAD</b>	2003		1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	24
Tide Gates opened----	2004		1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	*	*	*	21
	2005			1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	*	*	*	19
	2006			1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1				20
	2007																										0
Spike Grass	2003					1	1	1																			3
<i>Distichlis spicata</i>	2004														1	1							*	*	*		2
	2005																										0
Algal Mat	2003												1	1	1	1											4
	2004																										0
Dead	2004		1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	*	*	*	19
*see file for % dead	2005																										0
Saltmarsh Cordgrass	1998									1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	14
<i>Spartina alterniflora</i>	1999		1	1				1			1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	16
	2000		1	1							1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	13
	2001										1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	9
	2002									1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	15
	2003														1									1	1	1	4
Tide Gates opened----	2004															1							*	*	*		1
	2005															1							1	*	*	*	3
	2006														1	1	1	1	1	1	1			*	*	*	6
	2007																										0
Quack Grass?	1998																			1							1
<i>Agropyron pungens</i>	1999																										0
	2000																										0
	2001																										0
	2002																					1			1		2
Mud	2004																							1	1	1	3
	2005																							1	1	1	3
	2006																										0
	2003																										0
Orach	2004															1								*	*	*	5
<i>Atriplex patula</i>	2005			1			1																	*	*	*	2
	2006			1			1																	*	*	*	0
	2007																										0
Saltmarsh Aster	2004																							*	*	*	1
<i>Aster subulatus</i>	2005				1		1			1		1			1	1	1	1	1	1	1	1	1	*	*	*	12
	2006				1						1													*	*	*	2
	2007																										0
Seaside Goldenrod	2004					1																		*	*	*	1
<i>Solidago sempervirens</i>	2005																							*	*	*	1
	2006																							*	*	*	0
	2007																										0

upland end

**1 METER SEGMENTS**

marsh end

Massachusetts Audubon Society, Endicott Center  
 Long Range Phragmites Study  
 Location: Gloucester, Mill Pond  
**Soft Peat Soil**  
**B=burnt spring 2000**

**Transect 2: Mill Pond**  
**This was burned Spring 2000**

Observers and dates  
 2000  
 2001 11/6/00 Lodge  
 2002 10/8/01, LD, NS  
 2003 Duff  
 2004 9/7/04, Duff/Munson  
 2005 8/29/05, Duff/Janson  
 2006 Duff

tide gates open 2004 and beyond  
 03  
 4  
 4  
 3  
 04




SPECIES tide gates open 2004 and beyond.

upland end

**1 METER SEGMENTS**

marsh end

# of intervals present in

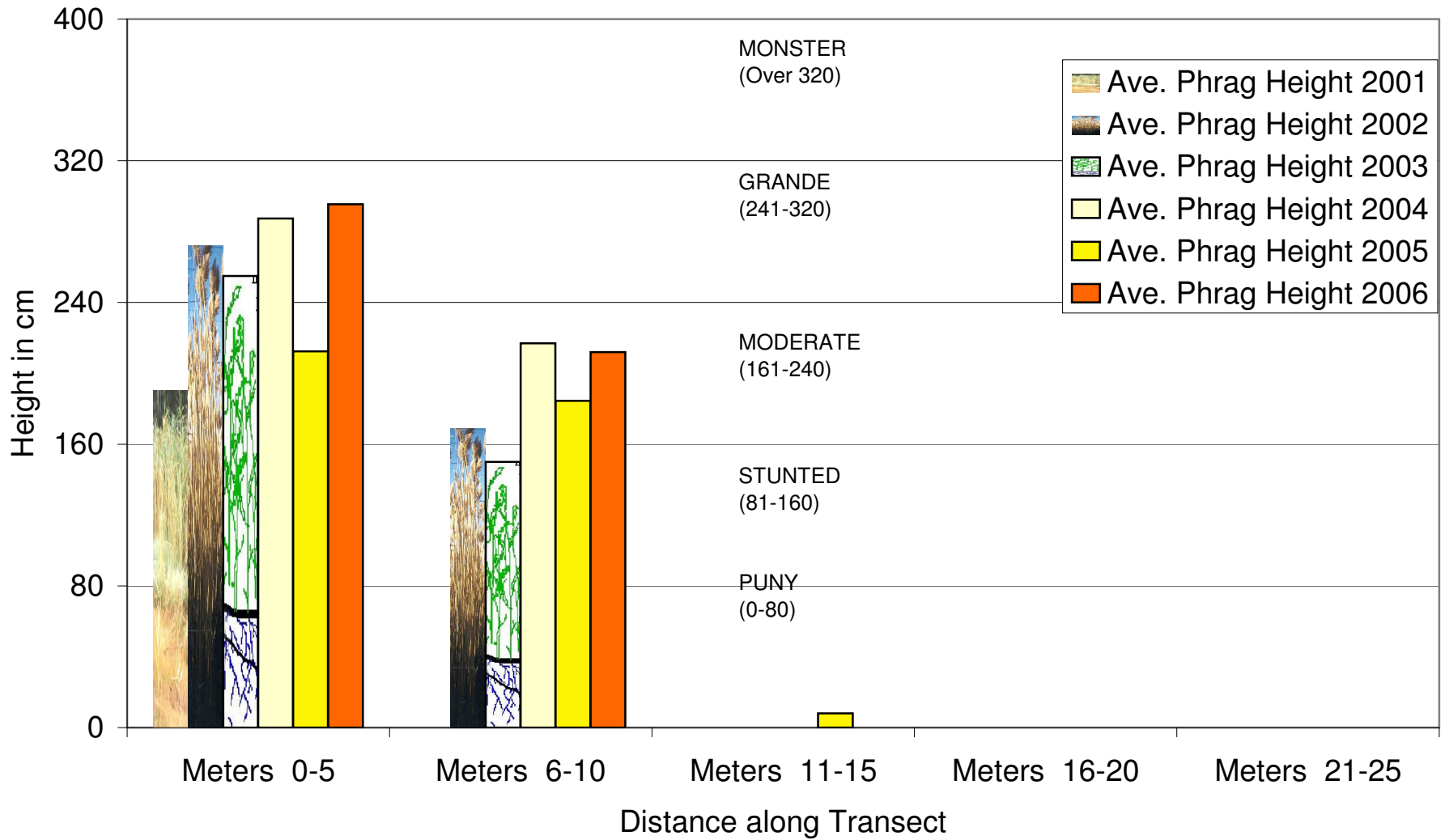
		1 METER SEGMENTS																									
		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	
Spring 2000		B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	
Pragmites	2000	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1										0
<i>Phragmites australis</i>	2001	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1										16
	2002	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1									16
	2003	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1									17
	2004	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1									16
 is immature	2005	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1							1	1	18
	2006	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	20
	2007																										0
Salt Marsh Hay	2000														1	1	1	1	1	1	1	1	1	1	1	1	12
<i>Spartina patens</i>	2001														1	1	1	1	1	1	1	1	1	1	1	1	11
	2002														1	1	1	1	1	1	1	1	1	1	1	1	11
	2003														1	1	1	1	1	1	1	1	1	1	1	1	11
	2004														1	1	1	1	1	1	1	1	1	1	1	1	10
	2005														1	1	1	1	1	1	1	1	1	1	1	1	12
	2006														1	1	1	1	1	1	1	1	1	1	1	1	7
	2007																										0
Spike grass	2000																										0
<i>Distichlis spicata</i>	2001																										0
	2002																										0
	2003																1	1	1	1	1	1	1	1	1	1	7
	2006																										0
	2007																										0
Salt Marsh Cordgrass	2000																						1	1	1	1	3
<i>Spartina alterniflora</i>	2001																					1	1	1	1	1	3
	2002																										0
	2003																							1	1	1	2
	2004																							1	1	1	1
	2005																							1	1	1	2
	2006																										0
	2007																										0
Indian Poke	2004																										0
False Hellebore	2005																										0
( <i>Veratrum viride</i> )	2006																										1
	2007																										0
Orach	2004																								1	1	2
<i>Atriplex patula</i>	2005																					1					1
	2006																										0
	2007																										0
Dead	2004																1	1	1	1	1	1	1	1	1	1	9
*see file for % dead	2005																										0
Saltmarsh Aster	2005																1	1	1	1	1	1	1	1	1	1	10
<i>Aster subulatus</i>	2006																1	1	1	1	1	1	1	1	1	1	9
	2007																										0

upland end

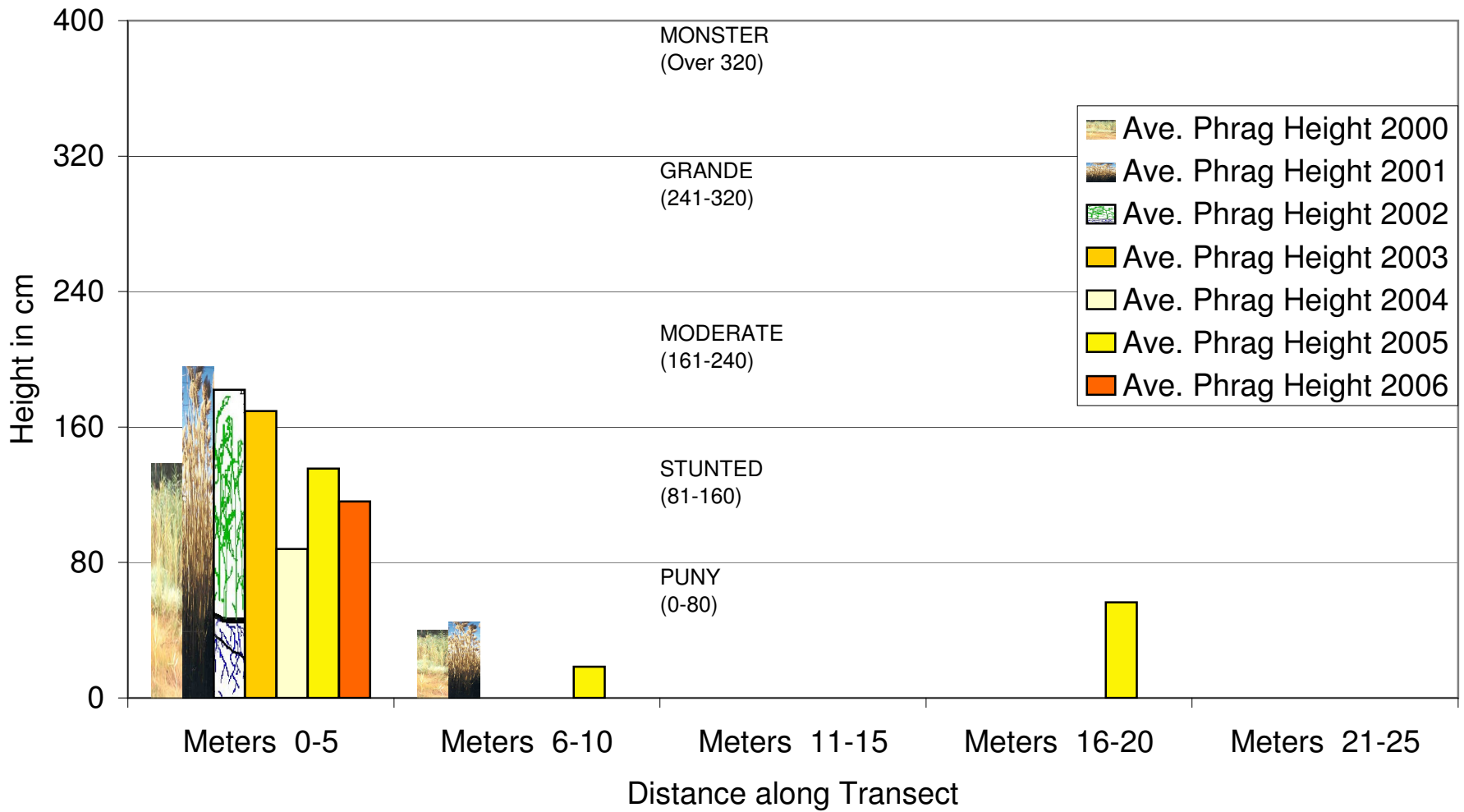
**1 METER SEGMENTS**

marsh end

Average *Phragmites* Heights, Transect .5, Mill Pond, Gloucester, MA  
2002-2006



Average *Phragmites* Heights, Transect 1, Mill Pond, Gloucester, MA  
2000-2006



Average *Phragmites* Heights, Transect 2, Mill Pond, Gloucester, MA  
2000-2006

