APPENDIX A

SPECIES COLLECTED IN CORE SAMPLE TAKEN AT THE COLORADO LAGOON

Table A1
Species Collected in Core Samples Taken at the West End of Colorado Lagoon

Species	Core 1	Core 2	Core 3	Total	Mean #/grab	Mean #/m^2	% Abundance
PHYLUM ARTHROPODA							
SUBPHYLUM CRUSTACEA							
Monocorophium sp.	1	0	0	1	0.33	42.47	1.45
Paracerceis sculpta	5	7	9	21	7.00	891.80	30.43
PHYLUM MOLLUSCA							
Assiminea californica	7	20	19	46	15.33	1953.47	66.67
PHYLUM ANNELIDA							
Cirriformia sp. SD1	0	0	1	1	0.33	42.47	1.45
Total	13	27	29	69	23.00	2,930.20	100.00

Total Individuals / m^2 = 2,930.20

Total Number of Taxa = 4

		%
Total Arthropoda	**2**	**= 50.0**
Total Mollusca	**1**	**= 25.0**
Total Annelida	**1**	**= 25.0**

Shannon-Wiener Diversity (H') = 0.7551

Table A2
Species Collected in Core Samples Taken in the Central Portion of Colorado Lagoon

Species	Core 1	Core 2	Core 3	Total	Mean #/grab	Mean #/m^2	% Abundance
PHYLUM ARTHROPODA							
SUBPHYLUM CRUSTACEA							
Euphilomedes carcharodonta	0	1	7	8	2.67	339.73	5.33
Grandidierella japonica	0	15	18	33	11.00	1,401.40	22.00
Monocorophium sp.	0	0	13	13	4.33	552.07	8.67
Paracerceis sculpta	1	0	1	2	0.67	84.93	1.33
Paranthura elegans	0	0	4	4	1.33	169.87	2.67
Rudilemboides stenopropodus	0	0	2	2	0.67	84.93	1.33
Synaptotanais notabilis	0	0	2	2	0.67	84.93	1.33
PHYLUM MOLLUSCA							
Assiminea californica	0	0	10	10	3.33	424.67	6.67
Lyonsia californica	0	0	1	1	0.33	42.47	0.67
Mactrotoma californica	0	0	1	1	0.33	42.47	0.67
Musculista senhousei	0	0	1	1	0.33	42.47	0.67
Tagelus sp.	0	0	1	1	0.33	42.47	0.67
Theora lubrica	0	0	1	1	0.33	42.47	0.67
MINOR PHYLA							
Cnidaria	1	0	33	34	11.33	1,443.87	22.67
PHYLUM ANNELIDA							
Armandia brevis	0	0	1	1	0.33	42.47	0.67
Capitella capitata	0	1	0	1	0.33	42.47	0.67
Dorvillea (Schistomeringos) longicornis	0	0	1	1	0.33	42.47	0.67
Euchone limnicola	0	0	4	4	1.33	169.87	2.67
Mediomastus spp.	0	0	1	1	0.33	42.47	0.67
Megalomma pigmentum	0	0	2	2	0.67	84.93	1.33
Neanthes acuminata Cmplx	0	0	3	3	1.00	127.40	2.00
Oligochaeta sp.	0	2	0	2	0.67	84.93	1.33
Polydora cornuta	0	1	1	2	0.67	84.93	1.33
Prionospio heterobranchia	0	0	5	5	1.67	212.33	3.33
Pseudopolydora paucibranchiata	0	0	2	2	0.67	84.93	1.33
Streblospio benedicti	0	1	12	13	4.33	552.07	8.67
Total	2	21	127	150	50.00	6,370.00	100.00

Total Individuals / m^2 = 3,822.00

Total Number of Taxa = 26

		%
Total Arthropoda	**7**	**= 26.9**
Total Mollusca	**6**	**= 23.1**
Total Annelida	**12**	**= 46.2**
Total Minor Phyla	**1**	**= 3.8**

Shannon-Wiener Diversity (H') = 2.5188

Table A3
Species Collected in Core Samples Taken in the East End of Colorado Lagoon

Species	Core 1	Core 2	Core 3	Total	Mean #/grab	Mean #/m^2	% Abundance
PHYLUM ARTHROPODA							
SUBPHYLUM CRUSTACEA							
Euphilomedes carcharodonta	3	0	2	5	1.67	212.33	6.10
PHYLUM MOLLUSCA							
Acteocina inculta	0	0	10	10	3.33	424.67	6.67
Assiminea californica	0	0	1	1	0.33	42.47	0.67
Lyonsia californica	0	0	1	1	0.33	42.47	0.67
Mactrotoma californica	0	0	1	1	0.33	42.47	0.67
Theora lubrica	0	0	1	1	0.33	42.47	0.67
MINOR PHYLA							
Nemertea	0	1	0	1	0.33	42.47	1.22
Phoronidae	1	1	2	4	1.33	169.87	4.88
PHYLUM ANNELIDA							
Armandia brevis	0	0	1	1	0.33	42.47	1.22
Cirriformia sp. SD1	0	1	1	2	0.67	84.93	2.44
Euchone limnicola	1	4	1	6	2.00	254.80	7.32
Leitoscoloplos pugettensis	0	1	0	1	0.33	42.47	1.22
Neanthes acuminata Cmplx	3	0	0	3	1.00	127.40	3.66
Oligochaeta sp.	2	0	1	3	1.00	127.40	3.66
Pista persei	0	0	1	1	0.33	42.47	1.22
Pseudopolydora paucibranchiata	0	5	2	7	2.33	297.27	8.54
Scoletoma sp. C	3	3	0	6	2.00	254.80	7.32
STREBLOSPIO BENEDICTI	0	3	5	8	2.67	339.73	9.76
Total	15	40	27	82	27.33	3,482.27	100.00

Total Individuals / m^2 = 2,089.36

Total Number of Taxa = 18

		%
Total Arthropoda	**1**	**= 5.6**
Total Mollusca	**5**	**= 27.8**
Total Annelida	**10**	**= 55.6**
Total Minor Phyla	**2**	**= 11.1**

Shannon-Wiener Diversity (H') = 2.5462

APPENDIX B

TOTAL LENGTHS OF FISH COLLECTED AT THE COLORADO LAGOON

Table B1
Total Lengths of Fish Collected in the West End of Colorado Lagoon

Common Name	Scientific Name	Standard Length	Total
Topsmelt	*Atherinops affinis*	46, 102, 48, 38, 104, 120, 104, 108, 48, 46, 90, 106, 110, 104, 114, 106, 110, 104, 114, 106, 110, 62, 46, 60, 48, 56, 46, 48, 70, 116, 66, 110, 106, 104, 106, 66, 64, 50, 54, 106, 110, 74, 104, 116, 100, 56, 44, 52, 44, 44, 100, 48, 54, 60, 54, 60, 52, 66, 46, 50, 52, 114, 56, 99, 110, 104, 120, 112, 108, 114, 48, 46, 58, 56, 50, 44, 44, 40, 48, 106, 54, 96, 66, 52, 52, 100, 62, 58, 54, 54, 64, 62, 52, 46, 38, 46, 50, 44, 50, 62, 52, 102, 52, 58	100
		Batch Counts	
		290	
		255	
		3200	
		1200	
		300	
		400	
		500	
		529	
		330	
		3781	
		Grand Total	1199 7
California Killifish	*Fundulus parvipinnis*	82, 80, 78, 76, 64, 32, 34, 36, 34, 30, 30, 32, 32, 34, 32, 30, 34, 34, 32, 32, 30, 30, 34, 30, 30, 30, 34, 34, 30, 30, 30, 30, 36, 34	34
Round Stingray	*Urolophus halleri*	452, 382, 492, 376, 364, 354, 326, 338, 344, 430, 546, 436, 302, 350, 354, 310, 424, 328, 560	19
Yellowfin Goby	*Acanthogobius flavimanus*	80, 62, 60, 48	4
Shadow Goby	*Quietula y-cauda*	38, 36	2
Cheekspot Goby	*Ilypnus gilberti*	30, 34	2
Longjaw Mudsucker	*Gillichthys mirabilis*	68, 74	2
Shiner Perch	*Cymatogaster aggregate*	56	1

Table B2
Total Lengths of Fish Collected in the Central Portion of Colorado Lagoon

Common Name	Scientific Name	Standard Length	Total
Topsmelt	*Atherinops affinis*	166, 115, 100, 97, 110, 129, 102, 104, 108, 109, 92, 105, 112, 141, 110, 107, 112, 114, 101, 106, 110, 103, 112, 111, 88, 110, 107, 92, 110, 118, 102, 116, 107, 103, 110, 113, 102, 101, 102, 111, 102, 110, 104, 100, 102, 101, 130, 101, 112, 114, 116, 101, 113, 112, 106, 101, 98, 111, 110, 112, 110, 106, 105, 111, 108, 66, 118, 52, 113, 59, 120, 110, 99, 104, 99, 39, 103, 94, 47, 48, 111, 46, 101, 46, 113, 118, 121, 46, 112, 52, 113, 55, 106, 110, 112, 52, 111, 56, 112, 113	100
		Batch Counts	
		400	
		544	
		700	
		610	
		572	
		273	
		246	
		229	
		157	
		700	
		Grand Total	4,531
Arrow Goby	*Clevelandia ios*	38, 36, 34, 38, 32, 34, 36, 42, 40, 36, 38, 34, 36, 32, 34, 38, 34, 28, 34, 30, 26, 30, 28, 26, 26, 20	26
California killifish	*Fundulus parvipinnis*	32, 20, 17, 23, 18, 30, 16, 16, 30, 38, 31, 20	12
Bay Pipefish	*Sygnathus leptohynchus*	110, 108, 74, 86, 94, 82, 70, 74, 72, 54, 60	11
Yellowfin Goby	*Acanthogobius flavimanus*	34, 38, 36, 35, 40, 39, 37, 36	8
Shiner Perch	*Cymatogaster aggregate*	68, 68, 51	3
Shadow Goby	*Quietula y-cauda*	36,38,34	3
Round Stingray	*Urolophus halleri*	312	1
California Needlefish	*Strongylura exilis*	187	1

Table B3
Total Lengths of Fish Collected in the East End of Colorado Lagoon

Common Name	Scientific Name	Standard Length	Total
Topsmelt	*Atherinops affinis*	90, 50, 120, 126, 110, 112, 110, 124, 94, 66, 122, 162, 104, 92, 68, 106, 32, 42, 50, 52, 48, 46, 46, 44, 48, 46, 52, 48, 44, 50, 30, 46, 44, 42, 46, 38, 36, 48, 44, 48, 40, 54, 46, 94, 94, 62, 46, 50, 46, 50, 116, 68, 54, 58, 44, 44, 48, 44, 46, 48, 50, 52, 46, 58, 48, 60, 44, 68, 64, 64, 58, 46, 58, 68, 56, 42, 44, 46, 42, 50, 44, 50, 54, 60, 52, 54, 58, 54, 46, 52, 48, 46, 48, 50, 50, 44, 40, 48, 54, 48, 44, 46, 46	103
		Batch Counts	
		150	
		138	
		820	
		961	
		Grand Total	2,127
Arrow Goby	*Clevelandia ios*	40, 44, 42, 44, 30, 40, 40, 48, 46, 40, 44, 46, 42, 40, 40, 40, 38, 40, 40, 36, 42, 42, 38, 36, 36, 34, 30, 38, 34, 30	30
Slough Anchovy	*Anchoa delicatissima*	64, 62, 64, 72, 62, 70, 68, 74, 68, 66, 70, 74, 70, 66, 68, 70, 64, 78, 50, 70, 48, 78	22
Shadow Goby	*Quietula y-cauda*	44, 46, 38, 44, 42, 40, 42, 40, 38, 40, 32, 26	12
Longjaw Mudsucker	*Gillichthys mirabilis*	86, 64, 76	3
California Killifish	*Fundulus parvipinnis*	24, 22	2
Yellowfin Goby	*Acanthogobius flavimanus*	52, 56	2
Northern Anchovy	*Engraulis mordax*	44, 46	2
Bay Pipefish	*Sygnathus leptorhynchus*	60	1

Figure B1
Size Frequency Distribution of Topsmelt Collected at the West End of Colorado Lagoon

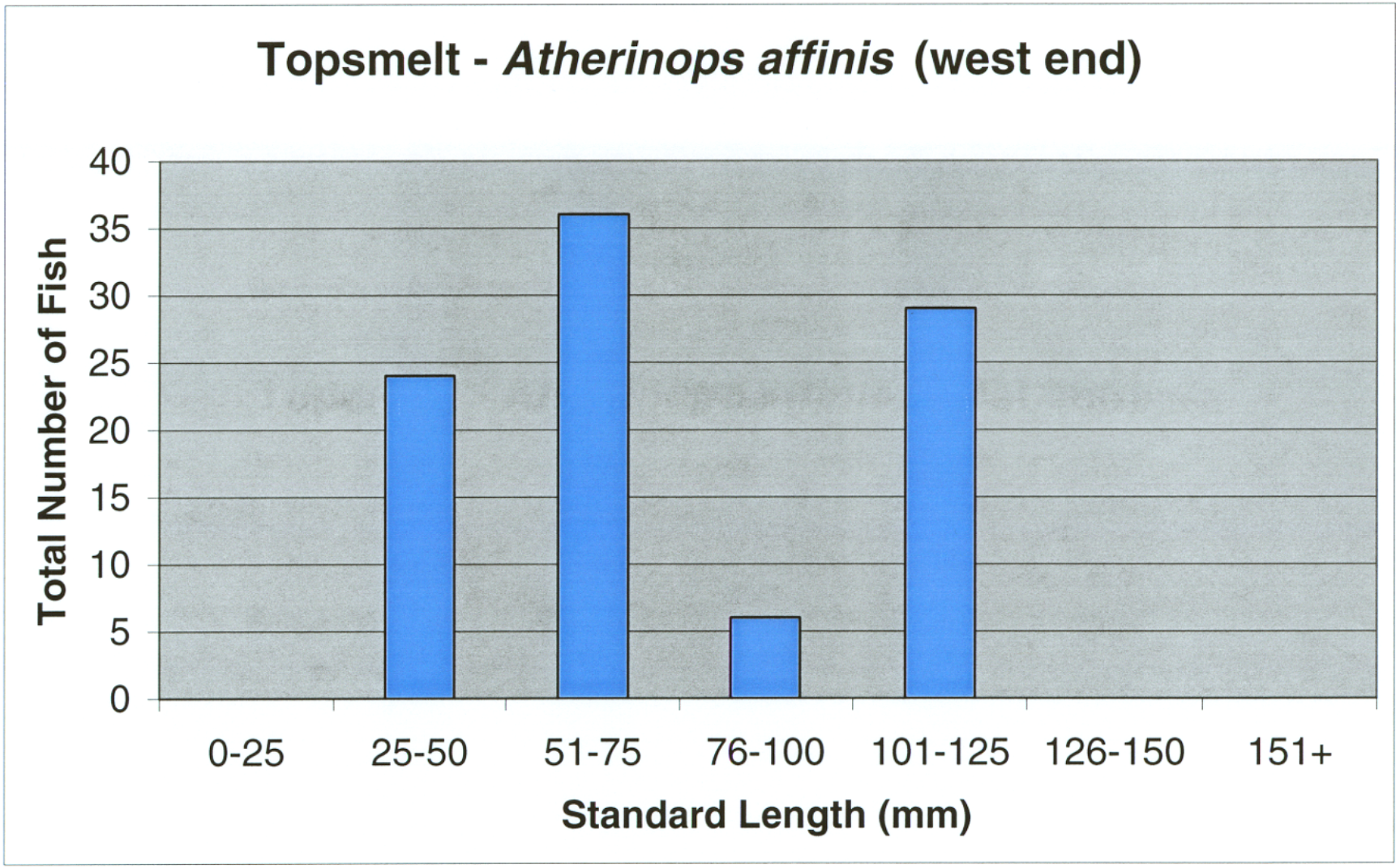

Figure B2
Size Frequency Distribution of Topsmelt Collected in the Central Portion of Colorado Lagoon

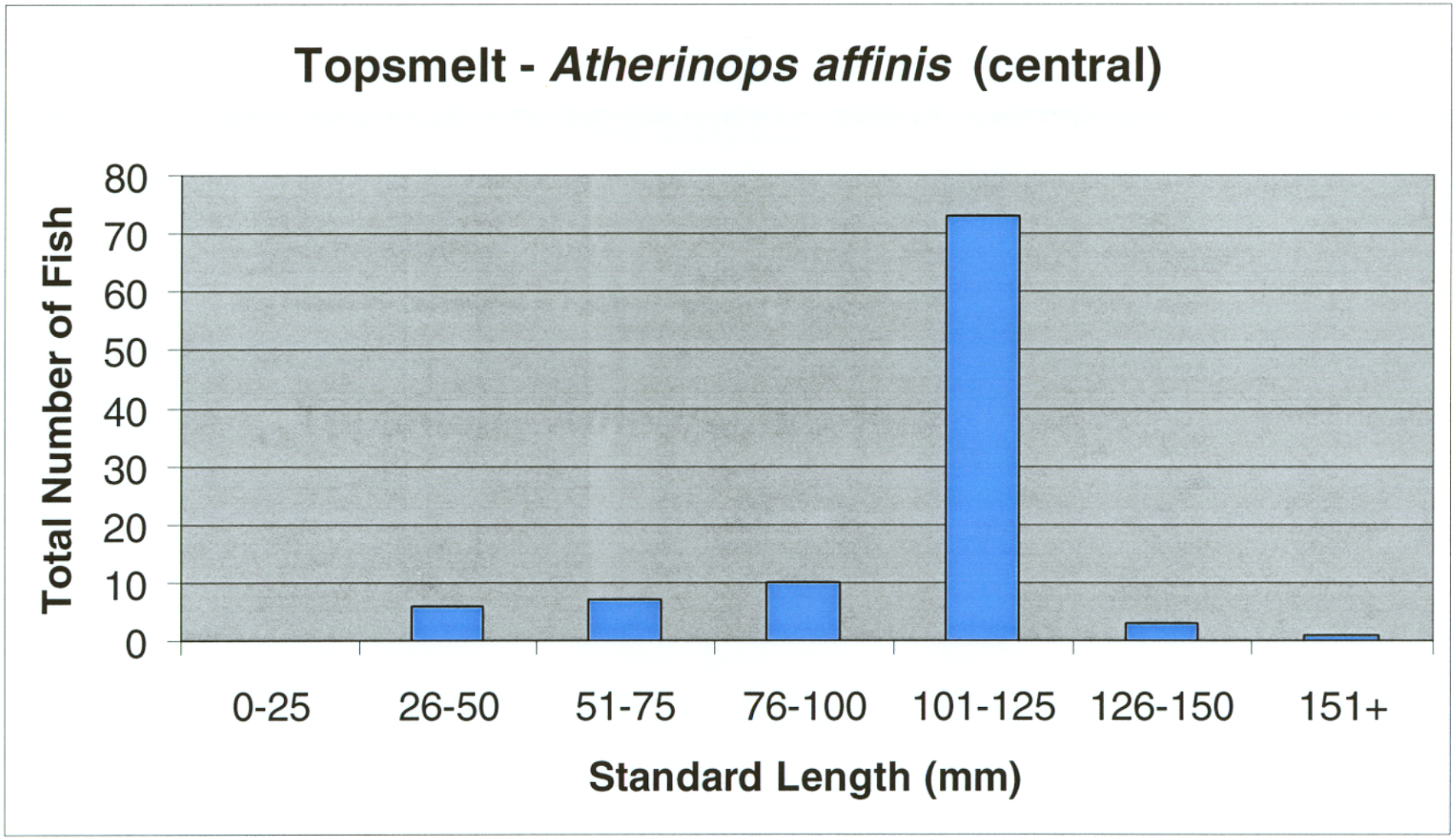

Figure B3
Size Frequency Distribution of Topsmelt Collected at the East End of Colorado Lagoon

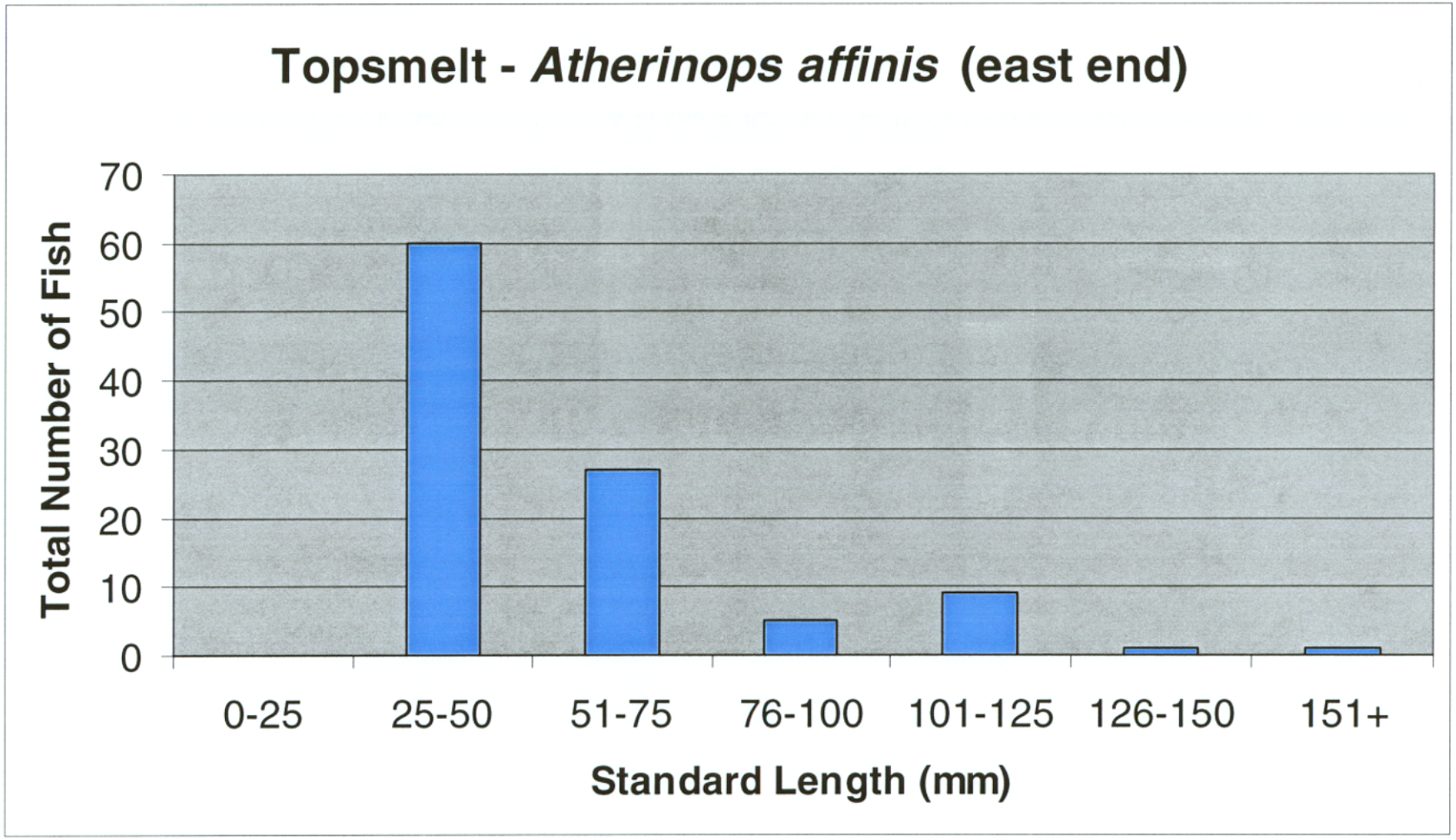

Figure B4
Size Frequency Distribution of Arrow Gobies Collected in the Central Portion of Colorado Lagoon

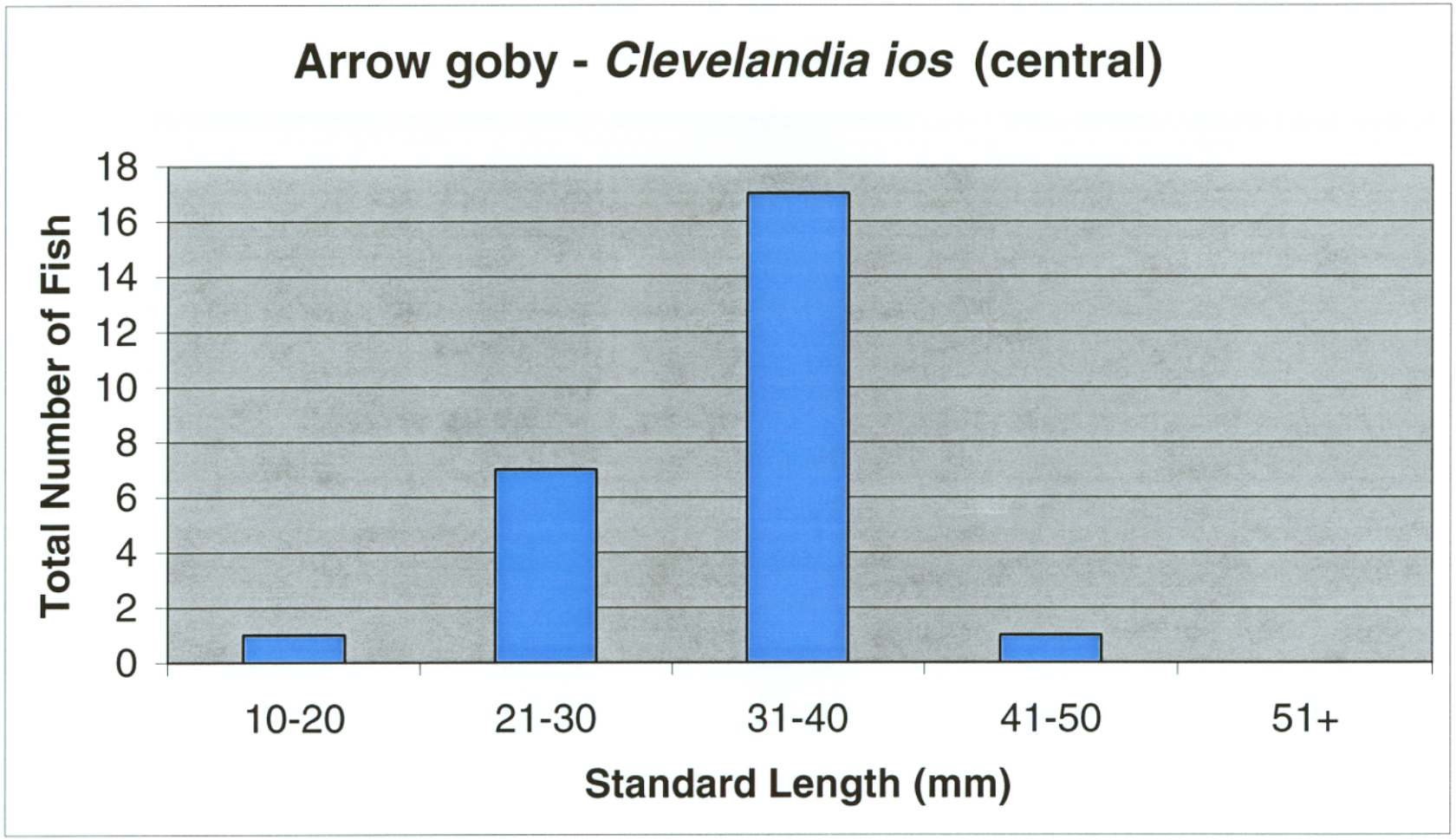

Figure B5
Size Frequency Distribution of Arrow Gobies Collected at the East End of Colorado Lagoon

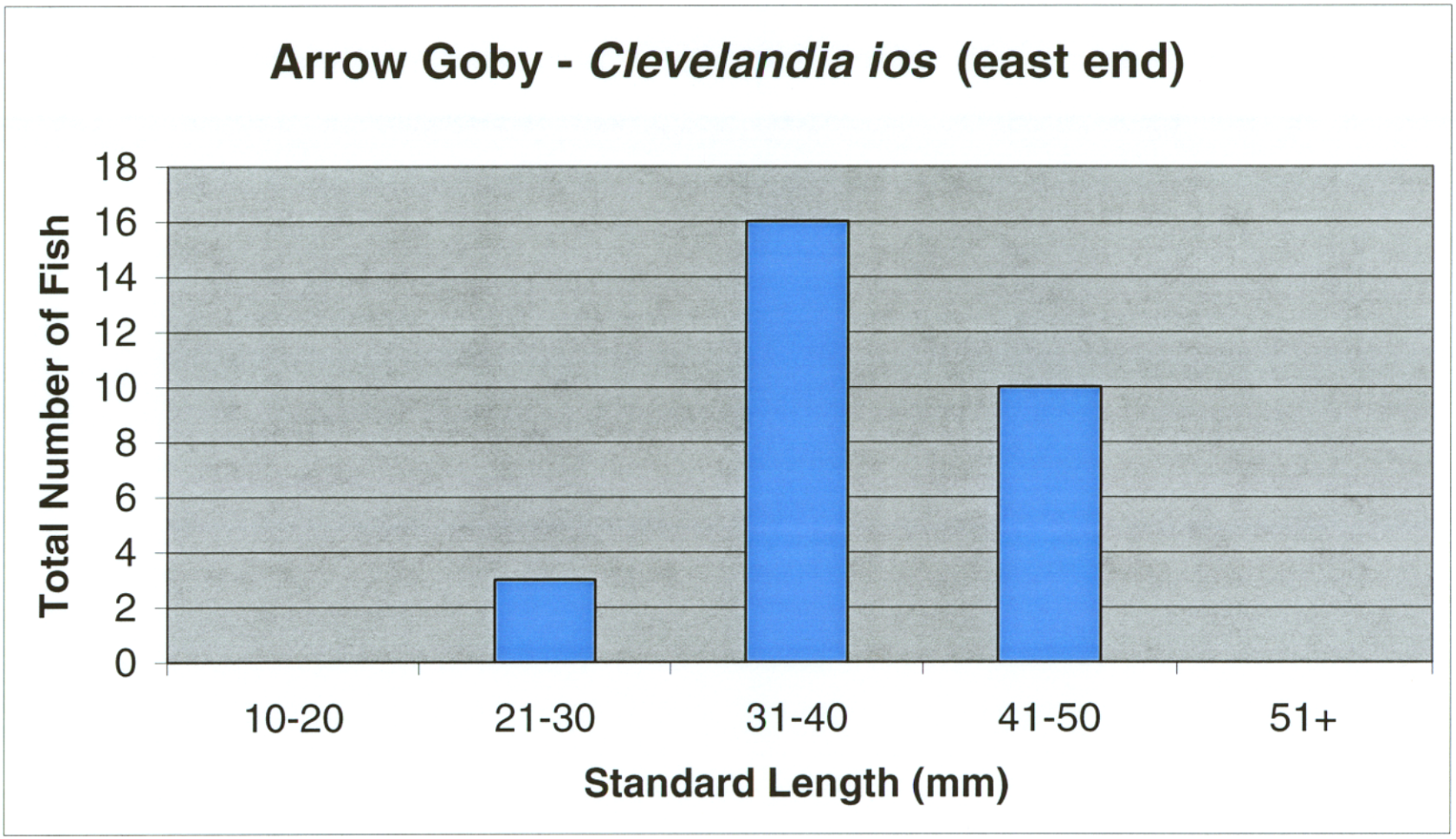

Figure B6
Size Frequency Distribution of California Killifish Collected at the West End of Colorado Lagoon

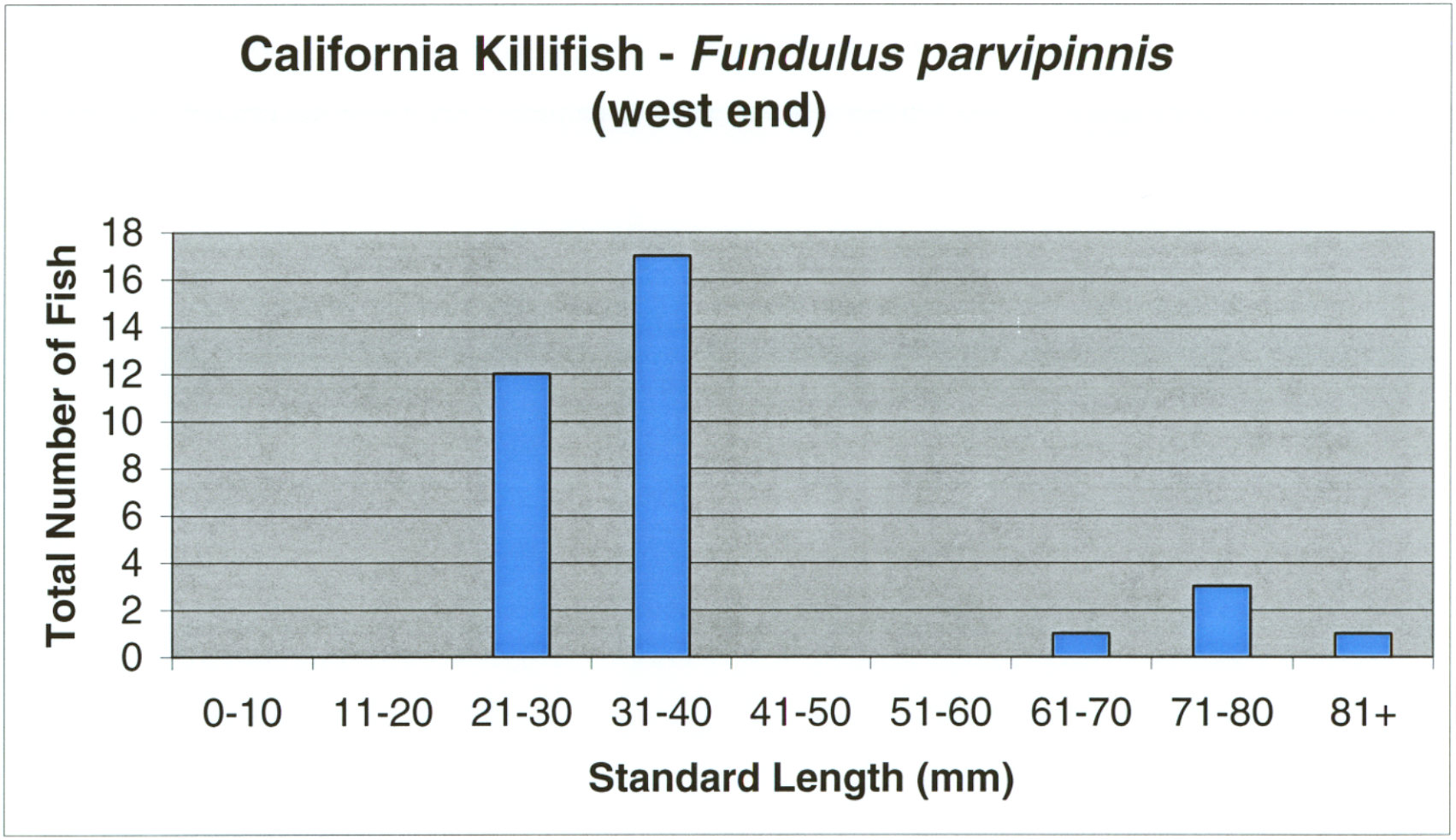

Figure B7
Size Frequency Distribution of California Killifish Collected in the Central Portion of Colorado Lagoon

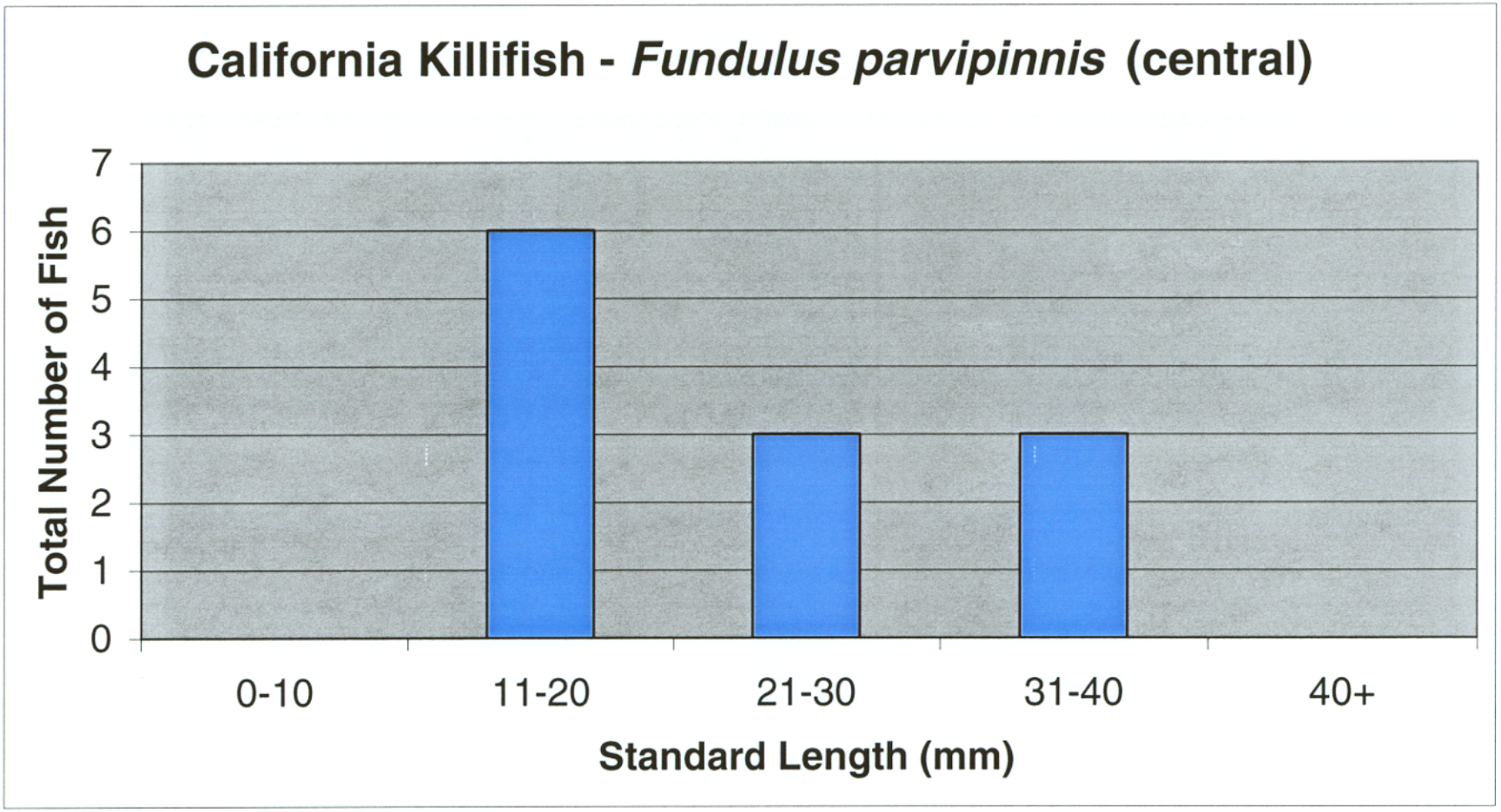

Figure B8
Size Frequency Distribution of Round Stingray Collected in the West End of Colorado Lagoon

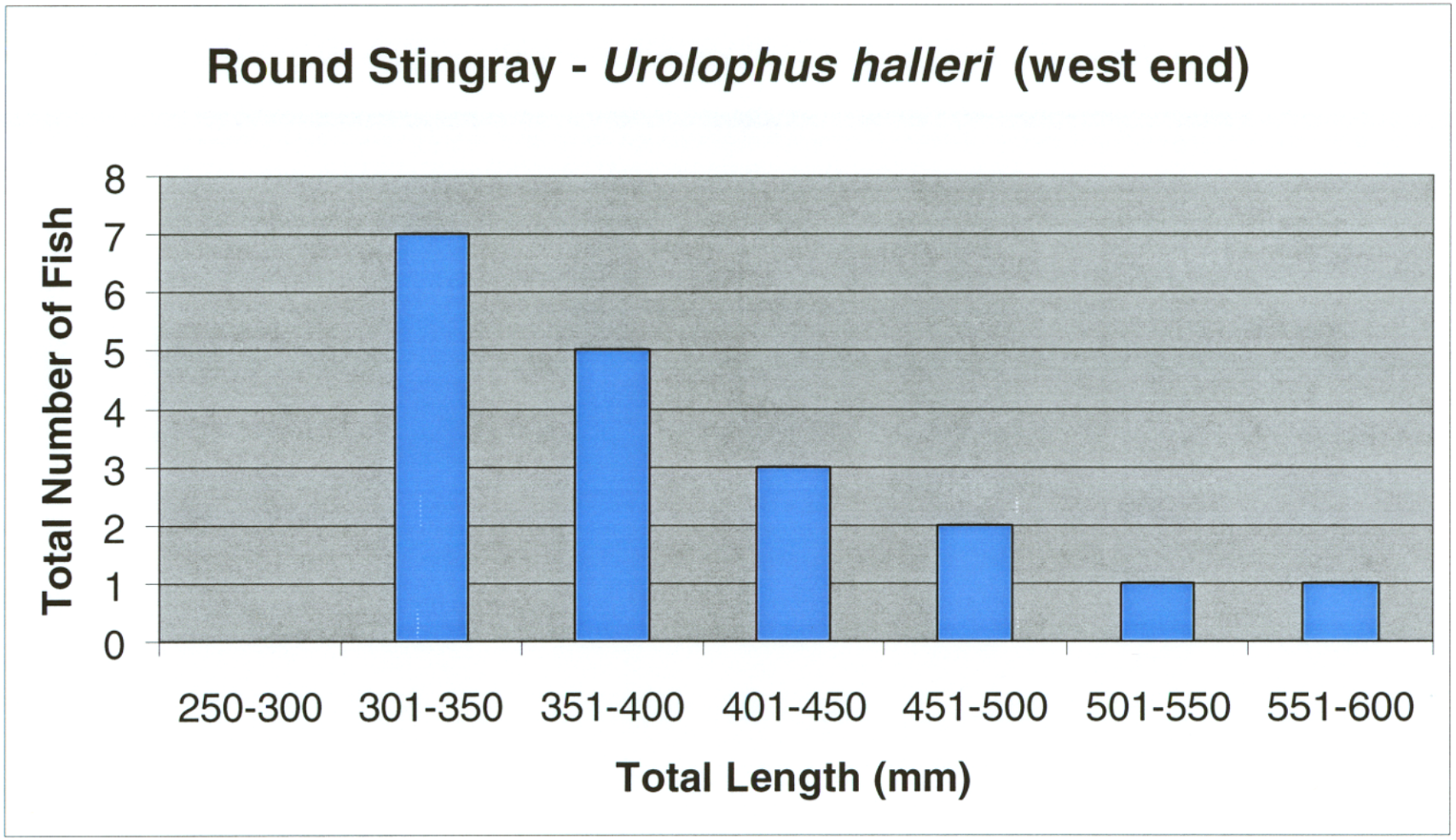
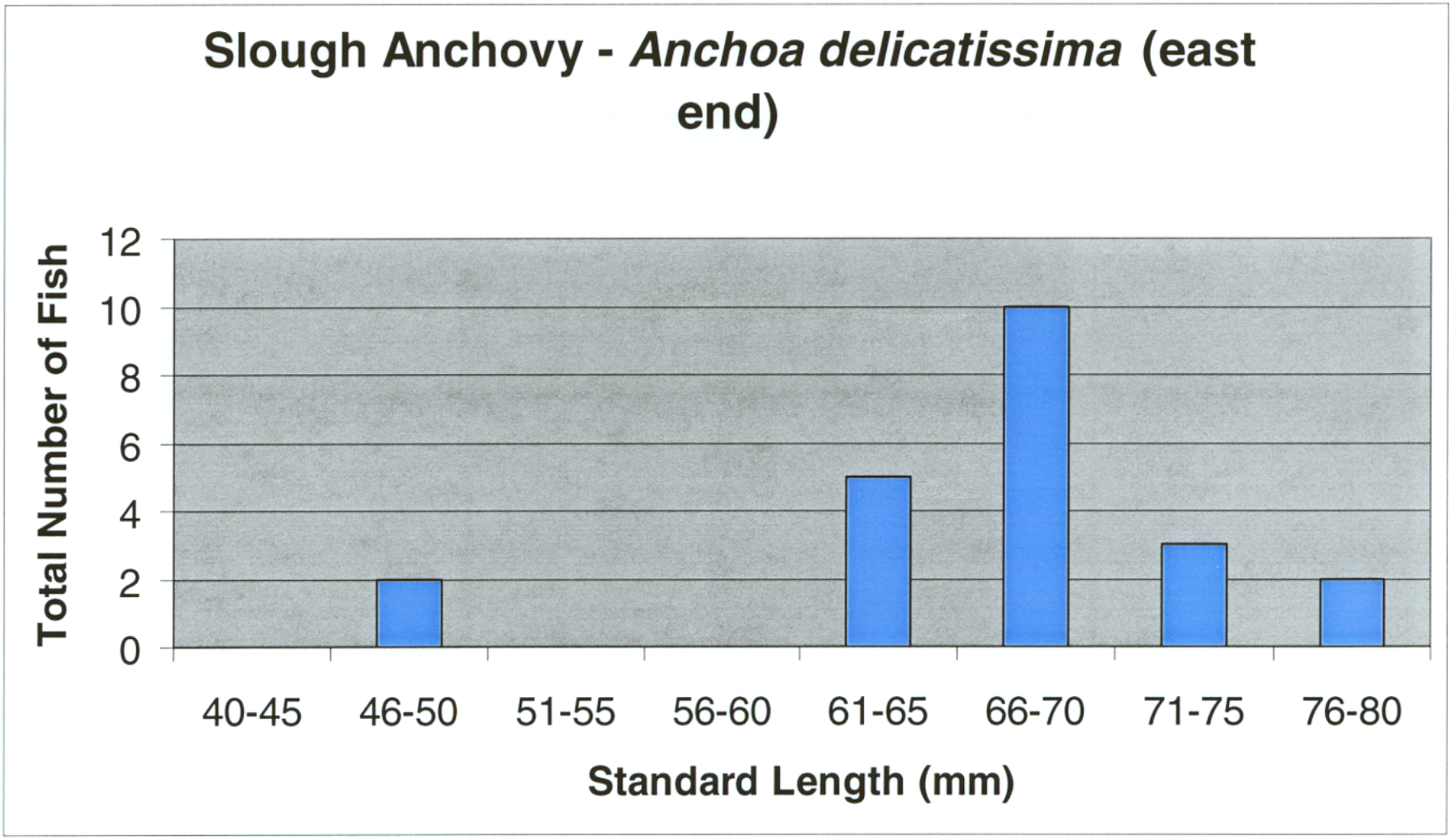
Figure B9
Size Frequency Distribution of Slough Anchovy Collected in the East End of Colorado Lagoon