

APPENDIX E. FIELD FORMS, FIELD NOTES, AND NAVIGATION REPORT

E-1. Fish Collection Forms

E-2. Fish Collection: Species Tally Forms

E-3. Fish Collection: Field Notes

E-4. Crab Collection Forms

E-5. Crab Collection: Species Tally Forms

E-6. Crab Collection: Field Notes

E-7. Navigation Report

E-1. Fish Collection Forms



Project Name:	LDW RI fish and crab chemistry	Project #:	04-08-06-22
Date:	29 AUG 05	Sampling area:	T1D
Retrieval Time:	1021/1026	Start coordinates	X:
Collection method/Effort #:	TR001		Y:
Weather:	Partly cloudy	End coordinates	X:
Sampler:	MGL, JMF, TDO		Y:
Comments: Shiner surfperch - 7			
English sole - 1			

[illegible]

[illegible]

FISH AND CRAB TISSUE COLLECTION FORM

Project Name:	LDW RI fish and crab chemistry	Project #:	04-08-06-22
Date:	29 Aug 05	Sampling area:	T1B
Retrieval Time:	1332/1337	Start coordinates	X:
Collection method/Effort #:	TR006		Y:
Weather:	overcast, light showers	End coordinates	X:
Sampler:	MBL, JHF, TAD		Y:
Comments:	Shiner surfpack - 3 English sole - 5 D Crab - 1		

[illegible]

FISH AND CRAB TISSUE COLLECTION FORM

Project Name:	LDW RI fish and crab chemistry	Project #:	04-08-06-22
Date:	29 Aug 05	Sampling area:	TIC
Retrieval Time:	1408/1412	Start coordinates	X:
Collection method/Effort #:	TR007		Y:
Weather:	light showers	End coordinates	X:
Sampler:	MLL, JMF, TDO		Y:
Comments:	English sole -1 staghorn sculpin -5 Shiner surfperch -10 D. Crab -1		

SPECIMEN ID #	SPECIES	LENGTH (nearest mm)	WEIGHT (nearest 0.1 g)	COMMENTS
LDN-05-TI-C- TR007-SS-21	SS	99	12.9	
SS-22	SS	98	13.8	guts extruding
SS-23	SS	105	15.6	
SS-24	SS	117	21.8	
SS-25	SS	95	12.9	guts extruding
SS-26	SS	116	17.1	
SS-27	SS	120	23.7	
SS-28	SS	119	20.6	gut extruding
SS-29	SS	115	18.8	red bump prolapsed cloaca
SS-30	SS	122	25.5	prolapsed cloaca
ES-8	ES	204	79.1	male, dark bump, tentacles both
PS-06	PS	234	174.8	
PS-07	PS	210	142.1	
PS-08	PS	157	53.5	
PS-09	PS	142	32.6	
PS-10	PS	156	55.7	
DC-03	DC	103	172.0	female

FISH AND CRAB TISSUE COLLECTION FORM

Project Name:	LDW RI fish and crab chemistry	Project #:	04-08-06-22
Date:	29 Aug 05	Sampling area:	T1C
Retrieval Time:	1441/1445	Start coordinates	X:
Collection method/Effort #:	TR00B		Y:
Weather:	overcast, light showers	End coordinates	X:
Sampler:	MGL, JMF, TDO		Y:
Comments:	English sole - 2 D. Crab - 1 Staghorn sculpin - 5		

[illegible]

FISH AND CRAB TISSUE COLLECTION FORM

Project Name:	LDW RI fish and crab chemistry	Project #:	04-08-06-22
Date:	29 Aug 05	Sampling area:	T1E
Retrieval Time:	1511/1517	Start coordinates	X:
Collection method/Effort #:	TR009		Y:
Weather:	partly cloudy	End coordinates	X:
Sampler:	MEH, JMF, TDD		Y:
Comments:	English sole - 3 Shiner surfperch - 4		

[illegible]

FISH AND CRAB TISSUE COLLECTION FORM

Project Name:	LDW RI fish and crab chemistry	Project #:	04-08-06-22
Date:	29 Aug 05	Sampling area:	T1E
Retrieval Time:	1535/1540	Start coordinates	X:
Collection method/Effort #:	TR 010		Y:
Weather:	ptly cloudy	End coordinates	X:
Sampler:	M6L, JMF, TDD		Y:
Comments:	English sole - 1 Shiner soppereh - 6 D. Crab - 1		

[illegible]

FISH AND CRAB TISSUE COLLECTION FORM

Project Name:	LDW RI fish and crab chemistry	Project #:	04-08-06-22
Date:	29 Aug 05	Sampling area:	T1F
Retrieval Time:	1359/1604	Start coordinates	X:
Collection method/Effort #:	TR011		Y:
Weather:	ptly cloudy	End coordinates	X:
Sampler:	MGL, JMF, TDO		Y:
Comments:	Shiner suffernish - 7 English sole - 1		

[illegible]

[illegible]

FISH AND CRAB TISSUE COLLECTION FORM

Project Name:	LDW RI fish and crab chemistry	Project #:	04-08-06-22
Date:	8-30-05	Sampling area:	TIA
Retrieval Time:	4:49	Start coordinates	X:
Collection method/Effort #:	TRO13		Y:
Weather:	ptly sunny / overcast	End coordinates	X:
Sampler:	MCL		Y:
Comments:	5 SS 7 ES (5 male) (2 Female)		

SPECIMEN ID #	SPECIES	LENGTH (nearest mm)	WEIGHT (nearest 0.1 g)	COMMENTS
LDW-05-TI-A- TRO13-ES-026	ES	218	96.0	Male
ES-027	ES	215	84.5	Male
ES-028	ES	198	93.9	Male, guts extruding & photo taken
ES-029	ES	214	99.2	Male
ES-030	ES	205	95.4	Male
ES-031	ES	268	200	Female
ES-032	ES	240	240 ¹⁵⁷	Female
SS-133	SS	105	14.9	
SS-134	SS	94	12.3	Guts extruding
SS-135	SS	138	46.5	Guts extruding
SS-136	SS	108	22.1	Guts extruding
SS-137	SS	95	12.8	

FISH AND CRAB TISSUE COLLECTION FORM

Project Name:	LDW RI fish and crab chemistry	Project #:	04-08-06-22
Date:	8/30/05	Sampling area:	T1A
Retrieval Time:	0909/0914	Start coordinates	X:
Collection method/Effort #:	TR014		Y:
Weather:	ptly cloudy	End coordinates	X:
Sampler:	ML NR ED		Y:
Comments:	D kept		

[illegible]

[illegible]

FISH AND CRAB TISSUE COLLECTION FORM

Project Name:	LDW RI fish and crab chemistry	Project #:	04-08-06-22
Date:	8/30/05	Sampling area:	T1B
Retrieval Time:	10:10	Start coordinates	X:
Collection method/Effort #:	TR01ce		Y:
Weather:	cloudy	End coordinates	X:
Sampler:	MexL AMR EAD		Y:
Comments:	1 dungeness crab		
	1 english sole (male)		

[illegible]

FISH AND CRAB TISSUE COLLECTION FORM

Project Name:	LDW RI fish and crab chemistry	Project #:	04-08-06-22
Date:	08/30/05	Sampling area:	TIB
Retrieval Time:	1025/1030	Start coordinates	X:
Collection method/Effort #:	72017		Y:
Weather:	cloudy	End coordinates	X:
Sampler:	MGL AND EAD		Y:
Comments:	0 kept		

SPECIMEN ID #	SPECIES	LENGTH (nearest mm)	WEIGHT (nearest 0.1 g)	COMMENTS

Project Name:	LDW RI fish and crab chemistry	Project #:	04-08-06-22
Date:	8/30/05	Sampling area:	T1B
Retrieval Time:	11:13	Start coordinates	X:
Collection method/Effort #:	TR019		Y:
Weather:	cloudy	End coordinates	X:
Sampler:	MGL AMR EAP		Y:
Comments:	2 English sole 5 shiner surfperch		

[illegible]

[illegible]

FISH AND CRAB TISSUE COLLECTION FORM

Project Name:	LDW RI fish and crab chemistry	Project #:	04-08-06-22
Date:	9/30/05	Sampling area:	T4A
Retrieval Time:	11:50	Start coordinates	X:
Collection method/Effort #:	TR 021		Y:
Weather:	cloudy	End coordinates	X:
Sampler:	MERC AMR EAD		Y:
Comments:	10 shiner surfperch		

[illegible]

[illegible]

FISH AND CRAB TISSUE COLLECTION FORM

Project Name:	LDW RI fish and crab chemistry	Project #:	04-08-06-22
Date:	8/30/05	Sampling area:	F/C - channel
Retrieval Time:	1351/13:54	Start coordinates	X:
Collection method/Effort #:	TPO 23		Y:
Weather:	cloudy	End coordinates	X:
Sampler:	MGL AMR EAD		Y:
Comments:	3 staghorn sculpin		

[illegible]

FISH AND CRAB TISSUE COLLECTION FORM

Project Name:	LDW RI fish and crab chemistry	Project #:	04-08-06-22
Date:	8/30/05 1403/	Sampling area:	ETLC + the main
Retrieval Time:	13:54 14:07	Start coordinates	X:
Collection method/Effort #:	TR024		Y:
Weather:	cloudy	End coordinates	X:
Sampler:	MGL AMR EAD		Y:
Comments:	10 shiner surfperch 1 staghorn sculpin		

[illegible]

FISH AND CRAB TISSUE COLLECTION FORM

Project Name:	LDW RI fish and crab chemistry	Project #:	04-08-06-22
Date:	8/30/05	Sampling area:	T4D
Retrieval Time:	1424/14:25	Start coordinates	X:
Collection method/Effort #:	TR025		Y:
Weather:	cloudy	End coordinates	X:
Sampler:	MGR L AMR EAD		Y:
Comments:	5 shiner surf perch		

[illegible]

FISH AND CRAB TISSUE COLLECTION FORM

Project Name:	LDW RI fish and crab chemistry	Project #:	04-08-06-22
Date:	8/30/05	Sampling area:	T4D
Retrieval Time:	1435/14:39	Start coordinates	X:
Collection method/Effort #:	TR 02C6		Y:
Weather:	ptly sunny	End coordinates	X:
Sampler:	MGL AMR EAD		Y:
Comments:	10 shiner surfperch		

[illegible]



FISH AND INVERTEBRATE SPECIES TALLY FORM

Project Name:	LDW RI fish and crab chemistry	Project #:	04-08-06-22
Date:	8/30/05	Sampling area:	T3F
Retrieval Time:		Start coordinates	X:
Collection method/Effort #:	TLD 27		Y:
Weather:	ptly sunny	End coordinates	X:
Sampler:	MHL, AMR, EAD		Y:
Comments:	0 dept (empty haul)		

SPECIES	#	LENGTH (nearest mm)	WEIGHT (nearest 0.5 g)	COMMENTS

FISH AND CRAB TISSUE COLLECTION FORM

Project Name:	LDW RI fish and crab chemistry	Project #:	04-08-06-22
Date:	8/30/05	Sampling area:	T3F
Retrieval Time:	15:47	Start coordinates	X:
Collection method/Effort #:	TRO2B		Y:
Weather:	ptly sunny	End coordinates	X:
Sampler:	MCR L AMP LAD		Y:
Comments:	10 shiner surfperch Pacific Staghorn sculpin		

[illegible]

FISH AND CRAB TISSUE COLLECTION FORM

Project Name:	LDW RI fish and crab chemistry	Project #:	04-08-06-22
Date:	8/30/05	Sampling area:	13F
Retrieval Time:	15:16:05	Start coordinates	X:
Collection method/Effort #:	TR029		Y:
Weather:	ptly sunny	End coordinates	X:
Sampler:	MGL AMR EAD		Y:
Comments:	1 English sole (Female) 10 shiner surfperch 3 staghorn sculpin		

[illegible]

FISH AND CRAB TISSUE COLLECTION FORM

Project Name:	LDW RI fish and crab chemistry	Project #:	04-08-06-22
Date:	8/30/05	Sampling area:	T3 E
Retrieval Time:	10:26/10:32	Start coordinates	X:
Collection method/Effort #:	TR030		Y:
Weather:	ptly sunny	End coordinates	X:
Sampler:	MGL AMR EAD		Y:
Comments:	1 male English sole 2 staghorn sculpin 10 shiner surfperch 3 dunsmuir crab		

SPECIMEN ID #	SPECIES	LENGTH (nearest mm)	WEIGHT (nearest 0.1 g)	COMMENTS
LDW-05-T3-E-T030 SS-044	SS	96	13.6	
SS-45	SS	110	17.1	
SS-46	SS	115	19.0	gut extruding
SS-47	SS	122	23.5	gut extruding
SS-48	SS	115	19.3	
SS-49	SS	77	6.5	gut extruding
SS-50	SS	124	27.6	gut extruding
SS-51	SS	125	26.5	
SS-52	SS	124	28.4	
SS-53	SS	119	20.8	
DC-05	DC	106	186.4	male
DC-06	DC	91	115.4	male
DC-07	DC	173	710	male
ES-18	ES	260	138.4	male
PS-11	PS	117	18.0	
PS-12	PS	141	34.8	

FISH AND CRAB TISSUE COLLECTION FORM

Project Name:	LDW RI fish and crab chemistry	Project #:	04-08-06-22
Date:	31 Aug 2005	Sampling area:	T3 D
Retrieval Time:	0902/0908	Start coordinates	X:
Collection method/Effort #:	TR031		Y:
Weather:	Partly cloudy	End coordinates	X:
Sampler:	MGL, LTF, PBD		Y:
Comments:	5 SS		

[illegible]

FISH AND CRAB TISSUE COLLECTION FORM

Project Name:	LDW RI fish and crab chemistry	Project #:	04-08-06-22
Date:	31 Aug 2005	Sampling area:	T3D
Retrieval Time:	0925	Start coordinates	X:
Collection method/Effort #:	TRO32		Y:
Weather:		End coordinates	X:
Sampler:	MGL, LTF, PBD		Y:
Comments:	5 SS		
	2 Gny Sole		

[illegible]

FISH AND CRAB TISSUE COLLECTION FORM

Project Name:	LDW RI fish and crab chemistry	Project #:	04-08-06-22
Date:	31 Aug 2005	Sampling area:	T3 C
Retrieval Time:	1012 / 1016	Start coordinates	X:
Collection method/Effort #:	TR033		Y:
Weather:		End coordinates	X:
Sampler:	MGL, LTF, PBD		Y:
Comments:	10 SS		

[illegible]

FISH AND CRAB TISSUE COLLECTION FORM

Project Name:	LDW RI fish and crab chemistry	Project #:	04-08-06-22
Date:	31 Aug 2005	Sampling area:	T3 A
Retrieval Time:	1036/1040	Start coordinates	X:
Collection method/Effort #:	TR034		Y:
Weather:		End coordinates	X:
Sampler:	MGL, LTF, PBD		Y:
Comments:			
10 SS			
1 Ems Side			

[illegible]

FISH AND CRAB TISSUE COLLECTION FORM

Project Name:	LDW RI fish and crab chemistry	Project #:	04-08-06-22
Date:	31 AUG 2005	Sampling area:	T3 F
Retrieval Time:	1101/1107	Start coordinates	X:
Collection method/Effort #:	TA035		Y:
Weather:	PH ₂ cloudy	End coordinates	X:
Sampler:	Ⓟ PH ₂ cloudy MGL, LTF, PBD		Y:
Comments:	No keepers		

[illegible]

FISH AND CRAB TISSUE COLLECTION FORM

Project Name:	LDW RI fish and crab chemistry	Project #:	04-08-06-22
Date:	31 Aug 2005	Sampling area:	T3 D
Retrieval Time:	1121/1126	Start coordinates	X:
Collection method/Effort #:	TR 036		Y:
Weather:	ptly cloudy	End coordinates	X:
Sampler:	MGL, LTF, PBD		Y:
Comments:	No Keepers		

[illegible]

FISH AND CRAB TISSUE COLLECTION FORM

Project Name:	LDW RI fish and crab chemistry	Project #:	04-08-06-22
Date:	31 AUG 2005	Sampling area:	T3 E
Retrieval Time:	143/1149	Start coordinates	X:
Collection method/Effort #:	TR 037		Y:
Weather:	Partly cldy	End coordinates	X:
Sampler:	MGL, LTF, PBD		Y:
Comments:			
[1 Pac. stagh TEMP] Ø PS			

[illegible]

[illegible]

[illegible]

[illegible]

FISH AND CRAB TISSUE COLLECTION FORM

Project Name:	LDW RI fish and crab chemistry	Project #:	04-08-06-22
Date:	31 Aug 2005	Sampling area:	T3 C
Retrieval Time:	735/1339	Start coordinates	X:
Collection method/Effort #:	TR041		Y:
Weather:	Sunny, few clouds, light breeze	End coordinates	X:
Sampler:	MGL, LJP, PBD		Y:
Comments:	[6 Staghorn sculpin ramp] Ø PS 4 English sole 2 ♂ 2 ♀		

[illegible]

FISH AND CRAB TISSUE COLLECTION FORM

Project Name:	LDW RI fish and crab chemistry	Project #:	04-08-06-22
Date:	31 AUG 2005	Sampling area:	T3 D
Retrieval Time:	1421/1425	Start coordinates	X:
Collection method/Effort #:	TR 042		Y:
Weather:	Sunny, medium breeze	End coordinates	X:
Sampler:	MGL, LJF, PBD		Y:
Comments:			
7 English sole 3 ♀ 4 ♂			
(8 Staghorn sculpin Temp) 0 0 PS			

[illegible]

FISH AND CRAB TISSUE COLLECTION FORM

Project Name:	LDW RI fish and crab chemistry	Project #:	04-08-06-22
Date:	31 AUG 2005	Sampling area:	T3 F
Retrieval Time:	1446 / 1452	Start coordinates	X:
Collection method/Effort #:	TR 043		Y:
Weather:	Sunny, lt breeze	End coordinates	X:
Sampler:	MGL, LSF, PBD		Y:
Comments:			
[10 starhorn temp] KEPT 90/1105			
3 Gg Sde 2♀ 1♂			

SPECIMEN ID #	SPECIES	LENGTH (nearest mm)	WEIGHT (nearest 0.1 g)	COMMENTS
LDW-05-T3-F-TR043- PS-23	PS	135	27.5	
PS-24	PS	108	15.5	
PS-25	PS	115	17.9	
PS-26	PS	125	22.8	
PS-27	PS	120	23.7	
PS-28	PS	147	40.2	
PS-29	PS	115	16.3	
PS-30	PS	170	71.7	
PS-31	PS	130	27.9	
PS-32	PS	150	56.8	
ES-35	ES	194	79.0	Male
ES-36	ES	285	297.7	Female
ES-37	ES	295	297.8	Female

[illegible]

FISH AND CRAB TISSUE COLLECTION FORM

Project Name:	LDW RI fish and crab chemistry	Project #:	04-08-06-22
Date:	31 Aug 2005	Sampling area:	T3 F
Retrieval Time:	1537/1537	Start coordinates	X:
Collection method/Effort #:	TR 045		Y:
Weather:	Sunny	End coordinates	X:
Sampler:	MGL, LIF, PBD		Y:
Comments:			
3 English sole 1 male ♂ 2 females ♀			

[illegible]

FISH AND CRAB TISSUE COLLECTION FORM

Project Name:	LDW RI fish and crab chemistry	Project #:	04-08-06-22
Date:	31 AUG 2005	Sampling area:	T3 E
Retrieval Time:	1559/605	Start coordinates	X:
Collection method/Effort #:	TR046		Y:
Weather:	Sunny	End coordinates	X:
Sampler:	MGL, LJJF, PBD		Y:
Comments:	channel 1 Eng sole ♂		

[illegible]

FISH AND CRAB TISSUE COLLECTION FORM

Project Name:	LDW RI fish and crab chemistry	Project #:	04-08-06-22
Date:	31 AUG 2005	Sampling area:	T3E
Retrieval Time:	1617/1622	Start coordinates	X:
Collection method/Effort #:	TR047		Y:
Weather:	Sunny, lt breeze	End coordinates	X:
Sampler:	MGL, LJP, PBD		Y:
Comments:			
1 English sole (1♀)			

[illegible]

FISH AND CRAB TISSUE COLLECTION FORM

Project Name:	LDW RI fish and crab chemistry	Project #:	04-08-06-22
Date:	September 01 - 2005	Sampling area:	T2E
Retrieval Time:	8:41 / 8:46	Start coordinates	X:
Collection method/Effort #:	TR048		Y:
Weather:	Mostly Sunny	End coordinates	X:
Sampler:	M6L, TDO, T2H		Y:
Comments:	10 SS [2 PS - Temp]		

SPECIMEN ID #	SPECIES	LENGTH (nearest mm)	WEIGHT (nearest 0.1 g)	COMMENTS
LDW-05-T2-E-TR048- PS-42	Pac. Stag. Sculpin	174	61.5	
" PS-43	"	183	81	
LDW-05-T2-E-TR048- SS-208	Shiner Surfperch	110	18.4	
" SS-209	"	102	14.5	
" SS-210	"	112	18.0	
" SS-211	"	110	16.3	guts extruding
" SS-212	"	101	13.9	
" SS-213	"	95	12.0	
" SS-214	"	105	12.4	
" SS-215	"	106	14.2	
" SS-216	"	102	14.3	
" SS-217	"	114	18.0	

FISH AND CRAB TISSUE COLLECTION FORM

Project Name:	LDW RI fish and crab chemistry	Project #:	04-08-06-22
Date:	September 01-2005	Sampling area:	T2E
Retrieval Time:	8:55/9:01	Start coordinates	X:
Collection method/Effort #:	TRO49		Y:
Weather:	mostly sunny	End coordinates	X:
Sampler:	MLL, TDO, TSH		Y:
Comments:	[1 ps-temp]		

[illegible]

[illegible]

[illegible]

[illegible]

[illegible]

FISH AND CRAB TISSUE COLLECTION FORM

page 1 - L

Project Name:	LDW RI fish and crab chemistry	Project #:	04-08-06-22
Date:	September 01-2005	Sampling area:	T2A
Retrieval Time:	10:57-11:02	Start coordinates	X:
Collection method/Effort #:	+R054		Y:
Weather:	Mostly Sunny	End coordinates	X:
Sampler:	MBL, TDO, TJH		Y:
Comments:	30 ES - (240, 60) 10 SS		

SPECIMEN ID #	SPECIES	LENGTH (nearest mm)	WEIGHT (nearest 0.1 g)	COMMENTS
LDW-05-T2-A-TROSA- ES-55	English Sole	255	169.6	male
" ES-56	"	243	149.8	male
" ES-57	"	238	150.8	male
" ES-58	"	256	154.1	male
" ES-59	"	261	169.0	male
" ES-60	"	265	177.2	male
" ES-61	"	237	132.2	male
" ES-62	"	225	114.2	male
" ES-63	"	240	150.1	male
" ES-64	"	245	146.6	male
" ES-65	"	285	216.4	male
" ES-66	"	256	162.6	male
" ES-67	"	208	99.1	male
" ES-68	"	248	164.0	male
" ES-69	"	257	194.0	male
" ES-70	"	257	170.9	male
" ES-71	"	285	150.0	male - gut extruding
" ES-72	"	221	103.6	male
" ES-73	"	255	115.1	male
↓ ES-74	"	234	145.9	male

FISH AND CRAB TISSUE COLLECTION FORM

page 2-2

Project Name:	LDW RI fish and crab chemistry	Project #:	04-08-06-22
Date:	9/1/05	Sampling area:	T2A can. f
Retrieval Time:	1057-1102	Start coordinates	X:
Collection method/Effort #:	4R054		Y:
Weather:	Mostly sunny	End coordinates	X:
Sampler:	MGL, TDO, TJH		Y:
Comments:			

SPECIMEN ID #	SPECIES	LENGTH (nearest mm)	WEIGHT (nearest 0.1 g)	COMMENTS
LDW-05-T2-A-TR054- ES-75	English Sole	236	117.7	male
" ES-76	"	254	153.9	male
" ES-77	"	225	122.1	male
" ES-78	"	212	127.0	male
" ES-79	"	276	232.0	female
" ES-80	"	242	157.7	female
" ES-81	"	292	342.9	female
" ES-82	"	410	525	female
" ES-83	"	310	342.5	female
" ES-84	"	310	364.5	female
LDW-05-T2-A-TR054 SS-178	Shiner Surfperch	96	13.4	gut extruding
" SS-179	"	107	19.1	
" SS-180	"	112	18.4	gut extruding
" SS-181	"	98	14.6	gut extruding
" SS-182	"	118	23.9	gut extruding
" SS-183	"	113	22.6	gut extruding
" SS-184	"	115	19.5	
" SS-185	"	114	17.2	
" SS-186	"	119	23.6	
" SS-187	"	111	20.1	

FISH AND CRAB TISSUE COLLECTION FORM

Project Name:	LDW RI fish and crab chemistry	Project #:	04-08-06-22
Date:	September 01 - 2005	Sampling area:	T2 B
Retrieval Time:	12:24 - 12:29	Start coordinates	X:
Collection method/Effort #:	4 R055		Y:
Weather:	Moodly sunny	End coordinates	X:
Sampler:	MBL, TDO, TSH		Y:
Comments:	10 33		

[illegible]

FISH AND CRAB TISSUE COLLECTION FORM

Project Name:	LDW RI fish and crab chemistry	Project #:	04-08-06-22
Date:	September 01- 2005	Sampling area:	T2 C
Retrieval Time:	1249/1255	Start coordinates	X:
Collection method/Effort #:	TR056		Y:
Weather:	Mostly sunny	End coordinates	X:
Sampler:	MBL, TDO, TJH		Y:
Comments:	2-SS		

[illegible]

[illegible]

FISH AND CRAB TISSUE COLLECTION FORM

Project Name:	LDW RI fish and crab chemistry	Project #:	04-08-06-22
Date:	September 01 2005	Sampling area:	T2D
Retrieval Time:	1335-1339	Start coordinates	X:
Collection method/Effort #:	TR058		Y:
Weather:	Mostly sunny	End coordinates	X:
Sampler:	MBL, TDO, TJH		Y:
Comments:	5 ES 3 ♀, 2 ♂ 10 SS		

SPECIMEN ID #	SPECIES	LENGTH (nearest mm)	WEIGHT (nearest 0.1 g)	COMMENTS
LDW-05-T2-D-TR058- ES-85	English sole	232	130.7	male
ES-86	"	207	100.9	male
ES-87	"	270	185.3	female
ES-88	"	360	500	female
ES-89	"	380	515.0	female
LDW-05-T2-D-TR058- SS-220	Shiner surfperch	115	21.9	gut extruding
SS-229	"	115	20.9	gut extruding
SS-230	"	117	20.2	gut extruding
SS-231	"	116	16.8	
SS-232	"	125	26.6	
SS-233	"	110	19.8	guts extruding
SS-234	"	125	24.3	guts extruding
SS-235	"	108	19.0	
SS-236	"	104	16.2	guts extruding
SS-237	"	111	19.9	prolapsed cloaca

FISH AND CRAB TISSUE COLLECTION FORM

Project Name:	LDW RI fish and crab chemistry	Project #:	04-08-06-22
Date:	September 01 2005	Sampling area:	T3A channel
Retrieval Time:	1415 - 1420	Start coordinates	X:
Collection method/Effort #:	TR059		Y:
Weather:	Mostly Sunny	End coordinates	X:
Sampler:	MBL, TDO, TSH		Y:
Comments:	6 ES (20' 40')		

[illegible]

[illegible]

[illegible]

FISH AND CRAB TISSUE COLLECTION FORM

Project Name:	LDW RI fish and crab chemistry	Project #:	04-08-06-22
Date:	September 02 - 2005	Sampling area:	T4 B channel
Retrieval Time:	9:37 - 9:43	Start coordinates	X:
Collection method/Effort #:	TR062		Y:
Weather:	Cloudy	End coordinates	X:
Sampler:	MLL, TDO, TSH, MAS		Y:
Comments:	13F		

[illegible]

FISH AND CRAB TISSUE COLLECTION FORM

Project Name:	LDW RI fish and crab chemistry	Project #:	04-08-06-22
Date:	September 02-2005	Sampling area:	T4A channel
Retrieval Time:	10:02-10:07	Start coordinates	X:
Collection method/Effort #:	TR063		Y:
Weather:	cloudy	End coordinates	X:
Sampler:	MGL, TPO, TJH, MAS		Y:
Comments:	5DC (30', 20') 1SF		

[illegible]

FISH AND CRAB TISSUE COLLECTION FORM

Project Name:	LDW RI fish and crab chemistry	Project #:	04-08-06-22
Date:	September 02, 2005	Sampling area:	T4A channel
Retrieval Time:	10:24 - 10:30	Start coordinates	X:
Collection method/Effort #:	TRO64		Y:
Weather:	cloudy - sun breaks	End coordinates	X:
Sampler:	MGL, TDO, TJN, MAS		Y:
Comments:	2 BF		

[illegible]

FISH AND CRAB TISSUE COLLECTION FORM

Project Name:	LDW RI fish and crab chemistry	Project #:	04-08-06-22
Date:	September 02 - 2005	Sampling area:	T4B channel
Retrieval Time:	10:43 - 10:49	Start coordinates	X:
Collection method/Effort #:	TROBS		Y:
Weather:	Partly Sunny	End coordinates	X:
Sampler:	MBL, TDO, TON, MMS		Y:
Comments:	LSF		

[illegible]

[illegible]

FISH AND CRAB TISSUE COLLECTION FORM

Project Name:	LDW RI fish and crab chemistry	Project #:	04-08-06-22
Date:	September 02 - 2005	Sampling area:	TYA channel
Retrieval Time:	11:22 - 11:28	Start coordinates	X:
Collection method/Effort #:	TR067		Y:
Weather:	Mostly Cloudy	End coordinates	X:
Sampler:	MBL, TPO, TGH, MAS		Y:
Comments:	IES &		

[illegible]

[illegible]

[illegible]

FISH AND CRAB TISSUE COLLECTION FORM

Project Name:	LDW RI fish and crab chemistry	Project #:	04-08-06-22
Date:	September 02 - 2005	Sampling area:	T4B channel
Retrieval Time:	1256-1302	Start coordinates	X:
Collection method/Effort #:	TR070		Y:
Weather:	Cloudy	End coordinates	X:
Sampler:	MGL, TDO, TSH, MAS		Y:
Comments:	1 ES 2 SF		

[illegible]

FISH AND CRAB TISSUE COLLECTION FORM

Project Name:	LDW RI fish and crab chemistry	Project #:	04-08-06-22
Date:	September 02-2005	Sampling area:	T4A-channel
Retrieval Time:	1313/1319	Start coordinates	X:
Collection method/Effort #:	TRO71		Y:
Weather:	Mostly Cloudy	End coordinates	X:
Sampler:	MBL, TDO, TJH, MAS		Y:
Comments:	2 SF		

[illegible]

[illegible]

FISH AND CRAB TISSUE COLLECTION FORM

Project Name:	LDW RI fish and crab chemistry	Project #:	04-08-06-22
Date:	September 6-2005	Sampling area:	74 B channel
Retrieval Time:	0807-0813	Start coordinates	X:
Collection method/Effort #:	TRO74		Y:
Weather:	clear	End coordinates	X:
Sampler:	MGL		Y:
Comments:	1 SF		
	1 ES		

[illegible]

FISH AND CRAB TISSUE COLLECTION FORM

Project Name:	LDW RI fish and crab chemistry	Project #:	04-08-06-22
Date:	September 6-2005	Sampling area:	74A channel
Retrieval Time:	0834-0838	Start coordinates	X:
Collection method/Effort #:	TRO 75		Y:
Weather:	Clear	End coordinates	X:
Sampler:	MBL, FMM, ERH		Y:
Comments:	3 SF		

[illegible]

FISH AND CRAB TISSUE COLLECTION FORM

Project Name:	LDW RI fish and crab chemistry	Project #:	04-08-06-22
Date:	Sept 6 - 2005	Sampling area:	T4D
Retrieval Time:	0954 - 0957	Start coordinates	X:
Collection method/Effort #:	TR079		Y:
Weather:	pt. cloudy	End coordinates	X:
Sampler:	MGL, FMM,		Y:
Comments:	2 SF		

[illegible]

[illegible]

FISH AND CRAB TISSUE COLLECTION FORM

Project Name:	LDW RI fish and crab chemistry	Project #:	04-08-06-22
Date:	Sep 6 2005	Sampling area:	T48
Retrieval Time:	1048-1053	Start coordinates	X:
Collection method/Effort #:	TR082		Y:
Weather:	pt. cloudy	End coordinates	X:
Sampler:	M6L, FMM, ERH		Y:
Comments:	IES		

[illegible]

FISH AND CRAB TISSUE COLLECTION FORM

Project Name:	LDW RI fish and crab chemistry	Project #:	04-08-06-22
Date:	Sept. 6 2005	Sampling area:	T4A channel
Retrieval Time:	11:09 - 11:15	Start coordinates	X:
Collection method/Effort #:	TR083		Y:
Weather:	Pt. Cloudy	End coordinates	X:
Sampler:	MBL, FMM, ERH		Y:
Comments:	2ES OX 1ES OX		

[illegible]

FISH AND CRAB TISSUE COLLECTION FORM

Project Name:	LDW RI fish and crab chemistry	Project #:	04-08-06-22
Date:	Sept 6 - 2005	Sampling area:	T4B channel
Retrieval Time:	1126 - 1132	Start coordinates	X:
Collection method/Effort #:	TR084		Y:
Weather:	Pt. Cloudy	End coordinates	X:
Sampler:	M6L, FMM, ERH		Y:
Comments:	2ES Cx		

[illegible]

FISH AND CRAB TISSUE COLLECTION FORM

Project Name:	LDW RI fish and crab chemistry	Project #:	04-08-06-22
Date:	Sept 6 - 2005	Sampling area:	T4A channel
Retrieval Time:	1208 - 1212	Start coordinates	X:
Collection method/Effort #:	TR085		Y:
Weather:	pt. Cloudy	End coordinates	X:
Sampler:	WGL, FAM, ERH		Y:
Comments:	1 ES Q		

[illegible]

[illegible]

FISH AND CRAB TISSUE COLLECTION FORM

Project Name:	LDW RI fish and crab chemistry	Project #:	04-08-06-22
Date:	Sept. 6 - 2005	Sampling area:	T4A (on line w/ T4B)
Retrieval Time:	1248-12:48	Start coordinates	X:
Collection method/Effort #:	TR087		Y:
Weather:	pt. cloudy	End coordinates	X:
Sampler:	MBL, FMM, ERH		Y:
Comments:	1 ES Q		

[illegible]

[illegible]

[illegible]

FISH AND CRAB TISSUE COLLECTION FORM

Project Name:	LDW RI fish and crab chemistry	Project #:	04-08-06-22
Date:	Sept 6-2005	Sampling area:	T4 B channel
Retrieval Time:	1443-1448	Start coordinates	X:
Collection method/Effort #:	TR094		Y:
Weather:	Pl. Cloudy	End coordinates	X:
Sampler:	MGL, FMM, ERH		Y:
Comments:	1 ES Q		

[illegible]

E-2. Fish Collection: Species Tally Forms



FISH AND INVERTEBRATE SPECIES TALLY FORM

Project Name:	LDW RI fish and crab chemistry	Project #:	04-08-06-22
Date:	29 AUG 05	Sampling area:	T1D
Retrieval Time:	1021/1026	Start coordinates	X:
Collection method/Effort #:	TR001		Y:
Weather:	Partly cloudy	End coordinates	X:
Sampler:	MGL, JMF, TDO		Y:
Comments:	lots of kelp.		

SPECIES	#	LENGTH (nearest mm)	WEIGHT (nearest 0.5 g)	COMMENTS
Sunflower star	1			
Pisaster	2			
Evasterius	1			
Pile perch.	5			
Shrimp, Dock	14			
D. Crab <90	1	<90		
Kelp crab	1			
Decorative crab	1			
Rock sole - meal	7			
- lunch	1			
English sole - lunch	6			
- meal	1			
Slender crab <90	4	<90		
Slender crab >90	2	>90		
P. Staghorn	2 2	<120		
Shiner surfperch	6+1	>80		
Nudibranch (unk.)	1			



FISH AND INVERTEBRATE SPECIES TALLY FORM

Project Name:	LDW RI fish and crab chemistry	Project #:	04-08-06-22
Date:	29 AUG 05	Sampling area:	TJD
Retrieval Time:	1051/1056	Start coordinates	X:
Collection method/Effort #:	TROOZ		Y:
Weather:	partly cloudy	End coordinates	X:
Sampler:	MBL, JMF, TDO		Y:
Comments:	lots of kelp		

SPECIES	#	LENGTH (nearest mm)	WEIGHT (nearest 0.5 g)	COMMENTS
English sole - lunch	1			
Lump sumneri	1			
Sunflower star	2			
Pike perch - meal -snack	1 4	170		
Eurasterius	2+1			
Dock shrimp	16+3			
Urchin	1			
Kelp crab	2			
Slender crab	6	<90		
Decorator crab	2			
Pacific sculpin				
Pacific staghorn sculpin	1	102		
Saddleback gunnel	1			
Shiner surfperch	11	>80		
Red rock crab	1			
Rock sole - meal	1			
Starry flounder - lunch	1			
Rock sole - lunch	2			
Roughback sculpin	1			



FISH AND INVERTEBRATE SPECIES TALLY FORM

Project Name:	LDW RI fish and crab chemistry	Project #:	04-08-06-22
Date:	29 AUG 05	Sampling area:	T1D
Retrieval Time:	1154 / 1158	Start coordinates	X:
Collection method/Effort #:	TR003		Y:
Weather:	partly cloudy	End coordinates	X:
Sampler:	MGL, JMF, TDO		Y:
Comments:	lots of kelp 2 ES		

SPECIES	#	LENGTH (nearest mm)	WEIGHT (nearest 0.5 g)	COMMENTS
Tomcod	1			
English sole	2	>200		
Shiner surfscot	11	>80		
Pile perch - snack	3			
Slender crab <90cm	11			
Slender crab >90cm	1			
Decorative crab	1			
Fourback sculpin	1			
P. Staghorn <120	1			
sunflower star	1			
Rock sole - meal	2			
Dock shrimp	7			
Flathead sole - snack	1			
Rock sole - snack	1			
English sole - snack	1			

[illegible]



FISH AND INVERTEBRATE SPECIES TALLY FORM

Project Name:	LDW RI fish and crab chemistry	Project #:	04-08-06-22
Date:	24 AUG 05	Sampling area:	T1D
Retrieval Time:	1232/1238	Start coordinates	X:
Collection method/Effort #:	TRODS		Y:
Weather:	light rain	End coordinates	X:
Sampler:	MGL, JMF, TDD		Y:
Comments:	lots of kelp.		

SPECIES	#	LENGTH (nearest mm)	WEIGHT (nearest 0.5 g)	COMMENTS
Pisaster	2			
Sunflower star	1			
Rock shrimp	52			
Slender crab	3	<90		
Pile prop.	1			
Shrimp -	2	>80		
Rock sole - meal				
Starry flounder - snare	3			



FISH AND INVERTEBRATE SPECIES TALLY FORM

Project Name:	LDW RI fish and crab chemistry	Project #:	04-08-06-22
Date:	24 Aug 05	Sampling area:	F1A-B T1B
Retrieval Time:	1332/1337	Start coordinates	X:
Collection method/Effort #:	TR006		Y:
Weather:	Overcast, light showers	End coordinates	X:
Sampler:	MBL, JMF, TDO		Y:
Comments:	2 sunflower stars on doors, 1 sunflower star on outside of net; 2 tires in net		

SPECIES	#	LENGTH (nearest mm)	WEIGHT (nearest 0.5 g)	COMMENTS
Pisaster spp	4			
Sunflower star	5			
Pile perch - snack	2			
English sole - lunch	6			
English sole - meal	5			
Rock sole - meal	5			
Rock sole - lunch	9			
Dock shrimp	58			
Armina (nudibranch)	3			
Metridium	1			
Speckled sanddab - lunch	1			
Decorator crab	3			
Shiner sculpin	3	> 80		
Red rock crab	1			
Starry-flounder - snack	1			
Slender crab	8			
Rough back. E	3	< 90		
P. Staghorn sculpin	2	< 90		
D. crab	1	> 90		

FISH AND INVERTEBRATE SPECIES TALLY FORM

Project Name:	LDW RI fish and crab chemistry	Project #:	04-08-06-22
Date:	29 Aug 05	Sampling area:	TIC
Retrieval Time:	1408 / 1412	Start coordinates	X:
Collection method/Effort #:	TR007		Y:
Weather:	light showers	End coordinates	X:
Sampler:	MBL, JMF, TDO		Y:
Comments:	1 Pisaster on outside of net, SPS, 1ES		

SPECIES	#	LENGTH (nearest mm)	WEIGHT (nearest 0.5 g)	COMMENTS
Armina (nudibranch)	4			
Tritonia (nudibranch)	1			
Urchin	1			
Anemone	1			
Decorative crab	3			
Slender crab	8	<90		
Striped perch	1			
Pile perch	4			
Tomcod	1			
Dock shrimp	17			
Shiner surfperch	13	>80		
Staghorn sculpin	6	5<120, 5<120		
Rock sole - lunch	4			
Rock sole - meal	4			
English sole - lunch	3			
English sole - snack	4			
Starry flounder - snack	2			
D. Crab	1	>90		
English sole - meal	1			



FISH AND INVERTEBRATE SPECIES TALLY FORM

Project Name:	LDW RI fish and crab chemistry	Project #:	04-08-06-22
Date:	21 Aug 05	Sampling area:	T4C
Retrieval Time:	1441 / 1445	Start coordinates	X:
Collection method/Effort #:	TR008		Y:
Weather:	overcast, light showers	End coordinates	X:
Sampler:	M6L, JMF, TDD		Y:
Comments:			

SPECIES	#	LENGTH (nearest mm)	WEIGHT (nearest 0.5 g)	COMMENTS
Shiner surfperch	33	>80		
D. Crab	1	>90		
Sand sole - meal	1			
Sunflower star	1			
Nudibranch - Armon	18+1			
Metridium	2			
Slender crab	21			
Red rock crab	1			
Rock sole - meal	2+2+2			
Rock sole - lunch	2+2			
Pile perch	2			
Starry flounder - lunch	2+			
Staghorn	1+2	<120		
Sanddab - snack	1			
Staghorn	5	>120		
Hybrid sole - snack	1			
English sole - lunch	7	<200		
English sole - meal	2	>200		



FISH AND INVERTEBRATE SPECIES TALLY FORM

Project Name:	LDW RI fish and crab chemistry	Project #:	04-08-06-22
Date:	29 Aug 05	Sampling area:	TIE
Retrieval Time:	1511 / 1517	Start coordinates	X:
Collection method/Effort #:	TR009		Y:
Weather:	partly cloudy	End coordinates	X:
Sampler:	MBL, JMF, TDO		Y:
Comments:			

SPECIES	#	LENGTH (nearest mm)	WEIGHT (nearest 0.5 g)	COMMENTS
Armina	9			
Tritonia } Nudibranch	2			
Sea star	2			
Dock shrimp	1			
Shiner surfperch	4	>80		
Slender crab	6	<90		
English sole - meal	3			
English sole - lunch	2			
English sole - snack	1			
Tom cod	1			



FISH AND INVERTEBRATE SPECIES TALLY FORM

Project Name:	LDW RI fish and crab chemistry	Project #:	04-08-06-22
Date:	29 Aug 05	Sampling area:	T1E
Retrieval Time:	1535/1540	Start coordinates	X:
Collection method/Effort #:	TRD10		Y:
Weather:	ptly cloudy	End coordinates	X:
Sampler:	MBL, JMF, TDO		Y:
Comments:			

SPECIES	#	LENGTH (nearest mm)	WEIGHT (nearest 0.5 g)	COMMENTS
Staghorn sculpin	4	>120		
Staghorn sculpin	2	<120		
English sole - meal lunch snack	2 1 3	>200		luffern skin; throw back
Artemia - N. Liborach	13			
Panemone	1			
Slender crab	14	<90		
Shiner surfperch	14	>80		
Starry flounder-snake	1			
D. Crab	1	>90		



FISH AND INVERTEBRATE SPECIES TALLY FORM

Project Name:	LDW RI fish and crab chemistry	Project #:	04-08-06-22
Date:	29 Aug 05	Sampling area:	T1F
Retrieval Time:	1559/1604	Start coordinates	X:
Collection method/Effort #:	TRO11		Y:
Weather:	ptly cloudy	End coordinates	X:
Sampler:	MEL, JMF, TDO		Y:
Comments:			

SPECIES	#	LENGTH (nearest mm)	WEIGHT (nearest 0.5 g)	COMMENTS
Shiner surfperch	8	> 80 (7)		1 too small to keep. (< 80)
Pile perch	2			
Moridium	1			
Decorative crab	1			
Slender crab	9			
Lumpinus sagitta	1			
Rock sole - lineal	2			
English sole - lunch	1			
English sole - meal	1			
Arminia medibola	2			
Kelp crab	1			
Prickly sculpin	1			
Staghorn sculpin	3	220		
Staghorn sculpin	2	420		



FISH AND INVERTEBRATE SPECIES TALLY FORM

Project Name:	LDW RI fish and crab chemistry	Project #:	04-08-06-22
Date:	29 Aug 05	Sampling area:	T1F
Retrieval Time:	1621 / 1627	Start coordinates	X:
Collection method/Effort #:	TRO 12		Y:
Weather:	ptly cloudy	End coordinates	X:
Sampler:	MBL, JMF, TDD		Y:
Comments: crab pot hung up on door;			

SPECIES	#	LENGTH (nearest mm)	WEIGHT (nearest 0.5 g)	COMMENTS
Kelp crab	1			
Decorator crab	1			
Dock shrimp	1			
Metridium	1			
English sole - meal	1	>200		
Shiner outpouch	3	>80		
Starry flounder - lunch	3			
P. staghorn sculpin	1	>120		
Slender comb	14			
Rock sole - meal	1			
Rock sole - lunch	1			
Rock sole - snack	1			



FISH AND INVERTEBRATE SPECIES TALLY FORM

Project Name:	LDW RI fish and crab chemistry	Project #:	04-08-06-22
Date:	30 Aug 05	Sampling area:	TIA
Retrieval Time:	8:49	Start coordinates	X:
Collection method/Effort #:	TR 013		Y:
Weather:	Partly sunny ~65°	End coordinates	X:
Sampler:	MBL, EAD, AMR		Y:
Comments:	page 1		

SPECIES	#	LENGTH (nearest mm)	WEIGHT (nearest 0.5 g)	COMMENTS
Pilnapodia	2	80 cm 800 mm		
Slender crab	5 & 90mm 10	790mm L 90mm		
decorator crab	1			
brown rock fish	1	juvenile		
pacific staghorn Sculpin	1 1	7120mm L 120mm		
armenia	3			
anemone	1			
kelp crab	1			
rough back Sculpin	1	715 7145		
Sand Sole	11 = 2 MBL 1	7300 7200		
English sole	1 2 7	L 100 mm lunch size dinner size (7200)		5 male / 2 female
pacific sand dab	1	150		

1 male sole



FISH AND INVERTEBRATE SPECIES TALLY FORM

Project Name:	LDW RI fish and crab chemistry	Project #:	04-08-06-22
Date:	8/30/05	Sampling area:	T 1 A
Retrieval Time:	18:49	Start coordinates	X:
Collection method/Effort #:	TR 013		Y:
Weather:	ptly sunny ~ 65°	End coordinates	X:
Sampler:	MGL EAD AMR		Y:
Comments:	page 2		

[illegible]



FISH AND INVERTEBRATE SPECIES TALLY FORM

Project Name:	LDW RI fish and crab chemistry	Project #:	04-08-06-22
Date:	8/30/05	Sampling area:	T1A
Retrieval Time:	9:14	Start coordinates	X:
Collection method/Effort #:	T2014		Y:
Weather:	ptly cloudy	End coordinates	X:
Sampler:	ML AR EP		Y:
Comments: wing of net was twisted -> small haul			

SPECIES	#	LENGTH (nearest mm)	WEIGHT (nearest 0.5 g)	COMMENTS
pacific tomcod	1			
sand sole	1	7200		
starry flounder	1	7200		
pacific staghorn sculpin	2	7120		
	1	6120		
English sole	1	6100		
crangon shrimp	11 = 11 eleven HCC	6100		
slender crab	1			



FISH AND INVERTEBRATE SPECIES TALLY FORM

19/2

Project Name:	LDW RI fish and crab chemistry	Project #:	04-08-06-22
Date:	8/30/05	Sampling area:	TIA
Retrieval Time:	11/9:34	Start coordinates	X:
Collection method/Effort #:	T2015		Y:
Weather:	cloudy	End coordinates	X:
Sampler:	MGL AMR EAD		Y:
Comments: page 1 of 2			
2 ES			
5 SS			

SPECIES	#	LENGTH (nearest mm)	WEIGHT (nearest 0.5 g)	COMMENTS
pickapallie	1			
gumcod	1			
pacific herring	1			
pile perch	1 2	7200 4200		
slender crab	1 5	790 490		
dungeness crab	1	790		
keip crab	4			
dock shrimp	6			
sea pen	1			
armina	5			
rough back sculpin	3	7120		
staghorn sculpin	5 total	2 are 7120		

3 < 120



FISH AND INVERTEBRATE SPECIES TALLY FORM

2 of 2

Project Name:	LDW RI fish and crab chemistry	Project #:	04-08-06-22
Date:	8/30/05	Sampling area:	T LA
Retrieval Time:	9:34	Start coordinates	X:
Collection method/Effort #:	TRO 15		Y:
Weather:	cloudy	End coordinates	X:
Sampler:	MOL AMR EAD		Y:
Comments:	p. 2 of 2 2 ES 5 SS		

SPECIES	#	LENGTH (nearest mm)	WEIGHT (nearest 0.5 g)	COMMENTS
sand dab	2			
snake prickleback	1			
Shiner surf perch	15	> 80		
rock sole	2	lunch size		
sand sole	1	lunch size		
english sole	5 2	lunch size > 200		

FISH AND INVERTEBRATE SPECIES TALLY FORM

1 of 2

Project Name:	LDW RI fish and crab chemistry	Project #:	04-08-06-22
Date:	8/30/05	Sampling area:	TIB
Retrieval Time:	1005/10:10	Start coordinates	X:
Collection method/Effort #:	TR 01ce		Y:
Weather:	cloudy	End coordinates	X:
Sampler:	MORL AMR EAD		Y:
Comments:			

SPECIES	#	LENGTH (nearest mm)	WEIGHT (nearest 0.5 g)	COMMENTS
luidia	2			
tomcod	4			
prunapodia	2			
pile perch	1	180		
matridium	1			
tunicite	1			
solaster sp.	1	50mm		
sea urchin	2			
pacific staghorn sculpin	1	120		
armina	5			
red rock crab	2	790		
dungeness	4	790	keep 1	



FISH AND INVERTEBRATE SPECIES TALLY FORM

2 of 2

Project Name:	LDW RI fish and crab chemistry	Project #:	04-08-06-22
Date:	8/30/05	Sampling area:	T1B
Retrieval Time:	10:10	Start coordinates	X:
Collection method/Effort #:	T201C		Y:
Weather:	cloudy	End coordinates	X:
Sampler:	MGL AMP EAD		Y:
Comments:	1 ES		

SPECIES	#	LENGTH (nearest mm)	WEIGHT (nearest 0.5 g)	COMMENTS
Slender crab	3			
decorator crab	1			
rock sole	1	dinner size		
	1	lunch size		
english sole	1	2 + 25 ²⁰⁰ male male		
	1	lunch size		



FISH AND INVERTEBRATE SPECIES TALLY FORM

Project Name:	LDW RI fish and crab chemistry	Project #:	04-08-06-22
Date:	8/30/05	Sampling area:	T1B
Retrieval Time:	10:30	Start coordinates	X:
Collection method/Effort #:	T2017		Y:
Weather:	cloudy	End coordinates	X:
Sampler:	Mat L AMP EAD		Y:
Comments:			

SPECIES	#	LENGTH (nearest mm)	WEIGHT (nearest 0.5 g)	COMMENTS
red rock crab	1	790		
slender crab	2			
English sole	1	198		
rough back sculpin	2			
rock sole	34	lunch size		
dark shrimp	1			
help era decorator crab	4			
hermit crab	1			
armenia	2			
matridium	1			



FISH AND INVERTEBRATE SPECIES TALLY FORM

Project Name:	LDW RI fish and crab chemistry	Project #:	04-08-06-22
Date:	8/30/05	Sampling area:	T1B
Retrieval Time:	10:50	Start coordinates	X:
Collection method/Effort #:	TR 018		Y:
Weather:	cloudy	End coordinates	X:
Sampler:	MGL AMR EAD		Y:
Comments:			

SPECIES	#	LENGTH (nearest mm)	WEIGHT (nearest 0.5 g)	COMMENTS
red rock crab	1	790		
brown rock fish	1	270		
pac. staghorn sculpin	1	225		
slender crab	4 39	790 490		
pile perch	1	snack size		
english sole	1 2	7200 lunch size		male keeper
rock sole	2 2	7200 lunch size		
pacific sand dab	2 2			
armina	7			
dog shrimp	4			
shiner surf perch	4	790		
hermit crab	1			

FISH AND INVERTEBRATE SPECIES TALLY FORM

1 of 2

Project Name:	LDW RI fish and crab chemistry	Project #:	04-08-06-22
Date:	01/30/05	Sampling area:	T1B
Retrieval Time:	11:13	Start coordinates	X:
Collection method/Effort #:	TR 019		Y:
Weather:	cloudy	End coordinates	X:
Sampler:	AMR MTL LEAD		Y:
Comments:	2 ES		

SPECIES	#	LENGTH (nearest mm)	WEIGHT (nearest 0.5 g)	COMMENTS
buffalo sculpin	1	107		
pile perch	1 28957	7200 L 200		
pacific herring	1			
shrim	18 19	L 90		
slender crab	3	790		
decorator crab	1			
dungeness crab	1	790		female
amina	5			
clark shrimp	12			
rough back sculpin	2	~ 120		
pinupodia	3			
pacific staghorn sculpin	4	710		
tritonian	1			

FISH AND INVERTEBRATE SPECIES TALLY FORM

2 of 2

Project Name:	LDW RI fish and crab chemistry	Project #:	04-08-06-22
Date:	8/30/05	Sampling area:	T1B
Retrieval Time:	11:13	Start coordinates	X:
Collection method/Effort #:	TR 019		Y:
Weather:	cloudy	End coordinates	X:
Sampler:	MGL AMP EAD		Y:
Comments:	2 ES		

SPECIES	#	LENGTH (nearest mm)	WEIGHT (nearest 0.5 g)	COMMENTS
prickly sculpin	1	120		
starry flounder	1	lunch size		
rock sole	1 4	dinner size lunch size		
sand dab	1			
english sole	1 6	snack size lunch size		
english sole	4	dinner size		
shiner surfperch	24			



FISH AND INVERTEBRATE SPECIES TALLY FORM

Project Name:	LDW RI fish and crab chemistry	Project #:	04-08-06-22
Date:	8/30/05	Sampling area:	T#3B
Retrieval Time:	12:31	Start coordinates	X:
Collection method/Effort #:	TR 020		Y:
Weather:	cloudy	End coordinates	X:
Sampler:	MGL, AMR, EAD		Y:
Comments:			

SPECIES	#	LENGTH (nearest mm)	WEIGHT (nearest 0.5 g)	COMMENTS
Shiner surfperch	3 80	< 80 various		10 keepers
tunicate	1			
moon snail	1			
starry flounder	2 4	< 200 < 100		
staghorn sculpin	1 1	> 120 < 120		



FISH AND INVERTEBRATE SPECIES TALLY FORM

Project Name:	LDW RI fish and crab chemistry	Project #:	04-08-06-22
Date:	8/30/05	Sampling area:	T 4 A
Retrieval Time:	12:56	Start coordinates	X:
Collection method/Effort #:	TR 021		Y:
Weather:	cloudy	End coordinates	X:
Sampler:	MEL AMR EAD		Y:
Comments:			

SPECIES	#	LENGTH (nearest mm)	WEIGHT (nearest 0.5 g)	COMMENTS
Slender crab	1	~ 90		
starry flounder	12 10	snack size lunch size		
Krangon shrimp	4			
shiner surfperch	30 19	snack size (~ 80) 7 90		keep 10 of the 790 size
staghorn sculpin	7	7 120		



FISH AND INVERTEBRATE SPECIES TALLY FORM

Project Name:	LDW RI fish and crab chemistry	Project #:	04-08-06-22
Date:	8/30/05	Sampling area:	#1 B
Retrieval Time:	13:28	Start coordinates	X:
Collection method/Effort #:	TR 022		Y:
Weather:	cloudy	End coordinates	X:
Sampler:	MCL AMR GAD		Y:
Comments:			

SPECIES	#	LENGTH (nearest mm)	WEIGHT (nearest 0.5 g)	COMMENTS
Shiner surfperch	30 30	7 120 4 120		kept 10 7 120
brannon shrimp	10			
starry flounder	5 7	lunch size snack size		
staghorn sculpin	3	7 120		



FISH AND INVERTEBRATE SPECIES TALLY FORM

Project Name:	LDW RI fish and crab chemistry	Project #:	04-08-06-22
Date:	8/30/05	Sampling area:	ET4C - channel
Retrieval Time:	13:54	Start coordinates	X:
Collection method/Effort #:	TR 023		Y:
Weather:	cloudy	End coordinates	X:
Sampler:	MGL AMR EAD		Y:
Comments:			

SPECIES	#	LENGTH (nearest mm)	WEIGHT (nearest 0.5 g)	COMMENTS
Shiner surf perch	75 31	7120 snack		to keep for
starry flounder	120 11	snack lunch		
staghorn sculpin	1 B	2120 7120		
Shiner surf perch	35	lunch size		
kragen shrimp	1			
long fin smelt	2			



FISH AND INVERTEBRATE SPECIES TALLY FORM

Project Name:	LDW RI fish and crab chemistry	Project #:	04-08-06-22
Date:	8/30/05	Sampling area:	T4C
Retrieval Time:	14:07	Start coordinates	X:
Collection method/Effort #:	TR 024		Y:
Weather:	cloudy	End coordinates	X:
Sampler:	MGL AMR EAD		Y:
Comments:	1PS		

SPECIES	#	LENGTH (nearest mm)	WEIGHT (nearest 0.5 g)	COMMENTS
shiner	11	snack		10 kept
surf perch	25	> 80		
starred flounder	4/6	lunch		
	1	snack		
* staghorn sculpin	1	dinner		
	1	< 120		
kraken shrimp	1	> 120		



FISH AND INVERTEBRATE SPECIES TALLY FORM

Project Name:	LDW RI fish and crab chemistry	Project #:	04-08-06-22
Date:	8/30/05	Sampling area:	T4D
Retrieval Time:	14:25	Start coordinates	X:
Collection method/Effort #:	TR 025		Y:
Weather:	cloudy	End coordinates	X:
Sampler:	MGL AMR EAD		Y:
Comments:			

SPECIES	#	LENGTH (nearest mm)	WEIGHT (nearest 0.5 g)	COMMENTS
starry flounder	5 4	snack lunch		
krabgon shrimp	2			
shiner	5 4	> 80 < 80		



FISH AND INVERTEBRATE SPECIES TALLY FORM

Project Name:	LDW RI fish and crab chemistry	Project #:	04-08-06-22
Date:	8/30/05	Sampling area:	4D
Retrieval Time:	14:39	Start coordinates	X:
Collection method/Effort #:	TR 02G		Y:
Weather:	ptly sunny	End coordinates	X:
Sampler:	MGL AMR LAD		Y:
Comments:			

SPECIES	#	LENGTH (nearest mm)	WEIGHT (nearest 0.5 g)	COMMENTS
starry flounder	23	snack size		
shiner surfperch	22 12 81	snack size (680) lunch size (780) 7120		
kraxon shrimp	4			



FISH AND INVERTEBRATE SPECIES TALLY FORM

Project Name:	LDW RI fish and crab chemistry	Project #:	04-08-06-22
Date:	8/30/05	Sampling area:	T3F
Retrieval Time:	1541/15:47	Start coordinates	X:
Collection method/Effort #:	TR 0280		Y:
Weather:	ptly sunny	End coordinates	X:
Sampler:	MGL AMR EAD		Y:
Comments:			

SPECIES	#	LENGTH (nearest mm)	WEIGHT (nearest 0.5 g)	COMMENTS
starry flounder	3	lunch		
english sole	2	lunch		
staghorn sculpin	1 1	7120 L 120		
Kranzon shrimp	5			
Shiner surfperch	12 10	780 7120		kept 10



FISH AND INVERTEBRATE SPECIES TALLY FORM

Project Name:	LDW RI fish and crab chemistry	Project #:	04-08-06-22
Date:	8/30/05	Sampling area:	T3F
Retrieval Time:	16:05	Start coordinates	X:
Collection method/Effort #:	TRD 29		Y:
Weather:	partly sunny	End coordinates	X:
Sampler:	MGL AMR EAD		Y:
Comments:	1 ES		

SPECIES	#	LENGTH (nearest mm)	WEIGHT (nearest 0.5 g)	COMMENTS
starry flounder	1 4	snack size lunch		
english sole	1	> 200		female - kept
cockle clams	2			
moon snail	1			
slender crab	1			
shiner surfperch	4 10	snack size > 80		kept 10
staghorn sculpin	3 10	< 120 8		kept 3

FISH AND INVERTEBRATE SPECIES TALLY FORM

Project Name:	LDW RI fish and crab chemistry	Project #:	04-08-06-22
Date:	8/30/05	Sampling area:	T3E
Retrieval Time:	16:32	Start coordinates	X:
Collection method/Effort #:	TR030		Y:
Weather:	ptly sunny	End coordinates	X:
Sampler:	MGL AMR EAD		Y:
Comments:			

SPECIES	#	LENGTH (nearest mm)	WEIGHT (nearest 0.5 g)	COMMENTS
english sole	1	lunch snack dinner		male kept 1
tomcod	1			
krangon shrimp	1			
shiner surf perch	10			kept 10
starry flounder	3	lunch		
slender crab	1	790		
clungeness crab	3	790		kept 3
staghorn sculpin	2	7120		kept 2



FISH AND INVERTEBRATE SPECIES TALLY FORM

Project Name:	LDW RI fish and crab chemistry	Project #:	04-08-06-22
Date:	31 Aug, 2005	Sampling area:	T 3 D
Retrieval Time:	0902/0908	Start coordinates	X:
Collection method/Effort #:	TR 031		Y:
Weather:	Partly cloudy	End coordinates	X:
Sampler:	MGL, JFF, PBD		Y:
Comments:			

SPECIES	#	LENGTH (nearest mm)	WEIGHT (nearest 0.5 g)	COMMENTS
Shiner surf perch	3	< 80		
	5	> 80		
Three spine stickleback	1			



FISH AND INVERTEBRATE SPECIES TALLY FORM

Project Name:	LDW RI fish and crab chemistry	Project #:	04-08-06-22
Date:	31 Aug 2005	Sampling area:	T3 D
Retrieval Time:	0920/0925	Start coordinates	X:
Collection method/Effort #:	TR032		Y:
Weather:	PHY cloudy	End coordinates	X:
Sampler:	MGL, LTF, PBD		Y:
Comments:			

SPECIES	#	LENGTH (nearest mm)	WEIGHT (nearest 0.5 g)	COMMENTS
Shiner Surfperch	19 82	<80 >80		
Stripe Perch	6	>200		
Pike Perch	2 2	>200 <200		
Prickly sculpin	2			
Metridium	1			
Sea Pen	1			
Starry	4	<100 <u>100-200</u> >200		
English Sole	2 4 2	<100 100-200 >200		
Staghorn	2 2	<120 >120		



FISH AND INVERTEBRATE SPECIES TALLY FORM

Project Name:	LDW RI fish and crab chemistry	Project #:	04-08-06-22
Date:	31 Aug 2005	Sampling area:	T3C
Retrieval Time:	012/1016	Start coordinates	X:
Collection method/Effort #:	TR033		Y:
Weather:	PHY Udy	End coordinates	X:
Sampler:	MGL, LTF, PBD		Y:
Comments:			

SPECIES	#	LENGTH (nearest mm)	WEIGHT (nearest 0.5 g)	COMMENTS
Pile perch	1+1 = ② 1	< 200 > 120 200 ②		
Prickly sculpin	1	< 120		
Slender crab	2	< 90		
Starry Flounder	5 1	100 - 200 > 200		
Eng Sole	4 4	< 100 100 - 200		
Armina tigris	1			
Staghorn sculpin	4	> 120		
Shiner surfperch	12 13+1 = ⑭	< 80 > 80		
Crangon	1			



FISH AND INVERTEBRATE SPECIES TALLY FORM

Project Name:	LDW RI fish and crab chemistry	Project #:	04-08-06-22
Date:	31 Aug 2005	Sampling area:	T3A
Retrieval Time:	1034/1040	Start coordinates	X:
Collection method/Effort #:	TR034		Y:
Weather:	ptly cldy	End coordinates	X:
Sampler:	MGL, LTF, PBD		Y:
Comments:	IES		

SPECIES	#	LENGTH (nearest mm)	WEIGHT (nearest 0.5 g)	COMMENTS
Herring	1	> 200		
Evasterias	1			
Pacific Tom Cod	1	~200		
Buffalo sculpin	1	112 mm		
Armina	4			
Starry flounder	5	100-200		
Eng sole	1	> 200mm		
	1	100-200		
Shiner Surfperch	6	< 80		
	11	> 80		
Pile perch	1	< 20		
(prickly sculpin) Unkn. Sculpin (AW)	1	130 mm		Identified at 13:24 as prickly sculpin per key.
Pacific staghorn	1	> 120		



FISH AND INVERTEBRATE SPECIES TALLY FORM

Project Name:	LDW RI fish and crab chemistry	Project #:	04-08-06-22
Date:	31 Aug 2005	Sampling area:	T3 F
Retrieval Time:	1101/1107	Start coordinates	X:
Collection method/Effort #:	TR 035		Y:
Weather:	PHY cldy	End coordinates	X:
Sampler:	MGL, LTF, PBD		Y:
Comments:			

SPECIES	#	LENGTH (nearest mm)	WEIGHT (nearest 0.5 g)	COMMENTS
Pile perch (see line 7 for more)	2	>200		
Prickly sculpin	2	~120		
Slender crab	1	<90		
Moon snail	1			
Staghorn sculpin	2	<120		
Crangon	2			
Pile perch (see line 2 for more)	1	<200		
Starry flounder	4	<100		
	13	100-200		
	18	<80		
Shiner surfperch	62	>80		
Armina	1			



FISH AND INVERTEBRATE SPECIES TALLY FORM

Project Name:	LDW RI fish and crab chemistry	Project #:	04-08-06-22
Date:	31 Aug 2005	Sampling area:	T 3 D
Retrieval Time:	121/1126	Start coordinates	X:
Collection method/Effort #:	TR 036		Y:
Weather:	ptly cloudy	End coordinates	X:
Sampler:	MGL, LJE, PBD		Y:
Comments:			

SPECIES	#	LENGTH (nearest mm)	WEIGHT (nearest 0.5 g)	COMMENTS
Stickleback	1	<80		
Tom cod	1	140		
Pile perch	1+2 = ③	<200		
Prickly sculpin	5	105-120		
Starry flounder	3	100-200		
Shiner surfperch	3	780		



FISH AND INVERTEBRATE SPECIES TALLY FORM

Project Name:	LDW RI fish and crab chemistry	Project #:	04-08-06-22
Date:	31 AUG 2005	Sampling area:	T3E
Retrieval Time:	1143/1149	Start coordinates	X:
Collection method/Effort #:	TR 037		Y:
Weather:	ptly cldy	End coordinates	X:
Sampler:	MGL, LTF, PBD		Y:
Comments:	Large wood debris ~1m total 2 pieces		

SPECIES	#	LENGTH (nearest mm)	WEIGHT (nearest 0.5 g)	COMMENTS
Herring	3+1+1=5			
Pile perch	1	>20		
starry flounder	4+3=7	100-200		
Prickly Sculpin	4	>120		
Staghorn sculpin	1	>120		
Shiner surfperch	1	<80		
	3	>80		



FISH AND INVERTEBRATE SPECIES TALLY FORM

Project Name:	LDW RI fish and crab chemistry	Project #:	04-08-06-22
Date:	31 AUG 2005	Sampling area:	T3B
Retrieval Time:	1244/1251	Start coordinates	X:
Collection method/Effort #:	TR038		Y:
Weather:	Sunny trace of clouds	End coordinates	X:
Sampler:	MGL, LJJ, PBD		Y:
Comments:			
Already have 10 shiner surfperch collected from 3B			

SPECIES	#	LENGTH (nearest mm)	WEIGHT (nearest 0.5 g)	COMMENTS
Slender crab	1	<90		
Staghorn sculpin	2	<120		
Shiner surfperch	5 20	<80 780		
Crangon	1+1=2			
Pile perch	1	<80		



FISH AND INVERTEBRATE SPECIES TALLY FORM

Project Name:	LDW RI fish and crab chemistry	Project #:	04-08-06-22
Date:	31 AUG 2005	Sampling area:	T3B
Retrieval Time:	303/1309	Start coordinates	X:
Collection method/Effort #:	TR039		Y:
Weather:	Sunny - some clouds	End coordinates	X:
Sampler:	MGL, LTF, PBD		Y:
Comments:			

SPECIES	#	LENGTH (nearest mm)	WEIGHT (nearest 0.5 g)	COMMENTS
Pile perch	1	100 - 200		
Starry flounder	1	~100 mm		
Shiner surfperch	2	780		



FISH AND INVERTEBRATE SPECIES TALLY FORM

Project Name:	LDW RI fish and crab chemistry	Project #:	04-08-06-22
Date:	31 AUG 2005	Sampling area:	73 C
Retrieval Time:	1321/1326	Start coordinates	X:
Collection method/Effort #:	TR 040		Y:
Weather:	Sunny - A/c clouds, some breeze	End coordinates	X:
Sampler:	Mart, LTF, PBD		Y:
Comments:			

SPECIES	#	LENGTH (nearest mm)	WEIGHT (nearest 0.5 g)	COMMENTS
English sole	1	100-200		
Pile perch	1	<200		

FISH AND INVERTEBRATE SPECIES TALLY FORM

Project Name:	LDW RI fish and crab chemistry	Project #:	04-08-06-22
Date:	31 AUG 2005	Sampling area:	T3 C
Retrieval Time:	1335/1339	Start coordinates	X:
Collection method/Effort #:	TR 041		Y:
Weather:	Sunny, few clouds, light breeze	End coordinates	X:
Sampler:	MGL, LTF, PBD		Y:
Comments:	toss with current		

SPECIES	#	LENGTH (nearest mm)	WEIGHT (nearest 0.5 g)	COMMENTS
Snake pricklebark	1	~300 mm		
English sole	2	>200		
(see more below)	2	>200		
Pile perch	1	>200		
Shiner surf	15	>80		
Staghorn sculpin	10	>120		
Prickly sculpin	1	~120		
Slender crab	2	<90		
Sea pen	1			
Striped perch	1	>200		
Eng sole	11	<100		
	2	100-200		
Starry flounder	2	100<200		

FISH AND INVERTEBRATE SPECIES TALLY FORM

Project Name:	LDW RI fish and crab chemistry	Project #:	04-08-06-22
Date:	31 AUG 2005	Sampling area:	T3 D
Retrieval Time:	1420 / 1425	Start coordinates	X:
Collection method/Effort #:	TR042		Y:
Weather:	Sunny, medium breeze	End coordinates	X:
Sampler:	MGL, LIF, PBD		Y:
Comments:			

SPECIES	#	LENGTH (nearest mm)	WEIGHT (nearest 0.5 g)	COMMENTS
Tom Cod	1	~250		
Snake Prickleback	1+1 = (2)	250 - 300		
Starry Flounder	23	<200		
	1	>200		
slender crab	2	<90		
	1	>200		
Pile perch	1+1 = (2)	<200		
Tritonia	1			
Cockles	2			
Crangon	1			
Shiner surfperch	18	>80		
	♀ 3	>200		
English sole (7)	♂ 4	>200		
	12	<100		
English sole	3+1+1 = (5)	100 - 200		
Pacific Staghorn	39+8 = (47)	>120		
Prickly sculpin	9	>120		



FISH AND INVERTEBRATE SPECIES TALLY FORM

Project Name:	LDW RI fish and crab chemistry	Project #:	04-08-06-22
Date:	31 AUG 2005	Sampling area:	T3F
Retrieval Time:	1446/1452	Start coordinates	X:
Collection method/Effort #:	TR 043		Y:
Weather:	sunny light breeze	End coordinates	X:
Sampler:	MGL, LJP, PBD		Y:
Comments:			

SPECIES	#	LENGTH (nearest mm)	WEIGHT (nearest 0.5 g)	COMMENTS
Starry flounder	$\frac{2}{9}$ 1	<100 100-200 >200	(large)	
Pile perch	1 1	<200 >200		
shiner	50	>80		
Eng sole	9 5	<100 100-200		
Eng sole (3)	♀ 2 ♂ 1	>200		
Staghorn	9+1=10	>120		
Moon snail	1			
Dungeness	2	>90		

FISH AND INVERTEBRATE SPECIES TALLY FORM

Project Name:	LDW RI fish and crab chemistry	Project #:	04-08-06-22
Date:	31 AUG 2005	Sampling area:	T3F
Retrieval Time:	1510/1516	Start coordinates	X:
Collection method/Effort #:	TR 044		Y:
Weather:	Sunny, lt breeze	End coordinates	X:
Sampler:	MGL, LSF, PBD		Y:
Comments:	slope		

SPECIES	#	LENGTH (nearest mm)	WEIGHT (nearest 0.5 g)	COMMENTS
Pile perch	1+3 = (4) 2	< 200 > 200		
Striped perch	1 2	> 200		
Shiner surfperch	2+50+62 = (114) (82)	< 80 > 80		
Sand sole	1	~ 180		
Starry flounder	4 4	< 100 100 - 200		
Crangon	2			
Staghorn	1 2	< 120 > 120		



FISH AND INVERTEBRATE SPECIES TALLY FORM

Project Name:	LDW RI fish and crab chemistry	Project #:	04-08-06-22
Date:	31 Aug 2005	Sampling area:	T3 F
Retrieval Time:	1537	Start coordinates	X:
Collection method/Effort #:	TR 045		Y:
Weather:	Sunny	End coordinates	X:
Sampler:	MGL, LIF, PBD		Y:
Comments:			

SPECIES	#	LENGTH (nearest mm)	WEIGHT (nearest 0.5 g)	COMMENTS
Pile perch	2+1+4=7	< 200		
	1	> 200		
Starry flounder	1	< 100		
	30	100-200		
	1	> 200		
Metridium	1			
	1	~100		
Pacific tomcod				
Shiner surfperch	45	> 80		
	5	< 120		
Staghorn sculpin (19)	13	110-250	> 120	
	1	250		not kept (have ~15 from T3 F)
Slender crab	2	< 90		
Sculpin unkn ^{BP} padded	1	~120		
	♂ 1	> 200		
English sole (3)	♀ 2			
	10	< 100		
English sole	3	100-200		



FISH AND INVERTEBRATE SPECIES TALLY FORM

Project Name:	LDW RI fish and crab chemistry	Project #:	04-08-06-22
Date:	31 AUG 2005	Sampling area:	T3 E
Retrieval Time:	559/1605	Start coordinates	X:
Collection method/Effort #:	TR046		Y:
Weather:	Sunny	End coordinates	X:
Sampler:	MGL, LJJ, PBD		Y:
Comments:			
channel			

SPECIES	#	LENGTH (nearest mm)	WEIGHT (nearest 0.5 g)	COMMENTS
Tritonia	1			
Dungeness	2	>90		
	3	<100		
English sole	4	100-200		
	1	>200		
Staghorn	4	>120		
Starry flounder	11	100-200		
	1	<80		
Pile perch	4	100-200		
Shiner surf perch	25	>80		



FISH AND INVERTEBRATE SPECIES TALLY FORM

Project Name:	LDW RI fish and crab chemistry	Project #:	04-08-06-22
Date:	31 AUG 2005	Sampling area:	T3 E
Retrieval Time:	167/1622	Start coordinates	X:
Collection method/Effort #:	TR 047		Y:
Weather:	Sunny	End coordinates	X:
Sampler:	MGL, LTF, PBD		Y:
Comments:			

SPECIES	#	LENGTH (nearest mm)	WEIGHT (nearest 0.5 g)	COMMENTS
Tom cod	1	>120		
Shiner surfperch	32	>80		
Pike perch	1	<80		
Dungeness (3)	3	>90		
Slender crab	1	>90		
Staghorn sculpin	2	>120		
	2 1	<100		
Gly sole ♀	1	100-200		
Starry flounder	7	100-200		



FISH AND INVERTEBRATE SPECIES TALLY FORM

Project Name:	LDW RI fish and crab chemistry	Project #:	04-08-06-22
Date:	September 01 - 2005	Sampling area:	T2E
Retrieval Time:	8:41/8:46	Start coordinates	X:
Collection method/Effort #:	TR048		Y:
Weather:	Mostly Sunny	End coordinates	X:
Sampler:	M6L, TPO, TJH		Y:
Comments:	10-SS [2 PS-temp.]		

SPECIES	#	LENGTH (nearest mm)	WEIGHT (nearest 0.5 g)	COMMENTS
SC	2	< 90		
SF	2	100-200		
	1	> 200		
SS	2	< 80		
	11 ^{ac} 12	> 80		
PS	2	> 120		



FISH AND INVERTEBRATE SPECIES TALLY FORM

Project Name:	LDW RI fish and crab chemistry	Project #:	04-08-06-22
Date:	September 01, 2005	Sampling area:	T2E
Retrieval Time:	8:55/901	Start coordinates	X:
Collection method/Effort #:	TRO49		Y:
Weather:	Mostly Sunny	End coordinates	X:
Sampler:	MGL, TDO, TSH		Y:
Comments:	[1 ps - temp]		

SPECIES	#	LENGTH (nearest mm)	WEIGHT (nearest 0.5 g)	COMMENTS
Prickley Sculpin	1	~120		
Padded Sculpin	3	~150		
Snake Pickleback	4			
Pile Perch	2	<200		
Starry Flounder	2 4	<100 100-200		
English sole	2	<100		
Sc	1	<90		
Crawfish Rock Starfish	2			
PS	1	<120		
PS	1	>120		
SS	62	> 80		
	13	< 80		



FISH AND INVERTEBRATE SPECIES TALLY FORM

Project Name:	LDW RI fish and crab chemistry	Project #:	04-08-06-22
Date:	September 01- 2005	Sampling area:	T2E - channel
Retrieval Time:	9:14/9:20	Start coordinates	X:
Collection method/Effort #:	TR050		Y:
Weather:	Mostly sunny	End coordinates	X:
Sampler:	M6L, TDO, TJH		Y:
Comments:	3-PS-TEMP		

SPECIES	#	LENGTH (nearest mm)	WEIGHT (nearest 0.5 g)	COMMENTS
PS	3	>120		
Pile perch	3	<200		
SS	5	<80		
	2	>80		
SC	1	<90		
metridium senile	1	1		
Armina	5			
Sea Pen	1			
Evaenous - star				
ES	1	<100		
	Xmc 1	>100		
SF	2	100-200		
Rock shrimp	1			



FISH AND INVERTEBRATE SPECIES TALLY FORM

Project Name:	LDW RI fish and crab chemistry	Project #:	04-08-06-22
Date:	September 01 - 2005	Sampling area:	T2E - channel
Retrieval Time:	9:39 / 9:44	Start coordinates	X:
Collection method/Effort #:	TRD 51		Y:
Weather:	Mostly sunny	End coordinates	X:
Sampler:	MBL, TDO, TSH		Y:
Comments:	3 PS		

SPECIES	#	LENGTH (nearest mm)	WEIGHT (nearest 0.5 g)	COMMENTS
SS	7	<80		
PS	3	>120		
Meridivian	1			
Sea Pen	1			
SF	1 - 100 ^{MBL} 200	100-200		
ES	1 PS ^{MBL}	100-200		
SC	1	<90		
	1	>90		
Crayfish Hermit MBL Jock Starfish	1			



FISH AND INVERTEBRATE SPECIES TALLY FORM

Project Name:	LDW RI fish and crab chemistry	Project #:	04-08-06-22
Date:	Sept 01 - 2005	Sampling area:	T2E channel
Retrieval Time:	9:55 / 10:01	Start coordinates	X:
Collection method/Effort #:	TROS2		Y:
Weather:	Mostly sunny	End coordinates	X:
Sampler:	MLL, TDO, TSH		Y:
Comments:	PS-1		
	ES-1		

SPECIES	#	LENGTH (nearest mm)	WEIGHT (nearest 0.5 g)	COMMENTS
Pacific tomcod		150		
PS	1	>120		
English sole	1	100-200		
	1	>200		♀
SC	2	<90		
PP	1	<100		
SS	19	<80		
Armina	3			



FISH AND INVERTEBRATE SPECIES TALLY FORM

Project Name:	LDW RI fish and crab chemistry	Project #:	04-08-06-22
Date:	September 01-2005	Sampling area:	T2F
Retrieval Time:	1015/1020	Start coordinates	X:
Collection method/Effort #:	TRO 53		Y:
Weather:	Mostly Sunny	End coordinates	X:
Sampler:	MBL, TDO, TJH		Y:
Comments:	1 ES 10 SS		

SPECIES	#	LENGTH (nearest mm)	WEIGHT (nearest 0.5 g)	COMMENTS
Starry flounder	2	2200		
	2	100-200		
Shiner Surfperch	12	<80		
	30 32	>80		
SF	1	<100		
ES	2 3	<100 100-200 2200		
Rock sole	1	>200		
SC	1	>90		
Evasterionus	1			
Pisaster	1			
Brevistipulus				
Uranogobio shrimp	1			
Striped Perch	3	>200		
Pile Perch	3	100-200		
Padded Sculpin	1	120		
PS	2	>120		

FISH AND INVERTEBRATE SPECIES TALLY FORM

Project Name:	LDW RI fish and crab chemistry	Project #:	04-08-06-22
Date:	September 01 - 2005	Sampling area:	T2A - channel
Retrieval Time:	10:57 - 11:02	Start coordinates	X:
Collection method/Effort #:	TRO54		Y:
Weather:	Mostly sunny	End coordinates	X:
Sampler:	M6L, TDO, TJH		Y:
Comments:	ES 24 ♂ 6 ♀ ES - 10		

Page 1 of 2

SPECIES	#	LENGTH (nearest mm)	WEIGHT (nearest 0.5 g)	COMMENTS
Longfin smelt	2	~180		
Pacific tomcod	8	7120		
Metridium Senile	13			
English Sole	19 46	<200 >200		
Shiner surfperch	- next Page			
Sand sole	5	<200		
SC	4 37	>90 <90		
SF	19 1	100-200 <100		
Pisaster Brevispinus	1			
Pacific Herring	M6L 7	next Page		
Red Rock Crab	M6L 1	next Page		
Pile Perch	1	<100		



FISH AND INVERTEBRATE SPECIES TALLY FORM

Project Name:	LDW RI fish and crab chemistry	Project #:	04-08-06-22
Date:	September 01, 2005	Sampling area:	T2A - channel
Retrieval Time:	10:57 - 11:02	Start coordinates	X:
Collection method/Effort #:	TR054		Y:
Weather:	Mostly sunny	End coordinates	X:
Sampler:	MGL, TDO, TSH		Y:
Comments:		Page 2 of 2	

SPECIES	#	LENGTH (nearest mm)	WEIGHT (nearest 0.5 g)	COMMENTS
Pacific Herring	7			
RR	1	>90		
Dock shrimp	27			
Kanagon shrimp	1			
PS	28	<120		
	19	>120		
SS	7	<80		
	33	>80		
Armina	4			

FISH AND INVERTEBRATE SPECIES TALLY FORM

Project Name:	LDW RI fish and crab chemistry	Project #:	04-08-06-22
Date:	September 01	Sampling area:	T2B - shoulder
Retrieval Time:	12:24 - 12:29	Start coordinates	X:
Collection method/Effort #:	TRO55		Y:
Weather:	Mostly Sunny	End coordinates	X:
Sampler:	MBL, TDO, TSH		Y:
Comments:	10 SS		

SPECIES	#	LENGTH (nearest mm)	WEIGHT (nearest 0.5 g)	COMMENTS
Melridium Seale	2			
Starry flounder	2	>200		
Pile Perch	3	<200		
	2	>200		
Sand sole	2	<200		
Pacific herring	1			
Melridium	2			
PS	1 small	<120		
	4	>120		
SC	10 <	90		
	1 >	90		
Arcting	4			
SF	7+1	<200		
Rock sole	3	>200		
ES	6	<100		
	18	100-200		
		>200		
SS	25	>80		



FISH AND INVERTEBRATE SPECIES TALLY FORM

Project Name:	LDW RI fish and crab chemistry	Project #:	04-08-06-22
Date:	September 01-2005	Sampling area:	T2C
Retrieval Time:	12 49/1255	Start coordinates	X:
Collection method/Effort #:	TRD56		Y:
Weather:	Mostly SUNNY	End coordinates	X:
Sampler:	MBL, TPO, TJH		Y:
Comments:	2 SS		

SPECIES	#	LENGTH (nearest mm)	WEIGHT (nearest 0.5 g)	COMMENTS
SS	1	<80		
	2	>80		
SF				
PP	1	>200		
Rock sole	1	14 >200		
ES	1	<100		
	1	>200		
Ampelisca	3			
Mebridium	3			
Pisaster brevispinus	1			
Crangon	1			
hermit crab	1			
ctenophore	1			

FISH AND INVERTEBRATE SPECIES TALLY FORM

Project Name:	LDW RI fish and crab chemistry	Project #:	04-08-06-22
Date:	September 01 - 2005	Sampling area:	T2C channel
Retrieval Time:	1308-1314	Start coordinates	X:
Collection method/Effort #:	TR057		Y:
Weather:	Mostly Sunny	End coordinates	X:
Sampler:	MBL, TDO, TSH		Y:
Comments:	8-86		

SPECIES	#	LENGTH (nearest mm)	WEIGHT (nearest 0.5 g)	COMMENTS
PS	10 4	<120 >120		
Metridium	2			
tomcod	+1 +1 3+1+2+1	~120		
Snake Prickleback	1			
SC	7 5	<90 >90		
ES	16 1+2	<100 >200		
Prisaster brevispinus	2			
Kelp Crab	1			
PP	4 5	100-200 <100		
SS	15 23 8	>80 <80		
BF	18 8	<100 >100		
Rock sole	1 2	100-200 >200		

Armina

2 +1



FISH AND INVERTEBRATE SPECIES TALLY FORM

Project Name:	LDW RI fish and crab chemistry	Project #:	04-08-06-22
Date:	September 01 2005	Sampling area:	T2D channel
Retrieval Time:	1335-1339	Start coordinates	X:
Collection method/Effort #:	TR058		Y:
Weather:	Mostly sunny	End coordinates	X:
Sampler:	MBL, TDG, TJH		Y:
Comments:	ES-5 (3Q, 20 ⁺) SS-10		
Page 1 of 2			

SPECIES	#	LENGTH (nearest mm)	WEIGHT (nearest 0.5 g)	COMMENTS
Slimy flounder	2 25+1	>200 100-200		
RR	1+1	>90		
Pisaster brevispinus	2+6			
Metridium senile	8			
Rock sole	2	>200		
P. tomcod	7			
SC	11 33	>90 <90		
Armiwa	1+1			
ES	18 8	all 100-200 >200		
P. tomcod	2			
Sea Pen	1			
SS	25	>80		



FISH AND INVERTEBRATE SPECIES TALLY FORM

Project Name:	LDW RI fish and crab chemistry	Project #:	04-08-06-22
Date:	September 01 2005	Sampling area:	T2D channel
Retrieval Time:	1335 - 1339	Start coordinates	X:
Collection method/Effort #:	TRO58		Y:
Weather:	Mostly sunny	End coordinates	X:
Sampler:	MBL, TDO, TJH		Y:
Comments:	ES-5 (30x, 200) Page 2 of 2		
	SS-10		

SPECIES	#	LENGTH (nearest mm)	WEIGHT (nearest 0.5 g)	COMMENTS
Striped perch	6			
English sole	14	<100		
Pile Perch	4	<100		
	4	100-200		
		>200		
Rock sole	4	>200		
PS	6	<120		
	25	>120		
Sculpin Roughback	1	<120		
Sculpin Padded	2	<120		
Sculpin Pierrey	2	<120		

FISH AND INVERTEBRATE SPECIES TALLY FORM

Project Name:	LDW RI fish and crab chemistry	Project #:	04-08-06-22
Date:	September 01 2005	Sampling area:	T3A channel
Retrieval Time:	1415 - 1420	Start coordinates	X:
Collection method/Effort #:	TROS9		Y:
Weather:	Mostly Sunny	End coordinates	X:
Sampler:	MBL, TDO, TSH		Y:
Comments:	6 ES { 2 ♂ } { 4 ♀ } Page 1 of 2		

SPECIES	#	LENGTH (nearest mm)	WEIGHT (nearest 0.5 g)	COMMENTS
SF	14 2	100-200 >200		
P. tomcod	2			
ES	12 17 10	<100 100-200 >200		
Pile Perch	6+1 2	<100 100-200		
tomcod	2			
SS	52	>80		
Prickley	4			
Roughback	1			
Marine snail	1			
P.S.	3 14	<120 >120-120		
Metridium	2			
SC	7 4	<90 >90		

See page 2 MBL



FISH AND INVERTEBRATE SPECIES TALLY FORM

Project Name:	LDW RI fish and crab chemistry	Project #:	04-08-06-22
Date:	September 01 2005	Sampling area:	
Retrieval Time:	1415-1420	Start coordinates	X:
Collection method/Effort #:	TRO59		Y:
Weather:	Mostly Sunny	End coordinates	X:
Sampler:	MBL, TDO, TJH		Y:
Comments:			Page 2 of 2

SPECIES	#	LENGTH (nearest mm)	WEIGHT (nearest 0.5 g)	COMMENTS
Sea Pen	2			
Alm. na	3			
DC	1	790		
Cochle clam	1			
Pisaster Brevispinus	3			
Nucella lamiosa	2			



FISH AND INVERTEBRATE SPECIES TALLY FORM

Project Name:	LDW RI fish and crab chemistry	Project #:	04-08-06-22
Date:	September 02, 2005	Sampling area:	T4A channel
Retrieval Time:	8:57/9:03	Start coordinates	X:
Collection method/Effort #:	TR060		Y:
Weather:	Cloudy	End coordinates	X:
Sampler:	MBL, TJH, TDO, MAS		Y:
Comments: no keepers MBL 1 SC ♂			

SPECIES	#	LENGTH (nearest mm)	WEIGHT (nearest 0.5 g)	COMMENTS
Sea urchin	1			
Sc	1	> 90		soft shell ♂
	1	< 90		
Crab	1+1			
PS	2	< 120		
Tomcod	1			
ES	2	< 100		
Sand sole	1	> 200		
SF	44	< 100		
	1	100-200		
		> 200		
SS	46	< 80		
	52	> 80		



FISH AND INVERTEBRATE SPECIES TALLY FORM

Project Name:	LDW RI fish and crab chemistry	Project #:	04-08-06-22
Date:	September 02-2005	Sampling area:	TyC channel
Retrieval Time:	9:13-9:15	Start coordinates	X:
Collection method/Effort #:	TR061		Y:
Weather:	Cloudy	End coordinates	X:
Sampler:	MBL, TDO, TCH, MAS		Y:
Comments:	1 PS		

SPECIES	#	LENGTH (nearest mm)	WEIGHT (nearest 0.5 g)	COMMENTS
P. Tomcod				
PS	2	< 120		
	8	> 120		
SS	152	< 80		
	72	> 80		
SF	12	100-200		
	1	> 200		
Clayton	3			
SC	2	< 90		
Rock sole ^{MG}				
Sand Sole	1	100-200		
SF	49	< 100		
American Shad	1			



FISH AND INVERTEBRATE SPECIES TALLY FORM

Project Name:	LDW RI fish and crab chemistry	Project #:	04-08-06-22
Date:	September 02-2005	Sampling area:	T4B channel
Retrieval Time:	9:57-9:43	Start coordinates	X:
Collection method/Effort #:	TROB2		Y:
Weather:	Cloudy	End coordinates	X:
Sampler:	MBL, TDO, TJH, MAS		Y:
Comments:	1 SF		

SPECIES	#	LENGTH (nearest mm)	WEIGHT (nearest 0.5 g)	COMMENTS
SF	23 6 1	100-200 <100 >200		
PP	2	>200		
PS	3 5	>120 <120		
ES	1	<100		
Tomcod	1			
Crayfish	8+2			
SS	87 22	<80 >80		
Am				



FISH AND INVERTEBRATE SPECIES TALLY FORM

Project Name:	LDW RI fish and crab chemistry	Project #:	04-08-06-22
Date:	September 02-2005	Sampling area:	T4A channel
Retrieval Time:	1002-1007	Start coordinates	X:
Collection method/Effort #:	TR063		Y:
Weather:	Cloudy	End coordinates	X:
Sampler:	MGL, TDO, TJH, MAS		Y:
Comments:	S-DC (3 ♂, 2 ♀) 1-SF		

SPECIES	#	LENGTH (nearest mm)	WEIGHT (nearest 0.5 g)	COMMENTS
DC	5	115, 125, 131, 115, # 133		♂, ♀, ♀, ♂, ♂ respectively
SS	122 46	<80 >80		
PS	7	>120		
shad	1			
ES	6	<100		
harcod	2			
PP	1	100-200 >200		
Crangon	2+1+3			
SF	23 24 1	<100 100-200 >200		
Macoma	1			



FISH AND INVERTEBRATE SPECIES TALLY FORM

Project Name:	LDW RI fish and crab chemistry	Project #:	04-08-06-22
Date:	September 02 - 2005	Sampling area:	TYA channel
Retrieval Time:	10:24 - 10:30	Start coordinates	X:
Collection method/Effort #:	TR064		Y:
Weather:	Cloudy - sun breaks	End coordinates	X:
Sampler:	MGL, TDO, TJH, MAS		Y:
Comments:	SF - 2		

SPECIES	#	LENGTH (nearest mm)	WEIGHT (nearest 0.5 g)	COMMENTS
Longfin smelt	1 + 1			
SF	2	345, 235		
tomcod	3			
PP	1	2200		
English sole	3	4100		
PS	1	<120		
	3	7120		
SS ^{MGL} SF	8 55	<100 100-200		
Crangon	7			
Shiner surfperch	91 43	<80 >80		



FISH AND INVERTEBRATE SPECIES TALLY FORM

Project Name:	LDW RI fish and crab chemistry	Project #:	04-08-06-22
Date:	September 02- 2005	Sampling area:	T4B channel
Retrieval Time:	1043-1049	Start coordinates	X:
Collection method/Effort #:	TR 065		Y:
Weather:	Partly Sunny	End coordinates	X:
Sampler:	MBL, TDO, TJA, MAS		Y:
Comments:	SF -1		

SPECIES	#	LENGTH (nearest mm)	WEIGHT (nearest 0.5 g)	COMMENTS
SF	12 43 1	< 100 100-200 200 exactly		
P. tomcod	1+1			
Longjaw sand	1+1+1			
ES	1	< 100		
PP	1	< 100		
Crangon	5			
PS	7	> 120		
SS	102 62	< 80 > 80		



FISH AND INVERTEBRATE SPECIES TALLY FORM

Project Name:	LDW RI fish and crab chemistry	Project #:	04-08-06-22
Date:	September 02 - 2005	Sampling area:	T4 C-channel
Retrieval Time:	11:01-11:03	Start coordinates	X:
Collection method/Effort #:	TRO66		Y:
Weather:	Mostly Cloudy	End coordinates	X:
Sampler:	MBL, TDO, TSH, MAS		Y:
Comments:	NO keepers		

SPECIES	#	LENGTH (nearest mm)	WEIGHT (nearest 0.5 g)	COMMENTS
P. tancod	1			
SS	160	< 80		
	192	> 80		
BF	15	< 100		
	9	100-200		
ES	1	< 100		
Clangon	3			
PFD	3	< 200		
	3	> 200		
PS	1	< 120		
	1	> 120		
Prickly Sculpin	1	< 120		



FISH AND INVERTEBRATE SPECIES TALLY FORM

Project Name:	LDW RI fish and crab chemistry	Project #:	04-08-06-22
Date:	September 02 - 2005	Sampling area:	T4H channel
Retrieval Time:	11:22 - 11:28	Start coordinates	X:
Collection method/Effort #:	TR067		Y:
Weather:	Mostly cloudy	End coordinates	X:
Sampler:	MBL, TDO, TJH, MAS		Y:
Comments:	1 ES Q		

SPECIES	#	LENGTH (nearest mm)	WEIGHT (nearest 0.5 g)	COMMENTS
English sole	1	< 100		
	1	353		Qx
Starry flounder	20 + 1	< 100		
	61	100 - 200		
Shiner smelt	130	< 80		
	66	> 80		
Pacific staghorn sculpin	4	< 120		
	7	> 120		
Pacific tomcod	7			
Longfin smelt	1 + 1			
Canyon shiner	5			



FISH AND INVERTEBRATE SPECIES TALLY FORM

Project Name:	LDW RI fish and crab chemistry	Project #:	04-08-06-22
Date:	September 02 2005	Sampling area:	T4B channel
Retrieval Time:	12:23/12:29	Start coordinates	X:
Collection method/Effort #:	TR068		Y:
Weather:	Mostly Cloudy	End coordinates	X:
Sampler:	NGL, TDO, TJH, MAS		Y:
Comments:	SF-1		

SPECIES	#	LENGTH (nearest mm)	WEIGHT (nearest 0.5 g)	COMMENTS
Sand sole	1	>200		
Pile perch	1	>200		
Starry flounder	1	>200 (219)		
Panfish	10	<120		
	7	>120		
Longfin smelt	1			
SF	29	<200		
	37	100-200		
	1	>200		
Croaker	5			
SS	94+3	<80		
	76	>80		



FISH AND INVERTEBRATE SPECIES TALLY FORM

Project Name:	LDW RI fish and crab chemistry	Project #:	04-08-06-22
Date:	September 02-2005	Sampling area:	TYA channel
Retrieval Time:	1241-1246	Start coordinates	X:
Collection method/Effort #:	TRD69		Y:
Weather:	Mostly cloudy	End coordinates	X:
Sampler:	MGL, TDO, TSH, MAS		Y:
Comments:	NO keepers		

SPECIES	#	LENGTH (nearest mm)	WEIGHT (nearest 0.5 g)	COMMENTS
P. tom cod	1+2			
shad	1			
longjaw smelt	1			
Dungeness crab	1	> 90		
SF	12 73	< 100 100-200		
Sand sole	4	100-200		
ES	5	100-200		
PS	9 7	< 120 > 120		
Shiner surfperch	< 80 > 80	104 49		
Crangon shrimp	2	2		



FISH AND INVERTEBRATE SPECIES TALLY FORM

Project Name:	LDW RI fish and crab chemistry	Project #:	04-08-06-22
Date:	Sept 02 - 2005	Sampling area:	T4B channel
Retrieval Time:	1256-1302	Start coordinates	X:
Collection method/Effort #:	1256-1302 ^{MBL} TR070		Y:
Weather:	Cloudy	End coordinates	X:
Sampler:	MBL		Y:
Comments:	1 ES 2 SF		

SPECIES	#	LENGTH (nearest mm)	WEIGHT (nearest 0.5 g)	COMMENTS
English sole	2 1	< 100 > 200 (310)		
herring	1			
longfin smelt	2			
SF	98 73+7 2	< 100 100-200 > 200 (230), (205)		
PE	19 22	< 120 > 120		
SS	52 75	< 80 > 80		
Sea Urchin	1			

FISH AND INVERTEBRATE SPECIES TALLY FORM

Project Name:	LDW RI fish and crab chemistry	Project #:	04-08-06-22
Date:	September 02-2005	Sampling area:	T4A channel
Retrieval Time:	1313-1319	Start coordinates	X:
Collection method/Effort #:	TROZ1		Y:
Weather:	Muodly cloudy	End coordinates	X:
Sampler:	MGL, TDO, TJH, MAS		Y:
Comments:	2 SF		

SPECIES	#	LENGTH (nearest mm)	WEIGHT (nearest 0.5 g)	COMMENTS
SF	2	200 306		
Longjaw smelt	1+2			
tomcod	1+2			
shad	1			
Shiner ^{MGL} supper				
SF	14 71	<100 100-200		
PS	7 5	>120 <120		
Crayon	3			
SS	53 48	<80 >80		
ES	10	<100		



FISH AND INVERTEBRATE SPECIES TALLY FORM

Project Name:	LDW RI fish and crab chemistry	Project #:	04-08-06-22
Date:	September 02-2005	Sampling area:	T4 B channel
Retrieval Time:	1336-1341	Start coordinates	X:
Collection method/Effort #:	TR072		Y:
Weather:	Mostly Cloudy	End coordinates	X:
Sampler:	NBL, TDO, TJH, MAS		Y:
Comments:	no keepers		

SPECIES	#	LENGTH (nearest mm)	WEIGHT (nearest 0.5 g)	COMMENTS
SC	1	<90		
Shad	2			
Longfin Shelf	4			
SF	12+1 21	<100 100-200		
PS	7+2 11	<120 >120		
Crangon	6			
Shiner sunperch	36 40	<80 >80		



FISH AND INVERTEBRATE SPECIES TALLY FORM

Project Name:	LDW RI fish and crab chemistry	Project #:	04-08-06-22
Date:	September 06-2005	Sampling area:	14A
Retrieval Time:	0743-0749	Start coordinates	X:
Collection method/Effort #:	TRO73		Y:
Weather:	Mostly clear	End coordinates	X:
Sampler:	MBL, FARR		Y:
Comments:	2 SF		

SPECIES	#	LENGTH (nearest mm)	WEIGHT (nearest 0.5 g)	COMMENTS
SF	3 35	<100 >100-200		
SS	27	>80		
PS	3	>120		
ES	1	<100		
DC	1	>90		



FISH AND INVERTEBRATE SPECIES TALLY FORM

Project Name:	LDW RI fish and crab chemistry	Project #:	04-08-06-22
Date:	September 26 - 2005	Sampling area:	T4B channel
Retrieval Time:	0807-0813	Start coordinates	X:
Collection method/Effort #:	TRO 74		Y:
Weather:	Clear	End coordinates	X:
Sampler:	MBL		Y:
Comments:	1 SF		
	1 ES		

SPECIES	#	LENGTH (nearest mm)	WEIGHT (nearest 0.5 g)	COMMENTS
Longfin snail	2	~150		
SS	8+26+32+5	<80 MBL	<80	
	127+32+7	>80 MBL	>80	
PS	1	<120		
	4	>120		
SF	19	<100		
	12	>100		
ES	1	>200		
SF	1	>200		



FISH AND INVERTEBRATE SPECIES TALLY FORM

Project Name:	LDW RI fish and crab chemistry	Project #:	04-08-06-22
Date:	September 6-2005	Sampling area:	T4 Acheamul
Retrieval Time:	08:34-08:38	Start coordinates	X:
Collection method/Effort #:	TROFS		Y:
Weather:	clear	End coordinates	X:
Sampler:	MBL, FMM, E. Heffernan		Y:
Comments:	3 SF		

SPECIES	#	LENGTH (nearest mm)	WEIGHT (nearest 0.5 g)	COMMENTS
Coarctus smelt	1			
OF	20	<100		
	31	>100-200		
ES	5	100-200 mm <100		
SS	110	110 ?		
PS	6	>120		
Clupeon	6			
wormy				
Ten. bellid	1			

FISH AND INVERTEBRATE SPECIES TALLY FORM

Project Name:	LDW RI fish and crab chemistry	Project #:	04-08-06-22
Date:	September 06-2005	Sampling area:	T4B channel
Retrieval Time:	0:51 - 0:56	Start coordinates	X:
Collection method/Effort #:	TRO76		Y:
Weather:	Clear	End coordinates	X:
Sampler:	MBL, FMM, ERH		Y:
Comments:	NO keepers		

SPECIES	#	LENGTH (nearest mm)	WEIGHT (nearest 0.5 g)	COMMENTS
SS	3 + 12 18 + 33 + 60	< 80 > 80		
longjaw smelt	1			
crayfish	8			
ES	1	< 100		
tomcod	1	~150		
PS	11 18	< 120 > 120		
SF	30 25	< 100 100-200		

FISH AND INVERTEBRATE SPECIES TALLY FORM

Project Name:	LDW RI fish and crab chemistry	Project #:	04-08-06-22
Date:	September 06-2005	Sampling area:	TYA channel
Retrieval Time:	09:10 - 09:16	Start coordinates	X:
Collection method/Effort #:	TRO??		Y:
Weather:	Clear - high clouds	End coordinates	X:
Sampler:	MGL, FMM, ERT		Y:
Comments:	No hoppers		

SPECIES	#	LENGTH (nearest mm)	WEIGHT (nearest 0.5 g)	COMMENTS
Starry Flounder	18 74 2	<100 100-200 >200		
PS	8 3	<120 >120		
ES	1+1	90, <100		
SD	21 + 18 MGL + 50	>80 (all >80mm)		
SC	1	>90		
Ungon	5			
SS	33	<80		



FISH AND INVERTEBRATE SPECIES TALLY FORM

Project Name:	LDW RI fish and crab chemistry	Project #:	04-08-06-22
Date:	September 06-2005	Sampling area:	T4 c' channel
Retrieval Time:	0928-0931	Start coordinates	X:
Collection method/Effort #:	TR078		Y:
Weather:	Partly cloudy	End coordinates	X:
Sampler:	HBL, FMM, ERH		Y:
Comments:	no keepers		

SPECIES	#	LENGTH (nearest mm)	WEIGHT (nearest 0.5 g)	COMMENTS
<i>Stizostedion</i>	22	< 80		
	123	> 80		
<i>Pagrus strachan</i>	3	< 120		
	11	> 120		
<i>Starry flounder</i>	35 + 19 HBL	< 100		
	20 + 19 HBL	100-200		
	1	> 200		throw back
<i>Crangon</i>	4			
<i>Humisuda newboldi</i>				

FISH AND INVERTEBRATE SPECIES TALLY FORM

Project Name:	LDW RI fish and crab chemistry	Project #:	04-08-06-22
Date:	September 6, 2005	Sampling area:	T4D
Retrieval Time:	0954-0957	Start coordinates	X:
Collection method/Effort #:	TRO79		Y:
Weather:	partly cloudy	End coordinates	X:
Sampler:	MLC		Y:
Comments: NO keepers			

SPECIES	#	LENGTH (nearest mm)	WEIGHT (nearest 0.5 g)	COMMENTS
Common Murre	1	3.5 (500)		
Longfin mako	2			
Shad	2	~200		
Longcod	1+1			
Starry flounder MLC				
SS	105 39	>80 <80		
SF	8+37 116	<100 100-200		
SS	35 24	<80 >80		
Moridom	1			
QS	25 7	<120 >120		



FISH AND INVERTEBRATE SPECIES TALLY FORM

Project Name:	LDW RI fish and crab chemistry	Project #:	04-08-06-22
Date:	September 06-2005	Sampling area:	T4C slope
Retrieval Time:	10:13-10:17	Start coordinates	X:
Collection method/Effort #:	TRD80		Y:
Weather:	Partly Cloudy	End coordinates	X:
Sampler:	MBL, FMM, ERH		Y:
Comments:	2 SF		

SPECIES	#	LENGTH (nearest mm)	WEIGHT (nearest 0.5 g)	COMMENTS
SS	47 50+7	<80 >80		
PS	2 1	<120 >120		
SF	42 1+29+1+1	<100 100-200		
Gangon	2			
SF	2	>200		
Synake Pridolebach	1			



FISH AND INVERTEBRATE SPECIES TALLY FORM

Project Name:	LDW RI fish and crab chemistry	Project #:	04-08-06-22
Date:	September 06-2005	Sampling area:	T4D slope
Retrieval Time:	10:31- 10:34	Start coordinates	X:
Collection method/Effort #:	TRO81		Y:
Weather:	Partly Cloudy	End coordinates	X:
Sampler:	MGL, FMM, ERA		Y:
Comments:	NO keepers		

SPECIES	#	LENGTH (nearest mm)	WEIGHT (nearest 0.5 g)	COMMENTS
SS	26+12 48+8	< 80 > 80		
Crab	2			
tom cod	2			
urchin	2			
PS	4 2	< 120 > 120		
SF	45 69	< 100 > 100		
Snake Pichleback	1			



FISH AND INVERTEBRATE SPECIES TALLY FORM

Project Name:	LDW RI fish and crab chemistry	Project #:	04-08-06-22
Date:	Sept 6-2005	Sampling area:	T4B
Retrieval Time:	10:48-10:53	Start coordinates	X:
Collection method/Effort #:	TROB2		Y:
Weather:	Partly Cloudy	End coordinates	X:
Sampler:	MGL, FMM, ERH		Y:
Comments:	1 ES		

SPECIES	#	LENGTH (nearest mm)	WEIGHT (nearest 0.5 g)	COMMENTS
ES	1	>200		
SF	21+1 43	<100 7100-200		
SS	54+1 87	<80 >80		
Crangon	2+1			
Urechis	2			
Meridrium	1			
PS	5+16 10+3	<120 >120		
Prickly sculpin	1			



FISH AND INVERTEBRATE SPECIES TALLY FORM

Project Name:	LDW RI fish and crab chemistry	Project #:	04-08-06-22
Date:	September 06 - 2005	Sampling area:	THA channel
Retrieval Time:	11:09 - 11:15	Start coordinates	X:
Collection method/Effort #:	TR083		Y:
Weather:	Pt Cloudy	End coordinates	X:
Sampler:	MGL, FMM, ERH		Y:
Comments:	2 ES ♂ 1 ES ♂		

SPECIES	#	LENGTH (nearest mm)	WEIGHT (nearest 0.5 g)	COMMENTS
DC	1	>90		0→
ES	3	<100 >200		2♂, 1♂
longfin snail	2			
GF	72 + 10 + 11 72 + 11 1	<100 100-200 >200		
SS	25 + 15 30 + 21	<80 >80		
longcod	1			
PS	2 4 + 1	<120 >120		



FISH AND INVERTEBRATE SPECIES TALLY FORM

Project Name:	LDW RI fish and crab chemistry	Project #:	04-08-06-22
Date:	Sept 6, 2005	Sampling area:	T4B channel
Retrieval Time:	11:26 - 11:32	Start coordinates	X:
Collection method/Effort #:	TB084		Y:
Weather:	pt cloudy	End coordinates	X:
Sampler:	MGL, FMM, ERH		Y:
Comments:	2 ES ♀		

SPECIES	#	LENGTH (nearest mm)	WEIGHT (nearest 0.5 g)	COMMENTS
Tamcod	1			
SS	$\frac{35 + 31}{84 + 43}$	$\frac{< 80}{> 80}$		
	35 FMM	31 FMM		
SF	$\frac{21 + 20}{1 + 1}$	$\frac{100 - 200}{> 200}$		
SF	3 + 20	< 100		
PS	21 8	$\frac{FMM}{> 120}$ < 120		
ES	2	> 200		



FISH AND INVERTEBRATE SPECIES TALLY FORM

Project Name:	LDW RI fish and crab chemistry	Project #:	04-08-06-22
Date:	September 06-2005	Sampling area:	T4A channel
Retrieval Time:	1206-1212	Start coordinates	X:
Collection method/Effort #:	TR085		Y:
Weather:	Partly cloudy	End coordinates	X:
Sampler:	MBL, FMM, ERH		Y:
Comments:	1 ES OX		

SPECIES	#	LENGTH (nearest mm)	WEIGHT (nearest 0.5 g)	COMMENTS
SS	25 30	< 80 > 80		
PS	9 8	< 120 > 120		
SF	32 17	< 100 100-200		
ES	4 2	< 100 100-200		
Sand sole	1	~100		
ES	1	> 200		



FISH AND INVERTEBRATE SPECIES TALLY FORM

Project Name:	LDW RI fish and crab chemistry	Project #:	04-08-06-22
Date:	September 06-2005	Sampling area:	T4B
Retrieval Time:	1225-1230	Start coordinates	X:
Collection method/Effort #:	TR086		Y:
Weather:	Partly Cloudy	End coordinates	X:
Sampler:	MBL, FMM, ERH		Y:
Comments:	1 ES ♂		

SPECIES	#	LENGTH (nearest mm)	WEIGHT (nearest 0.5 g)	COMMENTS
SC	1	< 90		
PS	26	26 ^{MBL} < 125		
	29	29 > 120		
SF	40	< 100		
	28	100-200		
SS	50	< 80		
	74	> 80		
ES	1	1 ^{MBL} 100-200		
	1	> 200		



FISH AND INVERTEBRATE SPECIES TALLY FORM

Project Name:	LDW RI fish and crab chemistry	Project #:	04-08-06-22
Date:	September 06-2005	Sampling area:	T4A (on line w/ T4B)
Retrieval Time:	12:43-12:48	Start coordinates	X:
Collection method/Effort #:	TRO87		Y:
Weather:	Partly Cloudy	End coordinates	X:
Sampler:	MBL, FMM, ERH		Y:
Comments:	1 ES OX		

SPECIES	#	LENGTH (nearest mm)	WEIGHT (nearest 0.5 g)	COMMENTS
PS	10	< 120		
	5	> 120		
Crangon	5			
ES	1	> 200		
SF	11	< 100		
	42	100-200		
SS	45	< 80		
	24	> 80		

FISH AND INVERTEBRATE SPECIES TALLY FORM

Project Name:	LDW RI fish and crab chemistry	Project #:	04-08-06-22
Date:	September 06-2005	Sampling area:	T4B (on line up A)
Retrieval Time:	1301-1306	Start coordinates	X:
Collection method/Effort #:	7 R088		Y:
Weather:	Partly Cloudy	End coordinates	X:
Sampler:	MGL, FOM, ERH		Y:
Comments:	no keepers		

SPECIES	#	LENGTH (nearest mm)	WEIGHT (nearest 0.5 g)	COMMENTS
SS	24	>80		
	10	<80		
SF	26+1	<100		
	44	>100-200		
Sand sole	2	~100		
	1	280		
Metridium	1			
Crangon	7+2			
PS	6	<120		
	12	>120		



FISH AND INVERTEBRATE SPECIES TALLY FORM

Project Name:	LDW RI fish and crab chemistry	Project #:	04-08-06-22
Date:	September 6 - 2005	Sampling area:	T4A channel
Retrieval Time:	1316 - 1322	Start coordinates	X:
Collection method/Effort #:	TRO89		Y:
Weather:	Partly Cloudy	End coordinates	X:
Sampler:	MGL, FMM, ERH		Y:
Comments:	NO keepers		

SPECIES	#	LENGTH (nearest mm)	WEIGHT (nearest 0.5 g)	COMMENTS
SS	47	< 80		
	34+1	> 80		
SF	18	< 100		
	28	> 100 - 200		
ES	6	< 100		
	3	100 - 200		
PS	2	< 120		
	4	> 120		
Gorgon				



FISH AND INVERTEBRATE SPECIES TALLY FORM

Project Name:	LDW RI fish and crab chemistry	Project #:	04-08-06-22
Date:	September 06-2005	Sampling area:	79A channel
Retrieval Time:	1353-1358	Start coordinates	X:
Collection method/Effort #:	T12091		Y:
Weather:	pt. Cloudy	End coordinates	X:
Sampler:	MBL, FMM, ERH		Y:
Comments:	Twisted trunk no keepers		

SPECIES	#	LENGTH (nearest mm)	WEIGHT (nearest 0.5 g)	COMMENTS
SS	5 12 + 7	> 80		
PS	4	< 120		
SF	7 + 8 + 1 ⁶	< 100 > 100-200		
Crangon	5			
ES	2	< 100		



FISH AND INVERTEBRATE SPECIES TALLY FORM

Project Name:	LDW RI fish and crab chemistry	Project #:	04-08-06-22
Date:	September 06 - 2005	Sampling area:	1412-16 74B channel
Retrieval Time:	1412-1417	Start coordinates	X:
Collection method/Effort #:	TRO 92		Y:
Weather:	Partly Cloudy	End coordinates	X:
Sampler:	MBL, FMH, ERH		Y:
Comments:	no keepers		

SPECIES	#	LENGTH (nearest mm)	WEIGHT (nearest 0.5 g)	COMMENTS
SS	95	<80		
	50	>80		
SF	22	<100		
	30	>100-200		
PS	13	>120		
	15	<120		
Crangon	4			



FISH AND INVERTEBRATE SPECIES TALLY FORM

Project Name:	LDW RI fish and crab chemistry	Project #:	04-08-06-22
Date:	September 06-2005	Sampling area:	T4 ^{MBL} channel 4A
Retrieval Time:	1426 - 1431	Start coordinates	X:
Collection method/Effort #:	TR093		Y:
Weather:	Partly cloudy	End coordinates	X:
Sampler:	MBL		Y:
Comments:	2 ES (1 ♂ 1 ♀ (Broken skin from trawl))		

SPECIES	#	LENGTH (nearest mm)	WEIGHT (nearest 0.5 g)	COMMENTS
ES	5 3 2	<100 100-200 >200		
PS	1 8	<120 >120		
BF	14 38	<100 100-200		
SS	25 22	<80 >80		
from con	1			



FISH AND INVERTEBRATE SPECIES TALLY FORM

Project Name:	LDW RI fish and crab chemistry	Project #:	04-08-06-22
Date:	September 06-2005	Sampling area:	T4B channel
Retrieval Time:	1443 - 1448	Start coordinates	X:
Collection method/Effort #:	TRO 94		Y:
Weather:	Partly Cloudy	End coordinates	X:
Sampler:	MBL, FMM, ERH		Y:
Comments:	1 ES Q		

SPECIES	#	LENGTH (nearest mm)	WEIGHT (nearest 0.5 g)	COMMENTS
SF	15 28+2	<100 100-200		
ES	2 1	<100 >200		
SS	20 55	<80 >80		
PS	9 18	<120 >120		
Crangon	1			

E-3. Fish Collection: Field Notes

"Outdoor writing products for outdoor writing people."



RECYCLABLE

"Rite in the Rain" - A unique All-Weather Writing paper created to shed water and enhance the written image. It is widely used throughout the world for recording critical field data in all kinds of weather.

Available in a variety of standard and custom printed case-bound field books, loose leaf, spiral and stapled notebooks, multi-copy sets and copier paper.

For best results, use a pencil or an all-weather pen.

a product of

J. L. DARLING CORPORATION

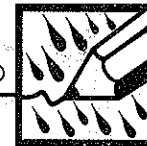
Tacoma, WA 98424-1017 USA
(253) 922-5000 • FAX (253) 922-5300
www.RiteintheRain.com

NSN: 7530-01-433-5654



6 32281 31111 9

"Rite in the Rain"
ALL-WEATHER WRITING PAPER



LEVEL

All-Weather Notebook
No. 311

LDW Fish and Crab 2005

4 5/8" x 7" - 48 Numbered Pages

29 Aug 05

T.D.O

00:50 Arrived at Harbor Island Marina, C dock.
Jennie Goldberg waiting. Load gear
onto R/V Kitiwake (Charlie & Chris
on-site). Matt & Thai.

09:15 Joanna arrives w/ trawl net. set up net.

10:00 Finished setting up trawl net; decontaminated
sampling equipment & bins.

10:10 Health and safety meeting. Matt Luxon,
Joanna Flower, Charlie Eaton, Chris Eaton,
Jennie Goldberg, Thai Do.

10:21 Begin TR001 (T1D)

10:26 End TR001

10:51 Begin TR002 (T1D)

10:56 End TR002. Boom needs repairs.

11:54 Begin TR003 (T1D)

11:58 End TR003

12:13 Begin TR004 (T1D)

12:17 End TR004

12:32 Begin TR005 (T1D)

12:38 End TR005

12:45 Lunch break

13:05 Matt called Kathy G. to update
her on our progress.

13:10 Moving to ~~F1B~~ T1B; lunch break over.

29 Aug 05

T.D.O

13:32 Begin TR006 (T1B)

13:37 End TR006 2 hrs in net; photo taken

14:08 Begin TR007 (T1C)

14:12 End TR007

14:41 Begin TR008 (T1C)

14:45 End TR008

15:11 Begin TR009 (T1E)

15:17 End TR009

15:35 Begin TR010 (T1E)

15:40 End TR010

15:59 Begin TR011 (T1F)

16:04 End TR011

16:21 Begin TR012 (T1F)

16:27 End TR012

16:45 Return to Harbor Island Marina.

End of field sampling day. Joanna
will take samples to ARI to
refrigerate until processing.

~~29 AUG 05 T.D.O~~

Aug 30-05

M. Luxon

Arrived @ Harbor Island 0800

M. Luxon, Angelita ^{Rodriguez} ~~Hammer~~, Emily Duffield, (ww)
Chris Eaton, Charlie Eaton (Kittlinghe)8:31 Decal ~~not~~ collection tubs & sculpin
containers

9:00. Health & Safety meeting - All Crew

Begin trawl TR013 (T1A)

@ 8:44

Emily Duffield

end trawl at 8:49

TR014 area T1A

start 9:09 end 9:14

- wing of trawl was twisted,
may not get much

TR015 area T1A

start @ 9:29

end @ 9:34

TR016 area T1B

start @ 10:05

end @ 10:10

TR017

area T1B

start @ 10:25 end @ 10:30

TR018

area T1B

start @ 10:45 end @ 10:50

TR019

area T1B

start @ 11:07 end @ 11:13

move to area T3B + had lunch

TR020

area T3B

start @ 12:20 end @ 12:31

TR021

area T4A

start @ 12:54 end @ 12:56

- aborted trawl early b/c
of crab pots directly in
trawl path.

TR022

area 4B

start 13:23 end 13:28

TR023

area 4C - channel

start @ 13:51 end @ 13:54

TR 024 area 4C
start @ 14:03 end @ 14:07

TR 025 area 4D
start @ 14:22 end @ 14:25

TR 026 area 4D
start @ 14:35 end @ 14:39

TR 027 - Inst in net came
undone → no haul @ site 3F

TR 028 - area 3F
start @ 15:41 end @ 15:47

TR 029 - area 3F
start @ 15:59 end @ 16:05

TR 030 area 3E
start @ 16:26 end @ 16:32

Return to Harbor Island
Dock @ 5:12 End of field sampling
day samples will be held @ warehouse
on ARI until processing. M. LIXON

August 31-2005

Arrived @ Harbor Island 8:05

(LFE) Jay Field (NERR), Bruce Duran (EPA) (PBD)
Chris Eaton & Charlie Eaton (Kithiwahe)

8:15 motor to T3. Introduce Bruce
& Jay to Effort / Catch

8:30: Health & Safety Report. Meeting

8:40: Arrive @ T3

TR 031 Area 3D Bruce Duran notes
start 09:02 End 09:08
5 SS

TR 032 Area 3D
start 0920 End 0925
5 SS
2 ES
[2 Staghorn >120 Temp]

TR 033 Area 3C
start 1012 End 1016
10 SS
[4 Staghorn >120 Temp]

TR034

AREA 3A

Start 1036 End 1040

10 SS

[1 Pac. Staghorn Sculpin Temp]

1 Eng sole

TR035

AREA 3F

Start 1101 End 1107

TR036

AREA 3D

Start 1121 End 1126

TR037

AREA 3E

Start 1143 End 1149

[1 Pac stagh TEMP]

Lunch 12:15 S. Park Marina

TR038

*note on QID

AREA 3B

Start 1206 End 1251

TR039

*note on QID

AREA 3B

Start 1303 End 1309

TR040 *note on QID

AREA 3C

Start 1321 End 1326

TR041

AREA 3C

Start 1335 End 1339

4 Eng sole 2♀, 2♂

[6 staghorn sculpin Temp]

(wait on grounded barge)

TR042

AREA 3D

Start 1421 End 1425

[8 staghorn sculpin Temp]

7 Eng sole 3♀ 4♂

TR043

AREA 3F

Start 1446 End 1452

[10 staghorn sculpin Temp]

KEPT ALL 10 (BD)

3 Eng sole 2♀ 1♂

TR044

Slope AREA 3F (slope)

Start 1510 End 1516

[2 staghorn sculpin Temp]

KEPT ALL 2 (BD)

TR 045

AREA T3 F

start: 1532 stop: 1537

3 Eng sole 2 ♀ 1 ♂

TR 046

AREA: T3 E

start: 1559 stop: 1605

1 Eng sole 1 ♂

TR 047

AREA: T3 E

start: 1617 stop: 1622

1 Eng sole 1 ♀

* note: trawls 38, 39, & 40 were
not fishing effectively because high
currents & wind caused net to
float above bottom. Return to Harbor
Island Marina
End of trawling Day 5:00
Aug 31 - 05

Matt Luxon

September 01 - 2005

Arrive Harbor Island 0804

T.M. Hammermeister (SAIC)

Charlie Eaton, Chris Eaton (K. H. Wake)

Thai Do, M. Luxon (windward)

Health & Safety Plan en-route to Area
T2

TR048 Subarea T2E

start 8:41 end 8:46

35-10

[PS-TEMP]

~~TR048~~^{TR048} Subarea T2E

TR049 start 8:55 end 9:01

[PS-TEMP]

TR050 Subarea T2E channel

start 9:14 end 9:20

Small log in net - creosote smell &

stick in water from log.

[PS 3-TEMP]

TR051 T2E channel
 start 9:39 End 9:44
 [PS - 3 - temp]

TR052 T2E channel
 start 9:55 End 10:01
 [PS 1]
 ES - 1 - Q

TR053 T2F Beach
 start: 10:15
 End: 10:20
 1 ES
 10 SS

TR054 T2A ~~MbL~~ channel
 start: 10:57 End 11:02
 camp in mouth of net. mud in sample - towed
 net to get rid of mud. 30-ES (24 ♂, 6 ♀)
 [cush 12:00 - 12:30] 10-SS

TR055 T2B ~~shallow~~ channel
 start: 12:24 End: 12:29
 10-SS

~~throw back~~ Bagged all ~~shallow~~ staghorn
 Sculpin from T2E

TR056 T2C channel
 start 1249 End 1255
 2 SS

TR057 T2C channel
 start 1308 End 1314
 8 SS

TR058 T2D channel
 start 1335 End 1339
 10 SS

TR059 T3A channel
 start 1415 End 1420
 6 ES

End of trawling day - Return to Harbor
 Island Marina 14:30

MbL Sept 01-2005

September 02, 2005

Arrive O Harbor Island Marina 8:04

Tim Hammermeister (SAIC) Paula Steinhoff (NORA)

Charlie Eaton & Chris Eaton (U.H. Inshore)

Matt Luxon & Thai Do (windward)

Depart Dock 8:20 motor to T4
health & safety plan en-route.

TR060 Start End
~~#2A~~^{MOL} channel 8:57 9:03
T4A no keepers^{MOL} 1 SC

TR061 Start 9:13 End 9:15
T4C channel 1 PS

TR062 Start 9:37 End 9:43
T4B channel 1 SF

TR063 Start End
T4A channel 10:02 10:07
1 SF
SDC

TR064 Start 10:24 End 10:30
T4A channel 2 SF

TR065 Start 10:43 End 10:49
T4B channel 1 SF

TR066 Start 11:01 End 11:03
T4C channel no keepers

TR067 Start 11:22 End 11:28
T4A channel 1 ES Q
Lunch 11:40 - 12:10

TR068 Start 12:23 End 12:29
T4B channel 1 SF

TR069 Start 12:41 End 12:46
T4A channel no keepers

TR070 Start ~~1302~~¹²⁵⁶ End 1302
T4B channel 1 ES, 2 SF

TR071 Start 1313 End 1319
T4 A channel 2 SF

September 2 - 2005

TRO72 Start 1336 End 1341

T4B channel no keepers

1:50 return to Harbor Island Marina End of
trawling Day

fish to be processed @ windward

M6-L Sept 02-2005

September 6 - 2005

Arrive @ Harbor Island

M. Luxon (windward), Charlie & Chris Eaton
(Uthiwahe) transit to Area T4TRO73 T4A Start 0743 End 0749
2 SF

TRO74 T4B channel

13F, 1ES Start 0807 End 0813

Pick up Erika Hoffman & Zionna
McKair @ S. Park Marina 08:20TRO75 T4A ch Start 834 End 838
3 SFTRO76 T4B ch Start 8:51 End 8:56
no keepers

TRO77 T4A channel Start 0910 End 0916

TRO78 T4C channel Start 0928 End 0931

TRO79 T4D channel Start 954 End 957
2 SFTRO80 T4C shoulder
-slope Start 10:13 End 10:17

September 06-2005

TR081 start 10:31 End 10:34

T4 D slope ~~2.55~~

TR082 Start 10:48 End 10:53

T4 B channel 1 ES

TR083 channel Start 11:09 End 11:15
T4A 3 ES 2a, 10TR084 channel Start 11:26-11:32
T4B channel 2 ES ♀ ~~100~~

- Quick Lunch

TR085 T4A channel Start 12:06 End 12:12
twisted wing on trail
✓ 1 ES ♀TR086 T4B start 1225 End 1236
1 ES ♂✓TR087 T4A-line between A & B
Start 1243 End 1248
1 ES ♀TR088 T4B on line w/ T4A
Start 1301 End 1306
NO keepers

TR089 T4 A channel start 1316 End 1322

no keepers

TR090 T4 B channel start 1334 End 1340
✓ 1 ES ♀TR091 T4A channel start 1353 End 1358
no keepersTR092 T4B channel start 1412 End 1417
no keepersTR093 T4 A channel (14A)
Start 1426 End 1431
✓ 2 ES (10, 10)TR094 T4 B channel start 1443 end 1448
✓ 1 ES ♀

Return ERH & FHM to S. Park Museum

1510 - Motor to Harbor Island

Mauwa - remove windward gear from
boat. net to be retrieved on

September 07-2005 by Soanna Flores

End of collection effort

E-4. Crab Collection Forms

FISH AND CRAB TISSUE COLLECTION FORM

Project Name:	LDW RI fish and crab chemistry	Project #:	04-08-06-22
Date:	08/30/05	Sampling area:	T2B
Retrieval Time:	0835/1105	Start coordinates	X: 47 32.755
Collection method/Effort #:	CT-001		Y: 122 20.201
Weather:		End coordinates	X:
Sampler:	TD, KH		Y:
Comments:	33 Slender crab (<i>C. gracilis</i>)		

[illegible]

[illegible]

[illegible]

FISH AND CRAB TISSUE COLLECTION FORM

Project Name:	LDW RI fish and crab chemistry	Project #:	04-08-06-22
Date:	08/30/05	Sampling area:	T3-D
Retrieval Time:	0915/1209	Start coordinates	X: 473.779
Collection method/Effort #:	CT-006		Y: 12218.861
Weather:		End coordinates	X:
Sampler:	TD, KH		Y:
Comments:			
NO CRAB			

[illegible]

FISH AND CRAB TISSUE COLLECTION FORM

Project Name:	LDW RI fish and crab chemistry	Project #:	04-08-06-22
Date:	08/30/05	Sampling area:	T3-E
Retrieval Time:	0923/1215	Start coordinates	X: 4731.639
Collection method/Effort #:	CT-007		Y: 12218.660
Weather:		End coordinates	X:
Sampler:	TD, KH		Y:
Comments:	2 SC (slender crab) male		

SPECIMEN ID #	SPECIES	LENGTH (nearest mm)	WEIGHT (nearest 0.1 g)	COMMENTS
LDW-05-T3-E-CT007-SC-04	SC	102	209.8	Male

[illegible]

FISH AND CRAB TISSUE COLLECTION FORM

Project Name:	LDW RI fish and crab chemistry	Project #:	04-08-06-22
Date:	08/30/05	Sampling area:	T3-B
Retrieval Time:	1241/1520	Start coordinates	X: 4731.894
Collection method/Effort #:	CT-18		Y: 12219.063
Weather:		End coordinates	X:
Sampler:	TD-KH		Y:
Comments:	1 SC		

SPECIMEN ID #	SPECIES	LENGTH (nearest mm)	WEIGHT (nearest 0.1 g)	COMMENTS
LDW-05-T3-B-CT018-SC-01	SC	106	243	Male

[illegible]



Project Name:	LDW RI fish and crab chemistry	Project #:	04-08-06-22
Date:	08/30/05	Sampling area:	T4-C
Retrieval Time:	1420/1625	Start coordinates	X: 4730.732
Collection method/Effort #:	CT-024		Y: 12218.248
Weather:		End coordinates	X:
Sampler:	TD, KH		Y:
Comments:	Ø crab.		

[illegible]

[illegible]

[illegible]

[illegible]

[illegible]

[illegible]

FISH AND CRAB TISSUE COLLECTION FORM

Project Name:	LDW RI fish and crab chemistry	Project #:	04-08-06-22
Date:	8.31.05	Sampling area:	T4B
Retrieval Time:	082211135	Start coordinates	X:
Collection method/Effort #:	CT031		Y:
Weather:	Overcast	End coordinates	X:
Sampler:	AMR, TD		Y:
Comments:	Slender Crab kept one.		

[illegible]

FISH AND CRAB TISSUE COLLECTION FORM

Project Name:	LDW RI fish and crab chemistry	Project #:	04-08-06-22
Date:	08.31.05	Sampling area:	T4B
Retrieval Time:	0825/1136	Start coordinates	X:
Collection method/Effort #:	CT032		Y:
Weather:	Overcast	End coordinates	X:
Sampler:	AMR, TD		Y:
Comments:	Empty trap None kept		

[illegible]

Project Name:	LDW RI fish and crab chemistry	Project #:	04-08-06-22
Date:	8.31.05	Sampling area:	T4A
Retrieval Time:	0832 / 1141	Start coordinates	X:
Collection method/Effort #:	CT034		Y:
Weather:	Overcast	End coordinates	X:
Sampler:	AMR, TD		Y:
Comments:	None kept		

[illegible]

FISH AND CRAB TISSUE COLLECTION FORM

Project Name:	LDW RI fish and crab chemistry	Project #:	04-08-06-22
Date:	08.31.05	Sampling area:	T4A
Retrieval Time:	0834 / 1143	Start coordinates	X:
Collection method/Effort #:	CT035		Y:
Weather:	Overcast	End coordinates	X:
Sampler:	AMR, JD		Y:
Comments:	None kept		

[illegible]

Project Name:	LDW RI fish and crab chemistry	Project #:	04-08-06-22
Date:	8.31.05	Sampling area:	T4A
Retrieval Time:	0837/1145	Start coordinates	X:
Collection method/Effort #:	CT036		Y:
Weather:	Overcast	End coordinates	X:
Sampler:	AMR, TD		Y:
Comments:	None kept		

[illegible]

Project Name:	LDW RI fish and crab chemistry	Project #:	04-08-06-22
Date:	8.31.05	Sampling area:	T3A
Retrieval Time:	1047 / 1253	Start coordinates	X:
Collection method/Effort #:	CT037		Y:
Weather:	Partly Cloudy	End coordinates	X:
Sampler:	AMR, TD		Y:
Comments: Slender crab kept one.			

[illegible]

Project Name:	LDW RI fish and crab chemistry	Project #:	04-08-06-22
Date:	8.31.05	Sampling area:	T2c
Retrieval Time:	105811309	Start coordinates	X:
Collection method/Effort #:	CT038		Y:
Weather:	Partly cloudy	End coordinates	X:
Sampler:	AMR, TD		Y:
Comments:	None kept.		

[illegible]

Project Name:	LDW RI fish and crab chemistry	Project #:	04-08-06-22
Date:	8.31.05	Sampling area:	T2D
Retrieval Time:	1107/1313	Start coordinates	X:
Collection method/Effort #:	CT039		Y:
Weather:	Partly cloudy	End coordinates	X:
Sampler:	AMP, TD		Y:
Comments:	None kept.		

[illegible]

[illegible]

[illegible]

Project Name:	LDW RI fish and crab chemistry	Project #:	04-08-06-22
Date:	8.31.05	Sampling area:	T2A
Retrieval Time:	1119/1326	Start coordinates	X:
Collection method/Effort #:	CT042		Y:
Weather:	Partly cloudy	End coordinates	X:
Sampler:	AMR, TD		Y:
Comments:	None kept.		

[illegible]

FISH AND CRAB TISSUE COLLECTION FORM

Project Name:	LDW RI fish and crab chemistry	Project #:	04-08-06-22
Date:	8.31.05	Sampling area:	T4B
Retrieval Time:	1152/1419	Start coordinates	X:
Collection method/Effort #:	CT043		Y:
Weather:	Partly cloudy	End coordinates	X:
Sampler:	AMR, TD		Y:
Comments:	None kept.		

[illegible]

FISH AND CRAB TISSUE COLLECTION FORM

Project Name:	LDW RI fish and crab chemistry	Project #:	04-08-06-22
Date:	8.31.05	Sampling area:	T4B
Retrieval Time:	1154/1421	Start coordinates	X:
Collection method/Effort #:	CT044		Y:
Weather:	Sun, warm	End coordinates	X:
Sampler:	AMR, TD		Y:
Comments:	None kept.		

[illegible]

[illegible]

FISH AND CRAB TISSUE COLLECTION FORM

Project Name:	LDW RI fish and crab chemistry	Project #:	04-08-06-22
Date:	8.31.05	Sampling area:	T4B
Retrieval Time:	1200/1502	Start coordinates	X:
Collection method/Effort #:	CT046		Y:
Weather:	Sun, warm	End coordinates	X:
Sampler:	AMR, TD		Y:
Comments:	None kept.		

[illegible]

[illegible]

[illegible]

Project Name:	LDW RI fish and crab chemistry	Project #:	04-08-06-22
Date:	B.31.05	Sampling area:	T3A
Retrieval Time:	125711603	Start coordinates	X:
Collection method/Effort #:	CT049		Y:
Weather:	Sun, Warm	End coordinates	X:
Sampler:	AMR, TD		Y:
Comments:	One Slender crab kept.		

[illegible]

FISH AND CRAB TISSUE COLLECTION FORM

Project Name:	LDW RI fish and crab chemistry	Project #:	04-08-06-22
Date:	8.31.05	Sampling area:	T2A
Retrieval Time:	1332/1621	Start coordinates	X:
Collection method/Effort #:	CT050		Y:
Weather:	Sun, warm	End coordinates	X:
Sampler:	AMR, TD		Y:
Comments:	None kept.		

[illegible]

FISH AND CRAB TISSUE COLLECTION FORM

Project Name:	LDW RI fish and crab chemistry	Project #:	04-08-06-22
Date:	B. 31.05	Sampling area:	T2A
Retrieval Time:	1335 / 1623	Start coordinates	X:
Collection method/Effort #:	CT051		Y:
Weather:	Warm, Sun	End coordinates	X:
Sampler:	AMR, TD		Y:
Comments:	None kept.		

[illegible]

FISH AND CRAB TISSUE COLLECTION FORM

Project Name:	LDW RI fish and crab chemistry	Project #:	04-08-06-22
Date:	8.31.05	Sampling area:	T2B
Retrieval Time:	1342/1627	Start coordinates	X:
Collection method/Effort #:	CT052		Y:
Weather:	Sun, warm	End coordinates	X:
Sampler:	AMP, TD		Y:
Comments: None kept.			

SPECIMEN ID #	SPECIES	LENGTH (nearest mm)	WEIGHT (nearest 0.1 g)	COMMENTS

[illegible]

[illegible]

E-5. Crab Collection: Species Tally Forms



FISH AND INVERTEBRATE SPECIES TALLY FORM

Project Name:	LDW RI fish and crab chemistry	Project #:	04-08-06-22
Date:	08/30/05	Sampling area:	T2B
Retrieval Time:	set time: 0838 / 1109	Start coordinates	X: 47 32.792
Collection method/Effort #:	CT-002		Y: 122 20.150
Weather:		End coordinates	X:
Sampler:	T. Do, KH		Y:
Comments:			

SPECIES	#	LENGTH (nearest mm)	WEIGHT (nearest 0.5 g)	COMMENTS
<i>C. gracilis</i> (slender)	6	> 90		
<i>C. gracilis</i>	5	< 90		two gravid females
<i>C. gracilis</i>	2	unknown		fell through trap



FISH AND INVERTEBRATE SPECIES TALLY FORM

Project Name:	LDW RI fish and crab chemistry	Project #:	04-08-06-22
Date:	08/30/05	Sampling area:	T 2 E
Retrieval Time:	set: 0848 Ret: 1119	Start coordinates	X: 47 32.379
Collection method/Effort #:	CT-003		Y: 122 19.881
Weather:	cloudy	End coordinates	X:
Sampler:	T. Do, KH		Y:
Comments:			

SPECIES	#	LENGTH (nearest mm)	WEIGHT (nearest 0.5 g)	COMMENTS
<i>C. gracilis</i>	7	790		
<i>C. gracilis</i>	2	< 90		both female
<i>C. gracilis</i>	2	unknown		fell through trap



FISH AND INVERTEBRATE SPECIES TALLY FORM

Project Name:	LDW RI fish and crab chemistry	Project #:	04-08-06-22
Date:	8/30/05	Sampling area:	T2E
Retrieval Time:	set: 0855 / ret: 1130	Start coordinates	X: 4732.360
Collection method/Effort #:	CT-004		Y: 12219.857
Weather:	cloudy	End coordinates	X:
Sampler:	T. DO, KH		Y:
Comments:			

SPECIES	#	LENGTH (nearest mm)	WEIGHT (nearest 0.5 g)	COMMENTS
<i>C. gracilis</i>	1	>90		
<i>C. gracilis</i>	2	<90		
<i>C. gracilis</i>	2	unknown		fell through trap gravid females - both
<i>C. productus</i>	1	>90		



FISH AND INVERTEBRATE SPECIES TALLY FORM

Project Name:	LDW RI fish and crab chemistry	Project #:	04-08-06-22
Date:	08/30/05	Sampling area:	T3D
Retrieval Time:	Set: 0908 / Ret: 1205	Start coordinates	X: 4731.853
Collection method/Effort #:	CT-005		Y: 12218.988
Weather:		End coordinates	X:
Sampler:	T. Do, KH		Y:
Comments:			

SPECIES	#	LENGTH (nearest mm)	WEIGHT (nearest 0.5 g)	COMMENTS
<i>C. gracilis</i> (sc)	1	unknown		fell through trap (female)
<i>C. gracilis</i> (sc)	1	> 90		
<i>C. gracilis</i> (sc)	1	< 90		



FISH AND INVERTEBRATE SPECIES TALLY FORM

Project Name:	LDW RI fish and crab chemistry	Project #:	04-08-06-22
Date:	08/30/05	Sampling area:	T3-D
Retrieval Time:	set 0915 Ret: 1209	Start coordinates	X: 4731.779
Collection method/Effort #:	CT-006		Y: 12218.861
Weather:	cloudy	End coordinates	X:
Sampler:	T. Do		Y:
Comments:	empty - no crab		

SPECIES	#	LENGTH (nearest mm)	WEIGHT (nearest 0.5 g)	COMMENTS



FISH AND INVERTEBRATE SPECIES TALLY FORM

Project Name:	LDW RI fish and crab chemistry	Project #:	04-08-06-22
Date:	08/30/05	Sampling area:	T3-E
Retrieval Time:	set: 0923 / Ret: 1215	Start coordinates	X: 4731.639
Collection method/Effort #:	CT-007		Y: 12218.660
Weather:	cloudy	End coordinates	X:
Sampler:	T. Do		Y:
Comments:			

SPECIES	#	LENGTH (nearest mm)	WEIGHT (nearest 0.5 g)	COMMENTS
<i>C. gracilis</i>	1	>90		106 mm



FISH AND INVERTEBRATE SPECIES TALLY FORM

Project Name:	LDW RI fish and crab chemistry	Project #:	04-08-06-22
Date:	08/30/05	Sampling area:	T3 F
Retrieval Time:	set: 0927 / ret: 1217	Start coordinates	X: 4731.610
Collection method/Effort #:	CT-008		Y: 12218.572
Weather:	cloudy	End coordinates	X:
Sampler:	T. DO, KH		Y:
Comments:			

SPECIES	#	LENGTH (nearest mm)	WEIGHT (nearest 0.5 g)	COMMENTS
C. magister (LOC)	1	>90		extra dactyl on left claw



FISH AND INVERTEBRATE SPECIES TALLY FORM

Project Name:	LDW RI fish and crab chemistry	Project #:	04-08-06-22
Date:	08/30/05	Sampling area:	T4-A
Retrieval Time:	set - 04380945/1316	Start coordinates	X: 4731.041
Collection method/Effort #:	CT-009		Y: 12218.374
Weather:	cloudy	End coordinates	X:
Sampler:	T. Do, K. Hurley		Y:
Comments:			

SPECIES	#	LENGTH (nearest mm)	WEIGHT (nearest 0.5 g)	COMMENTS
				NO CRAB

[illegible]



FISH AND INVERTEBRATE SPECIES TALLY FORM

Project Name:	LDW RI fish and crab chemistry	Project #:	04-08-06-22
Date:	08/30/05	Sampling area:	T1B
Retrieval Time:	set: 0957 Ret 1321	Start coordinates	X: 4731.107
Collection method/Effort #:	CT 011		Y: 12218.324
Weather:	cloudy	End coordinates	X:
Sampler:	T, Do, K. Hurley		Y:
Comments:			

SPECIES	#	LENGTH (nearest mm)	WEIGHT (nearest 0.5 g)	COMMENTS
<i>C. gracilis</i>	1	>90		104 mm male

[illegible]



FISH AND INVERTEBRATE SPECIES TALLY FORM

Project Name:	LDW RI fish and crab chemistry	Project #:	04-08-06-22
Date:	08/30/05	Sampling area:	T2A
Retrieval Time:	Set: 1146 Retrieve: 1439	Start coordinates	X: 4732.678
Collection method/Effort #:	CT 013		Y: 12220.290
Weather:		End coordinates	X:
Sampler:	TD, KH		Y:
Comments:			
DID NOT KEEP ANY B/C WE COLLECTED ENOUGH SC in previous set			

SPECIES	#	LENGTH (nearest mm)	WEIGHT (nearest 0.5 g)	COMMENTS
C. gracilis	3	> 90		
C. gracilis	2	< 90		1 gravid female



FISH AND INVERTEBRATE SPECIES TALLY FORM

Project Name:	LDW RI fish and crab chemistry	Project #:	04-08-06-22
Date:	08/30/05	Sampling area:	T2C
Retrieval Time:	07:15 RT: 1445	Start coordinates	X: 4732.602
Collection method/Effort #:	CT 014		Y: 12220.204
Weather:		End coordinates	X:
Sampler:	KH, TD		Y:
Comments:			

SPECIES	#	LENGTH (nearest mm)	WEIGHT (nearest 0.5 g)	COMMENTS
<i>C. gracilis</i> (SC)	1	> 90		did not keep - already have enough from T2



FISH AND INVERTEBRATE SPECIES TALLY FORM

Project Name:	LDW RI fish and crab chemistry	Project #:	04-08-06-22
Date:	08/30/05	Sampling area:	T2D
Retrieval Time:	Set 1156 Ret: 1449	Start coordinates	X: 47 32.49
Collection method/Effort #:	CT 015		Y: 122 19.940
Weather:		End coordinates	X:
Sampler:	TD, KH		Y:
Comments:			

SPECIES	#	LENGTH (nearest mm)	WEIGHT (nearest 0.5 g)	COMMENTS
<i>C. productus</i>	1	>90		female
<i>C. gracilis</i> (SC)	1	<90		female
<i>C. gracilis</i> (SC)	5	>90		all males



FISH AND INVERTEBRATE SPECIES TALLY FORM

Project Name:	LDW RI fish and crab chemistry	Project #:	04-08-06-22
Date:	08/30/05	Sampling area:	T2C
Retrieval Time:	set: 1158 Ret: 1455	Start coordinates	X: 4732.457
Collection method/Effort #:	CT 016		Y: 12220.015
Weather:		End coordinates	X:
Sampler:	KH, TD		Y:
Comments:			

SPECIES	#	LENGTH (nearest mm)	WEIGHT (nearest 0.5 g)	COMMENTS
<i>C. gracilis</i> (SC)	1	< 90		female
<i>C. gracilis</i>	3	> 90		male - all



FISH AND INVERTEBRATE SPECIES TALLY FORM

Project Name:	LDW RI fish and crab chemistry	Project #:	04-08-06-22
Date:	08/30/05	Sampling area:	T3F
Retrieval Time:	set 1230 / 1510	Start coordinates	X: 4731.596
Collection method/Effort #:	#3 CT-17		Y: 12218.552
Weather:		End coordinates	X:
Sampler:	TD, KH		Y:
Comments:			

SPECIES	#	LENGTH (nearest mm)	WEIGHT (nearest 0.5 g)	COMMENTS
DC	1	>90		
SC	1	>90		



FISH AND INVERTEBRATE SPECIES TALLY FORM

Project Name:	LDW RI fish and crab chemistry	Project #:	04-08-06-22
Date:	9/30/05	Sampling area:	T3B
Retrieval Time:	Sct: 1241 / 1520	Start coordinates	X: 47 31.894
Collection method/Effort #:	CT-18		Y: 122 19.063
Weather:		End coordinates	X:
Sampler:	TD, KH		Y:
Comments:			

SPECIES	#	LENGTH (nearest mm)	WEIGHT (nearest 0.5 g)	COMMENTS
SC (C. gracilis)	1	> 90		male



FISH AND INVERTEBRATE SPECIES TALLY FORM

Project Name:	LDW RI fish and crab chemistry	Project #:	04-08-06-22
Date:	09/30/05	Sampling area:	T3A
Retrieval Time:	set: 1248 / 1527	Start coordinates	X: 4731.921
Collection method/Effort #:	CT 019		Y: 12219.159
Weather:		End coordinates	X:
Sampler:	TD, KH		Y:
Comments:			

SPECIES	#	LENGTH (nearest mm)	WEIGHT (nearest 0.5 g)	COMMENTS
SC	1	< 90		female - gravid
SC	4	> 90		kept 2



FISH AND INVERTEBRATE SPECIES TALLY FORM

Project Name:	LDW RI fish and crab chemistry	Project #:	04-08-06-22
Date:	08/30/05	Sampling area:	T3C
Retrieval Time:	set: 1250 / 1530	Start coordinates	X: 4731.819
Collection method/Effort #:	CT-020		Y: 12218.984
Weather:		End coordinates	X:
Sampler:	TD, KH		Y:
Comments:			

SPECIES	#	LENGTH (nearest mm)	WEIGHT (nearest 0.5 g)	COMMENTS
SC	2	790		all male
SC	1	< 90		male



FISH AND INVERTEBRATE SPECIES TALLY FORM

Project Name:	LDW RI fish and crab chemistry	Project #:	04-08-06-22
Date:	08/30/05	Sampling area:	T4B
Retrieval Time:	set 1333 / 1610	Start coordinates	X: 4731.126
Collection method/Effort #:	CT 021		Y: 12218.355
Weather:		End coordinates	X:
Sampler:	TD, KH		Y:
Comments:			

SPECIES	#	LENGTH (nearest mm)	WEIGHT (nearest 0.5 g)	COMMENTS
SC	1	>90		male



FISH AND INVERTEBRATE SPECIES TALLY FORM

Project Name:	LDW RI fish and crab chemistry	Project #:	04-08-06-22
Date:	08/30/05 1415 (set) /	Sampling area:	T4DC
Retrieval Time:	set: 1415 1617	Start coordinates	X: 1130.833,
Collection method/Effort #:	CT 022		Y: 122 18.298
Weather:		End coordinates	X:
Sampler:	TD, KH		Y:
Comments: re deployed due to trawling conflict			

SPECIES	#	LENGTH (nearest mm)	WEIGHT (nearest 0.5 g)	COMMENTS
				<u>NO CRABS</u>



FISH AND INVERTEBRATE SPECIES TALLY FORM

Project Name:	LDW RI fish and crab chemistry	Project #:	04-08-06-22
Date:	08/30/05	Sampling area:	T400
Retrieval Time:	ext. 1417 / 1621	Start coordinates	X: 4730.769
Collection method/Effort #:	CT 023		Y: 12218.274
Weather:		End coordinates	X:
Sampler:	TD, KH		Y:
Comments:	Re-deployed due to trawling conflict		

SPECIES	#	LENGTH (nearest mm)	WEIGHT (nearest 0.5 g)	COMMENTS
				NO CRABS



FISH AND INVERTEBRATE SPECIES TALLY FORM

Project Name:	LDW RI fish and crab chemistry	Project #:	04-08-06-22
Date:	08/30/05	Sampling area:	T4-C
Retrieval Time:	set: 1418 1420 / 1625	Start coordinates	X: 49 33 62 17 30.732
Collection method/Effort #:	CT-024	Y:	122 18.179 122 18.248
Weather:		End coordinates	X:
Sampler:	TD, ktt	Y:	
Comments:	Re-deployed & relocated due to trawling conflict		

SPECIES	#	LENGTH (nearest mm)	WEIGHT (nearest 0.5 g)	COMMENTS
				NO CRABS



FISH AND INVERTEBRATE SPECIES TALLY FORM

Project Name:	LDW RI fish and crab chemistry	Project #:	04-08-06-22
Date:	8.31.05	Sampling area:	T2 B
Retrieval Time:	0733/1006	Start coordinates	X: 47 32.786
Collection method/Effort #:	CT025		Y: 122 20.246
Weather:	Overcast	End coordinates	X:
Sampler:	AMP, TD		Y:
Comments:			

SPECIES	#	LENGTH (nearest mm)	WEIGHT (nearest 0.5 g)	COMMENTS
Sand sole	1	> 120		
Slender Crab	2	< 90		
Slender Crab	3	> 90		



FISH AND INVERTEBRATE SPECIES TALLY FORM

Project Name:	LDW RI fish and crab chemistry	Project #:	04-08-06-22
Date:	8.31.05	Sampling area:	T2A
Retrieval Time:	0734/1015	Start coordinates	X: 47° 32.703
Collection method/Effort #:	CT026		Y: 122° 20.300
Weather:	Overcast	End coordinates	X:
Sampler:	AMR, TD		Y:
Comments: Traps & bowys moved by barge			

SPECIES	#	LENGTH (nearest mm)	WEIGHT (nearest 0.5 g)	COMMENTS
Slender crab	1	<90		T
Slender Crab	2	>90		



FISH AND INVERTEBRATE SPECIES TALLY FORM

Project Name:	LDW RI fish and crab chemistry	Project #:	04-08-06-22
Date:	8.31.05	Sampling area:	T2D
Retrieval Time:	0745/1024	Start coordinates	X: 47 32.546
Collection method/Effort #:	CT027		Y: 122 19.925
Weather:	Overcast	End coordinates	X:
Sampler:	AMR, TD		Y:
Comments:			

SPECIES	#	LENGTH (nearest mm)	WEIGHT (nearest 0.5 g)	COMMENTS
Slender Crab	2	< 90		
Slender Crab	5	≥ 90		



FISH AND INVERTEBRATE SPECIES TALLY FORM

Project Name:	LDW RI fish and crab chemistry	Project #:	04-08-06-22
Date:	8.31.05	Sampling area:	F2C T2E ^{ML 1-19-06}
Retrieval Time:	0750 / 1028	Start coordinates	X: 47 32.439
Collection method/Effort #:	CT028		Y: 122 19.988
Weather:	Overcast	End coordinates	X:
Sampler:	AMP, TD		Y:
Comments:			

SPECIES	#	LENGTH (nearest mm)	WEIGHT (nearest 0.5 g)	COMMENTS
Slender Crab	1	> 90		
Slender Crab	1	< 90		

[illegible]



FISH AND INVERTEBRATE SPECIES TALLY FORM

Project Name:	LDW RI fish and crab chemistry	Project #:	04-08-06-22
Date:	8.31.05	Sampling area:	T3A
Retrieval Time:	DB021 1039	Start coordinates	X: 47 31.941
Collection method/Effort #:	CT030		Y: 122 19.192
Weather:	Overcast	End coordinates	X:
Sampler:	AMR, TD		Y:
Comments: Empty trap & none kept.			

SPECIES	#	LENGTH (nearest mm)	WEIGHT (nearest 0.5 g)	COMMENTS



FISH AND INVERTEBRATE SPECIES TALLY FORM

Project Name:	LDW RI fish and crab chemistry	Project #:	04-08-06-22
Date:	B.31.05	Sampling area:	T4B
Retrieval Time:	0822/1135	Start coordinates	X: 47 31.108
Collection method/Effort #:	CT031		Y: 122 18.345
Weather:	Overcast	End coordinates	X:
Sampler:	AMR, TD		Y:
Comments:			

SPECIES	#	LENGTH (nearest mm)	WEIGHT (nearest 0.5 g)	COMMENTS
Slender Crab	1	> 90		
Slender Crab	1	< 90		



FISH AND INVERTEBRATE SPECIES TALLY FORM

Project Name:	LDW RI fish and crab chemistry	Project #:	04-08-06-22
Date:	08.31.05	Sampling area:	T4B
Retrieval Time:	0825/1136	Start coordinates	X: 47 31.048
Collection method/Effort #:	CT032		Y: 122 18.339
Weather:	Overcast	End coordinates	X:
Sampler:	AMR, TD		Y:
Comments:	Empty trap & none kept.		

SPECIES	#	LENGTH (nearest mm)	WEIGHT (nearest 0.5 g)	COMMENTS



FISH AND INVERTEBRATE SPECIES TALLY FORM

Project Name:	LDW RI fish and crab chemistry	Project #:	04-08-06-22
Date:	08.31.05	Sampling area:	T4B In channel
Retrieval Time:	082811139	Start coordinates	X: 47 30.992
Collection method/Effort #:	CT033		Y: 122 18.319
Weather:	Overcast	End coordinates	X:
Sampler:	AMR, TD		Y:
Comments:	Empty trap & none kept		

SPECIES	#	LENGTH (nearest mm)	WEIGHT (nearest 0.5 g)	COMMENTS



FISH AND INVERTEBRATE SPECIES TALLY FORM

Project Name:	LDW RI fish and crab chemistry	Project #:	04-08-06-22
Date:	08.31.05	Sampling area:	T4A
Retrieval Time:	0832 / 1141	Start coordinates	X: 47 30.989
Collection method/Effort #:	CT034		Y: 122 18 351
Weather:	Overcast	End coordinates	X:
Sampler:	AMR, TD		Y:
Comments:	Empty trap & none kept.		

SPECIES	#	LENGTH (nearest mm)	WEIGHT (nearest 0.5 g)	COMMENTS



FISH AND INVERTEBRATE SPECIES TALLY FORM

Project Name:	LDW RI fish and crab chemistry	Project #:	04-08-06-22
Date:	08.31.05	Sampling area:	T4A
Retrieval Time:	0834 / 1143	Start coordinates	X: 47 31.025
Collection method/Effort #:	CT035		Y: 122 18.367
Weather:	overcast	End coordinates	X:
Sampler:	AMP, TD		Y:
Comments: Empty trap & none kept.			

SPECIES	#	LENGTH (nearest mm)	WEIGHT (nearest 0.5 g)	COMMENTS

[illegible]



FISH AND INVERTEBRATE SPECIES TALLY FORM

Project Name:	LDW RI fish and crab chemistry	Project #:	04-08-06-22
Date:	8.31.05	Sampling area:	T3A
Retrieval Time:	104711253	Start coordinates	X: 47 31.963
Collection method/Effort #:	CT037		Y: 122 19.206
Weather:	Partly cloudy	End coordinates	X:
Sampler:	AMR, TD		Y:
Comments:			

SPECIES	#	LENGTH (nearest mm)	WEIGHT (nearest 0.5 g)	COMMENTS
Slender Crab	1	>90		
Slender Crab	2	<90		



FISH AND INVERTEBRATE SPECIES TALLY FORM

Project Name:	LDW RI fish and crab chemistry	Project #:	04-08-06-22
Date:	8.31.05	Sampling area:	T2C
Retrieval Time:	1058/1309	Start coordinates	X: 47 32.482
Collection method/Effort #:	CT038		Y: 122 26.019
Weather:	Partly Cloudy	End coordinates	X:
Sampler:	AMR TD		Y:
Comments:			

SPECIES	#	LENGTH (nearest mm)	WEIGHT (nearest 0.5 g)	COMMENTS
Slender Crab	1	<90		
Slender Crab	4	>90		
Redrock Crab	1	135		



FISH AND INVERTEBRATE SPECIES TALLY FORM

Project Name:	LDW RI fish and crab chemistry	Project #:	04-08-06-22
Date:	8.31.05	Sampling area:	T2D
Retrieval Time:	1107/1313	Start coordinates	X: 47 32.579
Collection method/Effort #:	CT039		Y: 122 20.107
Weather:	Partly cloudy	End coordinates	X:
Sampler:	AMR, TD		Y:
Comments:			

SPECIES	#	LENGTH (nearest mm)	WEIGHT (nearest 0.5 g)	COMMENTS
Slender Crab	2	<90		
Slender Crab	3	>90		



FISH AND INVERTEBRATE SPECIES TALLY FORM

Project Name:	LDW RI fish and crab chemistry	Project #:	04-08-06-22
Date:	8.31.05	Sampling area:	T2B
Retrieval Time:	1112 / 1320	Start coordinates	X: 47 32.856
Collection method/Effort #:	CT010		Y: 122 20.281
Weather:	Partly cloudy	End coordinates	X:
Sampler:	AMK, TD		Y:
Comments: None kept			

SPECIES	#	LENGTH (nearest mm)	WEIGHT (nearest 0.5 g)	COMMENTS
Slender Crab	4	<90		
Slender Crab	5	>90		



FISH AND INVERTEBRATE SPECIES TALLY FORM

Project Name:	LDW RI fish and crab chemistry	Project #:	04-08-06-22
Date:	8.31.05	Sampling area:	T2B
Retrieval Time:	1116/1322	Start coordinates	X: 47 32.887
Collection method/Effort #:	CT041		Y: 122 20.307
Weather:	Partly cloudy	End coordinates	X:
Sampler:	AMR, TD		Y:
Comments:			

SPECIES	#	LENGTH (nearest mm)	WEIGHT (nearest 0.5 g)	COMMENTS
Slender Crab	7	>90		
Slender Crab				



FISH AND INVERTEBRATE SPECIES TALLY FORM

Project Name:	LDW RI fish and crab chemistry	Project #:	04-08-06-22
Date:	8.31.05	Sampling area:	T2A
Retrieval Time:	1119/1326	Start coordinates	X: 47 32.831
Collection method/Effort #:	CT042		Y: 122 20.360
Weather:	Partly cloudy	End coordinates	X:
Sampler:	AMR, TD		Y:
Comments:			

SPECIES	#	LENGTH (nearest mm)	WEIGHT (nearest 0.5 g)	COMMENTS
Slender Crab	5	> 90		
Redrock Crab	1	160		



FISH AND INVERTEBRATE SPECIES TALLY FORM

Project Name:	LDW RI fish and crab chemistry	Project #:	04-08-06-22
Date:	8.31.05	Sampling area:	T4B
Retrieval Time:	1152/1419	Start coordinates	X: 4731.125
Collection method/Effort #:	CT043		Y: 122 18.371
Weather:	Partly cloudy	End coordinates	X:
Sampler:	AMR, TD		Y:
Comments:	Empty trap		

SPECIES	#	LENGTH (nearest mm)	WEIGHT (nearest 0.5 g)	COMMENTS



FISH AND INVERTEBRATE SPECIES TALLY FORM

Project Name:	LDW RI fish and crab chemistry	Project #:	04-08-06-22
Date:	8.31.05	Sampling area:	T4B
Retrieval Time:	1154/1421	Start coordinates	X: 47 31.108
Collection method/Effort #:	CT044		Y: 122 10.361
Weather:	Sun, warm	End coordinates	X:
Sampler:	AMR, TD		Y:
Comments: Empty trap.			

SPECIES	#	LENGTH (nearest mm)	WEIGHT (nearest 0.5 g)	COMMENTS

[illegible]



FISH AND INVERTEBRATE SPECIES TALLY FORM

Project Name:	LDW RI fish and crab chemistry	Project #:	04-08-06-22
Date:	8.31.05	Sampling area:	T4B
Retrieval Time:	1200/1502	Start coordinates	X: 47 31.076
Collection method/Effort #:	CT046		Y: 122 18.333
Weather:	Sun, warm	End coordinates	X:
Sampler:	AMF, TD		Y:
Comments: Empty trap.			

SPECIES	#	LENGTH (nearest mm)	WEIGHT (nearest 0.5 g)	COMMENTS



FISH AND INVERTEBRATE SPECIES TALLY FORM

Project Name:	LDW RI fish and crab chemistry	Project #:	04-08-06-22
Date:	8.31.05	Sampling area:	T4B
Retrieval Time:	1203/1424	Start coordinates	X: 47.31.101
Collection method/Effort #:	CT047		Y: 122 18.330
Weather:	Sun, warm	End coordinates	X:
Sampler:	MMK, TD		Y:
Comments: Empty trap.			

SPECIES	#	LENGTH (nearest mm)	WEIGHT (nearest 0.5 g)	COMMENTS



FISH AND INVERTEBRATE SPECIES TALLY FORM

Project Name:	LDW RI fish and crab chemistry	Project #:	04-08-06-22
Date:	8.31.05	Sampling area:	T4B
Retrieval Time:	1205 / 1446	Start coordinates	X: 47 31.118
Collection method/Effort #:	CT04B		Y: 122 18.298
Weather:	Sun, warm	End coordinates	X:
Sampler:	AMR, TD		Y:
Comments: Empty trap			

SPECIES	#	LENGTH (nearest mm)	WEIGHT (nearest 0.5 g)	COMMENTS



FISH AND INVERTEBRATE SPECIES TALLY FORM

Project Name:	LDW RI fish and crab chemistry	Project #:	04-08-06-22
Date:	8.31.05	Sampling area:	T3A
Retrieval Time:	1257/1603	Start coordinates	X: 47 31.978
Collection method/Effort #:	CT049		Y: 122 19.232
Weather:	Sun, warm	End coordinates	X:
Sampler:	AMR, TD		Y:
Comments:			

SPECIES	#	LENGTH (nearest mm)	WEIGHT (nearest 0.5 g)	COMMENTS
Slender Crab	1	102		Missing both claws.
Dungeness Crab	1	178		



FISH AND INVERTEBRATE SPECIES TALLY FORM

Project Name:	LDW RI fish and crab chemistry	Project #:	04-08-06-22
Date:	8.31.05	Sampling area:	T2A
Retrieval Time:	1332 / 1621	Start coordinates	X: 47 32.828
Collection method/Effort #:	CT050		Y: 122 20.370
Weather:	Sun, warm	End coordinates	X:
Sampler:	AMR, TD		Y:
Comments:			

SPECIES	#	LENGTH (nearest mm)	WEIGHT (nearest 0.5 g)	COMMENTS
Slender Crab	3	< 90		
Slender Crab	5	> 90		
Redrock Crab	1	130		



FISH AND INVERTEBRATE SPECIES TALLY FORM

Project Name:	LDW RI fish and crab chemistry	Project #:	04-08-06-22
Date:	8.31.05	Sampling area:	T2A
Retrieval Time:	1335 / 1623 1623	Start coordinates	X: 47 32.835
Collection method/Effort #:	CT051		Y: 122 20.357
Weather:	Sun, warm	End coordinates	X:
Sampler:	AMP, TD		Y:
Comments:			

SPECIES	#	LENGTH (nearest mm)	WEIGHT (nearest 0.5 g)	COMMENTS
Sunflower star	1	NA	NA	outside of trap
Redrock crab	3	> 90		
Slender crab	6	> 90		



FISH AND INVERTEBRATE SPECIES TALLY FORM

Project Name:	LDW RI fish and crab chemistry	Project #:	04-08-06-22
Date:	8.31.05	Sampling area:	T2B
Retrieval Time:	1342/1627	Start coordinates	X: 47 32.860
Collection method/Effort #:	CT052		Y: 122 20.296
Weather:	Sun, warm	End coordinates	X:
Sampler:	AMR, TD		Y:
Comments:			

SPECIES	#	LENGTH (nearest mm)	WEIGHT (nearest 0.5 g)	COMMENTS
Slender crab	6	> 90		
Slender crab	3	< 90		



FISH AND INVERTEBRATE SPECIES TALLY FORM

Project Name:	LDW RI fish and crab chemistry	Project #:	04-08-06-22
Date:	8.31.05	Sampling area:	I2D T2E M6L 1-A-06
Retrieval Time:	1349/1633	Start coordinates	X: 47 32.711
Collection method/Effort #:	CT053		Y: 122 20.214
Weather:	Sun, warm	End coordinates	X:
Sampler:	AMR, TD		Y:
Comments: Crab trap moved by West Marine at unknown time. Approximate soak time is 1.5 hours. One unknown crab fell out of trap.			

SPECIES	#	LENGTH (nearest mm)	WEIGHT (nearest 0.5 g)	COMMENTS
Slender crab	6	> 90		
Redrock crab	1	138		



FISH AND INVERTEBRATE SPECIES TALLY FORM

Project Name:	LDW RI fish and crab chemistry	Project #:	04-08-06-22
Date:	8.31.05	Sampling area:	T2C
Retrieval Time:	1354/1647	Start coordinates	X: 47 32.535
Collection method/Effort #:	CT054		Y: 122 20.114
Weather:	Sun, warm	End coordinates	X:
Sampler:	AMP, TD		Y:
Comments:			

SPECIES	#	LENGTH (nearest mm)	WEIGHT (nearest 0.5 g)	COMMENTS
Slender Crabs	3	< 90		
Slender Crab	3	> 90		

E-6. Crab Collection: Field Notes

"Outdoor writing products for outdoor writing people."



RECYCLABLE

"Rite in the Rain" - A unique All-Weather Writing paper created to shed water and enhance the written image. It is widely used throughout the world for recording critical field data in all kinds of weather.

Available in a variety of standard and custom printed case-bound field books; loose leaf, spiral and stapled notebooks, multi-copy sets and copier paper.

For best results, use a pencil or an all-weather pen.

a product of

J. L. DARLING CORPORATION

Tacoma, WA 98424-1017 USA

(253) 922-5000 • FAX (253) 922-5300

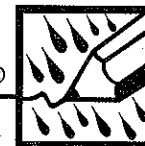
www.RiteInTheRain.com

NSN: 7530-01-433-5654



6 32281 31111 9

"Rite in the Rain"®
ALL-WEATHER WRITING PAPER



LEVEL

All-Weather Notebook

No. 311

LDW CRAB SAMPLING
2005

4 5/8" x 7" - 48 Numbered Pages

2

LDN 2005 Crab Sampling

Crew: T. Do, K. Hurley, D. Mullins

8/30/05

0730 Arrive 1st Ave Boat Ramp

0810 Complete loading boat & baiting
crab traps. Leave boat ramp.

0815 Review HSP

0834 Arrive + Deploy
CT-001 in section T2B
16' depth

4732.755, 12220.201

0838 Deploy CT-002 in T2B

4732.792, 12220.150

0848 T2E CT-003 Deployed

4732.379, 12219.881

0855 T2E CT-004 Deployed

4732.360 12219.857

08.30.05

K. Hurley 3

0908 Deploy ~~T2D~~ T-3D Deploy
CT-005

4731.853, 12218.988

0915 T-3D CT-006 Deploy

4731.779, 12218.861

0923 T3E CT-007 Deploy
4731.639, 12218.660

0927 T3F CT-008 Deploy

4731.610, 12218.572

0945

~~0948~~ T4-A CT-009 Deploy~~4731.126, 12218.415~~

4731.041, 12218.374

4 08.30.05

K. Hurley

0947 T4-A CT-010 Deploy

4730.968, 12218.341

0957 T4B CT-011 Deploy

4731.107, 12218.324

1000 T4 B CT-012 Deploy

4731.132, 12218.229

1105 T2B CT-001 RETRIEVE

1 *C. gracilis* (slender) fell through
trap - unknown size

<i>C. gracilis</i>	mm	SEX	KEEP?
1	104 mm	Male	missing claw
2	102	male	Y
3	102	male	Y
4	96	male	Y
5	113	male	Y

08.30.05

K. Hurley⁵

		mm	Sex	KEEP?
6	<i>C. gracilis</i>	88	Male	NO KEEP
7	<i>C. gracilis</i>	93	male	Y
8	<i>C. gracilis</i>	86	male	NO
9	"	80	male	NO

Kept 5

mm per KH
9-14-05

1109 T2B CT-002 Retrieve

	mm	Sex	keep
1. <i>C. gracilis</i>	87	male	No
2.	76	female (gravid)	N
3	89	male	N
4	83	female (gravid)	N
5	105	male	Y
6	107	male	Y
7	92	male	Y
8	86	male	N
9	97	male	Y
10	94	male	Y
11	90	male	Y

2 fell through trap (*C. gracilis*)

keep: 6

6 08.30.05

K. Hurley

1119 T2 E CT-003 RETRIEVE

All *C. gracilis*

	mm	sex	keep
1.	72	F	N
2	70	F (gravid)	N
3	108	male	Y
4	98	male	Y
5	109	male	Y
6	92	male	Y
7	100	male	Y
8	99	male	Y
9	97	male	Y

kept 1

2 females fell through trap

1130 T2 E CT-004

	mm	sex
1 <i>C. gracilis</i>	80	female
2	80	male
3	91	male
4 <i>C. productus</i>	139	female (gravid)

kept 1

08.30.05

K. Hurley

1146 T2 A DEPLOY

CT 013

4732.678, 12220.290

1151 T2 C CT014 DEPLOY

4732.602, 12220.204

1156 T2 D CT015 DEPLOY

4732.49, 12219.940

1158 T2 C CT016 DEPLOY

4732.457, 12220.015

1205 T3 D CT 005 Retrieve

1 ♀ fell through slender

	mm	mm	sex	keep
1. <i>C. gracilis</i>	89		female	N
2. <i>C. gracilis</i>	102		male	Y

083005

K. Hurley

1209 T3D - CT 006 Retrieve

empty - no crab

1215 T3-E CT-007 Retrieve

1 C. gracilis mm sex
106 male

1217 T3 F CT-008 Retrieve

1 DC mm sex
120 Female

1230 T3F CT 017 Deploy

4731.596, 12218.552

1241 T3B CT 018 DEPLOY

4731.894, 12219.063

1248 T3A CT 019 Deploy

4731.921, 12219.159

083005

9

K. Hurley

T 1258 T3C CT 020 DEPLOY

4731.819, 12218.984

1316 T4A CT 009 Retrieve
no crab

1318 T4A CT 010 Retrieve
no crab

1321 T4B CT 011 Retrieve
mm SEX
SC 104 Male

(C. gracilis)

1323 T4B CT 012 NO CRAB

1333 T4B CT 021 Deploy
4731.126, 12218.355

1339 T4C CT 022 Deploy
4730.833 12218.298

1341 T4C CT 023 Deploy
4730.769, 12218.274

10 08.30.05

Time

1348

K. Hurley

T4D - CT 0204 Deploy

~~4737.62, 12218.179~~
change location due to trawling conflict

1352

PULLED UP CT-22, 23, 24
B/C OF TRAWLING CONFLICT
WILL RE-DEPLOY AT SAME
LAT, LONG AFTER TRAWLING
IS COMPLETED.

1415

T4C - CT 022

Re-deployed

1417

T4C CT 023

Redeployed

1420

T4C - CT 024

selected new point for
deployment due to trawling
conflict

4730.732, 12218.248

08.30.05

Time

1439

11

K. Hurley

T2A CT013

Retriever

All SC (C. gracilis)

Sex

(mm)

keep

1.

female
(gravid)

87

N

2

male

89

N

3

male

117

4

male

101

5

male

100

kept: Ø

1445

T2C

CT 014

Retriever

sex

(mm)

1

SC

male

101

did not keep as have enough
C. gracilis from T2

12

08.30.05

1449

T2D

CT015

Retriever

K. Hurley

		<u>mm</u>	<u>sex</u>
1	SC	103	male
2	↓	77	female
3		97	male
4		102	male
5		101	male
6	↓	97	male

7. C. productus 143 female

• did not keep any

1455

T2C

CT016

RETRIEVE

		<u>mm</u>	<u>sex</u>
1	SC	65	female
2	↓	95	male
3		106	male
4		100	male on outside of trap

• did not keep any

1510

T3F

CT-017

RETRIEVE

		<u>mm</u>	<u>sex</u>
1	DC	142	female
2	SC	104	male

13

08.30.05

1520

T3B-CT-018

K. Hurley
Retriever

		<u>mm</u>	<u>sex</u>
1	SC	111	male

1527

T3-A

CT019

Retriever

		<u>mm</u>	<u>sex</u>
1	SC	84	female - gravid
2	SC	95	male tossed accid
3	SC	101	male tossed accid.
4	SC	101	male
5	SC	105	male

1530

T3C

CT020

Retriever

		<u>mm</u>	<u>sex</u>
1	SC	70	male
2	SC	98	male
3	SC	107	male

1610

~~T3~~

T4B

CT021

Retriever

		<u>mm</u>	<u>sex</u>
1	SC	106	male

K. Henty

08/30/05

1617 T4-C-CT022 Retrieve

NO CRABS

1621

~~1620~~ T4-C-CT023 Retrieve

NO CRABS

1625 T4-C-CT024

NO CRABS

1630 Return to 1st Ave S. boat launch.

End of field sampling day.

1705 Return to Windward.

T.D.O

30.08.05

8/31/05

A. Rodriguez

0630 Arrive at 1st Ave Boat ramp
to load boatProject: LDW R1 Fish & Crab
ChemistryCrew: A. Rodriguez, T. Do,
Dave Mullins (Boatdriver)
Weather: Cool, overcast, light
wind

0640 Health & Safety meeting

0645 Bait crab traps

0715 Leave 1st Ave Boat ramp

0733 Arrive & deploy
CT-025, in section T2B
33' depth

47° 32.786 122° 20.246

0734 Arrive & deploy CT-026
section T2A, 30' depth
47° 32.703

122° 20.300

0745 Arrive & deploy CT-027
Section T2D, 18' depth
47° 32.546
122° 19.925

8/31/05

A. Rodriguez

0750

Arrive & deploy CT-028

Section T2-C, 18' depth

47° 32.439

122° 19.988

AR

~~080754~~

Arrive & deploy CT-029

Section T2-BF

47° 32.411

122° 19.848

0802

Arrive & deploy CT-030

Section T3-A, 15' depth

47° 31.941

122° 19.192

0822

Arrive & deploy CT-031

Section T4-B, 11' depth

47° 31.108

122° 18.345

0825

Arrive & deploy CT-032

Section T4B, 12' depth

47° 31.048

122° 18.339

0828

Arrive & deploy CT-033 in channel

Section T4B, 17' depth

47° 30.992

122° 18.319

8/31/05

A. Rodriguez

0832

Arrive & deploy CT-034

Section T4A, 11' depth

47° 30.989

122° 18.351

0834

Arrive & deploy CT-035

Section T4A, 12' depth

47° 31.025

122° 18.367

0837

Arrive & deploy CT-036

Section T4A, 10' depth

47° 31.071

122° 18.384

0930

Kathy called for crab trapping
update & total from previous
day (8/30/05)

1006

Retrieve CT-025 T2B

Species	Length (mm)	Gender
Sand Sole	> 120	
SC	79	F
SC	83	F, Gravid
SC	105	M
SC	102	M
SC	91	M

None kept

8/31/05

A. Rodriguez

1015 Retrieve CT-026 T2A; trap & buoys
moved (covered) by barge.

Species	Length (mm)	Gender	Comments
SC	83	M	Missing 2 front claws

SC	95	M	
----	----	---	--

SC	100	M	
----	-----	---	--

None kept

1024 Retrieve CT-027 T2D

Species	Length (mm)	Gender
---------	-------------	--------

SC	103	M
----	-----	---

SC	105	M
----	-----	---

SC	90	M
----	----	---

SC	104	M
----	-----	---

SC	109	M
----	-----	---

SC female fell out of trap

SC	82	M
----	----	---

None kept

1028 Retrieve CT-028 T2C

Species	Length (mm)	Gender
---------	-------------	--------

SC	96	M
----	----	---

SC	86	M
----	----	---

None kept

8/31/05

A. Rodriguez

1032 Retrieve CT-029 T2F

No CRABS; Empty

1039 Retrieve CT-030 T3A

No CRABS; Empty

1047 Arrive & deploy CT-037

T3A, 18' depth

47° 31.963

122° 20.206

1058 Arrive & deploy CT-038

T2C, 20' depth

47° 32.482

122 20.019

1107 Arrive & deploy CT-039

T2D, 20' depth

47° 32.579

122° 20.107

1112 Arrive & deploy CT-040

T2B, 30' depth

47° 32.856

122° 20.281

8/31/05

A. Rodriguez

1116 Arrive & deploy CT-041
 T2B @ 20' depth
 47° 32.887
 122° 20.307

1119 Arrive & deploy CT-042
 T2A @ 28' depth
 47° 32.831
 122° 20.360

1135 Retrieve CT-031 T4B
~~T4B AR~~

Species	Length (mm)	Gender
SC	95	M
SC	82	M
1 kept		

1136 Retrieve CT-032 T4B
^{AR}
~~Species~~ Empty; No CRABS

1139 Retrieve CT-033 T4B
 Empty; No CRABS

1141 Retrieve CT-034 T4A
 Empty; No CRABS

8/31/05

A. Rodriguez

1143 Retrieve CT-035 T4A
 Empty; No CRABS

1145 Retrieve CT-036 T4A
 Empty; No CRABS

1152 Arrive & deploy CT-043
 T4B @ 14' depth
 47° 31.125
 122° 18.371

1154 Arrive & deploy CT-044
 T4B @ 14' depth
 47° 31.108
 122° 18.361

1156 Arrive & deploy CT-045, in channel
 T4B @ 14' depth
 47° 31.082
 122° 18.350

1200 Arrive & deploy CT-046
 T4B @ 8' depth incoming high tide
 47° 31.076
 122° 18.333

8/31/05

A. Rodriguez

1203 Arrive & deploy CT-047

T4 B @ 10' depth

47° 31.101

122° 18.330

1205 Arrive & deploy CT-048

T4 B @ 11' depth

47° 31.118

122° 18.298

1253 Retrieve CT-037 T3A

Species	Length (mm)	Gender	Comment
SC	98	M	Missing 1 claw

SC 88 F

SC 79 F

1 kept

1257 Arrive & deploy T3A CT-049

47° 31.978

122° 19.232

8/31/05

A. Rodriguez

1309 Retrieve CT-038 T2C

Species	Length (mm)	Gender
SC	80	F
SC	103	M
SC	99	M
SC	96	M, missing claw
SC	93	M
RC	135	F
None	kept	

SC 80 F

SC 103 M

SC 99 M

SC 96 M, missing claw

SC 93 M

RC 135 F

None kept

1313 Retrieve CT-039 T2D

Species	Length (mm)	Gender
SC	67	F, Gravid
SC	76	F
SC	94	M, Missing a claw
SC	99	M
SC	95	M
None	kept	

SC 67 F, Gravid

SC 76 F

SC 94 M, Missing a claw

SC 99 M

SC 95 M

None kept

1320 Retrieve CT-040 T2B

Species	Length (mm)	Gender
SC	69	F, Gravid
SC	74	F
SC	87	M
SC	111	M

SC 69 F, Gravid

SC 74 F

SC 87 M

SC 111 M

8/31/05

A. Rodriguez

Retrieved CT-040 T2B CONT'D

Species	Length (mm)	Gender
SC	98	M
SC	102	M
SC	110	M
SC	96	M
SC	71	F, Gravid
None kept		

1322 Retrieved CT-041 T2B

Species	Length	Gender
SC	97	M
SC	104	M
SC	106	M
SC	96	M
SC	104	M, missing a claw
SC	96	F, missing claw
SC	111	M
None kept		

1326 Retrieve CT-042 T2A

Species	Length (mm)	Gender
SC	107	M
SC	94	M
SC	95	M
SC	100	M
SC	103	M
RC	160	M
None kept		

1332 Arrive & deploy CT-049⁽²¹²⁾050

T2A @ 40' depth

47° 32.828

122° 20.370

1335 Arrive & deploy CT-051

T2A @ 37' depth

47° 32.835

122° 20.351

1342 Arrive & deploy CT-052

T2B @ 39' depth

47° 32.860

122° 20.296

8/31/05

A. Rodriguez

1349 Arrive & deploy CT-053
T2D @ 30' depth
47° 32.711
122° 20.214

1354 Arrive & deploy CT-054
T2C @ 19' depth
47° 32.535
122° 20.114

1417 Heading to T4 area to retrieve
crab pots due to a Foss tug and
barge approaching the area.

1419 Retrieve CT-043 T4B
Empty; NO CRABS

1421 Retrieve CT-044 T4B
Empty; NO CRABS

1424 Retrieve CT-047 T4B
Empty; NO CRABS

8/31/05

A. Rodriguez

1446 Retrieve CT-048 T4B
Empty; NO CRABS

1500 Retrieve CT-045 T4B
Empty; NO CRABS

1502 Retrieve CT-046 T4B
Empty; NO CRABS

1603 Retrieve CT-049 T3A

Species	Length(mm)	Gender
SC	102	M, missing both claws
DC	178	M

Kept one SC.

1621 Retrieve CT-050 T2A

Species	Length(mm)	Gender
SC	78	F, gravid
SC	83	F
SC	98	M
SC	96	M
SC	93	M
SC	108	M
SC	102	M
SC	80	F, gravid

8/31/05

A. Rodriguez

CT050 TZA Retrieved Cont'd

Species	Length(mm)	Gender
RC	130	F

* None kept

1623 Retrieve CT051 TZA

Species	Length(mm)	Gender
SC	100	M
SC	112	M
SC	102	M
SC	98	M
SC	106	M
SC	94	M
RC	114	F
RC	147	M
RC	150	M

Sunflower Sea Star

* None kept

1627 Retrieve CT052 T2B

Species	Length(mm)	Gender
SC	88	M
SC	84	F, gravid
SC	104	M
SC	106	M
SC	103	M
SC	101	M

8/31/05

A. Rodriguez

Cont'd CT052 T2B

Species	Length	Gender
SC	101	M
SC	105	M
SC	85	F, gravid

None kept

1633* Retrieve CT053 T2D

NOTE: *Crab trap was moved by West Marine barge at unknown time & placed on top of barge. Approximate soak time for the crab trap was 1.5 hours. One unknown crab fell off barge.

Species	Length(mm)	Gender
SC	104	M
SC	104	M
SC	100	M
SC	95	M
SC	112	M
SC	101	M
RC	138	F
None kept		

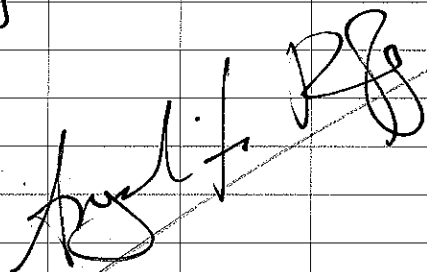
A. Rodriguez 8/31/05

1647 Retrieve CT-054 T2C

Species	Length(mm)	Gender
SC	64	F
SC	94	M
SC	71	F, gravid
SC	89	M
SC	98	M
SC	105	M

None kept.

1648 Arrive to 1st Ave boat ramp
& unload samples & equipment.1720 Arrive at office & end of
day



E-7. Navigation Report

Windward Environmental Duwamish River Trawls

Aug-Sept., 2005			High Rise 7.6-meter SCCWRP Trawl					Ordered by Date & Time		
Station Name	Date		Time	Depth (feet)	Predicted Tide	Mudline Depth (feet)	Wire Out (feet)	Northstar DGPS Latitude decimal min.	Longitude decimal min.	Trawl Distance & Direction/Time Comments
1-1D	29-Aug-05	Start Set	1021	33	2.4	-31		47 33.764	122 20.777	0.20 nm
		Start Tow	1022	32	2.4	-30	200	47 33.720	122 20.751	363 meters
		End	1027	28	2.5	-26		47 33.536	122 20.653	160° true, 5 min.
					low flood					
2-1D	29-Aug-05	Start Set	1050	33	3.2	-30		47 33.767	122 20.768	0.20 nm
		Start Tow	1051	30	3.2	-27	180	47 33.727	122 20.751	372 meters
		End	1056	24	3.4	-21		47 33.539	122 20.647	160° true, 5 min.
					flood					
3-1D	29-Aug-05	Start Set	1153	35	5.3	-30		47 33.749	122 20.763	0.19nm
		Start Tow	1154	36	5.6	-30	180	47 33.711	122 20.749	350 meters
		End	1158	25	5.6	-19		47 33.536	122 20.645	158° true, 4 min.
					flood					
4-1D	29-Aug-05	Start Set	1212	36	6.1	-30		47 33.750	122 20.762	0.18nm
		Start Tow	1213	36	6.1	-30	180	47 33.709	122 20.745	337 meters
		End	1217	29	6.2	-23		47 33.539	122 20.649	159° true, 4 min.
					flood					
5-1D	29-Aug-05	Start Set	1232	38	6.7	-31		47 33.766	122 20.769	0.20nm
		Start Tow	1233	27	6.7	-20	180	47 33.722	122 20.742	363 meters
		End	1238	29	6.9	-22		47 33.537	122 20.648	161° true, 5 min.
					flood					
6-1B	29-Aug-05	Start Set	1330	48	8.5	-40		47 33.990	122 20.816	0.19 nm
		Start Tow	1332	49	8.5	-41	250	47 33.933	122 20.812	345 meters
		End	1337	37	8.6	-28		47 33.751	122 20.756	168° true, 5 min.
					flood					2 tug tires in net
7-1C	29-Aug-05	Start Set	1406	43	9.4	-34		47 33.743	122 20.826	0.18 nm
		Start Tow	1408	32	9.4	-23	200	47 33.686	122 20.805	328 meters
		End	1412	28	9.4	-19		47 33.518	122 20.722	162° true, 4 min.
					high flood					
8-1C	29-Aug-05	Start Set	1439	43	9.9	-33		47 33.738	122 20.838	0.18 nm
		Start Tow	1441	31	9.9	-21	200	47 33.685	122 20.807	326 meters
		End	1445	33	9.9	-23		47 33.521	122 20.713	159° true, 4 min.
					high flood					
9-1E	29-Aug-05	Start Set	1510	27	9.9	-17		47 33.545	122 20.757	0.21 nm
		Start Tow	1511	24	9.9	-14	180	47 33.507	122 20.730	391 meters
		End	1517	40	10.0	-30		47 33.314	122 20.605	156° true, 6 min.
					high flood					
10-1E	29-Aug-05	Start Set	1534	29	10.1	-19		47 33.530	122 20.733	0.19
		Start Tow	1535	28	10.1	-18	200	47 33.483	122 20.700	347 meters
		End	1540	40	10.1	-30		47 33.308	122 20.603	159° true, 5 min.
					high					

Windward Environmental Duwamish River Trawls

Aug-Sept., 2005

High Rise 7.6-meter SCCWRP Trawl

Ordered by Date & Time

Station Name	Date		Time	Depth (feet)	Predicted Tide	Mudline Depth (feet)	Wire Out (feet)	Northstar DGPS Latitude decimal min.	Northstar DGPS Longitude decimal min.	Trawl Distance & Direction/Time Comments
11-1F	29-Aug-05	Start Set	1558	35	10.2	-25		47 33.548	122 20.658	0.20 nm
		Start Tow	1559	28	10.2	-18	225	47 33.501	122 20.629	362 meters
		End	1604	36	10.2	-26		47 33.317	122 20.532	160° true, 5 min.
					high					
12-1F	29-Aug-05	Start Set	1619	29	10.2	-19		47 33.569	122 20.666	0.23 nm
		Start Tow	1621	35	10.2	-25	225	47 33.530	122 20.648	421 meters
		End	1627	40	10.2	-30		47 33.315	122 20.538	160° true, 6 min.
					high					
13-1A	30-Aug-05	Start Set	0843	30	0.1	-30		47 33.943	122 20.929	0.18 nm
		Start Tow	0844	37	0.1	-37	200	47 33.904	122 20.906	330 meters
		End	0849	34	0.0	-34		47 33.736	122 20.818	161° true, 5 min.
					low					Brief hang-up
14-1A	30-Aug-05	Start Set	0908	32	0.1	-32		47 33.955	122 20.929	0.18 nm
		Start Tow	0909	37	0.1	-37	200	47 33.913	122 20.907	339 meters
		End	0914	34	0.1	-34		47 33.740	122 20.820	161° true, 5 min.
					low					twisted net
15-1A	30-Aug-05	Start Set	0928	25	0.2	-25		47 33.976	122 20.941	0.20 nm
		Start Tow	0929	35	0.2	-35	200	47 33.931	122 20.915	372 meters
		End	0934	34	0.2	-34		47 33.741	122 20.819	161° true, 5 min.
					low					
16-1B	30-Aug-05	Start Set	1004	46	0.6	-45		47 33.994	122 20.866	0.20 nm
		Start Tow	1005	43	0.6	-42	250	47 33.932	122 20.855	368 meters
		End	1010	30	0.6	-29		47 33.743	122 20.766	162° true, 5 min.
					low flood					
17-1B	30-Aug-05	Start Set	1023	46	1.0	-45		47 33.988	122 20.889	0.20 nm
		Start Tow	1025	43	1.0	-42	250	47 33.934	122 20.859	366 meters
		End	1030	31	1.0	-30		47 33.748	122 20.761	160° true, 5 min.
					flood					
18-1B	30-Aug-05	Start Set	1044	44	1.5	-43		47 33.967	122 20.826	0.17 nm
		Start Tow	1045	40	1.5	-39	250	47 33.913	122 20.816	310 meters
		End	1050	30	1.6	-28		47 33.750	122 20.762	162° true, 5 min.
					flood					
19-1B	30-Aug-05	Start Set	1106	41	2.3	-39		47 34.003	122 20.814	0.21 nm
		Start Tow	1107	45	2.4	-43	250	47 33.949	122 20.822	384 meters
		End	1113	31	2.4	-29		47 33.747	122 20.755	167° true, 6 min.
					flood					
20-3B	30-Aug-05	Start Set	1225	12	4.3	-8		47 32.001	122 19.230	0.20 nm
		Start Tow	1226	15	4.3	-11	100	47 31.985	122 19.205	377 meters
		End	1231	17	4.5	-13		47 31.849	122 18.981	132° true, 5 min.
					flood					

Windward Environmental Duwamish River Trawls

Aug-Sept., 2005			High Rise 7.6-meter SCCWRP Trawl					Ordered by Date & Time		
Station Name	Date		Time	Depth (feet)	Predicted Tide	Mudline Depth (feet)	Wire Out (feet)	Northstar DGPS Latitude decimal min.	Longitude decimal min.	Trawl Distance & Direction/Time Comments
21-4A	30-Aug-05	Start Set	1253	14	5.3	-9		47 31.052	122 18.378	0.08 nm
		Start Tow	1254	15	5.3	-10	75	47 31.041	122 18.374	143 meters
		End	1256	13	5.4	-8		47 30.966	122 18.346	166° true, 2 min.
					flood					cut trawl short, crab pots
22-4B	30-Aug-05	Start Set	1322	13	6.4	-7		47 31.083	122 18.331	0.20 nm
		Start Tow	1323	12	6.4	-6	75	47 31.062	122 18.328	370 meters
		End	1328	10	6.6	-3		47 30.868	122 18.258	166° true, 5 min.
					flood					
23-4C channel	30-Aug-05	Start Set	1351	21	7.4	-14		47 30.755	122 18.233	0.12 nm
		Start Tow	1351	21	7.4	-14	120	47 30.778	122 18.246	215 meters
		End	1354	20	7.4	-13		47 30.887	122 18.305	340° true, 3 min.
					flood					
24-4C	30-Aug-05	Start Set	1403	16	7.7	-8		47 30.730	122 18.232	0.15 nm
		Start Tow	1403	14	7.7	-6	75	47 30.743	122 18.251	278 meters
		End	1407	15	7.8	-7		47 30.882	122 18.325	320° to 345° true
					flood					4 minutes
25-4D	30-Aug-05	Start Set	1421	14	8.3	-6		47 30.768	122 18.188	0.12 nm
		Start Tow	1422	16	8.3	-8	75	47 30.780	122 18.205	228 meters
		End	1425	13	8.4	-5		47 30.892	122 18.270	321° to 347° true
					flood					3 minutes
26-4D	30-Aug-05	Start Set	1435	14	8.6	-5		47 30.765	122 18.167	0.14 nm
		Start Tow	1435	14	8.6	-5	75	47 30.773	122 18.186	252 meters
		End	1439	13	8.7	-4		47 30.892	122 18.270	316° to 346° true
					flood					4 minutes
27-3F	30-Aug-05	Start Set	1517	19	9.6	-9				
		Start Tow	1518	18	9.6	-8	100			
		End	1524	17	9.7	-7				
					flood					Lost sample, hang up
28-3F	30-Aug-05	Start Set	1540	20	10.0	-10		47 31.738	122 18.769	0.26 nm
		Start Tow	1541	21	10.0	-11	100	47 31.720	122 18.739	480 meters
		End	1547	21	10.0	-11		47 31.520	122 18.514	133° to 163° true
					flood					
29-3F	30-Aug-05	Start Set	1558	19	10.3	-9		47 31.735	122 18.761	0.25 nm
		Start Tow	1559	20	10.3	-10	125	47 31.715	122 18.728	468 meters
		End	1605	18	10.3	-8		47 31.518	122 18.511	134° to 162° true
					high flood					
30-3E	30-Aug-05	Start Set	1625	24	10.5	-14		47 31.709	122 18.787	0.23 nm
		Start Tow	1626	24	10.5	-14	140	47 31.688	122 18.752	424 meters
		End	1632	24	10.5	-14		47 31.509	122 18.555	132° to 158° true
					ebb					6 minutes

Windward Environmental Duwamish River Trawls

Aug-Sept., 2005			High Rise 7.6-meter SCCWRP Trawl					Ordered by Date & Time		
Station Name	Date		Time	Depth (feet)	Predicted Tide	Mudline Depth (feet)	Wire Out (feet)	Northstar DGPS (NAD 83) Latitude decimal min.	Longitude decimal min.	Trawl Distance & Direction/Time Comments
31-3D	31-Aug-05	Start Set	0902	12	0.3	-12		47 31.857	122 18.993	0.20 nm
		Start Tow	0902	12	0.3	-12	50	47 31.850	122 18.983	379 meters
		End	0908	11	0.2	-11		47 31.723	122 18.746	128° true, 6 min.
					low ebb					Towed under bridge
32-3D	31-Aug-05	Start Set	0919	11	0.0	-11		47 31.848	122 18.977	0.19 nm
		Start Tow	0920	11	0.0	-11	50	47 31.838	122 18.962	351 meters
		End	0925	12	0.0	-12		47 31.720	122 18.743	129° true, 5 min.
					low		Slowed down under bridge to keep net on bottom, great catch!			
33-3C	31-Aug-05	Start Set	1011	17	0.0	-17		47 31.832	122 19.001	0.18 nm
		Start Tow	1012	18	0.0	-18	125	47 31.814	122 18.969	338 meters
		End	1016	12	0.0	-12		47 31.695	122 18.765	131° true, 4 min.
					low					Towed under bridge
34-3A	31-Aug-05	Start Set	1035	18	0.1	-18		47 31.966	122 19.204	0.17 nm
		Start Tow	1036	17	0.1	-17	100	47 31.946	122 19.184	323 meters
		End	1040	16	0.2	-16		47 31.827	122 18.996	133° true, 4 min.
					low flood					Barges at north end of area 3A
35-3F	31-Aug-05	Start Set	1101	11	0.5	-11		47 31.723	122 18.747	0.25 nm
		Start Tow	1101	12	0.5	-12	75	47 31.710	122 18.729	463 meters
		End	1107	13	0.6	-12		47 31.517	122 18.515	132° to 163° true
					low flood					
36-3D channel	31-Aug-05	Start Set	1121	20	0.9	-19		47 31.718	122 18.767	0.21 nm
		Start Tow	1121	20	0.9	-19	100	47 31.731	122 18.792	363 meters
		End	1126	12	1.0	-11		47 31.863	122 19.006	312° true, 5 min.
					flood					Towed under bridge
37-3E channel	31-Aug-05	Start Set	1143	15	1.4	-14		47 31.540	122 18.567	0.22 nm
		Start Tow	1143	14	1.4	-13	100	47 31.562	122 18.579	400 meters
		End	1149	17	1.6	-15		47 31.717	122 18.792	340° to 311° true
					flood					6 minutes
38-3B	31-Aug-05	Start Set	1245	14	3.5	-11		47 31.864	122 19.002	0.21 nm
		Start Tow	1246	16	3.5	-13	75	47 31.873	122 19.021	395 meters
		End	1251	11	3.7	-7		47 32.018	122 19.252	313° true, 5 min.
					flood		Towed against strong current and wind, very small catch!			
39-3B channel	31-Aug-05	Start Set	1303	20	4.1	-16		47 31.851	122 18.999	0.23 nm
		Start Tow	1303	19	4.1	-15	125	47 31.868	122 19.022	420 meters
		End	1309	18	4.4	-14		47 32.021	122 19.269	313° true, 6 min.
					flood		Towed against strong current and wind, very small catch!			
40-3C	31-Aug-05	Start Set	1320	21	4.8	-16		47 31.719	122 18.791	0.18 nm
		Start Tow	1321	24	4.8	-19	125	47 31.736	122 18.822	338 meters
		End	1326	16	5.1	-11		47 31.844	122 19.039	306° true, 5 min.
					flood		Towed against strong current and wind, very small catch!			

Windward Environmental Duwamish River Trawls

Aug-Sept., 2005			High Rise 7.6-meter SCCWRP Trawl					Ordered by Date & Time		
Station Name	Date		Time	Depth (feet)	Predicted Tide	Mudline Depth (feet)	Wire Out (feet)	Northstar DGPS Latitude decimal min.	Longitude decimal min.	Trawl Distance & Direction/Time Comments
41-3C	31-Aug-05	Start Set	1334	24	5.4	-19		47 31.834	122 18.995	0.17 nm
		Start Tow	1335	24	5.4	-19	150	47 31.808	122 18.957	315 meters
		End	1339	20	5.7	-14		47 31.701	122 18.762	129° true, 4 min.
					flood					Towed with the current, great catch!
42-3D channel	31-Aug-05	Start Set	1420	21	7.1	-14		47 31.851	122 18.991	0.18 nm
		Start Tow	1421	25	7.1	-18	150	47 31.820	122 18.950	340 meters
		End	1425	24	7.3	-17		47 31.707	122 18.736	128° true, 4 min.
					flood					
43-3F channel	31-Aug-05	Start Set	1445	27	7.9	-19		47 31.682	122 18.696	0.25nm
		Start Tow	1446	25	8.0	-17	175	47 31.710	122 18.743	471 meters
		End	1452	23	8.2	-15		47 31.511	122 18.527	133° to 162° true
					flood					
44-3F	31-Aug-05	Start Set	1509	19	8.7	-10		47 31.726	122 18.750	0.24nm
		Start Tow	1510	17	8.7	-8	125	47 31.706	122 18.711	445 meters
		End	1516	16	8.9	-7		47 31.515	122 18.508	134° to 158° true
					flood					
45-3F channel	31-Aug-05	Start Set	1531	27	9.3	-18		47 31.719	122 18.755	0.22nm
		Start Tow	1532	26	9.3	-17	175	47 31.685	122 18.703	413 meters
		End	1537	24	9.4	-15		47 31.506	122 18.523	133° to 159° true
					flood					
46-3E channel	31-Aug-05	Start Set	1558	26	9.9	-16		47 31.715	122 18.779	0.22 nm
		Start Tow	1559	26	9.9	-16	175	47 31.684	122 18.730	406 meters
		End	1605	25	10.0	-15		47 31.509	122 18.547	133° to 162° true
					flood					6 minutes
47-3E channel	31-Aug-05	Start Set	1616	26	10.2	-16		47 31.696	122 18.743	0.20 nm
		Start Tow	1617	27	10.2	-17	180	47 31.667	122 18.695	368 meters
		End	1622	25	10.3	-15		47 31.503	122 18.542	135° to 161° true
					flood					5 minutes
48-2E	1-Sep-05	Start Set	0840	17	1.6	-15		47 32.431	122 19.970	0.20 nm
		Start Tow	0841	17	1.6	-15	100	47 32.429	122 19.967	365 meters
		End	0846	22	1.5	-21		47 32.299	122 19.748	131° true, 5 min.
					ebb					
49-2E	1-Sep-05	Start Set	0854	15	1.2	-14		47 32.446	122 19.996	0.20 nm
		Start Tow	0855	16	1.2	-15	125	47 32.425	122 19.966	369 meters
		End	0901	22	1.0	-21		47 32.296	122 19.742	130° true, 6 min.
					ebb					
50-2E channel	1-Sep-05	Start Set	0914	23	0.8	-22		47 32.460	122 19.973	0.22 nm
		Start Tow	0914	21	0.8	-20	150	47 32.434	122 19.943	403 meters
		End	0920	22	0.6	-21		47 32.279	122 19.717	135° true, 6 min.
					ebb					

Windward Environmental Duwamish River Trawls

Aug-Sept., 2005

High Rise 7.6-meter SCCWRP Trawl

Ordered by Date & Time

Station Name	Date		Time	Depth (feet)	Predicted Tide	Mudline Depth (feet)	Wire Out (feet)	Northstar DGPS (NAD 83) Latitude decimal min.	Longitude decimal min.	Trawl Distance & Direction/Time Comments
51-2E channel	1-Sep-05	Start Set	0938	21	0.3	-21		47 32.452	122 19.967	0.21 nm
		Start Tow	0939	22	0.3	-22	150	47 32.431	122 19.931	394 meters
		End	0944	21	0.2	-21		47 32.277	122 19.714	136° true, 5 min.
					low ebb					
52-2E channel	1-Sep-05	Start Set	0955	19	0.1	-19		47 32.452	122 19.970	0.22 nm
		Start Tow	0955	21	0.0	-21	150	47 32.432	122 19.940	402 meters
		End	1001	20	0.0	-20		47 32.278	122 19.714	135° true, 6 min.
					low					
53-2F	1-Sep-05	Start Set	1014	19	-0.1	-19		47 32.480	122 19.940	0.22 nm
		Start Tow	1015	20	-0.1	-20	100	47 32.463	122 19.920	401 meters
		End	1020	17	-0.1	-17		47 32.304	122 19.703	137° true, 5 min.
					low		Most of trawl was over ground of minus 11-12 feet deep			
54-2A channel	1-Sep-05	Start Set	1056	35	-0.1	-35		47 32.854	122 20.334	0.20 nm
		Start Tow	1057	33	0.0	-33	200	47 32.815	122 20.314	364 meters
		End	1102	22	0.0	-22		47 32.629	122 20.220	161° true, 6 min.
					low		Mud in trawl, huge haul of fish and woody debris...65 English Sole			
55-2B	1-Sep-05	Start Set	1223	32	1.6	-30		47 32.857	122 20.292	0.20 nm
		Start Tow	1224	33	1.6	-31	200	47 32.818	122 20.269	368 meters
		End	1229	26	1.7	-24		47 32.629	122 20.179	162° true, 5 min.
					flood					
56-2C channel	1-Sep-05	Start Set	1248	26	2.3	-24		47 32.629	122 20.217	0.21 nm
		Start Tow	1249	25	2.4	-23	180	47 32.595	122 20.180	394 meters
		End	1255	22	2.6	-19		47 32.444	122 19.959	135° true, 6 min.
					flood					Towed under bridge

Windward Environmental Duwamish River Trawls

Aug-Sept., 2005

High Rise 7.6-meter SCCWRP Trawl

Ordered by Date & Time

Station Name	Date		Time	Depth (feet)	Predicted Tide	Mudline Depth (feet)	Wire Out (feet)	Northstar DGPS (NAD 83)		Trawl Distance & Direction/Time Comments
57-2C channel	1-Sep-05	Start Set	1307	25	3.0	-22		47 32.631	122 20.222	0.22 nm
		Start Tow	1308	27	3.0	-24	180	47 32.590	122 20.175	400 meters
		End	1314	22	3.2	-19		47 32.433	122 19.956	137° true, 6 min.
					flood					Towed under bridge
58-2D channel	1-Sep-05	Start Set	1333	29	4.0	-25		47 32.617	122 20.168	0.165 nm
		Start Tow	1335	29	4.0	-25	200	47 32.569	122 20.110	306 meters
		End	1339	28	4.3	-24		47 32.455	122 19.933	134° true, 4 min.
					flood					Towed under bridge
59-3A channel	1-Sep-05	Start Set	1415	23	5.7	-17		47 31.992	122 19.251	0.20 nm
		Start Tow	1415	24	5.7	-18	150	47 31.965	122 19.207	367 meters
		End	1420	25	5.9	-19		47 31.831	122 18.991	133° true, 5 min.
					flood					Barges at north end of area 3A
60-4A channel	2-Sep-05	Start Set	0856	14	2.4	-12		47 31.075	122 18.377	0.21 nm
		Start Tow	0857	15	2.4	-13	120	47 31.057	122 18.369	383 meters
		End	0903	14	2.2	-12		47 30.857	122 18.294	166° true, 6 min.
					ebb					
61-4C channel	2-Sep-05	Start Set	0912	16	1.9	-14		47 30.773	122 18.265	0.09 nm
		Start Tow	0913	12	1.9	-10	120	47 30.802	122 18.281	164 meters
		End	0915	16	1.8	-14		47 30.890	122 18.297	353° true, 2 min.
					ebb					
62-4B channel	2-Sep-05	Start Set	0937	14	1.2	-13		47 31.111	122 18.378	0.24 nm
		Start Tow	0937	13	1.2	-12	120	47 31.090	122 18.362	437 meters
		End	0943	15	1.0	-14		47 30.862	122 18.274	165° true, 6 min.
					ebb					
63-4A channel	2-Sep-05	Start Set	1001	12	0.7	-11		47 31.094	122 18.391	0.22 nm
		Start Tow	1002	12	0.6	-11	120	47 31.068	122 18.379	407 meters
		End	1007	12	0.5	-12		47 30.857	122 18.290	164° true, 5 min.
					ebb					
64-4A channel	2-Sep-05	Start Set	1024	12	0.3	-12		47 31.107	122 18.386	0.23 nm
		Start Tow	1024	12	0.2	-12	120	47 31.081	122 18.376	424 meters
		End	1030	13	0.1	-13		47 30.861	122 18.285	164° true, 6 min.
					ebb					

Windward Environmental Duwamish River Trawls

Aug-Sept., 2005

High Rise 7.6-meter SCCWRP Trawl

Ordered by Date & Time

Station Name	Date		Time	Depth (feet)	Predicted Tide	Mudline Depth (feet)	Wire Out (feet)	Northstar DGPS Latitude decimal min.	Northstar DGPS Longitude decimal min.	Trawl Distance & Direction/Time Comments
65-4B channel	2-Sep-05	Start Set	1043	13	0.1	-13		47 31.110	122 18.370	0.23 nm
		Start Tow	1043	12	0.0	-12	120	47 31.083	122 18.359	426 meters
		End	1049	14	0.0	-14		47 30.861	122 18.272	165° true, 6 min.
					low					
66-4C channel	2-Sep-05	Start Set	1100	14	0.0	-14		47 30.776	122 18.252	0.09 nm
		Start Tow	1101	12	0.0	-12	120	47 30.799	122 18.268	172 meters
		End	1103	13	0.0	-13		47 30.889	122 18.301	346° true, 2 min.
					low					
67-4A channel	2-Sep-05	Start Set	1121	12	0.0	-12		47 31.086	122 18.374	0.21 nm
		Start Tow	1122	12	0.0	-12	120	47 31.058	122 18.364	384 meters
		End	1128	10	0.0	-10		47 30.856	122 18.296	167° true, 6 min.
					low					
68-4B channel	2-Sep-05	Start Set	1222	14	0.8	-13		47 31.108	122 18.371	0.22 nm
		Start Tow	1223	13	0.8	-12	120	47 31.077	122 18.358	407 meters
		End	1229	16	0.9	-15		47 30.865	122 18.274	165° true, 6 min.
					low flood					
69-4A channel	2-Sep-05	Start Set	1240	13	1.2	-12		47 31.090	122 18.377	0.21 nm
		Start Tow	1241	13	1.3	-12	125	47 31.061	122 18.366	388 meters
		End	1246	13	1.4	-12		47 30.858	122 18.292	166° true, 5 min.
					flood					
70-4B channel	2-Sep-05	Start Set	1256	17	1.7	-15		47 30.876	122 18.278	0.24 nm
		Start Tow	1256	17	1.7	-15	125	47 30.898	122 18.288	439 meters
		End	1302	15	1.9	-13		47 31.126	122 18.383	344° true, 6 min.
					flood					
71-4A channel	2-Sep-05	Start Set	1312	15	2.2	-13		47 31.106	122 18.390	0.23 nm
		Start Tow	1313	14	2.2	-12	125	47 31.077	122 18.379	421 meters
		End	1319	14	2.4	-12		47 30.857	122 18.295	166° true, 6 min.
					flood					
72-4B channel	2-Sep-05	Start Set	1325	18	2.7	-15		47 30.881	122 18.277	0.24 nm
		Start Tow	1326	18	2.7	-15	125	47 30.905	122 18.291	437 meters
		End	1331	16	2.8	-13		47 31.133	122 18.380	345° true, 5 min.
					flood					
73-4A channel	6-Sep-05	Start Set	0742	22	9.4	-13		47 31.103	122 18.394	0.23 nm
		Start Tow	0743	20	9.3	-11	165	47 31.069	122 18.383	425 meters
		End	0749	23	9.3	-14		47 30.850	122 18.283	163° true, 6 min.
					high ebb					
74-4B channel	6-Sep-05	Start Set	0806	24	9.1	-15		47 30.880	122 18.283	0.22 nm
		Start Tow	0807	25	9.1	-16	170	47 30.919	122 18.294	437 meters
		End	0813	22	9.0	-13		47 31.134	122 18.384	345° true, 5 min.
					high ebb					

Windward Environmental Duwamish River Trawls

Aug-Sept., 2005

High Rise 7.6-meter SCCWRP Trawl

Ordered by Date & Time

Station Name	Date		Time	Depth (feet)	Predicted Tide	Mudline Depth (feet)	Wire Out (feet)	Northstar DGPS (NAD 83) Latitude decimal min.	Longitude decimal min.	Trawl Distance & Direction/Time Comments
75-4A channel	6-Sep-05	Start Set	0833	23	8.6	-14		47 31.059	122 18.367	0.17 nm
		Start Tow	0834	22	8.6	-13	175	47 31.015	122 18.344	315 meters
		End	0838	21	8.5	-13		47 30.850	122 18.283	165° true, 4 min.
					high ebb					
76-4B channel	6-Sep-05	Start Set	0850	23	8.3	-15		47 30.881	122 18.280	0.23 nm
		Start Tow	0851	24	8.3	-16	175	47 30.920	122 18.295	420 meters
		End	0856	21	8.2	-13		47 31.139	122 18.381	345° true, 5 min.
					high ebb					
77-4A channel	6-Sep-05	Start Set	0909	21	7.9	-13		47 31.109	122 18.394	0.23 nm
		Start Tow	0910	19	7.9	-11	150	47 31.073	122 18.384	432 meters
		End	0916	19	7.7	-11		47 30.849	122 18.289	164° true, 6 min.
					ebb					
78-4C channel	6-Sep-05	Start Set	0927	22	7.4	-15		47 30.744	122 18.226	0.13 nm
		Start Tow	0928	21	7.4	-14	150	47 30.771	122 18.253	247 meters
		End	0931	20	7.3	-13		47 30.898	122 18.312	345° true, 5 min.
					ebb					
79-4D channel	6-Sep-05	Start Set	0953	22	6.7	-15		47 30.758	122 18.216	0.11 nm
		Start Tow	0954	20	6.7	-13	175	47 30.790	122 18.250	210 meters
		End	0957	22	6.6	-15		47 30.900	122 18.289	347° true, 3 min.
					ebb					
80-4C	6-Sep-05	Start Set	1013	11	6.2	-5		47 30.741	122 18.254	0.13 nm
		Start Tow	1013	16	6.2	-10	100	47 30.762	122 18.270	247 meters
		End	1017	12	6.0	-6		47 30.888	122 18.334	341° true, 4 min.
					ebb					
81-4D	6-Sep-05	Start Set	1030	11	5.6	-5		47 30.757	122 18.187	0.12 nm
		Start Tow	1031	20	5.6	-14	100	47 30.775	122 18.217	227 meters
		End	1034	13	5.5	-8		47 30.891	122 18.271	345° true, 4 min.
					ebb					Lots of organic debris
82-4B channel	6-Sep-05	Start Set	1047	20	5.1	-15		47 30.888	122 18.278	0.22 nm
		Start Tow	1048	20	5.1	-15	175	47 30.925	122 18.295	413 meters
		End	1053	18	4.9	-13		47 31.140	122 18.381	345° true, 5 min.
					ebb					
83-4A channel	6-Sep-05	Start Set	1108	17	4.5	-13		47 31.114	122 18.392	0.24 nm
		Start Tow	1109	15	4.5	-11	150	47 31.084	122 18.382	439 meters
		End	1115	15	4.3	-11		47 30.855	122 18.293	165° true, 6 min.
					ebb					
84-4B channel	6-Sep-05	Start Set	1125	18	4.0	-14		47 30.883	122 18.285	0.23 nm
		Start Tow	1126	19	4.0	-15	130	47 30.907	122 18.294	431 meters
		End	1132	16	3.8	-12		47 31.132	122 18.382	345° true, 6 min.
					ebb					

Windward Environmental Duwamish River Trawls

Aug-Sept., 2005

High Rise 7.6-meter SCCWRP Trawl

Ordered by Date & Time

Station Name	Date		Time	Depth (feet)	Predicted Tide	Mudline Depth (feet)	Wire Out (feet)	Northstar DGPS Latitude decimal min.	Northstar DGPS Longitude decimal min.	Trawl Distance & Direction/Time Comments
85-4A channel	6-Sep-05	Start Set	1205	15	3.0	-12		47 31.109	122 18.395	0.23 nm
		Start Tow	1206	14	3.0	-11	130	47 31.081	122 18.381	431 meters
		End	1212	15	2.9	-12		47 30.857	122 18.290	165° true, 6 min.
					ebb					Twisted net wing
86-4B channel	6-Sep-05	Start Set	1224	18	2.7	-15		47 30.897	122 18.284	0.21 nm
		Start Tow	1225	18	2.7	-15	140	47 30.931	122 18.296	396 meters
		End	1230	15	2.6	-12		47 31.137	122 18.378	345° true, 5 min.
					low ebb					
87-4A channel	6-Sep-05	Start Set	1242	14	2.5	-12		47 31.086	122 18.370	0.23 nm
		Start Tow	1243	15	2.4	-13	130	47 31.060	122 18.359	431 meters
		End	1248	16	2.4	-14		47 30.856	122 18.274	165° true, 5 min.
					low ebb					Towed close to center of channel
88-4B channel	6-Sep-05	Start Set	1300	16	2.3	-14		47 30.883	122 18.287	0.23 nm
		Start Tow	1301	17	2.3	-15	130	47 30.911	122 18.298	434 meters
		End	1306	15	2.3	-13		47 31.137	122 18.388	345° true, 5 min.
					low					Towed close to center of channel
89-4A channel	6-Sep-05	Start Set	1316	14	2.3	-12		47 31.096	122 18.386	0.23 nm
		Start Tow	1316	14	2.3	-12	130	47 31.070	122 18.377	421 meters
		End	1322	14	2.3	-12		47 30.851	122 18.289	165° true, 6 min.
					low					
90-4B channel	6-Sep-05	Start Set	1333	17	2.3	-15		47 30.877	122 18.277	0.23 nm
		Start Tow	1334	18	2.3	-16	130	47 30.908	122 18.289	439 meters
		End	1340	15	2.3	-13		47 31.138	122 18.373	346° true, 6 min.
					low					
91-4A channel	6-Sep-05	Start Set	1352	14	2.5	-12		47 31.101	122 18.389	0.23 nm
		Start Tow	1353	14	2.5	-12	130	47 31.074	122 18.375	421 meters
		End	1358	15	2.6	-12		47 30.855	122 18.285	164° true, 5 min.
					low flood					
92-4B channel	6-Sep-05	Start Set	1412	18	2.7	-15		47 30.895	122 18.286	0.22 nm
		Start Tow	1412	18	2.7	-15	140	47 30.920	122 18.300	410 meters
		End	1417	16	2.8	-13		47 31.133	122 18.387	345° true, 5 min.
					low flood					Towed close to center of channel
93-4A channel	6-Sep-05	Start Set	1425	14	3.0	-11		47 31.100	122 18.386	0.22 nm
		Start Tow	1426	14	3.0	-11	140	47 31.068	122 18.371	414 meters
		End	1431	15	3.2	-12		47 30.852	122 18.287	165° true, 5 min.
					flood					
94-4B channel	6-Sep-05	Start Set	1442	17	3.4	-14		47 30.878	122 18.281	0.23 nm
		Start Tow	1443	18	3.4	-15	150	47 30.906	122 18.295	433 meters
		End	1448	17	3.5	-14		47 31.133	122 18.375	347° true, 5 min.
					flood					Towed close to center of channel