Table A-1. September 2004 BMI raw taxa list for all sites in the Ventura watershed.

		Stations	0			4			8			9			10			11			12			13			15		
	TV	FFG	1	2	3	1	2	3	1	2	3	1	2	3	1	2	3	1	2	3	1	2	3	1	2	3	1	2	3
Identified Taxa																													
Non-Insects																													
Procambarus sp.	8	sh	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
Planariidae	4	p	4	1	9	19	1	7	0	0	7	2	13	16	0	0	0	0	0	0	0	4	0	5	2	2	1	6	22
Physa/Physella sp.	8	sc	0	3	0	3	0	1	54	53	18	6	3	0	0	6	14	3	0	0	0	0	0	0	0	0	0	2	8
Ferrissia sp.	6	sc	0	0	0	0	0	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Fossaria sp.	8	sc	0	0	0	0	0	0	0	3	3	1	0	0	0	0	4	3	11	0	2	8	16	0	0	0	0	1	0
Gyraulus sp.	8	sc	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Menetus sp.	6	sc	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0
Pisidium sp.	8	cf	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0
Oligochaeta	5	cg	7	0	0	4	38	3	3	6	7	0	0	2	0	6	6	1	2	2	3	12	0	4	0	0	17	18	8
Atractides sp.	8	p	0	0	1	0	4	0	1	0	0	0	0	0	0	0	2	2	0	1	0	0	0	0	0	0	0	0	0
Sperchon sp.	8	p	5	3	1	5	4	14	26	14	7	3	1	0	2	2	2	7	7	1	5	0	0	1	1	0	1	11	3
Torrenticola sp.	5	p	0	0	0	0	0	0	5	6	1	3	1	0	0	7	6	2	2	1	0	0	0	0	0	0	0	0	0
Hyalella sp.	8	cg	4	1	4	4	2	0	3	5	6	10	0	0	0	0	0	0	0	0	12	0	1	0	0	0	5	30	8
Cyprididae	8	cg	0	2	1	7	4	3	0	0	0	1	3	0	2	9	0	2	0	1	6	2	2	2	1	1	26	4	29
Ephemeroptera																													
Baetis sp.	5	cg	137	89	53	28	15	46	2	0	0	10	11	3	26	6	20	12	13	10	14	34	120	18	17	22	6	29	1
Callibaetis sp.	9	cg	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1
Fallceon quilleri	4	cg	9	21	31	10	10	9	0	0	0	0	1	2	9	4	2	1	5	0	94	29	18	12	19	24	47	18	13
Caenis sp.	7	cg	0	0	0	0	0	1	1	1	1	3	5	3	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0
Serratella sp.	2	cg	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	2	0	0	0	0	0	0	0	0	0	0
Epeorus sp.	0	sc	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	2	0	0	0	0	0
Leucrocuta sp.	3	sc	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	14	0	0	0	0	0	0	0	0	0	0
Tricorythodes sp.	5	cg	0	1	2	22	27	36	21	2	1	31	19	7	2	0	2	2	0	8	0	0	0	0	2	1	12	1	2
Odonata																													
Hetaerina sp.	6	p	0	0	0	5	0	0	0	2	0	0	0	0	0	0	0	0	1	1	5	0	1	0	0	1	1	0	0
Argia sp.	7	p	0	3	6	1	0	0	7	41	29	18	10	10	1	0	2	0	1	4	6	6	3	5	3	4	12	20	10
Erpetogomphus sp.	4	p	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0
Brechmorhoga mendax	9	p	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0	0	0	0	0	0	1	0	0	0	0
Plecoptera																													
Malenka sp.	2	sh	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	1	0	0	0	0	0	0	0	0	0
Hemiptera																													
Abedus sp.	8	p	0	0	0	0	0	0	0	0	0	0	1	0	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0
Sigara sp.	8	p	0	0	0	1	2	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Ambrysus sp.	5	p	0	0	0	0	3	0	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	2	0	0	4
Megaloptera																													
Corydalus sp.	0	p	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0	0	0	0	0	0	1	0	0	0	0	0	0
Sialis sp.	4	p	0	0	0	0	0	0	0	0	2	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
Trichoptera																													
Micrasema sp.	1	sc	0	0	0	3	1	1	51	41	22	50	71	5	0	0	3	152	51	13	1	0	0	0	0	1	0	0	0
Helicopsyche	3	sc	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Cheumatopsyche sp.	5	cf	0	0	0	3	0	7	4	2	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	3	16
Hydropsyche sp.	4	cf	63	25	38	55	21	39	29	27	52	72	75	179	56	35	30	18	35	13	2	5	27	6	24	7	16	23	41
Hydroptilidae (imm.)	4	sc	0	0	0	0	0	10	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Hydroptila sp.	6	sc	3	1	0	0	0	1	1	0	0	0	4	0	4	0	2	2	1	0	0	0	0	2	1	1	0	0	4
Neotrichia sp.	4	sc	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0
Ochrotrichia sp.	4	cg	12	14	3	39	10	25	0	5	0	8	1	0	25	13	13	13	1	5	1	11	14	0	0	0	5	2	0
Oxyethira sp.	3	cg	0	0	0	2	0	0	0	0	0	1	0	0	3	0	0	0	0	0	0	1	0	0	0	0	0	0	35
Oecetis sp.	8	p	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	0	1	0	0	0	0	0	0	0	0	0	1
Marilia flexuosa	0	sh	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	0	1	2	2	0
Wormaldia sp.	3	cf	0	0	0	1	0	0	3	2	12	0	0	0	0	0	0	0	1	0	3	0	0	0	0	0	0	0	0
Polycentropus sp.	6	p	0	0	0	1	0	2	1	2	0	0	0	2	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0
Tinodes sp. (L)	2	cg	0	0	0	19	23	8	43	42	9	19	22	4	18	15	8	2	1	0	0	1	0	5	1	0	5	17	6
Rhyacophila sp. (L)	0	p	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	2	5	3	0	0	0	0	0	0	0	0	0
Gumaga sp.	3	sh	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	7	2	1	0	0	0	0	0	0	0	0	0
Lepidoptera																													
Petrophila sp.	5	sc	0	0	0	2	0	0	0	0	0	0	0	0	25	6	5	2	0	1	5	7	6	0	1	0	0	12	0
Coleoptera																													
Microcylloepus sp.	4	cg	4	6	14	1	0	9	0	1	0	1	3	4	26	69	71	15	36	43	45	38	26	91	93	77	21	46	5
Optioservus sp.	4	sc	0	0	3	0	0	1	0	0	0	1	0	0	0	4	10	3	8	3	0	0	0	0	0	0	1	3	2
Ordobrevia sp.	4	sc	0	0	0	0	0	0	0	0	0	0	0	1	1	0	6	0	3	0	0	0	0	0	0	0	0	0	0
Zaitzevia sp.	4	sc	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	6	0	0	0	0	0	0	0	0	0	0
Peltodytes sp.	5	sc	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0

Table A-1. Continued.

	TV	FFG	0			4			8			9			10			11			12			13			15		
			1	2	3	1	2	3	1	2	3	1	2	3	1	2	3	1	2	3	1	2	3	1	2	3	1	2	3
Tropisternus sp.	5	p	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
Helochares sp.	5	p	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0	0	0	0	0	0	0	0	0	0
Hydraena sp.	5	p	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Eubrianax edwardsi	4	sc	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	3	2	0	0	0	0	0	0	0	0	0	0
Psephenus falli	4	sc	3	1	0	6	2	17	0	0	0	10	21	0	0	0	0	11	0	0	0	0	0	0	1	0	1	1	1
Diptera																													
Bezzia/Palpomyia sp.	6	p	0	0	0	0	0	0	0	3	0	0	0	0	0	3	3	0	0	1	0	0	0	0	0	0	2	0	2
Dasyhelea sp.	6	cg	0	0	0	1	4	1	6	0	4	3	5	0	13	50	18	5	0	0	0	0	0	3	0	0	11	12	2
Atrichopogon sp.	6	cg	4	1	1	4	5	0	3	11	3	4	4	2	12	1	3	1	0	0	0	6	1	2	1	0	0	1	0
Chironominae																													
Chironomini																													
Apedilum sp.	6	cg	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0
Dicrotendipes sp.	8	cg	0	0	0	2	9	0	0	0	1	0	0	0	18	20	1	0	0	0	0	0	0	0	0	0	0	0	4
Microtendipes sp.	6	cf	0	0	0	3	4	3	0	0	0	0	0	0	2	4	0	0	2	0	0	0	0	0	0	0	3	0	0
Paracladopelma sp.	7	cg	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3
Paratendipes sp.	8	cg	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Polypedilum sp.	6	sc	0	0	0	2	14	3	0	2	0	0	0	0	4	1	0	3	4	12	0	0	0	0	0	1	3	0	0
Stenochironomus sp.	5	cg	0	0	0	0	0	0	2	0	9	1	0	1	0	0	0	0	1	2	0	0	0	1	0	2	0	0	0
Pseudochironomini																													
Pseudochironomus sp.	5	cg	0	0	0	1	1	0	0	0	0	0	0	0	7	3	0	0	0	0	0	1	0	0	0	0	1	0	0
Tanytarsini																													
Rheotanytarsus sp.	6	cf	1	42	78	29	11	3	0	5	1	0	1	0	0	6	1	0	12	11	0	3	6	1	15	7	4	5	1
Tanytarsus sp.	6	cf																			0	0	0	0	3	0	2	1	0
Orthocladiinae																													
Brillia sp.	5	sh	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0
Cardiocladius sp.	5	p	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0	0	0	0	0	0
Corynoneura sp.	7	cg	1	1	0	0	0	2	0	0	0	0	4	26	0	2	4	1	8	15	0	1	1	9	6	10	3	1	3
Cricotopus sp.	7	cg	17	12	14	1	10	4	7	1	4	0	0	0	4	10	8	0	0	0	0	8	0	0	1	1	6	0	0
Eukiefferiella sp.	8	cg	8	2	1	2	0	2	2	0	0	0	0	0	5	2	4	5	5	8	5	6	6	6	5	20	0	9	2
Parametriocnemus sp.	5	cg	0	0	0	0	1	1	2	5	17	2	2	5	0	0	1	0	36	35	0	2	7	0	0	0	0	0	0
Paraphaenocladius sp.	4	cg	0	0	0	0	0	0	0	1	1	0	0	0	1	2	0	0	0	0	0	0	0	0	0	0	0	0	2
Rheocricotopus sp.	6	cg	7	2	6	0	1	4	0	1	8	1	1	19	0	3	3	4	19	51	2	12	12	7	30	23	6	5	2
Thienemanniella sp.	6	cg	3	1	2	1	4	10	2	1	2	8	0	2	11	1	2	7	2	11	0	0	0	1	0	0	0	5	3
Tanypodinae																													
Labrundinia sp.	6	p	0	0	0	0	0	0	0	4	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	3	0	3
Nilotanypus sp.	6	p	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0
Pentaneura sp.	6	p	0	1	7	4	6	4	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	1	7	3	6
Thienemannimyia Gr.	6	p	0	0	0	2	6	0	0	4	6	0	0	1	4	1	0	5	10	4	0	1	0	3	0	2	1	1	0
Dolichopodidae (L)	4	p	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0
Hemerodromia sp. (L)	6	p	0	0	0	0	0	0	1	0	0	0	0	2	2	0	3	1	3	2	0	2	2	2	1	0	0	0	0
Neoplasta sp. (L)	6	p	0	0	1	2	0	1	0	2	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	1	1	0
Ephydridae (L)	6	sh	0	0	0	0	0	0	0	0	0	0	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0
Maruina lanceolata (L)	2	sc	0	0	0	0	0	0	0	6	0	0	0	0	0	0	0	6	7	11	0	0	0	0	0	0	0	0	0
Pericoma/Telmatoscopus sp.	4	cg	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4	3	0	0	0	0	0	0	0	2	0
Dixa sp.	2	cg	0	0	0	0	0	0	0	0	1	0	1	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0
Simulium sp. (L)	6	cf	11	64	14	1	6	12	7	9	48	2	12	10	13	4	61	5	11	24	95	81	51	65	46	84	21	25	0
Euparyphus/Caloparyphus sp.	8	cg	1	1	0	4	43	3	10	9	12	33	20	1	1	9	4	18	4	13	0	3	0	20	6	8	34	22	32
Limonia sp. (L)	6	sh	0	0	1	0	0	0	0	0	0	0	0	0	2	1	2	0	0	1	0	0	0	1	0	1	2	0	0
Tipula sp. (L)	4	sh	0	1	0	0	0	0	4	0	0	0	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0
Sum			307	302	295	305	295	296	311	324	298	317	320	316	314	310	342	344	346	321	319	289	325	293	283	307	309	346	291
No. Caton Grids picked			10	4	5	2	4	2	5	10	5	5	3	2	3	3	3	2	23	3	4	10	14	2	2	3	2	3	2
Residual BMIs			7	31	11	23	159	80	0	7	24	11	0	5	78	6	70	86	2	75	37	32	3	0	125	58	33	19	82
Total Estimated BMIs/sample			939	2483	1818	4845	3390	5595	1812	987	1914	1908	3180	4770	3810	3140	4090	6270	451	3930	2573	957	696	4185	6090	3620	4890	3630	5550
No. Ephemeroptera Taxa			2	3	3	3	3	4	3	2	2	3	4	4	3	2	5	5	4	3	2	2	2	3	3	3	4	3	4
No. Plecoptera Taxa			0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0
No. Trichoptera Taxa			3	3	2	8	4	8	7	7	5	6	5	5	6	3	8	7	10	5	4	4	2	5	3	4	5	5	6
No. Epemeroptera individuals			146	111	86	60	52	92	24	3	2	44	36	15	37	10	27	17	34	19	108	63	138	32	38	47	66	48	17
No. Plecoptera individuals			0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	1	0	0	0	0	0	0	0	0	0
No. Trichoptera individuals			78	40	41	123	55	93	132	121	96	151	173	191	107	63	62	196	99	35	7	18	41	17	26	10	30	47	103
No. Sensitive E ind.			0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	1	16	1	0	0	0	2	0	0	0	0	0
No. Sensitive P ind.			0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	1	0	0	0	0	0	0	0	0	0
No. Sensitive T ind.			0	0	0	25	24	9	97	85	43	71	93	9	21	15	16	163	60	17	4	2	0	8	1	2	7	19	41

Table A-2. Spring 2004 BMI metrics by replicate for each of the three sample locations in the Ventura Watershed.

Station	Ventura River Main Street Bridge 0			Ventura River Foster Park 4			Ventura River below Matilija Dam 12			San Antonio Creek above Lion Canyon 15			Stewart Canyon Creek /s conf. San Antonio Cree 8			San Antonio Creek ear Stewart Canyon Cree 9			North Fork Matilija Creek u/s conf. Ventura River 10			North Fork Matilija Creek at gauging station 11			Matilija Creek below community 13		
Replicate	**1**	**2**	**3**	**1**	**2**	**3**	**1**	**2**	**3**	**1**	**2**	**3**	**1**	**2**	**3**	**1**	**2**	**3**	**1**	**2**	**3**	**1**	**2**	**3**	**1**	**2**	**3**
Taxonomic richness	18	22	21	31	24	27	17	21	18	28	30	30	26	29	24	28	28	24	26	25	36	36	34	30	24	20	19
% dominant taxa	44.8	29.7	26.7	18.3	14.7	15.7	31.0	28.2	37.3	16.2	13.5	14.2	17.9	16.5	17.6	23.5	23.6	57.2	18.5	22.4	20.9	45.8	20.6	37.7	32.6	33.5	27.6
Cumulative taxa		32			48			34			56			48			49			55			57			36	
EPT taxa	5	6	5	11	7	12	6	6	4	9	8	10	10	9	7	9	9	9	9	5	13	12	15	9	8	6	7
EPT Index (%)	73.2	50.3	43.5	61.0	36.5	63.1	37.6	28.2	55.6	32.8	27.6	41.7	51.7	38.5	33.2	63.5	65.7	65.8	47.5	23.7	26.3	64.2	39.5	17.3	17.6	22.8	18.8
Sensitive EPT Index (%)	0.0	0.0	0.0	8.3	8.2	3.1	1.3	0.7	0.0	2.4	5.5	14.2	32.1	26.4	14.6	23.1	29.2	2.9	6.9	4.9	5.6	49.4	23.0	6.0	3.6	0.4	0.7
Percent Chironomidae	12.1	20.3	37.0	15.7	22.9	12.3	2.3	12.5	9.9	13.1	8.5	10.1	5.0	7.5	16.6	3.9	2.5	17.9	18.5	17.9	7.4	7.5	29.1	46.9	10.0	20.5	22.0
Shannon Diversity	1.83	2.11	2.26	2.75	2.69	2.75	1.91	2.34	2.07	2.82	2.91	2.85	2.55	2.74	2.63	2.54	2.50	1.68	2.69	2.54	2.79	2.38	2.77	2.33	2.21	2.05	2.00
Tolerance Value	4.9	5.3	5.2	4.8	5.5	4.8	5.1	5.2	5.1	5.6	5.4	5.5	4.8	5.1	5.2	4.5	4.0	4.4	4.7	5.0	5.0	3.2	4.2	4.8	5.0	4.8	5.1
Percent Intolerance Value (0-2)	0.0	0.0	0.0	7.3	8.2	3.1	0.3	0.3	0.3	2.4	5.6	2.1	31.1	27.6	10.8	22.5	29.6	2.9	6.6	4.9	4.4	49.1	20.1	9.1	3.9	0.4	0.7
Percent Tolerance Value (8-10)	3.6	3.7	2.7	8.0	20.1	7.2	8.2	4.9	5.9	23.0	20.5	28.5	31.5	26.1	15.6	17.6	9.1	0.6	1.7	8.8	8.6	10.8	6.7	5.0	8.2	3.2	3.0
Percent Collectors	94.8	93.5	90.1	82.0	85.7	79.9	49.7	41.4	67.8	68.4	57.4	86.6	85.1	85.1	77.6	35.2	56.6	84.0	92.2	87.8	90.7	91.0	92.8	94.7	87.7	78.7	76.0
Percent Filterers	24.5	30.0	18.2	20.0	9.2	19.8	32.7	30.3	24.2	13.4	14.9	19.8	14.2	12.4	38.3	24.1	27.4	60.4	22.8	12.7	26.8	6.9	13.7	11.6	25.4	25.2	29.9
Percent Grazers	2.0	1.7	1.0	4.7	1.0	10.6	2.6	5.2	6.8	0.7	5.8	5.2	35.4	32.0	14.6	22.8	31.1	1.9	9.9	5.2	13.6	56.0	29.9	9.4	1.8	1.1	0.7
Percent Predators	3.3	2.7	8.6	13.3	8.9	9.6	5.2	4.5	2.5	10.3	12.3	18.4	13.6	24.5	17.6	8.8	8.8	11.2	4.3	4.9	7.4	6.6	9.0	5.7	5.7	2.9	3.9
Percent Shredders	0.0	0.3	0.3	0.0	0.0	0.0	0.0	0.0	0.0	1.4	0.6	0.0	1.3	0.0	0.0	0.0	0.3	0.3	0.7	0.6	1.5	2.1	1.5	0.9	1.4	0.0	0.7
Percent Hydropsychidae	20.6	8.3	13.0	19.3	7.2	15.7	0.7	1.7	8.4	6.2	7.6	19.8	10.9	9.0	18.0	23.5	23.6	57.2	18.5	11.4	8.8	5.4	10.2	4.1	2.2	8.6	2.3
Percent Baetidae	47.7	36.7	28.8	12.7	8.5	18.8	35.3	22.0	42.9	18.6	13.7	5.2	0.7	0.0	0.0	3.3	3.8	1.6	11.6	3.2	6.5	3.9	5.2	3.1	10.8	12.9	15.1
Predator Taxa	3	4	6	9	7	5	3	4	5	10	6	10	6	10	6	5	7	9	7	6	10	8	9	9	5	5	6
Coleoptera Taxa	2	2	2	2	1	3	1	1	1	3	4	4	0	2	0	4	2	2	2	2	3	6	5	2	1	2	1
Percent Non-Insect	6.9	3.7	5.8	14.0	18.4	9.6	9.2	9.4	5.9	17.1	20.9	27.4	30.8	27.6	16.6	8.5	6.6	5.8	1.3	9.7	10.0	6.0	6.4	2.2	4.3	1.4	1.0

Table A-3. Averaged biological metrics for each station in the Ventura watershed with standard deviations, coefficients of variation and 95% confidence intervals. Grayed area denotes stations that were dry.

River/Stream System		Ventura River				Canada Larga		San Antonio Creek					North Fork Matilija Creek		Matilija Creek	
Station Description		Main Street Bridge	Foster Park	Below Matilija Dam	@Santa Ana Rd.	Below Grazing	Above Grazing	u/s Ventura River Confluence	Lion Canyon u/s San Antonio	u/s Lion Canyon	Stewart Canyon u/s San Antonio	u/s Stewart Canyon Creek	u/s Ventura River Confluence	At gauging station	Below community	Above Community
Biological Metric	Station	0	4	12	6	2	3	5	7	15	8	9	10	11	13	14
Taxonomic richness	mean	20.3	27.3	18.7						29.3	26.3	26.7	29.0	33.3	21.0	
	st. dev.	2.1	3.5	2.1						1.2	2.5	2.3	6.1	3.1	2.6	
	cv	10	13	11						4	10	9	21	9	13	
	95% CI	2.4	4.0	2.4						1.3	2.8	2.6	6.9	3.5	3.0	
% dominant taxa	mean	33.7	16.2	32.2						14.6	17.3	34.7	20.6	34.7	31.2	
	st. dev.	9.7	1.9	4.6						1.4	0.8	19.4	2.0	12.8	3.1	
	cv	29	12	14						10	4	56	10	37	10	
	95% CI	11.0	2.1	5.2						1.6	0.9	22.0	2.2	14.5	3.6	
Cumulative Taxa		32	48	34						56	48	49	55	57	36	
EPT taxa	mean	5.3	10.0	5.3						9.0	8.7	9.0	9.0	12.0	7.0	
	st. dev.	0.6	2.6	1.2						1.0	1.5	0.0	4.0	3.0	1.0	
	cv	11	26	22						11	18	0.0	44	25	14	
	95% CI	0.7	3.0	1.3						1.1	1.7	0.0	4.5	3.4	1.1	
EPT Index (%)	mean	55.7	53.6	40.5						34.0	41.1	65.0	32.5	40.3	19.7	
	st. dev.	15.6	14.8	13.9						7.1	9.5	1.3	13.1	23.4	2.7	
	cv	28	28	34						21	23	2	40	58	14	
	95% CI	17.6	16.7	15.7						8.0	10.7	1.5	14.8	26.5	3.1	
Sensitive EPT Index (%)	mean	0.0	6.5	0.7						7.4	24.4	18.4	5.8	26.1	1.5	
	st. dev.	0.0	3.0	0.7						6.1	8.9	13.8	1.0	21.9	1.8	
	cv	.	46	98						83	37	75	18	84	116	
	95% CI	.	3.4	0.7						6.9	10.1	15.6	1.2	24.8	2.0	
Cumulative EPT Taxa	mean	6	14	8						12	11	13	15	18	10	
	st. dev.															
	cv															
Percent Chironomidae	mean	23.1	16.9	8.3						10.5	9.7	8.1	14.6	27.8	17.5	
	st. dev.	12.7	5.4	5.3						2.3	6.1	8.5	6.2	19.7	6.5	
	cv	55	32	65						22	63	105	43	71	37	
	95% CI	14.4	6.1	6.0						2.6	6.9	9.6	7.1	22.3	7.4	
Predator Taxa	mean	4	7	4						9	7	7	8	9	5	
	st. dev.	2	2	1						2	2	2	2	1	1	
	cv	35	29	25						27	31	29	27	7	11	
	95% CI	1.7	2.3	1.1						2.6	2.6	2.3	2.4	0.7	0.7	
Coleoptera Taxa	mean	2	2	1						4	1	3	2	4	1	
	st. dev.	0	1	0						1	1	1	1	2	1	
	cv	.	50	.						16	173	43	25	48	43	
	95% CI	.	1	.						0.7	1.3	1.3	0.7	2.4	0.7	
Shannon Diversity	mean	2.1	2.7	2.1						2.9	2.6	2.2	2.7	2.5	2.1	
	st. dev.	0.2	0.0	0.2						0.0	0.1	0.5	0.1	0.2	0.1	
	cv	10	1	10						2	3	22	5	10	5	
	95% CI	0.2	0.0	0.2						0.1	0.1	0.6	0.1	0.3	0.1	
Tolerance Value	mean	5.1	5.0	5.1						5.5	5.1	4.3	4.9	4.1	5.0	
	st. dev.	0.2	0.4	0.1						0.1	0.2	0.3	0.2	0.8	0.1	
	cv	4	8	1						2	4	7	3	20	2	
	95% CI	0.2	0.4	0.1						0.1	0.2	0.3	0.2	0.9	0.1	
Percent Intolerance Value (0-2)	mean	0.0	6.2	0.3						3.3	23.2	18.3	5.3	26.1	1.7	
	st. dev.	0.0	2.7	0.0						1.9	10.8	13.8	1.1	20.7	2.0	
	cv	.	44	6						57	47	76	22	79	120	
	95% CI	.	3.1	0.0						2.2	12.3	15.6	1.3	23.4	2.2	
Percent Tolerance Value (8-10)	mean	3.3	11.8	6.3						24.0	24.4	9.1	6.3	7.5	4.8	
	st. dev.	0.5	7.3	1.7						4.1	8.1	8.5	4.0	3.0	3.0	
	cv	15	62	27						17	33	93	64	40	62	
	95% CI	0.6	8.2	1.9						4.6	9.1	9.6	4.6	3.4	3.4	
Percent Collectors	mean	92.8	82.5	53.0						70.8	82.6	58.6	90.2	92.9	80.8	
	st. dev.	2.4	2.9	13.5						14.7	4.4	24.4	2.2	1.8	6.1	
	cv	2.6	3.6	25.5						20.8	5.3	41.7	2.5	2.0	7.6	
	95% CI	2.7	3.3	15.3						16.7	4.9	27.6	2.5	2.1	6.9	
Percent Filterers	mean	24.2	16.3	29.1						16.0	21.7	37.3	20.8	10.7	26.9	
	st. dev.	5.9	6.2	4.4						3.3	14.4	20.1	7.3	3.5	2.7	
	cv	24.5	37.8	15.0						20.8	66.7	53.8	35.2	32.2	9.9	
	95% CI	6.7	7.0	4.9						3.8	16.3	22.7	8.3	3.9	3.0	
Percent Grazers	mean	1.6	5.4	4.9						3.9	27.3	18.6	9.6	31.8	1.2	
	st. dev.	0.5	4.8	2.1						2.8	11.2	15.1	4.2	23.4	0.6	
	cv	31	89	44						72	41	81	44	73	49	
	95% CI	0.5	5.5	2.4						3.2	12.7	17.0	4.8	26.4	0.6	
Percent Predators	mean	4.8	10.6	4.1						13.7	18.6	9.6	5.5	7.1	4.2	
	st. dev.	3.2	2.4	1.4						4.2	5.5	1.4	1.6	1.7	1.4	
	cv	67	23	35						31	30	14	30	24	34	
	95% CI	3.7	2.7	1.6						4.8	6.3	1.6	1.9	2.0	1.6	
Percent Shredders	mean	0.2	0.0	0.0						0.7	0.4	0.2	0.9	1.5	0.7	
	st. dev.	0.2	0.0	0.0						0.7	0.8	0.2	0.5	0.6	0.7	
	cv	87	.	.						106	173	87	51	39	103	
	95% CI	0.2	.	.						0.8	0.9	0.2	0.5	0.7	0.8	
Percent Hydropsychidae	mean	14.0	14.1	3.6						11.2	12.6	34.7	12.9	6.6	4.4	
	st. dev.	6.2	6.2	4.2						7.5	4.7	19.4	5.0	3.2	3.7	
	cv	44	44	116						67	37	56	39	49	85	
	95% CI	7.0	7.1	4.7						8.5	5.3	22.0	5.7	3.6	4.2	
Percent Baetidae	mean	37.7	13.3	33.4						12.5	0.2	2.9	7.1	4.1	12.9	
	st. dev.	9.5	5.2	10.6						6.8	0.4	1.1	4.2	1.1	2.2	
	cv	25	39	32						54	173	40	59	26	17	
	95% CI	10.8	5.8	12.0						7.6	0.4	1.3	4.7	1.2	2.5	
Percent Non-Insect	mean	5.5	14.0	8.2						21.8	25.0	6.9	7.0	4.9	2.2	
	st. dev.	1.6	4.4	2.0						5.2	7.4	1.4	4.9	2.3	1.8	
	cv	29.9	31.7	24.0						24.0	29.8	20.0	70.4	47.6	80.5	
	95% CI	1.8	5.0	2.2						5.9	8.4	1.6	5.6	2.6	2.0	
Estimated Abundance	mean	1747	4610	1409						4690	1571	3286	3680	3550	4632	
	st. dev.	774	1121	1016						975	508	1434	488	2928	1294	
	95% CI	876	1269	1150						1104	575	1623	552	3313	1464	

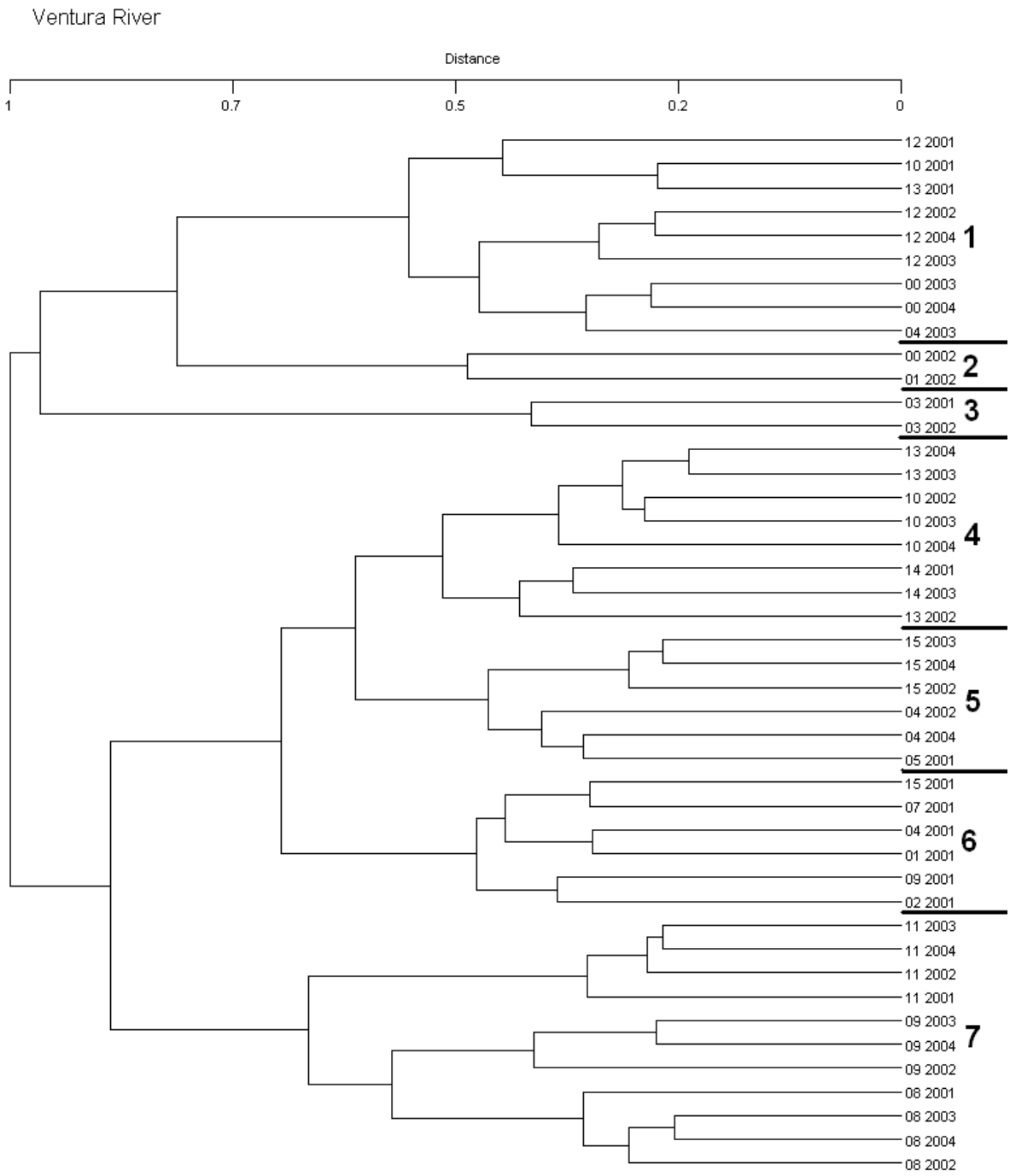

Figure A-1. Station dendogram for historic Ventura watershed BMI data (2001-2004) based on Bray-Curtis dissimilarity. Station groups are listed on right.

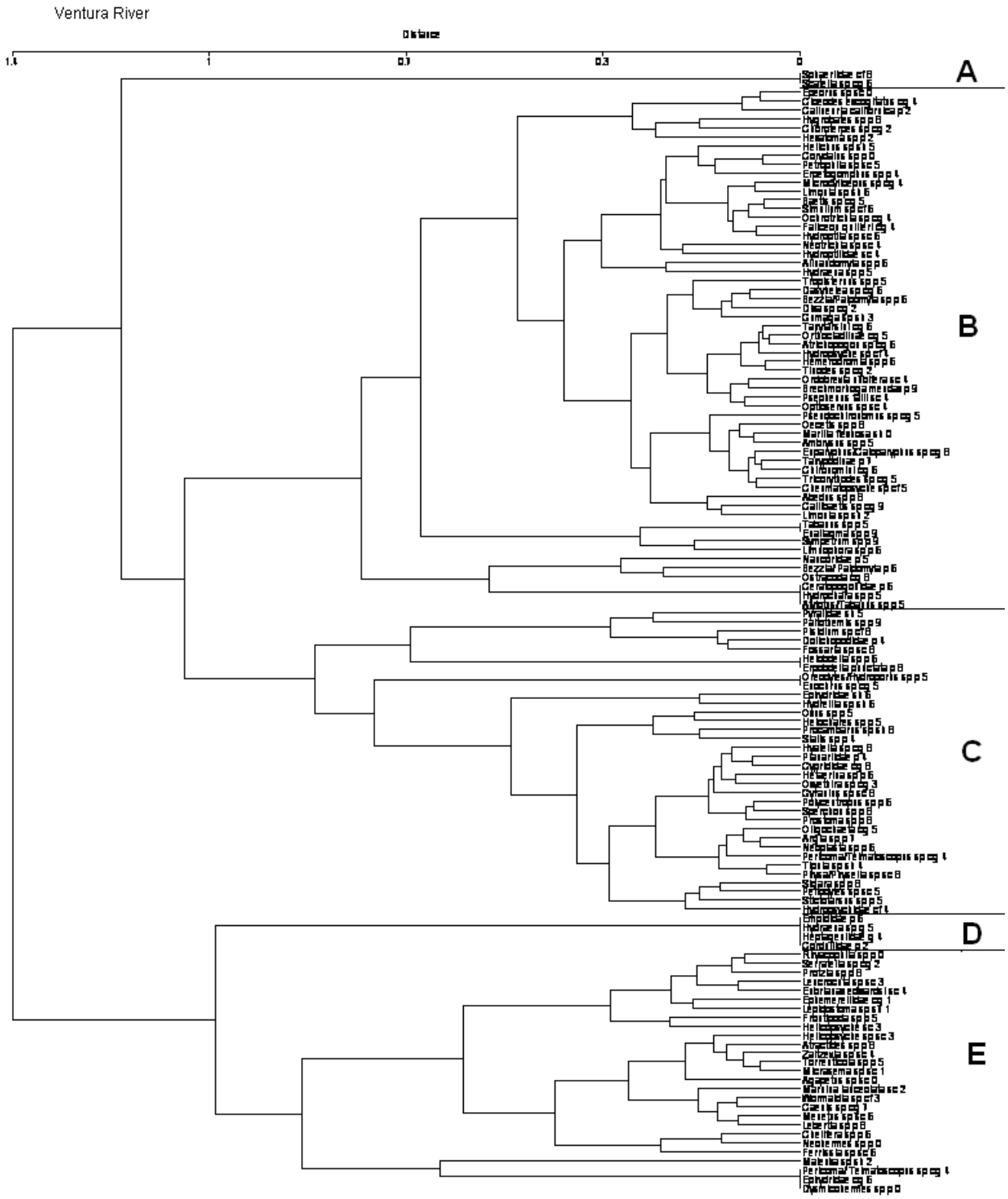

Figure A-2. Species dendogram for historic Ventura watershed BMI data (2001-2004) based on Bray-Curtis dissimilarity. Species groups listed on right.