

Supplemental Table S1. Vegetation and management characteristics of the different habitats at each university campus.

Campus	Natural	Lawn	Shrub	Waterwise	Waterwise + mulch
Pomona College	<i>Artemisia californica</i> , <i>Eriogonum fasciculatum</i> var. <i>foliolosum</i> , <i>Malosma laurina</i> . No additional irrigation.	Kikuyu, Bermuda, Rye grass. Irrigation 3x/week in summer, 2x/week in winter.	<i>Myrsine africana</i> (African boxwood). No Mulch. Drip irrigation 2x/week (60 min).	<i>Baccharis pilularis</i> (coyote bush), small oaks (<i>Quercus agrifolia</i>), wild roses. Drip irrigation 2x/week (60 min).	<i>Senecio</i> sp., <i>Stipa</i> sp., <i>Phlomis fruticose</i> . Drip irrigation 2x/week (60 min).
Whitter College	<i>Acacia cyclops</i> , iceplants (<i>Carpobrotus</i> sp.), Lantana. No irrigation or other inputs.	Kikuyu grass turf. Irrigated daily.	Deer grass (<i>Muhlenbergia rigens</i>), <i>Ceanothus</i> sp., Coast live oak (<i>Quercus agrifolia</i>). No mulch. Irrigated 3x/week	<i>Ceanothus</i> sp., sage sp., Toyon (<i>Heteromeles arbutifolia</i>) No mulch. Irrigated 2x/week	Lavender cotton (<i>Santolina</i> sp.), <i>Ceanothus</i> sp., <i>Juncus</i> sp., Agave americana, Western redbud. Mulch. Irrigated 2x/week
CSU Fullerton	<i>Quercus suber</i> , <i>Ceratonia siliqua</i> , misc. Chilean plants. Litter from trees. No irrigation or other inputs.	Kikuyu, Bermuda, Rye grass. Overhead irrigation 3x/week in summer, 2x/week in winter.	<i>Buxus microphylla</i> var. <i>japonica</i> (hedge), <i>Calodendrum capense</i> , <i>Wisteria floribunda</i> (on arbor). No mulch. Drip irrigation 2x/week.	Misc. drought tolerant species – <i>Melilotus albus</i> , <i>Nemophila menziesii</i> , Festuca. No mulch. Overhead irrigation as needed.	Misc. CA natives – <i>Muhlenbergia rigens</i> , <i>Salvia</i> ‘Aromas’, <i>Eriogonum fasciculatum</i> , <i>Verbena lilacina</i> ‘De La Mina’, <i>Salvia</i> ‘Skylark’. Mulch. Overhead irrigation 1x/week.
Occidental College	Oak species and grasses/weeds dominant. No irrigation.	Grass turf. Irrigation schedule unknown.	Shrub and tree species. Irrigation schedule unknown.	Agave and cacti species. No mulch. Irrigation schedule unknown.	Pollinator-friendly and native plants. Small tree. Mulch. Irrigation schedule unknown.
University of Redlands	<i>Bromus</i> sp., mustards <i>Brassica</i> sp., rockets <i>Eruca</i> sp., cheeseweed <i>Malva parviflora</i>	Bermuda/Rye grass mix. Irrigated with pop-up sprinklers Mon/We/Fri/Sat	Pyracantha Irrigated with pop-up sprinklers Tue/Thurs/Sat	Orange grove; no mulch Irrigated with drip irrigation every other day	Orange grove; mulch Irrigated with drip irrigation every other day
CSU San Marcos	Chaparral dominated by chamise (<i>Adenostoma fasciculatum</i>) and black sage (<i>Salvia mellifera</i>). No irrigation or other inputs.	Kikuyu grass, watered 4x/week and fertilized 4x/year.	Bougainvillea Scarlet O’Hara without mulching. Watered 2x/week and fertilized 2x/year	Variegated Century plant (<i>Agave americana</i>), Coyote Brush (<i>Baccharis pilularis</i>), Bougainvillea Raspberry ice without mulch. Irrigation 2x/week and fertilization 2x/year.	Variegated Century plant (<i>Agave americana</i>), purple trailing lantana (<i>Lantana montevidensis</i>), Bougainvillea Raspberry ice. Bark mulch. Irrigation 2x/week and fertilization 2x/year.
CSU Los Angeles	Coast Live Oak (<i>Quercus agrifolia</i>), Laurel Sumac (<i>Malosma laurina</i>) and Toyon (<i>Heteromeles arbutifolia</i>), Tree Tobacco (<i>Nicotiana glauca</i>), California Sycamore (<i>Platanus racemosa</i>), non-native annual grasses. Not watered.	Turf grass with <i>Washingtonia</i> spp. palm trees.	Crepe Myrtle (<i>Lagerstroemia</i> spp.), American Sweetgum (<i>Liquidambar styraciflua</i>), <i>Pittosporum</i> spp., various evergreen exotic shrubs	Blue Palo Verde (<i>Parkinsonia florida</i>), golden barrel cactus (<i>Echinocactus grusonii</i>), Bird of Paradise (<i>Strelitzia nicolai</i>), Blue Agave (<i>Agave tequilana</i>), bunch grass	<i>Washingtonia</i> spp., Date palm trees (<i>Phoenix</i> spp.), Bird of Paradise, Lily (<i>Lilium</i> spp.), bunch grass. Mulch.

Supplemental Table S2. Mean percent data retrieval, mass remaining, and N mass remaining for each site and the coefficient of variation (CV = Standard deviation/Mean * 100) for the mass and N remaining within each habitat type for oak and sycamore litter.

Site	Habitat	Data retrieval (%)	Oak		Sycamore	
			Mass remaining (%)	N remaining (%)	Mass remaining (%)	N remaining (%)
Pomona College	Lawn	100	47.4	39.4	67.9	50.9
Whittier College		100	42.3	53.3	46.7	40.6
CSU Fullerton		38	58.9	71.9	68.5	71.8
Occidental College		0	—	—	—	—
University of Redlands		38	37.6	30.0	70.6	84.0
CSU San Marcos		88	70.5	59.0	78.1	52.0
CSU Los Angeles		0	—	—	—	—
	Mean	54	51.3	50.7	66.2	64.0
	CV (%)		26.0	32.4	15.8	29.1
Pomona College	Natural	100	67.9	81.4	77.9	72.0
Whittier College		100	57.1	68.0	66.5	76.4
CSU Fullerton		88	62.0	77.3	75.1	81.8
Occidental College		100	72.2	76.6	77.1	84.4
University of Redlands		88	68.8	102.4	72.1	71.4
CSU San Marcos		100	78.4	62.0	79.4	53.9
CSU Los Angeles		88	64.4	97.2	78.4	105.3
	Mean	95	67.2	80.7	75.2	77.9
	CV (%)		10.4	18.1	6.0	20.0
Pomona College	Shrub	88	56.3	53.6	68.2	53.3
Whittier College		100	46.4	58.7	58.4	60.2
CSU Fullerton		88	60.4	75.5	62.2	67.2
Occidental College		88	63.8	66.9	74.7	71.0
University of Redlands		88	58.4	102.5	59.6	60.2
CSU San Marcos		100	76.9	65.0	83.5	64.0
CSU Los Angeles		100	65.7	90.9	70.9	80.1
	Mean	93	61.1	73.3	68.2	65.1
	CV (%)		15.3	24.2	13.2	13.3
Pomona College	Water wise	88	59.9	66.7	69.5	51.5
Whittier College		100	46.9	55.5	53.3	49.1
CSU Fullerton		75	50.4	62.9	68.3	64.3
Occidental College		50	64.4	76.2	73.1	73.7
University of Redlands		100	63.7	141.6	70.4	58.7
CSU San Marcos		100	67.6	30.6	66.1	31.8
CSU Los Angeles		0	62.0	95.1		
	Mean	73	59.3	75.5	66.8	54.9
	CV (%)		13.0	46.6	10.5	26.3
Pomona College	Water wise + Mulch	100	56.0	62.9	57.8	57.6
Whittier College		100	59.2	67.5	61.2	58.2
CSU Fullerton		88	53.9	55.9	67.5	51.5
Occidental College		0	—	—	—	—
University of Redlands		100	41.5	55.2	61.6	73.4
CSU San Marcos		100	63.2	27.5	69.7	35.6
CSU Los Angeles		50	51.8	87.3	74.3	96.9
	Mean	77	54.3	59.4	65.3	62.2
	CV (%)		13.6	32.9	9.5	33.7