

## ISLAND SPECIALISTS: SHARED FLORA OF THE ALTA AND BAJA CALIFORNIA PACIFIC ISLANDS

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**ABSTRACT.**—The floristic connection between the mediterranean region of Baja California and the Pacific islands of Alta and Baja California provides insight into the history and origin of the California Floristic Province. We present updated species lists for all California Floristic Province islands and demonstrate the disjunct distributions of 26 taxa between the Baja California and the California Channel Islands. These 26 plant taxa are found among the 16 Pacific islands without occurring on the intervening mainland of Alta California. Separate species lists for each island group (8 California Channel Islands and 8 Baja California Islands) were compiled. These lists were compared to the mainland California flora to identify species that occur on the California Islands and either the Baja California Pacific Islands or the mediterranean region of the Baja California Peninsula, but not the mainland of Alta California. This first compilation of the flora of the Baja California Islands and nomenclatural updates for the Channel Islands provide a platform for future research and conservation planning.

**RESUMEN.**—El grado de conexión florística entre la región mediterránea de Baja California y las Islas del Pacífico de Alta y Baja California proporciona un entendimiento de la historia y el origen de la Provincia Florística de California. Presentamos listados actualizados de especies de todas las islas de la Provincia Florística de California y mostramos la distribución aislada de veintiséis taxones entre la Baja California y las Islas del Canal de California. Identificamos aquellas especies de plantas que se pueden encontrar dentro de las dieciséis islas del Pacífico, pero no se encuentran en la península de Alta California. Con este objetivo, recopilamos listados separados de las especies que habitan en cada grupo de islas (las ocho Islas del Canal de California y las ocho islas de Baja California). Estos listados se compararon con la flora existente en la península de California con el fin de identificar aquellas especies que se encuentran en las islas de California, y tanto en las Islas del Pacífico de Baja California como en la región mediterránea de la Península de Baja California, pero *no* en la península de Alta California. La primera recopilación de flora de las Islas de Baja California y actualizaciones nomenclaturales en las Islas del Canal, proporcionan una plataforma para futuras investigaciones y planes de conservación.

The islands of the California Floristic Province (CFP) are an important component of one of the world's great biodiversity hotspots (Myers et al. 2000). The CFP has commonly been referred to as an environmental island due to its regionally unique mediterranean-type climate, isolation (via oceanic and orographic boundaries), and corresponding globally significant levels of endemism. The plant community has had ample time to evolve since the emergence of wet winters and dry summers at least 5–10 Mya (Axelrod 1973) and perhaps earlier (Ackerly 2009, Keeley et al. 2011). The remarkable diversity and endemism of the CFP has been attributed to relative climatic stability during glacial-interglacial transitions of the Pleistocene (Lancaster and Kay 2012, Sniderman et al. 2013). The antiquity and distinctiveness of the California flora are

well-recognized attributes that are accentuated on the islands of the Californias.

The degree of floristic similarity of 16 offshore islands, and their apparent role as refugia for species once present on the mainland, has been a persistent biogeographical puzzle. The CFP includes 16 islands from the adjacent coast of Alta and Baja California and extends south to the 28th parallel, including the CFP vegetation found on Cedros and Guadalupe Islands (Raven and Axelrod 1978, Moran 1996, Oberbauer 2002a). The CFP has an increasing gradient of aridity from north to south, but vegetation distributions are heavily influenced by fog presence; this fog provides additional moisture and reduces radiant loadings, significantly changing conditions for plants (Dawson 1998, Fischer et al. 2008, Vanderplank 2013). Physical data suggest that ocean currents have

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Fig. 1. California Channel and Baja California Pacific Islands with Diegan Scrub as defined by Axelrod (1978). Map by B.T. Wilder, adapted from Google Earth™ imagery.

been stable for millions of years (Jacobs et al. 2004), which indicates the presence of fog during the development of the CFP.

Within the large number of plant species on the CFP islands and the mainland of Alta and Baja California is the occurrence of disjunct Baja California taxa on the California Channel Islands. These species are seen today only on the CFP islands and a distinct portion of the California mainland termed the Diegan Scrub, the San Diego region southward into coastal northwestern Baja California (Fig. 1; Axelrod 1978). However, the number and identity of this group of disjunct species has remained unknown.

To identify the species that define this pattern, we present (1) the first compiled checklist of the 8 CFP Baja California Islands, (2)

nomenclatural updates to the flora of the 8 California Channel Islands, and (3) the plants that occur on the California Channel Islands and in the Diegan Scrub but *not* the rest of mainland California, hereafter referred to as “exemplar taxa.”

## METHODS

### Development of Checklists

We assembled all existing species checklists for the 2 island groups (Alta California and Baja California) into 2 lists, then compared those lists with the flora of the California Floristic Province for both mainland Alta and Baja California to generate the list of exemplar taxa. The nomenclatural updates presented here are based on our best understanding of the

island floras at the date of publication and follow the models of the sources indicated below for the 2 lists. Species now thought to be extirpated from the islands are denoted by an ampersand (&). Unvouchered taxa (including reports, photo vouchers, and personal communications) are indicated by a question mark (?). Nonnative species are indicated by an asterisk (\*). When a subspecies was not recorded for all the islands and some ambiguity remains, the taxon is recorded at the species level only. Exotic species that were planted or are not naturalized (e.g., *Nerium oleander*) were deleted from checklists.

#### Baja California Islands Checklist

The most recent species lists for each of the 8 Baja California Islands (Appendix 1; Coronados, Todos Santos, San Martín, Jeronimo, Guadalupe, San Benito, Cedros, and Natividad) were compiled from the following data sources:

- Coronados—Oberbauer 2002b
- Todos Santos—Junak and Philbrick 1994a
- San Martín—Junak and Philbrick 1994b
- Guadalupe—Moran 1996, Rebman 2006, Rebman et al. 2007
- San Benito—Junak and Philbrick 2002b, Rebman 2007a
- Cedros—Oberbauer 1987, Rebman 2007b
- Natividad—Junak and Philbrick 2002a

The list of Jeronimo island flora, consisting of 8 taxa, was provided via personal communication from Steve Junak. We verified mainland Baja California flora distributions with the unpublished data of Jon Rebman and Bart O'Brien (personal communication 2013). Several taxa were added to the checklists based on recent collections, herbarium specimens recently encountered, and recent reports by Sula Vanderplank, Jon Rebman, and Steve Junak; these taxa are indicated by footnotes. The taxonomy for this checklist follows the Checklist of Baja California Plants in preparation by Jon Rebman.

#### California Channel Islands Checklist

The updated flora of the 8 California Channel Islands (Appendix 2; San Clemente, San Nicolas, Santa Catalina, Santa Barbara, Santa Rosa, Santa Cruz, Anacapa, and San Miguel) is based on the master checklist compiled by Gary Wallace (1985). We included published updates to individual island floras found in the

National Park Service checklist from Junak et al. (1997) for San Miguel, Santa Rosa, Santa Cruz, Anacapa, and Santa Barbara islands. For San Clemente Island we included updates from Ross et al. (1996) and for San Nicholas Island updates from Junak (2008). Additional taxa and island records are included based on recent collections on Santa Catalina Island by Sarah Ratay, observations and collections on San Clemente Island by Emily Howe (Soil Ecology and Restoration Group, SDSU), and herbarium specimens found in the Consortium of California Herbaria (CCH 2014), which are listed in footnotes. The nomenclatural revision of this checklist is consistent with taxonomy of the new Jepson Manual (Baldwin et al. 2012) through the use of the dynamic concordance tool provided on the Jepson e-flora website (Jepson Flora Project 2013). This checklist was developed to identify distribution patterns in the flora, and though the nomenclature has been updated, we have not confirmed identifications of questionable herbarium specimens, nor have we diligently pursued the lowest taxonomic rank beyond the published sources. We are also aware of additional updates to the flora of many of the Channel Islands in process by Steve Junak, including publication of the flora of Catalina Island; Junak's updates are not included here.

#### Exemplar Taxa

The identification of exemplar taxa was generated through a comparison of the 2 newly generated island checklists (Appendixes 1, 2) with the Jepson Manual (Baldwin et al. 2012) and the inventory of rare and endemic plants of CFP Baja California (O'Brien et al. 2014). A large number of species from CFP Baja California extend just slightly into southern California and are considered near-endemic to Baja California (O'Brien et al. 2014). As such, we include the near-endemic species of CFP Baja California as 'absent' in the mainland of Alta California (with the exception of *Crosso-soma californicum*, which occurs on the Palos Verde Peninsula, and *Euphorbia misera*, which occurs in the South Coast region of California and beyond; Baldwin et al. 2012). These few species are consistent with the concept of Diegan Scrub as proposed by Axelrod (1978). Diegan Scrub is named for its occurrence in southern San Diego County and south into Baja California. It is a coastal scrub, rich in

TABLE 1. The 26 exemplar taxa as they occur on 8 Baja California Pacific Islands and the 8 Channel California Islands.<sup>a</sup> CRPR column provides the California Rare Plant List ranking, and the BC column provides the State of Baja California

Family	Exemplar taxa	Habit	NAT	CED	BEN	GUA	JER	MAR
Apiaceae	<i>Lomatium insulare</i>	Herb				GUA		
Asteraceae	<i>Hazardia cana</i>	Shrub				GUA		
Asteraceae	<i>Senecio lyonii</i>	Shrub			BEN			MAR
Boraginaceae	<i>Phacelia floribunda</i>	Herb				GUA		
Cactaceae	<i>Bergerocactus emoryi</i>	Succulent						MAR
Convolvulaceae	<i>Calystegia macrostegia</i> subsp. <i>macrostegia</i>	Vine				GUA		MAR
Crossosomataceae	<i>Crossosoma californicum</i>	Shrub				GUA		
Euphorbiaceae	<i>Euphorbia misera</i>	Shrub	NAT	CED	BEN	GUA		MAR
Fabaceae	<i>Acmispon argophyllus</i> subsp. <i>argenteus</i>	Shrub				GUA		
Fabaceae	<i>Lupinus guadalupensis</i>	Herb				GUA		
Fabaceae	<i>Trifolium palmeri</i>	Herb				GUA		
Fagaceae	<i>Quercus tomentella</i>	Tree				GUA		
Grossulariaceae	<i>Ribes viburnifolium</i>	Shrub		CED				
Lamiaceae	<i>Salvia brandegeei</i>	Shrub						
Papaveraceae	<i>Eschscholzia ramosa</i>	Herb	NAT	CED	BEN	GUA		MAR
Phmyraceae	<i>Mimulus latifolius</i>	Herb				GUA		
Plantaginaceae	<i>Gambelia speciosa</i>	Shrub				GUA		
Poaceae	<i>Dissanthelium californicum</i>	Herb				GUA		
Polemoniaceae	<i>Gilia nevini</i>	Herb				GUA		
Polemoniaceae	<i>Leptosiphon pygmaeus</i> subsp. <i>pygmaeus</i>	Herb				GUA		
Rhamnaceae	<i>Ceanothus arboreus</i>	Shrub				GUA		
Rhamnaceae	<i>Rhamnus pirifolia</i>	Shrub				GUA		
Rosaceae	<i>Prunus ilicifolia</i> subsp. <i>lyonii</i>	Tree						
Saxifragaceae	<i>Jepsonia malvifolia</i>	Herb				GUA		
Scrophulariaceae	<i>Scrophularia villosa</i>	Shrub				GUA		
Solanaceae	<i>Solanum wallacei</i>	Shrub				GUA		
<b>NUMBER OF SPECIES</b>			<b>2</b>	<b>3</b>	<b>3</b>	<b>21</b>	<b>0</b>	<b>5</b>

<sup>a</sup>Natividad [NAT], Cedros [CED], San Benito [BEN], Guadalupe [GUA], Jeronimo [JER], San Martín [MAR], Todos Santos [TOS], Coronados [COR], San Clemente

succulents, that includes many endemic and near-endemic species from CFP Baja; it also includes the coastal succulent scrub and coastal sage scrub ecoregions (González-Abraham et al. 2010).

## RESULTS

The California Pacific Islands in total contain 1239 unique taxa. The California Islands separately contain 976 taxa and the Baja California Islands 535 taxa. Twenty-six of these taxa have a disjunct occurrence between the Baja California Pacific Islands and the California Channel Islands, absent from Alta California outside the Diegan Scrub (Table 1). These exemplar taxa represent 16 families and 26 unique genera. No one growth form predominates; of the 26 taxa, there are 12 shrubs, 10 herbaceous annuals, 2 trees, 1 vine, and 1 xerophytic succulent (Table 1). Fabaceae is the largest family with 3 species on the exemplar taxa list.

These 26 taxa fall into 6 biogeographic sub-patterns:

- (1) multiple California Channel Islands and Guadalupe Island, 13 taxa
- (2) Guadalupe Island–San Clemente Island only, 4 taxa (*Hazardia cana*, *Leptosiphon pygmaeus* ssp. *pygmaeus*, *Lupinus guadalupensis*, *Phacelia floribunda*)
- (3) Diegan Scrub and the Channel Islands only, 2 taxa (*Prunus ilicifolia* ssp. *lyonii* and *Salvia brandegeei*)
- (4) widespread, 1 taxon (*Eschscholzia ramosa*) occurs on 14 of 16 islands
- (5) certain Channel and Baja California Islands and Diegan Scrub, 4 taxa (*Bergerocactus emoryi*, *Crossosoma californicum*, *Euphorbia misera*, *Ribes viburnifolium*)
- (6) certain Channel and Baja California Islands, 2 taxa (*Calystegia macrostegia* ssp. *macrostegia* and *Senecio lyonii*)

## DISCUSSION

The complex biogeography of the California Floristic Province can be explained in part

Islands are listed left to right by increasing latitude. The Mainland column indicates continental occurrences. The protected rankings.

TOS	COR	Mainland	CLE	NIC	CAT	BAR	ROS	CRU	ANA	MIG	# ISL	CRPR	BC
		No	CLE	NIC							3	1B.2	1b
		No	CLE								2	1B.2	1b
		Baja only	CLE		CAT						4		2a
		No	CLE								2	1B.2	1b
TOS	COR	Baja & CA	CLE		CAT						5	2.2	4
		No			CAT		ROS	CRU	ANA	MIG	7		2a
		CA only	CLE		CAT						3	1B.2	1b
TOS	COR	Baja & CA	CLE		CAT			CRU			10	2.2	
		No	CLE	NIC	CAT						4		2a
		No	CLE								2	1B.2	1b
		No	CLE	NIC	CAT	BAR			ANA		5	4.2	2a
		No	CLE		CAT		ROS	CRU	ANA		6	4.2	2a
		Baja & CA			CAT						2	1B.2	4
		Baja only					ROS				1	1B.2	1b
TOS	COR	No	CLE	NIC	CAT	BAR	ROS	CRU			13	4.3	2a
		No			CAT			CRU			3	1A	1b
		No	CLE		CAT	BAR					4	1B.2	1b
		No	CLE		CAT						3	1B.2	1a
		No	CLE	NIC	CAT	BAR	ROS	CRU	ANA		8	4.3	2a
		No	CLE								2	1B.2	1b
		No			CAT		ROS	CRU			4		2a
		No	CLE		CAT		ROS	CRU		MIG	6	4.2	2a
		Baja only	CLE		CAT		ROS	CRU	ANA		5		
		No	CLE	NIC	CAT		ROS	CRU			6	4.2	2a
		No	CLE		CAT						3	1B.2	1b
		No			CAT		ROS	CRU			4	1B.1	1b
<b>3</b>	<b>3</b>		<b>20</b>	<b>6</b>	<b>20</b>	<b>4</b>	<b>10</b>	<b>11</b>	<b>5</b>	<b>2</b>		<b>21</b>	<b>24</b>

[CLE], San Nicolas [NIC], Santa Catalina [CAT], Santa Barbara [BAR], Santa Rosa [ROS], Santa Cruz [CRU], Anacapa [ANA], and San Miguel [MIG].

by analyzing unusual floristic patterns seen on the California Pacific Islands. The 26 taxa shared by the Baja California and Channel Islands indicate a clear connection between these isolated and disjunct regions. What precludes these taxa from occurring on the Alta California mainland, and what does this suggest for the past extent of the CFP? Did these taxa evolve locally and then migrate, or does this pattern instead reflect a distant legacy?

Three current hypotheses attempt to explain the presence of these disjunct populations on the California Pacific Islands: (1) these species have the ability to disperse long distances yet for some reason have failed to establish on the California mainland; (2) these species were historically more widespread, connected by former geologic linkages, and have been unable to persist on the Alta California mainland, remaining in refugia on the islands and in Baja California; or (3) the Channel Islands originally occurred farther south near San Diego (Atwater 1998) and as they

moved north, fog-moderated climates retained species native to that region.

A number of the exemplar taxa have distributions on the Channel Islands and farther south in Baja California, suggestive of the refugium hypothesis (i.e., these species were once more widespread). Epling and Lewis (1942) proposed that the diverse Diegan Scrub has many taxa derived from Miocene vegetation that came from the north Mexican plateau. Axelrod (1978) states that Diegan Scrub was more restricted in the Pleistocene and expanded in the Holocene as arid-adapted taxa moved northward into the southern Channel Islands. Many CFP species are found in disjunct occurrences, scattered across Arizona and Mexico, not unlike the presence of these 26 species on the islands (Valiente-Banuet et al. 1998, Bhaskar et al. 2007). Small-scale topographic niches and facilitation by other species often support these occurrences. Axelrod (1978) also points out that the most important conditions for Diegan Scrub vegetation

appear to be the absence of frost and the presence of a degree of summer moisture (in the form of fog). The cold California current and dense fog banks suggest that similarities in climate may help to explain the similarities in the floras (Fischer et al. 2008).

On the other hand, a number of the exemplar taxa are perhaps better explained as having evolved on the islands. This is especially true of many island *Lotus* species (Acmispon; McGlaughlin et al. 2011, McGlaughlin personal communication), *Eschscholzia ramosa* (Still and Potter 2013), and *Crossosoma californicum* (Wallace and Helenurm 2009), among others (Baldwin, 2007). For this pattern, we hypothesize local evolution and subsequent dispersal to similar niches on the CFP Baja Islands.

Guadalupe Island poses a particularly interesting study system. As the most isolated island, located roughly 270 km offshore, Guadalupe is a true oceanic island never connected to the Baja California Peninsula. Understanding the colonization of Guadalupe may contribute to understanding the dispersal patterns that we see today. Of 26 exemplar taxa, 21 of them occur on Guadalupe. Floristic similarities to the Channel Islands flora (at least 400 km north) may be due to the California current moving species from the California islands southward. Guadalupe Island has been above water for millions of years, and its current flora could represent the accumulation of species from the possible sources over this time.

In addition to a better understanding of the origin and evolution of the CFP, these species lists allow for improved conservation planning. Twenty-one of the 26 species are listed by the California Rare Plant Ranking (CNPS 2013) yet currently have no protection with the Mexican government. Twenty-five of the 26 species are listed in the rare plant ranking for Baja California (O'Brien et al. in press). These rankings are utilized in conservation planning in California and would be useful for land planning in Baja California. These combined islands species lists provide important information about the level of invasive species in the regions. Of the 535 taxa on the Baja California Islands, roughly 14% (74) are introduced species (excluding planted species, which were not included in our analyses). In comparison, of the 976 species on the California Channel Islands, roughly 28% (278) are introduced species. Presumably, the lower

proportion of invasive species on the Baja California Islands is due to less human use and fewer impacts to date.

The exemplar taxa identified by this process can now serve as the focal point of research to better understand the region's historical biogeography. Such research can incorporate phylogenetic relationships and their importance in community assembly (Webb et al. 2008). Functional trait analyses would help determine if these taxonomically diverse species share inherent traits that explain their disjunct distributions. Comparative phylogeographic studies of these shared taxa would test the specific hypothesis discussed above, among others, and offer a glimpse into the past. Additionally, the knowledge of patterns and modes of dispersal would provide valuable natural history information. Further genetic work to resolve the origin of these island specialist species would help to elucidate questions of timing, and definitively separate neo- and paleo-endemics in the exemplar list.

Conservation activity in Baja California has recently expanded, yet knowledge of plant distributions and ecology remains limited. We hope that these updated checklists of the California Pacific Islands will facilitate species status and distribution updates on both sides of the border, and foster well-informed conservation decisions that promote expanded science and management for the transborder ecoregion.

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Appendix 1 on page 169.

Appendix 2 on page 188.



APPENDIX 1. Plant species checklist for the 8 Baja California islands (Cedros [CED], Coronados [COR], Jeronimo [JER], Guadalupe [GUA], Natividad [NAT]; San Benito [BEN], San Martín [MAR], and Todos Santos [TOS]). An ampersand (&) indicates an extirpated species; a question mark (?) indicates an unvouchered taxon; and an asterisk (\*) indicates a nonnative species.

Family/species	ssp./var. and infraname	COR	TOS	MAR	JER	GUA	BEN	CED	NAT
FERNS									
Dryopteridaceae									
	<i>Polystichum munitum</i> (Kaulf.) C. Presl					GUA			
Polypodiaceae									
	<i>Polypodium californicum</i> Kaulf.	COR	TOS			GUA			
	<i>Polypodium scouleri</i> Hook. & Grev.					GUA			
Pteridaceae									
	<i>Adiantum capillus-veneris</i> L.							CED	
	<i>Cheilanthes brandegeei</i> D.C. Eaton							CED	
Pteridaceae									
	<i>Cheilanthes newberryi</i> Domin					GUA			
	<i>Notholaena californica</i> D.C. Eaton					GUA		CED	
	<i>Notholaena californica</i> D.C. Eaton							CED	
	<i>Pellaea andromedifolia</i> (Kaulf.) Fee							CED	
	<i>Pellaea mucronata</i> D.C. Eaton					GUA			
	<i>Pentagramma triangularis</i> (Kaulf.) Yatskievych et al.	COR				GUA		CED	
	<i>Pentagramma triangularis</i> (Kaulf.) Yatskievych et al.					GUA		CED?	
	<i>Pentagramma triangularis</i> (Kaulf.) Yatskievych et al.					GUA			
	<i>Pentagramma triangularis</i> (Kaulf.) Yatskievych et al.					GUA			
GYMNOSPERMS									
Cupressaceae									
	<i>Hesperocyparis guadalupensis</i> (S. Watson) Bartel <sup>1</sup>					GUA			
	<i>Juniperus californica</i> Carrière					GUA		CED	
Ephedraceae									
	<i>Ephedra aspera</i> S. Watson							CED	
Pinaceae									
	<i>Pinus radiata</i> D. Don					GUA			
	<i>Pinus radiata</i> D. Don							CED	
MONOCOTS									
Arecaceae									
	<i>Brahea edulis</i> H. Wendl. ex S. Watson					GUA			

<sup>1</sup>Synonym: *Cupressus guadalupensis* S. Watson

## APPENDIX I. Continued

Family/species	ssp./var. and infraname	COR	TOS	MAR	JER	GUA	BEN	CED	NAT
Agavaceae									
<i>Agave sebastiana</i> Greene							BEN	CED	NAT
<i>Agave shawii</i> Englem.			TOS						
<i>Yucca valida</i> Brandegee								CED	
Cyperaceae									
<i>Carex spissa</i> L.H. Bailey								CED?	
<i>Eleocharis geniculata</i> (L.) Roemer & Schultes								CED	
<i>Schoenoplectus californicus</i> (C.A. Mey) Soják								CED?	
Juncaceae									
<i>Juncus acutus</i> L. <sup>2</sup>	ssp. <i>leopoldii</i>							CED	
<i>Juncus bufonius</i> L. <sup>3</sup>	var. <i>bufonius</i>					GUA			
<i>Juncus bufonius</i> L. <sup>4</sup>	var. <i>congestus</i> Wahlenb					GUA			
Liliaceae									
<i>Calochortus splendens</i> Dougl.		COR							
Orchidaceae									
<i>Piperia cooperi</i> (S. Watson) Rydb		COR	TOS						
Poaceae									
<i>Agrostis pallens</i> Trin.		COR							
<i>Aristida adscensionis</i> L.						GUA		CED	
<i>Arundo donax</i> L.*								CED	
<i>Avena barbata</i> Brot.*		COR	TOS			GUA		CED	
<i>Avena fatua</i> L.*		COR	TOS	MAR		GUA		CED	
<i>Bromus berterioanus</i> Colla				MAR		GUA		CED	
<i>Bromus carinatus</i> Hook. & Arn.		COR	TOS	MAR					
<i>Bromus diandrus</i> Roth.*			TOS			GUA		CED	
<i>Bromus hordeaceus</i> L.*		COR	TOS	MAR		GUA			
<i>Bromus madritensis</i> L.*	ssp. <i>rubens</i> (L.) Husnot	COR	TOS	MAR		GUA		CED	
<i>Bromus tectorum</i> L.*						GUA			
<i>Cynodon dactylon</i> (L.) Pers.*		COR						CED?	
<i>Distichlis spicata</i> (L.) Greene		COR		MAR				CED	
<i>Distichlis littoralis</i> (Engelm.) H.L. Bell & Columbus <sup>5</sup>				MAR					
<i>Elymus condensatus</i> J. Presl <sup>6</sup>		COR	TOS						
<i>Eragrostis pectinacea</i> (Michx.) Nees	var. <i>pectinacea</i>								NAT
<i>Festuca bromoides</i> L. <sup>7</sup> *						GUA			

<sup>2</sup>Report confirmed, herbarium specimen @ SD<sup>3</sup>New record; herbarium specimen @ RSA, SD<sup>4</sup>New record; herbarium specimen @ RSA, SD<sup>5</sup>Synonym: *Monanthochloe littoralis* Englem.<sup>6</sup>Synonym: *Leymus condensatus* (J. Presl) Á. Löve<sup>7</sup>Synonym: *Vulpia bromoides* (L.) Gray

## APPENDIX I. Continued

Family/species	ssp./var. and infraname	COR	TOS	MAR	JER	GUA	BEN	CED	NAT
<i>Festuca microstachys</i> Nutt. <sup>8</sup>	var. <i>pauciflora</i> Scribn.			MAR		GUA		CED	
<i>Festuca myuros</i> L. <sup>9*</sup>		COR	TOS			GUA		CED	
<i>Festuca octoflora</i> Walt. <sup>10</sup>	var. <i>octoflora</i>		TOS	MAR		GUA		CED	
<i>Hordeum murinum</i> L.*	ssp. <i>glaucum</i> (Steud.) Tzvelev.	COR	TOS	MAR		GUA		CED	
<i>Hordeum murinum</i> L.*	ssp. <i>leporinum</i> (Link) Arcang	COR	TOS	MAR		GUA		CED	
<i>Lamarckia aurea</i> (L.) Moench*		COR	TOS	MAR		GUA		CED	
<i>Melica frutescens</i> Scribner								CED	
<i>Melica imperfecta</i> Trin.		COR	TOS	MAR		GUA		CED	
<i>Muhlenbergia microsperma</i> (DC.) Kunth		COR	TOS	MAR		GUA		CED	
<i>Phalaris caroliniana</i> Walt.						GUA			
<i>Phalaris minor</i> Retz.*			TOS			GUA			NAT
<i>Piptochaetium pringlei</i> (Beal) Parodi								CED	
<i>Poa annua</i> L.*						GUA			
<i>Poa secunda</i> J.S. Presl	ssp. <i>secunda</i>		TOS <sup>11</sup>			GUA			
<i>Poa thomasi</i> Refulio <sup>12</sup>						GUA			
<i>Polypogon viridis</i> (Gouan) Breistr. <sup>13*</sup>								CED	
<i>Polypogon monspeliensis</i> * (L.) Desf.			TOS			GUA		CED	
<i>Schismus barbatus</i> (L.) Thell.*						GUA			
<i>Sorghum bicolor</i> (L.) Moench*								CED	
<i>Stipa speciosum</i> Trin. & Rupr. <sup>14</sup>								CED	
<i>Stipa lepida</i> A. Hitchc. <sup>15</sup>						GUA		CED?	
<i>Stipa diegoensis</i> Swallen			TOS						
<i>Stipa pulchra</i> Hitchc.		COR							
<i>Triticum aestivum</i> L.*				MAR		GUA		CED?	
<i>Zea mays</i> L.*									NAT
Themidaceae									
<i>Dichelostemma capitatum</i> Alph. Wood	ssp. <i>capitatum</i>	COR	TOS	MAR		GUA	BEN	CED	
<i>Triteleia guadalupensis</i> L.W. Lenz						GUA			
<i>Triteleopsis palmeri</i> (S.Watson) Hoover								CED?	
Typhaceae									
<i>Typha latifolia</i> L.								CED?	
Zosteraceae									
<i>Phyllospadix scouleri</i> Hook.		COR		MAR	JER			CED	NAT

<sup>8</sup>Synonym: *Vulpia microstachys* (Nutt.) Murmo<sup>9</sup>Synonym: *Vulpia myuros* (L.) C.C. Gmel.<sup>10</sup>Synonyms: *Vulpia octoflora* (Walter) Rydb. var. *octoflora* and *V. o.* var. *hirtella* (Piper) Henrard<sup>11</sup>New record; herbarium specimen @ SD (Thorne 53921)<sup>12</sup>Synonym: *Stenachloa californica* Nutt.<sup>13</sup>Synonym: *Agrostis semiverticillata* (Forssk.) C. Chr.<sup>14</sup>Synonym: *Achnatherum speciosum* (Trin. & Rupr.) Barkworth<sup>15</sup>Synonym: *Nassella lepida* (Hitchc.) Barkworth

## APPENDIX I. Continued

Family/species	ssp./var. and infraname	COR	TOS	MAR	JER	GUA	BEN	CED	NAT
<i>Phyllospadix torreyi</i> S. Watson			TOS	MAR		GUA	BEN		
<i>Zostera marina</i> L.				MAR	JER	GUA			
BASAL DICOTS									
Saururaceae									
<i>Anemopsis californica</i> (Nutt.) H. & A.								CED?	
EUDICOTS									
Aizoaceae									
<i>Carpobrotus chilensis</i> (Molina) N.E. Br.*		COR	TOS						
<i>Mesembryanthemum crystallinum</i> L.*		COR	TOS	MAR	JER	GUA	BEN	CED	NAT
<i>Mesembryanthemum nodiflorum</i> L.*		COR	TOS	MAR		GUA	BEN	CED?	NAT
Anacardiaceae									
<i>Malosma laurina</i> (Nutt. in T. & G.) Nutt. ex Abrams			TOS			GUA		CED	
<i>Pachycormus discolor</i> (Benth.) Cov.	var. <i>veatchiana</i> (Kell.) Gentry							CED	NAT
<i>Rhus integrifolia</i> (Nutt.) Brewer & S. Watson			TOS			GUA		CED	
<i>Rhus integrifolia</i> × <i>lentii</i>								CED	
<i>Rhus lentii</i> Kell.								CED	
Apiaceae									
<i>Coriandrum sativum</i> L.*								CED?	
<i>Foeniculum vulgare</i> Mill.*								CED	
<i>Apiastrum angustifolium</i> Nutt. in Torrey & A. Gray		COR	TOS					CED	
<i>Bowlesia incana</i> Ruiz & Pav.								CED?	
<i>Daucus pusillus</i> Michaux		COR	TOS			GUA			
<i>Lomatium insulare</i> (Eastw.) Munz.						GUA			
<i>Yabea microcarpa</i> (Hook. & Arn.) Koso-Pol. <sup>16</sup>						GUA			
Apocynaceae									
<i>Asclepias subulata</i> Decne. in A. DC.								CED	
<i>Nerium oleander</i> L.*						GUA			
Araliaceae									
<i>Hydrocotyle umbellata</i> <sup>17</sup>								CED	
Asteraceae									
<i>Agoseris heterophylla</i> (Nutt.) Greene						GUA			
<i>Amauria rotundifolia</i> Benth.									
<i>Amblyopappus pusillus</i> Hook. & Arn.		COR	TOS	MAR		GUA	BEN	CED	NAT
<i>Ambrosia camphorata</i> (Greene) Payne				MAR?		GUA		CED	
<i>Ambrosia chamissonis</i> (Less.) Greene				MAR				CED?	
<i>Ambrosia chenopodiifolia</i> (Benth.) Payne			TOS					CED	NAT
<i>Ambrosia magdalenae</i> (Brandege) Payne								CED	

<sup>16</sup>New record; herbarium specimen @ RSA, SD<sup>17</sup>New record; herbarium specimen @ SD (166694, Amadeo Rea 1568, 22 Feb 1988)

## APPENDIX I. Continued

Family/species	ssp./var. and infraname	COR	TOS	MAR	JER	GUA	BEN	CED	NAT
<i>Artemisia californica</i> Less.		COR	TOS			GUA		CED	
<i>Baccharis sarothroides</i> A. Gray		COR						CED	
<i>Baeriopsis guadalupensis</i> J.T. Howell						GUA			
<i>Bahiopsis laciniata</i> A. Gray <sup>18</sup>			TOS						
<i>Bebbia juncea</i> (Benth.) Greene	var. <i>juncea</i>							CED	NAT
<i>Brickellia microphylla</i> (Nutt.) A. Gray								CED?	
<i>Centaurea melitensis</i> L.*			TOS			GUA		CED	
<i>Chaenactis glabriuscula</i> DC. <sup>19</sup>	var. <i>glabriuscula</i>	COR							
<i>Chaenactis lacera</i> Greene <sup>20</sup>									NAT
<i>Coreocarpus involutus</i> Greene									NAT
<i>Deinandra fasciculata</i> (DC.) Greene			TOS					CED	
<i>Deinandra frutescens</i> (A. Gray) B.G. Baldwin						GUA			
<i>Deinandra greeneana</i> (Rose) B.G. Baldwin						GUA			
<i>Deinandra palmeri</i> (Rose) B.G. Baldwin						GUA			
<i>Deinandra palmeri</i> × <i>D. greeneana</i>						GUA			
<i>Deinandra peninsularis</i> (Moran) B.G. Baldwin <sup>21</sup>			TOS						
<i>Deinandra streetsii</i> (A. Gray) B.G. Baldwin							BEN		
<i>Encelia asperifolia</i> (S.F. Blake) Clark & Kyhos							BEN	CED	
<i>Encelia californica</i> Nutt.		COR <sup>22</sup>	TOS	MAR					
<i>Encelia palmeri</i> Vasey & Rose									NAT
<i>Encelia stenophylla</i> Greene								CED	
<i>Ericameria brachylepis</i> (A. Gray) Hall								CED	
<i>Erigeron sumatrensis</i> Retz. <sup>23*</sup>						GUA			
<i>Eriophyllum confertiflorum</i> (DC.) A. Gray		COR						CED	
<i>Eriophyllum lanatum</i> (Pursh) J. Forbes	var. <i>grandiflorum</i>					GUA			
<i>Glebionis coronarium</i> (L.) Cass. ex Spach <sup>24*</sup>			TOS						
<i>Greenella ramulosa</i> Greene								CED?	
<i>Gutierrezia sarothrae</i> (Pursh) Britt. & Rusby								CED	
<i>Hazardia berberidis</i> (A. Gray) Greene		COR	TOS						
<i>Hazardia cana</i> (A. Gray) Greene						GUA			
<i>Hazardia orcuttii</i> (A. Gray) Greene <sup>25</sup>		COR							
<i>Hypochaeris glabra</i> L.*			TOS			GUA		CED?	

<sup>18</sup>Synonym: *Viguiera laciniata* A. Gray<sup>19</sup>New record; herbarium specimen @ SD<sup>20</sup>New record; herbarium specimen @ SD<sup>21</sup>Synonym: *Hemizonia greeneana* Rose ssp. *peninsularis* (Moran) B.L. Turner<sup>22</sup>New record; herbarium specimens @ SD<sup>23</sup>Synonym: *Conyza floribunda* Kunth<sup>24</sup>Synonym: *Chrysanthemum coronarium* L.<sup>25</sup>New record; herbarium specimen @ SD (5248, Ralph Sumner, s.n. 1920-specimen recently identified)

## APPENDIX I. Continued

Family/species	ssp./var. and infraname	COR	TOS	MAR	JER	GUA	BEN	CED	NAT
<i>Isocoma menziesii</i> (Hook. & Arn.) G.L. Nesom	var. <i>menziesii</i>		TOS					CED	
<i>Iva hayesiana</i> A. Gray								CED	
<i>Lasthenia coronaria</i> (Nutt.) Ornduff		COR	TOS			GUA			
<i>Lasthenia gracilis</i> (DC.) Greene		COR	TOS			GUA		CED?	
<i>Layia platyglossa</i> (Fisch. & Mey.) A. Gray						GUA			
<i>Leptosyne gigantea</i> Kellogg <sup>26</sup>						GUA			
<i>Leptosyne maritima</i> (Nutt.) A.Gray <sup>27</sup>		COR	TOS	MAR					
<i>Logfia arizonica</i> (A. Gray) Holub <sup>28</sup>						GUA		CED?	
<i>Logfia filaginoides</i> (Hook. & Arn.) Morefield <sup>29</sup>			TOS			GUA		CED	
<i>Malacothrix clelandii</i> A. Gray						GUA			
<i>Malacothrix foliosa</i> A. Gray		COR							
<i>Malacothrix insularis</i> Greene		COR							
<i>Malacothrix similis</i> Davis & Raven		COR	TOS					CED	
<i>Matricaria occidentalis</i> Greene <sup>30*</sup>						GUA			
<i>Micropus californicus</i> Fisch. & C.A. Mey.						GUA			
<i>Perityle californica</i> Benth.							BEN		
<i>Perityle emoryi</i> Torrey		COR	TOS	MAR		GUA	BEN	CED	NAT
<i>Perityle incana</i> A. Gray						GUA			
<i>Pluchea odorata</i> (L.) Cass.	var. <i>odorata</i>							CED	
<i>Porophyllum gracile</i> Benth.								CED	
<i>Pseudognaphalium beneolens</i> Davidson			TOS			GUA <sup>31</sup>			
<i>Pseudognaphalium biolettii</i> Anderberg			TOS	MAR		GUA		CED	
<i>Pseudognaphalium luteoalbum</i> (L.) Hilliard & B.L. Burt		COR				GUA <sup>32</sup>			
<i>Pseudognaphalium microcephalum</i> Nutt.		COR							
<i>Pseudognaphalium ramosissimum</i> Nutt.		COR							
<i>Pseudognaphalium</i> sp. nova <sup>33</sup>						GUA			
<i>Pseudognaphalium stramineum</i> (Kunth) Anderberg						GUA		CED	
<i>Rafinesquia californica</i> Nutt.		COR	TOS	MAR				CED	
<i>Senecio aphanactis</i> Greene								CED	
<i>Senecio cedrosensis</i> Greene							BEN	CED	

<sup>26</sup>Synonym: *Coreopsis gigantea* (Kellogg) H.M. Hall<sup>27</sup>Synonym: *Coreopsis maritima* (Nutt.) Hook. f.<sup>28</sup>Synonym: *Filago arizonica* A. Gray<sup>29</sup>Synonym: *Filago californica* Nutt.<sup>30</sup>Synonym: *Chamomilla occidentalis* (Greene) Rydb.<sup>31</sup>New record; herbarium specimen @ RSA, SD<sup>32</sup>New record; herbarium specimen @ RSA, SD<sup>33</sup>New record; herbarium specimen @ RSA, SD (description pending)

## APPENDIX I. Continued

Family/species	ssp./var. and infraname	COR	TOS	MAR	JER	GUA	BEN	CED	NAT
<i>Senecio lyonii</i> A. Gray				MAR			BEN		
<i>Senecio palmeri</i> A. Gray						GUA			
<i>Senecio sylvaticus</i> L.*								CED?	
<i>Sonchus oleraceus</i> L.*		COR	TOS	MAR		GUA		CED	NAT
<i>Sonchus tenerrimus</i> L.*		COR	TOS	MAR		GUA	BEN	CED	NAT
<i>Stebbinsoseris heterocarpa</i> (Nutt.) Chambers						GUA			
<i>Stephanomeria diegensis</i> Gottlieb		COR	TOS						
<i>Stephanomeria guadalupensis</i> Brandegees						GUA			
<i>Trixis californica</i> Kell.	var. <i>californica</i>						BEN&	CED	
<i>Uropappus lindleyi</i> (DC.) Nutt.		COR	TOS	MAR		GUA		CED	
<i>Verbesina dissita</i> A. Gray			TOS						
<i>Verbesina hastata</i> Kell.								CED	
<i>Viguiera lanata</i> (Kell.) A. Gray							BEN&	CED	NAT
<i>Xylothamia diffusa</i> (Benth.) Nesom								CED	
Boraginaceae									
<i>Amsinckia inepta</i> J.F. Macbr.				MAR					
<i>Amsinckia menziesii</i> (Lehm.) Nels. & Macbr.			TOS			GUA		CED	
<i>Cryptantha barbiger</i>	var. <i>barbiger</i> (A. Gray) Greene							CED	
<i>Cryptantha clevelandii</i> Greene			TOS						
<i>Cryptantha foliosa</i> Reiche						GUA			
<i>Cryptantha grayi</i> (V. & R.) Macbr.	var. <i>cryptochaeta</i> I.M. Johnston							CED	
<i>Cryptantha intermedia</i> (A. Gray) Greene		COR	TOS	MAR					
<i>Cryptantha maritima</i> (Greene)	var. <i>cedrosensis</i> (Greene) Jtn.							CED	
<i>Cryptantha maritima</i> (Greene)	var. <i>maritima</i> Greene	COR				GUA	BEN	CED	NAT
<i>Cryptantha patula</i> Greene							BEN		
<i>Emmenanthe penduliflora</i> Benth.	var. <i>penduliflora</i>					GUA			
<i>Eucrypta chrysanthemifolia</i> (Benth.) Greene	var. <i>bipinnatifida</i> (Torr.) Constance					GUA		CED?	
<i>Eucrypta chrysanthemifolia</i> (Benth.) Greene	var. <i>chrysanthemifolia</i>	COR	TOS			GUA	BEN		
<i>Harpagonella palmeri</i> A. Gray						GUA			
<i>Heliotropium curassavicum</i> L.				MAR				CED	
<i>Johnstonella angelica</i> (I.M. Johnston) Hasenstab & M.G. Simpson <sup>34</sup>								CED	
<i>Pectocarya linearis</i> DC	ssp. <i>ferocula</i> I.M. Johnst.					GUA		CED?	
<i>Pectocarya recurvata</i> I.M. Johnst.						GUA		CED	
<i>Phacelia cedrosensis</i> Rose								CED	NAT
<i>Phacelia cicutaria</i> Greene	var. <i>hispida</i> (A. Gray) J. Howell		TOS						
<i>Phacelia crenulata</i> Torr.								CED?	
<i>Phacelia distans</i> Benth.		COR	TOS						
<i>Phacelia floribunda</i> Greene						GUA			

<sup>34</sup>Synonym: *Cryptantha angelica* I. M. Johnston; herbarium specimen @ SD (Moran 25430)

## APPENDIX I. Continued

Family/species	ssp./var. and infraname	COR	TOS	MAR	JER	GUA	BEN	CED	NAT
<i>Phacelia hirtuosa</i> A. Gray			TOS	MAR					
<i>Phacelia ixodes</i> Kell.		COR	TOS	MAR			BEN	CED	NAT
<i>Phacelia parryi</i> Torr.				MAR					
<i>Phacelia phyllomanica</i> A. Gray						GUA			
<i>Pholistoma auritum</i> (Lindl.) Lilja		COR	TOS						
<i>Pholistoma racemosum</i> (Nutt.) Const.		COR	TOS	MAR		GUA		CED	NAT
<i>Plagiobothrys acanthocarpus</i> (Piper) I.M. Johnst.						GUA			
<i>Plagiobothrys collinus</i> (Philbr.) I.M. Jhnt.	var. <i>californicus</i>					GUA			
<i>Plagiobothrys collinus</i> (Philbr.) I.M. Jhnt.	var. <i>gracilis</i> Jtn.					GUA <sup>35</sup>		CED	
Brassicaceae									
<i>Athysanus pusillus</i> (Hook.) Greene								CED?	
<i>Brassica nigra</i> (L.) W.D.J. Koch*						GUA			
<i>Brassica rapa</i> L.*								CED	
<i>Brassica tournefortii</i> Gouan*								CED	
<i>Cakile maritima</i> Scop.*			TOS	MAR			BEN	CED	NAT
<i>Capsella bursa-pastoris</i> (L.) Medik.*						GUA			
<i>Caulanthus heterophyllus</i> Payson	var. <i>heterophyllus</i>							CED	
<i>Caulanthus lasiophyllus</i> (Hook. & Arn.) Payson <sup>36</sup>			TOS			GUA		CED	NAT
<i>Descurainia pinnata</i> (Walt.) Britt.	var. <i>brachycarpa</i> (Richardson) Detling							CED	
<i>Descurainia pinnata</i>	ssp. <i>glabra</i> (Woot. & Standl.) Detl.	COR						CED	
<i>Descurainia pinnata</i> (Cockerell) Detling	ssp. <i>halictorum</i> (Cockerell) Detling			MAR				CED	
<i>Descurainia pinnata</i> (Cockerell) Detling	ssp. <i>menziesii</i> (DC.) Detling		TOS			GUA			
<i>Draba cuneifolia</i> S. Watson	var. <i>integrifolia</i>							CED	
<i>Eruca vesicaria</i> (L.) Cav. <sup>37</sup>	ssp. <i>sativa</i>							CED	
<i>Erysimum moranii</i> Rollins						GUA			
<i>Hornungia procumbens</i> (L.) Hayek <sup>38*</sup>						GUA			
<i>Lepidium lasiocarpum</i> Nutt.	var. <i>latifolium</i>				MAR?	GUA	BEN?		NAT
<i>Lepidium nitidum</i> Torrey & A. Gray			TOS			GUA			
<i>Lepidium oblongum</i> Small	var. <i>insulare</i> C.L.Hitchc.		TOS	MAR		GUA	BEN	CED	NAT
<i>Raphanus sativus</i> L.*						GUA			
<i>Sibara angelorum</i> (S. Watson) Greene								CED	
<i>Sisymbrium irio</i> L.*		COR	TOS			GUA		CED	NAT
<i>Sisymbrium orientale</i> L.*			TOS			GUA		CED	
<i>Thysanocarpus erectus</i> S. Watson						GUA		CED	
<i>Thysanocarpus laciniatus</i> Nuttall								CED	

<sup>35</sup>New record; herbarium specimen @ RSA, SD<sup>36</sup>Synonym: *Guillenia lasiophylla* (Hook. & Arn.) Greene<sup>37</sup>New record; herbarium specimen @ SD (John Brown, s.n., April 4 1983)<sup>38</sup>Synonym: *Hutchinsia procumbens* (L.) Desv.



## APPENDIX I. Continued

Family/species	ssp./var. and infraname	COR	TOS	MAR	JER	GUA	BEN	CED	NAT
Cactaceae									
<i>Bergerocactus emoryi</i> (Engelm.) Br. & R.		COR	TOS	MAR					
<i>Cochemiea pondii</i> Walton								CED	NAT
<i>Cylindropuntia alcahes</i> (F.A.C. Weber) F.M. Knuth	var. <i>alcahes</i>							CED	
<i>Cylindropuntia cholla</i> (F.A.C. Weber) F.M. Knuth								NAT	
<i>Cylindropuntia prolifera</i> (Engelm.) F.M. Knuth		COR	TOS	MAR <sup>?</sup>		GUA		CED <sup>?</sup>	
<i>Cylindropuntia</i> sp. nova <sup>39</sup>							BEN	CED	NAT <sup>?</sup>
<i>Echinocereus maritimus</i> (M.E. Jones) K. Schum.	var. <i>maritimus</i>			MAR				CED <sup>?</sup>	NAT
<i>Ferocactus chrysacanthus</i> (Orcutt) Britt. & Rose							BEN <sup>?</sup>	CED	
<i>Ferocactus fordii</i> (Orcutt) Britt. & Rose	var. <i>grandiflorus</i> G.E. Linds.			MAR					NAT
<i>Lophocereus schottii</i> (Engelm.) Br. & R.	var. <i>schottii</i>			MAR <sup>40</sup>			BEN	CED	
<i>Mammillaria blossfeldiana</i> Boedeker	var. <i>shurliana</i> Gates					GUA		CED	
<i>Mammillaria dioica</i> M.K. Brandegee		COR	TOS	MAR					
<i>Mammillaria goodridgei</i> Scheer	var. <i>rectispina</i> E.Y. Dawson							CED	
<i>Mammillaria goodridgei</i> Scheer	var. <i>goodridgei</i>							CED	
<i>Mammillaria hutchinsoniana</i> (Gates) Boed.								CED	NAT
<i>Mammillaria louisae</i> G.E. Linds				MAR <sup>41</sup>					
<i>Mammillaria neopalmeri</i> R.T. Craig							BEN <sup>?</sup>		
<i>Myrtillocactus cochal</i> (Orcutt) Britt. & Rose				MAR					
<i>Opuntia ficus-indica</i> (L.) Miller			TOS	MAR					
<i>Opuntia littoralis</i> (Engelm.) Cockerell		COR	TOS	MAR <sup>42</sup> aff.					
<i>Opuntia oricola</i> Philbrick		COR	TOS	MAR <sup>43</sup>				CED <sup>?</sup>	
<i>Pachycereus pringlei</i> (S. Watson) Britton & Rose								CED <sup>?</sup>	NAT
<i>Stenocereus gummosus</i> (Engelm.) A.C. Gibson & K.E. Horak				MAR				CED	
Campanulaceae									
<i>Githopsis diffusa</i> A. Gray	var. <i>guadalupensis</i> (Morin) Lammers					GUA			
<i>Triodanis biflora</i> (Ruiz & Pav.) Greene						GUA			
Cannabaceae									
<sup>44</sup>	var. <i>reticulata</i> (Torr.) Benson							CED <sup>?</sup>	
Capparaceae									
<i>Peritoma arborea</i> (Nutt.) Iltis <sup>45</sup>	var. <i>angustata</i> (Parish) Iltis							CED	
<i>Peritoma arborea</i> (Nutt.) Iltis <sup>46</sup>	var. <i>globosa</i> (Coville) Iltis	COR							

<sup>39</sup>New record; pers. comm. Jon Rebman, SD (includes *Cylindropuntia cedrosensis* Rebman)<sup>40</sup>New record; herbarium specimen @ RSA, SD<sup>41</sup>Re-identification, changed from *M. hutchinsoniana*<sup>42</sup>New record; herbarium specimen @ RSA<sup>43</sup>New record; herbarium specimen @ RSA<sup>44</sup>Synonym: *Celtis douglasii* Planch.<sup>45</sup>Synonym: *Isomeris arborea* Nutt. ssp. *angustata* Parish<sup>46</sup>New record; herbarium specimen @ SD Rebman 6230

## APPENDIX I. Continued

Family/species	ssp./var. and infraname	COR	TOS	MAR	JER	GUA	BEN	CED	NAT
Caprifoliaceae									
<i>Lonicera hispidula</i> Dougl. <sup>47</sup>						GUA			
<i>Lonicera subspicata</i> Hook. & Arn.	var. <i>denudata</i> Rehder							CED	
Caryophyllaceae									
<i>Achyronychia cooperi</i> Torrey & A. Gray								CED	
<i>Cerastium glomeratum</i> Thuill.*						GUA			
<i>Drymaria holosteoides</i> Benth.	var. <i>holosteoides</i>							CED	
<i>Herniaria hirsuta</i> L.	var. <i>cinerea</i> (DC.) Coutinho					GUA			
<i>Polycarpon depressum</i> Nutt.			TOS					CED	
<i>Silene antirrhina</i> L.			TOS			GUA			
<i>Silene gallica</i> L.*		COR	TOS			GUA		CED?	
<i>Silene laciniata</i> Cav. <sup>48</sup>	ssp. <i>laciniata</i>	COR							
<i>Spergularia bocconii</i> (Scheele) Merino*						GUA			
<i>Spergularia macrotheca</i>	var. <i>leucantha</i> (Greene) B.L. Rob.					GUA			
(Hornem. ex Cham. & Schltld.) Heynh. <sup>49</sup>									
<i>Spergularia macrotheca</i>	var. <i>talinum</i> (Greene) Jeps.					GUA			
(Hornem. ex Cham. & Schltld.) Heynh.									
<i>Spergularia marina</i> J. & K. Presl				MAR <sup>50</sup>		GUA			
<i>Spergularia villosa</i> (Pers.) Camb.*		COR							
<i>Stellaria media</i> (L.) Vill.*		COR							
<i>Stellaria pallida</i> (Dumort.) Crép*		COR							
<i>Stellaria nitens</i> Nutt.						GUA			
<i>Allenrolfea occidentalis</i> (S. Watson) Kuntze								CED	
Chenopodiaceae									
<i>Aphanisma blitoides</i> Nutt.		COR	TOS	MAR		GUA	BEN	CED	NAT
<i>Arthrocnemum subterminale</i> (Parish) Standl. <sup>51</sup>				MAR					
<i>Atriplex barclayana</i> (Benth.) Dietr.						GUA	BEN	CED?	NAT
<i>Atriplex californica</i> Moq.		COR	TOS			GUA		CED	
<i>Atriplex canescens</i> (Pursh) Nutt.	ssp. <i>canescens</i>	COR							
<i>Atriplex coulteri</i> (Moq.) D. Dietr.							BEN	CED?	NAT?
<i>Atriplex julacea</i> S. Watson			TOS	MAR				CED	NAT
<i>Atriplex leucophylla</i> (Moq. in DC.) D. Dietr.				MAR				CED	NAT
<i>Atriplex pacifica</i> Nels.		COR		MAR				CED	NAT
<i>Atriplex semibaccata</i> R. Br.*		COR	TOS	MAR		GUA		CED	
<i>Atriplex serenana</i> A. Nelson ex Abrams	var. <i>davidsonii</i> (Standl.) Munz	COR		MAR <sup>52</sup> aff.					NAT × aff.

<sup>47</sup>Synonym: *Lonicera hispidula* (Lindl.) Douglas ex Torr. & A. Gray var. *vacillans* A. Gray<sup>48</sup>Synonym: *Silene laciniata* Cav. ssp. *major* C.L. Hitch. & Maguire<sup>49</sup>New record; herbarium specimen @ RSA, SD<sup>50</sup>New record; herbarium specimen @ RSA, SBBG<sup>51</sup>Synonym: *Salicornia subterminalis* Parish<sup>52</sup>New record; herbarium specimen @ RSA, potentially new species

## APPENDIX I. Continued

Family/species	ssp./var. and infraname	COR	TOS	MAR	JER	GUA	BEN	CED	NAT
<i>Atriplex suberecta</i> Verdoorn		COR <sup>53</sup>				GUA			
<i>Atriplex watsonii</i> A. Nelson				MAR					
<i>Chenopodium album</i> L.								CED?	
<i>Chenopodium californicum</i> (S. Watson) S. Watson		COR	TOS						
<i>Chenopodium flabellifolium</i> Standl.				MAR					
<i>Chenopodium murale</i> L.*		COR	TOS	MAR	JER	GUA	BEN	CED	NAT
<i>Salicornia pacifica</i> Standl. <sup>54</sup>				MAR					
<i>Salsola australis</i> R.Br.*		COR	TOS					CED	
<i>Suaeda nigra</i> (Rafinesque) J.F. Macbride							BEN		NAT
<i>Suaeda taxifolia</i> (Standl.) Standl.		COR		MAR	JER <sup>55</sup>	GUA	BEN	CED	
Convolvulaceae									
<i>Calystegia macrostegia</i> (Greene) Brummitt			TOS						
<i>Calystegia macrostegia</i> (Greene) Brummitt	ssp. <i>intermedia</i>	COR <sup>56</sup>		MAR		GUA			
<i>Calystegia macrostegia</i> (Greene) Brummitt	ssp. <i>macrostegia</i>			MAR		GUA			
<i>Cuscuta californica</i> Hook. & Arn.				MAR					NAT
<i>Cuscuta corymbosa</i> Ruiz & Pavon						GUA			
<i>Cuscuta salina</i> Engelm. <sup>57</sup>	ssp. <i>salina</i>						BEN		
<i>Dichondra occidentalis</i> House		COR	TOS						
Crassulaceae									
<i>Crassula connata</i> (Ruiz Lopez & Pavon)		COR	TOS	MAR		GUA	BEN?	CED	
A. Berger									
<i>Dudleya acuminata</i> Rose								CED	
<i>Dudleya albiflora</i> Rose							BEN?	CED	NAT
<i>Dudleya anomala</i> (Davidson) Moran		COR	TOS						
<i>Dudleya anthonyi</i> Rose				MAR					
<i>Dudleya anthonyi</i> × <i>D. cultrata</i> Rose				MAR					
<i>Dudleya attenuata</i> (S. Watson) Moran		COR	TOS						
<i>Dudleya brittonii</i> D.A. Johans.			TOS						
<i>Dudleya candida</i> Britton		COR							
<i>Dudleya cedrosensis</i> Moran								CED	
<i>Dudleya cultrata</i> Rose				MAR					
<i>Dudleya guadalupensis</i> Moran						GUA			
<i>Dudleya ingens</i> Rose								CED? aff	
<i>Dudleya lanceolata</i> (Nutt.) Britton & Rose		COR							
<i>Dudleya linearis</i> (Greene) Britt. & Rose							BEN?		
<i>Dudleya pachyphytum</i> Moran & Benedict								CED	

<sup>53</sup>New record; pers. comm. Jon Rebman<sup>54</sup>Synonym: *Salicornia virginica* L.<sup>55</sup>New record; herbarium specimen @ SD<sup>56</sup>New record; pers. comm. Jon Rebman<sup>57</sup>New record; herbarium specimen @ RSA, SD Moran 20315

## APPENDIX I. Continued

Family/species	ssp./var. and infraname	COR	TOS	MAR	JER	GUA	BEN	CED	NAT
<i>Dudleya virens</i> (Rose) Moran	ssp. <i>extima</i> Moran					GUA			
<i>Dudleya</i> × <i>semiteres</i> (Rose) Moran		COR	TOS						
Crossosomataceae									
<i>Crossosoma californicum</i> Nutt.						GUA			
Cucurbitaceae									
<i>Echinopepon minimus</i> (Kell.) S. Watson	var. <i>minimus</i>							CED	NAT
<i>Marah guadalupensis</i> Greene						GUA			
<i>Marah macrocarpus</i> (Greene) Greene		COR	TOS	MAR				CED	
Ericaceae									
<i>Arctostaphylos</i> sp.						GUA			
<i>Xylococcus bicolor</i> Nutt.								CED	
Euphorbiaceae									
<i>Acalypha californica</i> Benth.								CED	
<i>Andrachne ciliato-glandulosa</i> (Millsp.) Croizat								CED	
<i>Euphorbia albomarginata</i> Torr. & A. Gray*								CED?	
<i>Euphorbia bartolomaei</i> Greene								CED	NAT
<i>Euphorbia crenulata</i> Engelm.			TOS						
<i>Euphorbia misera</i> Benth.		COR	TOS	MAR		GUA	BEN	CED	NAT
<i>Euphorbia polycarpa</i> Benth.				MAR				CED	NAT
<i>Euphorbia pondii</i> Millsp. <sup>58</sup>						GUA			
Fabaceae									
<i>Acmispon argophyllus</i> (A. Gray) Brouillet <sup>59</sup>	ssp. <i>argenteus</i> (Dunkle)					GUA			
<i>Acmispon flexuosus</i> (Greene) Brouillet <sup>60</sup>								CED	
<i>Acmispon glaber</i> (Vogel) Brouillet <sup>61</sup>		COR?							
<i>Acmispon grandiflorus</i> (Benth.) Brouillet <sup>62</sup>	var. <i>grandiflorus</i>					GUA			
<i>Acmispon maritimus</i> (Nutt.) D.D. Sokoloff <sup>63</sup>	ssp. <i>brevivexillus</i> (Ottley) Brouillet						BEN	CED	NAT
<i>Acmispon nudatus</i> (Greene) Brouillet <sup>64</sup>								CED	
<i>Acmispon rigidus</i> (Benth.) Brouillet <sup>65</sup>								CED	
<i>Acmispon strigosus</i> (Nutt.) Brouillet <sup>66</sup>			TOS	MAR				CED	
<i>Astragalus</i> aff. <i>gambelianus</i> E. Sheld.									NAT
<i>Astragalus fastidius</i> (Kell.) M.E. Jones								CED	
<i>Astragalus insularis</i> Kell.	var. <i>insularis</i>							CED	

<sup>58</sup>Synonym: *Chamaesyce pondii* (Millsp.) Millsp.<sup>59</sup>Synonym & per Jon Rebnan may be recognized as: *Lotus argophyllus* (A. Gray) Greene ssp. *ornithopus* (Greene) P.H. Raven<sup>60</sup>Synonym: *Lotus cedrosensis* Greene<sup>61</sup>Synonym: *Lotus scoparius* (Torr. & A. Gray) Ottley<sup>62</sup>Synonym: *Lotus grandiflorus* (Benth.) Greene<sup>63</sup>Synonym: *Lotus salsuginosus* Greene ssp. *brevivexillus* Ottley<sup>64</sup>Synonym: *Lotus nudatus* (Greene) Greene<sup>65</sup>Synonym: *Lotus rigidus* (Benth.) Greene<sup>66</sup>Synonym: *Lotus strigosus* (Nutt.) Greene

## APPENDIX I. Continued

Family/species	ssp./var. and infraname	COR	TOS	MAR	JER	GUA	BEN	CED	NAT
<i>Astragalus magdalenae</i> Greene	var. <i>magdalenae</i>								NAT
<i>Astragalus nuttallianus</i> DC.	var. <i>cedrosensis</i> M.E. Jones							CED	NAT
<i>Astragalus trichopodus</i> A. Gray	var. <i>lonchus</i> (M.E. Jones) Barneby	COR	TOS						
<i>Dalea mollis</i> Benth.								CED?	
<i>Ebenopsis confinis</i> (Stand.) Britton & Rose <sup>67</sup>									NAT
<i>Errazurizia benthamii</i> (Brandegee) I.M. Johnst.							BEN?	CED	
<i>Lupinus concinnus</i> Agardh.	ssp. <i>concinnus</i>							CED	
<i>Lupinus guadalupensis</i> Greene						GUA			
<i>Lupinus niveus</i> S. Watson						GUA			
<i>Lupinus sparsiflorus</i> Benth.	var. <i>pondii</i> (Greene) C. P. Smith			MAR				CED	
<i>Lupinus succulentus</i> Dougl.		COR							
<i>Lupinus truncatus</i> Hook. & Arn.			TOS						
<i>Medicago polymorpha</i> L.*		COR				GUA			
<i>Melilotus indicus</i> (L.) All.*						GUA	BEN	CED	
<i>Phaseolus filiformis</i> Benth.							BEN?	CED	NAT
<i>Syrmatium watsonii</i> (Vasey & Rose) Brand <sup>68</sup>			TOS	MAR					
<i>Trifolium depauperatum</i> Desv.	var. <i>truncatum</i> (Greene) Martin ex Isely					GUA? <sup>69</sup>			
<i>Trifolium gracilentum</i> Torr. & A. Gray		COR <sup>70</sup>	TOS			GUA			
<i>Trifolium microcephalum</i> Pursh						GUA			
<i>Trifolium palmeri</i> S. Watson						GUA			
<i>Trifolium willdenovii</i> Sprengel		COR	TOS						
<i>Vicia hassei</i> S. Watson			TOS						
<i>Vicia ludoviciana</i> Nutt.	ssp. <i>ludoviciana</i>					GUA			
<i>Vachellia farnesiana</i> (L.) Wight & Arn. <sup>71*</sup>	var. <i>minuta</i> (M.E. Jones) Seigler & Ebinger							CED	
<i>Quercus cedrosensis</i> C.H. Müll.								CED	
<i>Quercus tomentella</i> Engelm.						GUA			
Frankeniaceae									
<i>Frankenia palmeri</i> S. Watson							BEN	CED	NAT
<i>Frankenia salina</i> (Molina) I.M. Johnst.			TOS			GUA			
Garryaceae									
<i>Garrya veatchii</i> Kell.								CED	
Gentianaceae									
<i>Zeltnera venusta</i> (A. Gray) G. Mans. <sup>72</sup>								CED	

<sup>67</sup>Synonym: *Pithecellobium confine* Standl.<sup>68</sup>Synonym: *Lotus watsonii* (Vasey & Rose) Greene<sup>69</sup>New record; pers. comm. Jon Rebman<sup>70</sup>New record; herbarium specimen @ SD<sup>71</sup>New record; pers. comm. Jon Rebman, photovoucher @ SD; synonym: *Acacia farnesiana* var. *minuta*<sup>72</sup>Synonym: *Centaurium venustum* (A. Gray) B.L. Rob.

## APPENDIX I. Continued

Family/species	ssp./var. and infraname	COR	TOS	MAR	JER	GUA	BEN	CED	NAT
Geraniaceae									
<i>Erodium botrys</i> (Cav.) Bertol*		COR							
<i>Erodium brachycarpum</i> (Godr.) Thell.*						GUA			
<i>Erodium cicutarium</i> (L.) LHer. ex Ait.*		COR	TOS	MAR		GUA		CED?	
<i>Erodium moschatum</i> (L.) LHer. ex Ait.*		COR	TOS	MAR		GUA	BEN?		
<i>Erodium texanum</i> A. Gray								CED?	
<i>Pelargonium</i> × <i>hortorum</i> L.H. Bailey*			TOS						NAT
Grossulariaceae									
<i>Ribes tortuosum</i> Benth.								CED	
<i>Ribes viburnifolium</i> A. Gray			TOS					CED	
Lamiaceae									
<i>Clinopodium palmeri</i> (A. Gray) Kuntze <sup>73</sup>						GUA			
<i>Marrubium vulgare</i> L.*			TOS						
<i>Monardella thymifolia</i> Greene								CED	
<i>Pogogyne tenuiflora</i> A. Gray						GUA			
<i>Salvia cedrosensis</i> Greene								CED	
<i>Salvia columbariae</i> Benth.								CED	
<i>Teucrium glandulosum</i> Kell.								CED	
Loasaceae									
<i>Eucnide cordata</i> Kell.								CED	
<i>Mentzelia adhaerens</i> Bentham								CED	
<i>Mentzelia hirsutissima</i> S. Watson	var. <i>nesiotes</i>						BEN	CED?	NAT
<i>Mentzelia micrantha</i> (Hook. & Arn.) Torr. & A. Gray						GUA			
<i>Petalonyx linearis</i> Greene							BEN	CED	
Malvaceae									
<i>Abutilon californicum</i> Benth.								CED?	NAT?
<i>Eremalche exilis</i> (A. Gray) Greene			TOS				BEN?		NAT
<i>Malva assurgentiflora</i> (Kellogg) M.F. Ray <sup>74</sup> *	ssp. <i>assurgentiflora</i>		TOS						
<i>Malva lindsayi</i> (Moran) M.F. Ray <sup>75</sup>						GUA			
<i>Malva pacifica</i> M.F. Ray <sup>76</sup>					JER		BEN	CED?	NAT
<i>Malva parviflora</i> L.*		COR	TOS?	MAR		GUA	BEN?	CED?	NAT
<i>Malva occidentalis</i> (S. Watson) M.F. Ray <sup>77</sup>		COR				GUA			
<i>Sphaeralcea fulva</i> Greene								CED	NAT
<i>Sphaeralcea palmeri</i> Jeps.						GUA			
<i>Sphaeralcea sulphurea</i> S. Watson						GUA			

<sup>73</sup>Synonym: *Satureja palmeri* (A. Gray) Briq.<sup>74</sup>Synonym: *Lavatera lindsayi* Moran<sup>75</sup>Synonym: *Lavatera occidentalis* S. Watson<sup>76</sup>Synonym: *Lavatera venosa* S. Watson<sup>77</sup>Synonym: *Lavatera assurgentifolia* Kellogg

## APPENDIX I. Continued

Family/species	ssp./var. and infraname	COR	TOS	MAR	JER	GUA	BEN	CED	NAT
Montiaceae									
<i>Calandrinia ciliata</i> (Ruiz Lopez & Pavon) DC.			TOS	MAR		GUA			
<i>Cistanthe guadalupensis</i> (Dudley) Carolyn ex Hershk.						GUA			
<i>Cistanthe maritima</i> (Nutt.) <sup>78</sup> Carolyn ex Hershkovitz		COR	TOS	MAR		GUA	BEN	CED	NAT
<i>Claytonia parviflora</i> Dougl. ex Hook. <sup>79</sup>	ssp. <i>parviflora</i>					GUA			
<i>Claytonia perfoliata</i> Willd. & Chambers	ssp. <i>mexicana</i> (Rydberg) Miller (Chambers)	COR	TOS	MAR		GUA		CED	
<i>Claytonia spathulata</i> Douglas								CED?	
Myrsinaceae									
<i>Anagallis arvensis</i> L.*						GUA			
Nyctaginaceae									
<i>Abronia maritima</i> Nutt. ex S. Watson				MAR				CED?	NAT
<i>Mirabilis laevis</i> (Benth.) Curran	var. <i>crassifolia</i> (Choisy) Spellenb.	COR	TOS	MAR		GUA	BEN?	CED?	NAT
Oleaceae									
<i>Hesperelaea palmeri</i> A.Gray						GUA			
Onagraceae									
<i>Camissoniopsis cheiranthifolia</i> (Hornem. ex Spreng.) W.L. Wagner & Hoch <sup>80</sup>	ssp. <i>suffruticosa</i> (S. Watson) W.L. Wagner & Hoch			MAR					
<i>Camissoniopsis guadalupensis</i> (S. Watson) W.L. Wagner & Hoch <sup>81</sup>	ssp. <i>guadalupensis</i>					GUA			
<i>Camissoniopsis robusta</i> (P.H. Raven) W.L. Wagner & Hoch <sup>82</sup>						GUA			
<i>Chylismia cardiophylla</i> (Torr.) Small <sup>83</sup>	ssp. <i>cedrosensis</i> (Greene) W.L. Wagner & Hoch							CED	
<i>Eulobus californica</i> Nutt. ex Torr. & A. Gray <sup>84</sup>			TOS	MAR					
<i>Eulobus crassifolius</i> (Greene) W.L. Wagner & Hoch <sup>85</sup>								CED?	NAT
<i>Epilobium foliosum</i> (Torr. & A. Gray) Suksdorf						GUA			
<i>Xylonagra arborea</i> (Kell.) Domm.-Smith & Rose	ssp. <i>arborea</i>							CED	
<i>Xylonagra arborea</i> (Kell.) Domm.-Smith & Rose	ssp. <i>wigginsii</i>							CED	
Orobanchaceae									
<i>Castilleja attenuata</i> (A. Gray) Chuang & Heckard						GUA			

<sup>78</sup>Synonym: *Calandrinia maritima* Nutt.<sup>79</sup>New record; herbarium specimen @ RSA, SD<sup>80</sup>Synonym: *Camissonia cheiranthifolia* (Hornem. ex Spreng.) Raim. ssp. *suffruticosa* (S. Watson) P.H. Raven<sup>81</sup>Synonym: *Camissonia guadalupensis* S. Watson) P.H. Raven ssp. *guadalupensis*<sup>82</sup>Synonym: *Camissonia robusta* P.H. Raven<sup>83</sup>Synonym: *Camissonia cardiophylla* (Torr.) P.H. Raven ssp. *cedrosensis* (Greene) P.H. Raven<sup>84</sup>Synonym: *Camissonia californica* (Nutt. ex Torr. & A. Gray) P.H. Raven<sup>85</sup>Synonym: *Camissonia crassifolia* (Greene) P.H. Raven

## APPENDIX I. Continued

Family/species	ssp./var. and infraname	COR	TOS	MAR	JER	GUA	BEN	CED	NAT
<i>Castilleja exserta</i> (A. Heller) Chuang & Heckard	ssp. <i>exserta</i>		TOS			GUA			
<i>Castilleja fruticosa</i> Moran						GUA			
<i>Castilleja guadalupensis</i> Brandegee						GUA			
<i>Castilleja subinclusa</i> Greene	ssp. <i>subinclusa</i>		TOS						
Papaveraceae									
<i>Eschscholzia californica</i> Cham.		COR	TOS			GUA			
<i>Eschscholzia elegans</i> Greene.						GUA			
<i>Eschscholzia palmeri</i> Rose						GUA			
<i>Eschscholzia ramosa</i> Greene		COR	TOS	MAR		GUA	BEN	CED	NAT
<i>Platystemon californicus</i> Benth.						GUA			
<i>Papaver heterophyllum</i> A. Gray <sup>86</sup>		COR	TOS	MAR					
Phrymaceae									
<i>Diplacus ×australis</i> (McMinn ex Munz) Tulig <sup>87</sup>			TOS?					CED	
<i>Diplacus brandegeei</i> (Pennell) G.L. Nesom <sup>88</sup>						GUA			
<i>Erythranthe cardinalis</i> <sup>89</sup>								CED	
Plantaginaceae									
<i>Antirrhinum nuttallianum</i> Benth.	ssp. <i>subsessile</i> (A. Gray) D.M. Thomps.	COR	TOS	MAR		GUA		CED	
<i>Antirrhinum watsonii</i> Vasey & Rose						GUA	BEN	CED	NAT
<i>Collinsia heterophylla</i> Buist.	var. <i>heterophylla</i>	COR							
<i>Gambelia juncea</i> (Benth.) D.A. Sutton <sup>90</sup>								CED	
<i>Gambelia speciosa</i> Nutt. <sup>91</sup>						GUA			
<i>Nuttallanthus texanus</i> (Scheele) D.A. Sutton <sup>92</sup>		COR	TOS			GUA		CED?	
<i>Penstemon cedrosensis</i> Kell.								CED	
<i>Plantago ovata</i> Forssk.	ssp. <i>insularis</i>					GUA	BEN?	CED?	NAT
Polemoniaceae									
<i>Allophyllum gilioides</i> (Benth.) A. & V. Grant						GUA			
<i>Gilia angelensis</i> V.E. Grant			TOS						
<i>Gilia capitata</i> Sims	ssp. <i>abrotanifolia</i> (Nutt. ex Greene) V.E. Grant	COR							
<i>Gilia nevini</i> A. Gray						GUA			
<i>Leptosiphon pygmaeus</i> (Brand) J.T. Howell <sup>93</sup>	ssp. <i>pygmaeus</i>					GUA			
<i>Linanthus dianthiflorus</i> (Benth.) Greene		COR							

<sup>86</sup>Synonym: *Stylomecon heterophylla* (Benth.) G. Taylor<sup>87</sup>Synonym: *Mimulus aurantiacus* Curtis var. *aurantiacus*<sup>88</sup>Synonym: *Mimulus latifolius* A. Gray, *Diplacus latifolius* (A. Gray) G.L. Nesom (Douglas ex Benth.) Spach<sup>89</sup>Synonym: *Mimulus cardinalis* Douglas ex Benth.<sup>90</sup>Synonym: *Galvezia juncea* (Benth.) Ball<sup>91</sup>Synonym: *Galvezia speciosa* (Nutt.) A. Gray<sup>92</sup>Synonyms: *Linaria texana* Scheele and *Linaria canadensis* (L.) Dum. Cours.<sup>93</sup>Synonym: *Linanthus pygmaeus* (Brand) J.T. Howell ssp. *pygmaeus*



## APPENDIX I. Continued

Family/species	ssp./var. and infraname	COR	TOS	MAR	JER	GUA	BEN	CED	NAT
<i>Linanthus uncialis</i> (Brandege) Moran								CED?	
<i>Linanthus veatchii</i> (C. Parry) J.M. Porter & L.A. Johnson	<i>Microsteris gracilis</i> (Hook.) Greene							CED	
Polygonaceae									
<i>Eriogonum fasciculatum</i> Benth.		COR	TOS					CED	
<i>Eriogonum grande</i> Greene	var. <i>testudinum</i> Reveal		TOS						
<i>Eriogonum intricatum</i> Benth.								CED	
<i>Eriogonum molle</i> Greene								CED	
<i>Eriogonum pondii</i> Greene Torrey ex Benth.								CED	NAT
<i>Eriogonum zapatoense</i> Moran						GUA			
<i>Eriogonum wrightii</i>	var. <i>taxifolium</i> (Greene) Parish							CED	
<i>Harfordia macroptera</i> (Benth.) Greene & Parry	var. <i>fruticosa</i> (Greene) Reveal							CED	
<i>Lastarriaea coriacea</i> (Goodman) Hoover <sup>94</sup>								CED?	
<i>Pterostegia drymarioides</i> F. & M.		COR	TOS	MAR		GUA		CED	
Portulacaceae									
<i>Portulaca oleracea</i> L.*									NAT
Primulaceae									
<i>Dodecatheon clevelandii</i> Greene	ssp. <i>insulare</i> (H.J. Thomps.) Reveal					GUA			
Ranunculaceae									
<i>Clematis pauciflora</i> Nutt.		COR	TOS					CED?	
<i>Delphinium cardinale</i> Hook.								CED?	
<i>Delphinium parryi</i> A. Gray		COR	TOS						
<i>Myosurus minimus</i> L.						GUA			
<i>Ranunculus hebecarpus</i> H. & A.						GUA		CED?	
Resedaceae									
<i>Oligomeris linifolia</i> (Vahl.) Macbr.		COR	TOS			GUA	BEN	CED	NAT
Rhamnaceae									
<i>Ceanothus arboreus</i> Greene						GUA			
<i>Ceanothus crassifolius</i> Torr.						GUA			
<i>Ceanothus cuneatus</i> (Hook.) Nutt.						GUA			
<i>Ceanothus perplexans</i> Trel. <sup>95</sup>						GUA			
<i>Ceanothus verrucosus</i> Nutt.								CED?	
<i>Rhamnus insula</i> Kellogg								CED?	
<i>Rhamnus pirifolia</i> Greene						GUA			
<i>Ziziphus parryi</i> Torr.	ssp. <i>microphylla</i>							CED?	
Rosaceae									
<i>Adenostoma fasciculatum</i> Hook. & Arn.	var. <i>obtusifolium</i> S. Wats.							CED?	

<sup>94</sup>Synonym: *Chorizanthe coriacea* Goodman<sup>95</sup>New record; herbarium specimen @ RSA, SD, SBBG; synonym: *Ceanothus greggii* A. Gray var. *perplexans* (Trel.) Jeps.

## APPENDIX I. Continued

Family/species	ssp./var. and infraname	COR	TOS	MAR	JER	GUA	BEN	CED	NAT
<i>Aphanes occidentalis</i> Rydberg						GUA			
<i>Heteromeles arbutifolia</i> (Lindl.) M. Roem.		COR	TOS			GUA		CED?	
Rubiaceae									
<i>Galium angulosum</i> A. Gray						GUA			
<i>Galium angustifolium</i> Nutt.	ssp. <i>angustifolium</i>	COR							
<i>Galium aparine</i> L.		COR <sup>96</sup>		MAR		GUA		CED?	
<i>Galium coronadoense</i> Dempster		COR							
<i>Galium stellatum</i> Kellogg	var. <i>eremicum</i> Hilend & J. Howell							CED	
Rutaceae									
<i>Ruta chalepensis</i> L.						GUA			
Sapindaceae									
<i>Aesculus parryi</i> A. Gray		COR							
Saxifragaceae									
<i>Jepsonia malvifolia</i> (Greene) Small						GUA			
Saxifragaceae									
<i>Jepsonia parryi</i> (Torr.) Small.		COR							
Scrophulariaceae									
<i>Myoporum laetum</i> Forst. f. Ngaio.*		COR							
<i>Scrophularia villosa</i> Pennell						GUA			
Simmondsiaceae									
<i>Simmondsia chinensis</i> (Link) C. Schneider						GUA		CED	NAT
Solanaceae									
<i>Datura discolor</i> Bernh.									NAT
<i>Datura wrightii</i> Regel									
<i>Lycium andersonii</i> A. Gray				MAR			BEN?		
<i>Lycium brevipes</i> Benth.	var. <i>brevipes</i>			MAR				CED?	
<i>Lycium californicum</i> Nutt.		COR	TOS	MAR	JER	GUA	BEN?	CED?	NAT
<i>Lycium exsertum</i> A. Gray				MAR			BEN	CED?	
<i>Lycium fremontii</i> A. Gray						GUA			
<i>Lycopersicon esculentum</i> L.*		COR	TOS						
<i>Nicotiana attenuata</i> Torr.						GUA			
<i>Nicotiana clelandii</i> A. Gray		COR	TOS	MAR				CED	NAT
<i>Nicotiana glauca</i> Grah.*						GUA			
<i>Physalis crassifolia</i> Benth.	var. <i>crassifolia</i>		TOS					CED	
<i>Solanum americanum</i> Miller*			TOS	MAR		GUA			
<i>Solanum douglasii</i> Dunal						GUA			
<i>Solanum hindsianum</i> Benth.								CED	
<i>Solanum nodiflorum</i> Jacq.*		COR							

<sup>96</sup>New record; herbarium specimen @ SD.

## APPENDIX I. Continued

Family/species	ssp./var. and infraname	COR	TOS	MAR	JER	GUA	BEN	CED	NAT
<i>Solanum palmeri</i> Vasey & Rose			TOS	MAR					
<i>Solanum wallacei</i> (A. Gray) Parish	ssp. <i>clokeyi</i>					GUA			
Tamaricaceae									
<i>Tamarix ramosissima</i> Ledeb.*								CED	
Urticaceae									
<i>Hesperocnide tenella</i> Torrey			TOS	MAR		GUA			
<i>Parietaria hespera</i> B.D. Hinton		COR	TOS			GUA		CED?	
<i>Urtica urens</i> L.*		COR							
Verbenaceae									
<i>Glandularia lilacina</i> (Greene) Umber. <sup>97</sup>								CED	
Viscaceae									
<i>Phoradendron densum</i> Torr. ex Trel.						GUA			
Zygophyllaceae									
<i>Fagonia laevis</i> Standl.								CED	NAT
<i>Viscainoa geniculata</i> (Kellogg) Greene	var. <i>geniculata</i>							CED	
<b>NUMBER OF SPECIES</b>		<b>129</b>	<b>145</b>	<b>107</b>	<b>8</b>	<b>232</b>	<b>57</b>	<b>266</b>	<b>79</b>

<sup>97</sup>Synonym: *Verbena lilacina* Green

APPENDIX 2. Plant species checklist for the 8 California Channel Islands (Anacapa [ANA], San Clemente [CLE], San Miguel [MIG], San Nicolas [NIC], Santa Barbara [BAR], Santa Catalina [CAT], Santa Cruz [CRU], and Santa Rosa [ROS]). An ampersand (&) indicates an extirpated species; a question mark (?) indicates an unvouchered taxa; and an asterisk (\*) indicates a nonnative species.

Family/species	ssp./var. and infraname	CLE	NIC	CAT	BAR	ROS	CRU	ANA	MIG
FERNS									
Azollaceae									
<i>Azolla filiculoides</i> Lam.				CAT					
Blechnaceae									
<i>Woodwardia fimbriata</i> Sm.		CLE? <sup>1</sup>		CAT <sup>2</sup>		ROS	CRU		
Dennstaedtiaceae									
<i>Pteridium aquilinum</i> (L.) Kuhn	var. <i>pubescens</i> Underw.			CAT		ROS	CRU		
Dryopteridaceae									
<i>Dryopteris arguta</i> (Kaulf.) Maxon		CLE		CAT		ROS	CRU	ANA	MIG
<i>Polystichum munitum</i> (Kaulf.) C. Presl						ROS	CRU		
Equisetaceae									
<i>Equisetum hyemale</i> L.	ssp. <i>affine</i> (Engelm.) Calder & Roy L. Taylor					ROS	CRU		
<i>Equisetum laevigatum</i> A. Braun				CAT		ROS	CRU		
<i>Equisetum telmateia</i> Ehrh.	ssp. <i>braunii</i> (J. Milde) Hauke			CAT			CRU		
Polypodiaceae									
<i>Polypodium californicum</i> Kaulf.		CLE	NIC	CAT	BAR	ROS	CRU	ANA	
<i>Polypodium scolieri</i> Hook. & Grev.							CRU		
Pteridaceae									
<i>Adiantum aleuticum</i> (Rupr.) C.A. Paris							CRU		
<i>Adiantum capillus-veneris</i> L.				CAT		ROS	CRU	ANA	
<i>Adiantum jordanii</i> Müll. Hal.		CLE	NIC	CAT		ROS	CRU	ANA	MIG
<i>Aspidotis californica</i> (Hook.) Copel.				CAT			CRU		
<i>Cheilanthes clevelandii</i> D.C. Eaton						ROS	CRU		
<i>Cheilanthes cooperae</i> D.C. Eaton							CRU		
<i>Cheilanthes newberryi</i> (D.C. Eaton) Domin		CLE							
<i>Pellaea andromedifolia</i> (Kaulf.) Fée		CLE	NIC	CAT		ROS	CRU	ANA	MIG
<i>Pellaea mucronata</i> (D.C. Eaton) D.C. Eaton	var. <i>mucronata</i>	CLE? <sup>3</sup>		CAT		ROS	CRU		
<i>Pentagramma triangularis</i> (Kaulf.) Yatsk., Windham, & E. Wollenw.	ssp. <i>triangularis</i>	CLE	NIC	CAT		ROS	CRU	ANA	MIG
<i>Pentagramma triangularis</i> (Kaulf.) Yatsk., Windham, & E. Wollenw.	ssp. <i>viscosa</i> (D.C. Eaton) Yatsk. et al.	CLE		CAT		ROS	CRU		
Selaginellaceae									
<i>Selaginella bigelovii</i> Underw.		CLE		CAT		ROS	CRU	ANA	

<sup>1</sup>Pers. com. E. Howe

<sup>2</sup>S. Ratay collection

<sup>3</sup>Pers. com. E. Howe

## APPENDIX 2. Continued

Family/species	ssp./var. and infraname	CLE	NIC	CAT	BAR	ROS	CRU	ANA	MIG
Woodsiaceae									
<i>Athyrium filix-femina</i> (L.) Roth	var. <i>cyclosorum</i> Rupr.					ROS	CRU		
<i>Cystopteris fragilis</i> (L.) Bernh.							CRU		
GYMNOSPERMS									
Cupressaceae									
<i>Hesperocyparis macrocarpa</i> (Hartw.) Bartel*				CAT		ROS	CRU	ANA	
Pinaceae									
<i>Pinus muricata</i> D. Don	var. <i>muricata</i>					ROS	CRU		
<i>Pinus pinea</i> L.*							CRU		
<i>Pinus radiata</i> D. Don*									MIG
<i>Pinus torreyana</i> Parry ex Carrière	ssp. <i>insularis</i> J.R. Haller					ROS			
MONOCOTS									
Agavaceae									
<i>Agave americana</i> L.*							CRU		
Agavaceae									
<i>Chlorogalum pomeridianum</i> (DC.) Kunth				CAT		ROS			
Alliaceae									
<i>Allium lacunosum</i> S. Watson	var. <i>lacunosum</i>					ROS	CRU		
<i>Allium praecox</i> Brandegee		CLE		CAT		ROS	CRU		MIG
Amaryllidaceae									
<i>Amaryllis belladonna</i> L.*								ANA	MIG
<i>Narcissus tazetta</i> L.*							CRU		
Araceae									
<i>Lemna minor</i> L.									MIG
<i>Zantedeschia aethiopica</i> (L.) Spreng.*									MIG
Arecaceae									
<i>Washingtonia filifera</i> (André) de Bary							CRU		MIG
Asparagaceae									
<i>Asparagus asparagoides</i> (L.) Druce*			NIC						
<i>Asparagus officinalis</i> L.*				CAT					
Asphodelaceae									
<i>Asphodelus fistulosus</i> L.*		CLE <sup>4</sup>							
Cyperaceae									
<i>Bolboschoenus maritimus</i> (L.) Palla	ssp. <i>paludosus</i> (A. Nelson) T. Koyama						CRU		MIG
<i>Carex barbarae</i> Dewey							CRU		
<i>Carex globosa</i> Boott				CAT		ROS	CRU		
<i>Carex gracilior</i> Mack.						ROS			
<i>Carex harfordii</i> Mack.						ROS	CRU		

<sup>4</sup>NY: T.S. Ross, 6137, 04 13 1992

## APPENDIX 2. Continued

Family/species	ssp./var. and infraname	CLE	NIC	CAT	BAR	ROS	CRU	ANA	MIG
<i>Carex pansa</i> L.H. Bailey						ROS			MIG
<i>Carex praegracilis</i> W. Boott				CAT		ROS			MIG
<i>Carex senta</i> Boott							CRU		
<i>Carex subbracteata</i> Mack.						ROS	CRU		
<i>Carex triquetra</i> Boott				CAT					
<i>Carex tumulicola</i> Mack.		CLE				ROS	CRU		
<i>Cyperus eragrostis</i> Lam.				CAT <sup>5</sup>					
<i>Cyperus esculentus</i> L.		CLE		CAT					
<i>Cyperus involucratus</i> Rottb.*							CRU		
<i>Cyperus odoratus</i> L.*				CAT <sup>6</sup>			CRU		
<i>Eleocharis macrostachya</i> Britton		CLE	NIC	CAT		ROS			
<i>Isolepis cernua</i> (Vahl) Roem. & Schult.						ROS			MIG
<i>Schoenoplectus americanus</i> (Pers.) Schinz & R. Keller			NIC	CAT <sup>7</sup>		ROS			
<i>Schoenoplectus californicus</i> (C.A. Mey.) Soják						ROS	CRU		
<i>Schoenoplectus pungens</i> (Vahl) Palla	var. <i>longispicatus</i> (Britton) S.G. Sm.					ROS	CRU		
Iridaceae									
<i>Sisyrinchium bellum</i> S. Watson				CAT		ROS	CRU		MIG
Juncaceae									
<i>Juncus acutus</i> L.	ssp. <i>leopoldii</i> (Parl.) Snogerup			CAT					
<i>Juncus balticus</i> Willd.	ssp. <i>ater</i> (Rydb.) Snogerup			CAT		ROS			MIG
<i>Juncus bufonius</i> L.		CLE	NIC	CAT		ROS	CRU	ANA	MIG
<i>Juncus effusus</i> L.	ssp. <i>pacificus</i> (Fernald & Weigand) Piper & Beattie					ROS			
<i>Juncus mexicanus</i> Willd.				CAT		ROS	CRU		MIG
<i>Juncus patens</i> E. Mey.		CLE				ROS	CRU		MIG
<i>Juncus phaeocephalus</i> Engelm.	var. <i>phaeocephalus</i>					ROS			
<i>Juncus textilis</i> Buchenau				CAT					
<i>Juncus xiphioides</i> E. Mey.				CAT			CRU		
<i>Luzula subsessilis</i> (S. Watson) Buchenau <sup>8</sup>						ROS	CRU		
Liliaceae									
<i>Calochortus albus</i> (Benth.) Benth.				CAT		ROS	CRU		
<i>Calochortus catalinae</i> S. Watson				CAT		ROS	CRU		
<i>Calochortus luteus</i> Lindl.							CRU		
<i>Calochortus splendens</i> Benth.				CAT					
<i>Lilium humboldtii</i> Duch.	ssp. <i>ocellatum</i> (Kellogg) Thorne					ROS	CRU	ANA	

<sup>5</sup>RSA: Mark Hoefs, Steven A. Junak, Janet Takara, M. Gay, 2384, Jul 14 1995<sup>6</sup>SBBG: M.L. Hoefs, R.F. Thorne, 2458, Jul 26 1995<sup>7</sup>RSA: Mark Hoefs, R.F. Thorne, Janet Takara Jul 26 1995 2482<sup>8</sup>Synonym: *Luzula comosa* E. Mey.; taxonomic issues

## APPENDIX 2. Continued

Family/species	ssp./var. and infraname	CLE	NIC	CAT	BAR	ROS	CRU	ANA	MIG
Melanthiaceae									
<i>Toxicoscordion fremontii</i> (Torr.) Rydb.						ROS	CRU	ANA	MIG
Orchidaceae									
<i>Epipactis gigantea</i> Hook.							CRU		
<i>Piperia cooperi</i> (S. Watson) Rydb.		CLE <sup>9</sup>		CAT					
<i>Piperia elongata</i> Rydb.				CAT <sup>10</sup>		ROS	CRU		
<i>Piperia michaelii</i> (Greene) Rydb.							CRU		
Poaceae									
<i>Aegilops cylindrica</i> Host*							CRU		
<i>Agrostis exarata</i> Trin.				CAT		ROS	CRU		
<i>Agrostis pallens</i> Trin.		CLE		CAT		ROS	CRU		
<i>Agrostis stolonifera</i> * L.				CAT				ANA	
<i>Ammophila arenaria</i> (L.) Link*			NIC						
<i>Andropogon glomeratus</i> (Walter) Britton et al.	var. <i>scabrigrumis</i> C.S. Campb.						CRU		
<i>Aristida adscensionis</i> L.		CLE		CAT		ROS	CRU		
<i>Aristida ternipes</i> Cav.	var. <i>gentilis</i> (Henrard) Allred						CRU		
<i>Arundo donax</i> L.*			NIC			ROS	CRU		MIG
<i>Avena barbata</i> Link*		CLE	NIC	CAT	BAR	ROS	CRU	ANA	MIG
<i>Avena fatua</i> L.*		CLE	NIC	CAT	BAR	ROS	CRU	ANA	MIG
<i>Avena sativa</i> L.*		CLE		CAT		ROS	CRU		
<i>Bothriochloa barbinodis</i> (Lag.) Herter				CAT					
<i>Brachypodium distachyon</i> (L.) P. Beauv.*		CLE <sup>11</sup>	NIC	CAT			CRU		
<i>Briza minor</i> L.*								ANA	
<i>Bromus arizonicus</i> (Shear) Stebbins		CLE	NIC	CAT	BAR	ROS	CRU	ANA	MIG
<i>Bromus berteroi</i> Colla <sup>12</sup>		CLE	NIC	CAT	BAR	ROS	CRU	ANA	MIG
<i>Bromus carinatus</i> Hook. & Arn.	var. <i>carinatus</i>	CLE <sup>9</sup>	NIC	CAT		ROS	CRU	ANA	MIG
<i>Bromus maritimus</i> (Piper) Hitchc.						ROS	CRU	ANA	MIG
<i>Bromus catharticus</i> Vahl*		CLE <sup>13</sup>	NIC				CRU		
* <i>Bromus diandrus</i> Roth*		CLE	NIC	CAT	BAR	ROS	CRU	ANA	MIG
<i>Bromus hordeaceus</i> L.* <sup>14</sup>		CLE	NIC	CAT	BAR	ROS	CRU	ANA	MIG
<i>Bromus laevipes</i> Shear*				CAT		ROS	CRU		
<i>Bromus madritensis</i> L.*		CLE	NIC	CAT	BAR	ROS	CRU	ANA	MIG
<i>Bromus vulgaris</i> (Hook.) Shear <sup>15</sup> *				CAT					
<i>Calamagrostis rubescens</i> Buckley							CRU		

<sup>9</sup>Pers. com. E. Howe<sup>10</sup>SBBG: S.A. Junak Apr 30 1998 SCA-568<sup>11</sup>Pers. com. E. Howe<sup>12</sup>Synonym: *Bromus trinitii* Desv.; Per Jepson Interchange: molecular evidence needed to resolve question of nativity<sup>13</sup>SBBG: T.S. Ross, E. Kellogg Apr 11 1992 6122<sup>14</sup>Synonym: *Bromus mollis* L.<sup>15</sup>UCSB: Dan Hancock 03/30/1961 146

## APPENDIX 2. Continued

Family/species	ssp./var. and infraname	CLE	NIC	CAT	BAR	ROS	CRU	ANA	MIG
<i>Chloris virgata</i> Sw.*		CLE <sup>16</sup>							
<i>Cortaderia selloana</i> (Schult. & Schult. f.) Asch. & Graebn.*		CLE <sup>17</sup>	NIC	CAT			CRU		MIG
<i>Crypsis vaginiflora</i> (Forssk.) Opiz*				CAT <sup>18</sup>					
<i>Crypsis alopecuroides</i> (Piller & Mitterp.) Schrad.*		CLE <sup>19</sup>							
<i>Cynodon dactylon</i> (L.) Pers.*		CLE	NIC	CAT	BAR	ROS	CRU	ANA	MIG
<i>Dactylis glomerata</i> L.*		CLE		CAT			CRU		
<i>Danthonia californica</i> Bol.						ROS			
<i>Deschampsia danthonioides</i> (Trin.) Munro		CLE							
<i>Desmazeria rigida</i> (L.) Tutin*				CAT <sup>20</sup>					
<i>Digitaria sanguinalis</i> (L.) Scop.*				CAT <sup>21</sup>					
<i>Dissanthelium californicum</i> (Nutt.) Benth.				CAT					
<i>Distichlis spicata</i> (L.) Greene		CLE	NIC	CAT		ROS	CRU	ANA	MIG
<i>Distichlis littoralis</i> (Engelm.) H.L.				CAT		ROS			
Bell & Columbus									
<i>Echinochloa crus-galli</i> (L.) P. Beauv. *		CLE		CAT					
<i>Ehrharta calycina</i> * Sm.		CLE		CAT					
<i>Ehrharta erecta</i> Lam.*				CAT <sup>22</sup>			CRU		
<i>Elymus glaucus</i> Buckley	ssp. <i>glaucus</i>			CAT		ROS	CRU		
<i>Elymus repens</i> (L.) Gould*									MIG
<i>Elymus condensatus</i> J. Presl		CLE	NIC	CAT		ROS	CRU	ANA	MIG
<i>Elymus pacificus</i> Gould			NIC			ROS			MIG
<i>Elymus triticoides</i> Buckley			NIC	CAT		ROS	CRU	ANA	MIG
<i>Festuca arundinacea</i> Schreb.*		CLE	NIC	CAT		ROS	CRU		MIG
<i>Festuca perennis</i> (L.) Columbus & J.P. Sm.*		CLE	NIC	CAT	BAR	ROS	CRU		MIG
<i>Festuca temulenta</i> (L.) Columbus & J.P. Sm.*		CLE		CAT		ROS	CRU		
<i>Festuca bromoides</i> L.*		CLE		CAT		ROS	CRU	ANA	MIG
<i>Festuca microstachys</i> Nutt.		CLE		CAT			CRU	ANA	MIG
<i>Festuca myuros</i> L.*		CLE	NIC	CAT	BAR	ROS	CRU	ANA	MIG
<i>Festuca octoflora</i> Walter		CLE	NIC	CAT	BAR	ROS	CRU	ANA	MIG
<i>Gastridium phleoides</i> (Nees & Meyen) C.E. Hubb.*		CLE		CAT		ROS	CRU		
<i>Hainardia cylindrica</i> (Willd.) Greuter*		CLE <sup>23</sup>		CAT <sup>24</sup>		ROS	CRU		MIG

<sup>16</sup>CAS: Steven A. Junak 9 Nov 1990 SCI-143<sup>17</sup>Pers. com. E. Howe<sup>18</sup>RSA: Mark Hoefs, R.F. Thorne, Janet Takara, M. Gay Jul 27 1995 2491<sup>19</sup>Pers. com. E. Howe<sup>20</sup>CAS: Peter H. Raven 22 May 1962 17826<sup>21</sup>UCD: Beecher Crampton 08 10 1968 8322<sup>22</sup>SBBG: S.A. Junak Jun 13 1998 SCA-743<sup>23</sup>SBBG: S.A. Junak May 14 1985 SCI-71<sup>24</sup>SBBG: S.A. Junak, M. L. Hoefs Jun 4 1997 SCA-421



## APPENDIX 2. Continued

Family/species	ssp./var. and infraname	CLE	NIC	CAT	BAR	ROS	CRU	ANA	MIG
<i>Hordeum brachyantherum</i> Nevski	ssp. <i>californicum</i> (Covas & Stebbins) Bothmer et al.		NIC	CAT <sup>25</sup>		ROS	CRU	ANA	MIG
<i>Hordeum depressum</i> (Scribn. & J.G. Sm.) Rydb.							CRU		
<i>Hordeum intercedens</i> Nevski		CLE <sup>26</sup>	NIC	CAT <sup>27</sup>	BAR	ROS	CRU	ANA	MIG
<i>Hordeum marinum</i> Huds.*	ssp. <i>gussoneanum</i> (Parl.) Thell.	CLE <sup>28</sup>	NIC			ROS	CRU		
<i>Hordeum murinum</i> L.*	ssp. <i>glaucum</i> (Steud.) Tzvelev	CLE	NIC	CAT	BAR	ROS	CRU	ANA	MIG
<i>Hordeum murinum</i> L.*	ssp. <i>leporinum</i> (Link) Arcang.	CLE	NIC	CAT	BAR	ROS	CRU	ANA	MIG
<i>Hordeum vulgare</i> L.*		CLE	NIC	CAT		ROS	CRU		
<i>Koeleria macrantha</i> (Ledeb.) Schult.						ROS	CRU		
<i>Koeleria gerardii</i> (Vill.) Shinnners*							CRU		
<i>Lamarckia aurea</i> (L.) Moench*		CLE	NIC	CAT	BAR	ROS	CRU	ANA	MIG
<i>Melica imperfecta</i> Trin.		CLE	NIC	CAT	BAR	ROS	CRU	ANA	MIG
<i>Muhlenbergia appressa</i> C.O. Goodd.		CLE							
<i>Muhlenbergia microsperma</i> (DC.) Kunth		CLE <sup>29</sup>		CAT	BAR	ROS	CRU	ANA	MIG
<i>Parapholis incurva</i> (L.) C.E. Hubb.*		CLE	NIC	CAT	BAR	ROS	CRU	ANA	MIG
<i>Paspalum dilatatum</i> Poir.*		CLE		CAT					
<i>Paspalum distichum</i> L.				CAT			CRU		
<i>Pennisetum clandestinum</i> Chiov.*			NIC			ROS	CRU	ANA	MIG
<i>Pennisetum setaceum</i> (Forssk.) Chiov.*		CLE		CAT <sup>30</sup>					
<i>Phalaris aquatica</i> L.*			NIC	CAT			CRU	ANA	
<i>Phalaris canariensis</i> L.*				CAT					
<i>Phalaris caroliniana</i> Walter*		CLE	NIC	CAT	BAR		CRU		
<i>Phalaris lemmonii</i> Vasey		CLE		CAT		ROS			
<i>Phalaris minor</i> Retz.*		CLE	NIC	CAT	BAR	ROS	CRU	ANA	MIG
<i>Phalaris paradoxa</i> * L.		CLE	NIC	CAT <sup>31</sup>			CRU	ANA	
<i>Poa annua</i> L.*		CLE	NIC	CAT	BAR	ROS	CRU	ANA	MIG
<i>Poa palustris</i> L.*				CAT					
<i>Poa howellii</i> Vasey & Scribn.							CRU		
<i>Poa douglasii</i> Nees						ROS			MIG
<i>Poa secunda</i> J. Presl	ssp. <i>secunda</i>	CLE <sup>32</sup>	NIC	CAT <sup>33</sup>		ROS	CRU	ANA	MIG
<i>Polygogon viridis</i> (Gouan) Breistr.*				CAT	BAR	ROS	CRU	ANA	
<i>Polygogon interruptus</i> Kunth*		CLE		CAT		ROS	CRU		MIG

<sup>25</sup>SBBG: L.W. Nuttall May 12 1920 190<sup>26</sup>POM: P.A. Munz Apr 8 1923 6613<sup>27</sup>SBBG: S.A. Junak May 3 2001 SCA-1464<sup>28</sup>SBBG: P.H. Raven May 10 1962 17738<sup>29</sup>CAS: E.R. Blakley 7 Dec. 1963 6327<sup>30</sup>S. Ratay collection<sup>31</sup>SBBG: S.A. Junak, M.L. Hoefs Jun 5 1997 SCA-427<sup>32</sup>UC: Peter H. Raven Apr 12 1962 17332<sup>33</sup>UC: FR. Fosberg Mar 20 1931 S4310

## APPENDIX 2. Continued

Family/species	ssp./var. and infraname	CLE	NIC	CAT	BAR	ROS	CRU	ANA	MIG
<i>Polypogon monspeliensis</i> (L.) Desf.*		CLE	NIC	CAT	BAR	ROS	CRU	ANA	MIG
<i>Schismus arabicus</i> Nees*		CLE <sup>34</sup>	NIC	CAT <sup>35</sup>	BAR		CRU		
<i>Schismus barbatus</i> (L.) Thell.*				CAT			CRU		
<i>Stenotaphrum secundatum</i> (Walter) Kuntze*			NIC						
<i>Stipa diegoensis</i> Swallen			NIC			ROS	CRU	ANA	MIG
<i>Stipa cernua</i> Stebbins & Love		CLE	NIC	CAT		ROS	CRU	ANA	MIG
<i>Stipa lepida</i> Hitchc.		CLE	NIC	CAT	BAR	ROS	CRU	ANA	MIG
<i>Stipa pulchra</i> Hitchc.		CLE	NIC	CAT	BAR	ROS	CRU	ANA	MIG
<i>Stipa miliacea</i> (L.) Hoover*	var. <i>miliacea</i>	CLE	NIC	CAT <sup>36</sup>		ROS	CRU	ANA	MIG
<i>Triticum aestivum</i> L.*		CLE	NIC						
Potamogetonaceae									
<i>Potamogeton crispus</i> L.*				CAT					
<i>Stuckenia pectinata</i> (L.) Börner		CLE <sup>37</sup>		CAT		ROS	CRU		
Ruppiaaceae									
<i>Ruppia maritima</i> L.		CLE	NIC	CAT		ROS	CRU		
Themidaceae									
<i>Bloomeria crocea</i> (Torr.) Coville	var. <i>crocea</i>			CAT		ROS	CRU		
<i>Brodiaea jolonensis</i> Eastw.				CAT		ROS	CRU		MIG
<i>Brodiaea kinkiensis</i> T.F. Niehaus		CLE							
<i>Dichelostemma capitatum</i> (Benth.) Alph. Wood		CLE	NIC	CAT	BAR	ROS	CRU	ANA	MIG
<i>Triteleia clementina</i> Hoover		CLE							
<i>Triteleia hyacinthina</i> (Lindl.) Greene							CRU		
Typhaceae									
<i>Typha angustifolia</i> L. <sup>38</sup> ?		CLE							
<i>Typha domingensis</i> Pers.		CLE <sup>39</sup>	NIC	CAT		ROS	CRU		MIG
<i>Typha latifolia</i> L.		CLE	NIC	CAT			CRU		
Zannichelliaceae									
<i>Zannichellia palustris</i> L.				CAT <sup>40</sup>			CRU		
Zosteraceae									
<i>Phyllospadix scouleri</i> Hook.		CLE	NIC	CAT	BAR		CRU	ANA	MIG
<i>Phyllospadix torreyi</i> S. Watson		CLE	NIC	CAT	BAR	ROS	CRU	ANA	MIG
<i>Zostera marina</i> L.		CLE <sup>41</sup>		CAT		ROS	CRU	ANA	
<i>Zostera pacifica</i> S. Watson			NIC	CAT <sup>42</sup>		ROS	CRU	ANA <sup>43</sup>	

<sup>34</sup>RSA: E. Kellogg Jun 12 1992 s.n.<sup>35</sup>SBBG: S.A. Junak Mar 22 1998 SCA-512<sup>36</sup>SD: Robert F Thome Sep 14, 1966 36643<sup>37</sup>Pers. com. E. Howe<sup>38</sup>Pers. com. E. Howe<sup>39</sup>SBBG: P. H. Raven Jul 11 1962 18018<sup>40</sup>UC: Carl B. Wolf May 12 1932<sup>41</sup>Pers. com. E. Howe<sup>42</sup>RSA: R.F Thome Sep 16 1966 36714

## APPENDIX 2. Continued

Family/species	ssp./var. and infraname	CLE	NIC	CAT	BAR	ROS	CRU	ANA	MIG
BASAL DICOTS									
Saururaceae									
	<i>Anemopsis californica</i> (Nutt.) Hook. & Arn.	CLE	NIC	CAT			CRU		
EUDICOTS									
Adoxaceae									
	<i>Sambucus nigra</i> L.	ssp. <i>caerulea</i> (Raf.) Bolli	CLE		CAT		ROS	CRU	
Aizoaceae									
	<i>Carpobrotus chilensis</i> (Molina) N.E. Br.*	CLE	NIC	CAT	BAR	ROS	CRU	ANA	MIG
	<i>Carpobrotus edulis</i> * (L.) N.E. Br.	CLE <sup>44</sup>	NIC	CAT <sup>45</sup>		ROS	CRU	ANA	
	<i>Delosperma litorale</i> * (Kensit) L. Bolus		NIC						
	<i>Malephora crocea</i> * (Jacq.) Schwantes	CLE <sup>46</sup>	NIC					ANA	
	<i>Mesembryanthemum crystallinum</i> L.*	CLE	NIC	CAT	BAR	ROS	CRU	ANA	MIG
	<i>Mesembryanthemum nodiflorum</i> L.*	CLE	NIC	CAT	BAR	ROS	CRU	ANA	MIG
	<i>Sesuvium verrucosum</i> Raf.	CLE							
	<i>Tetragonia tetragonioides</i> (Pall.) Kuntze*		NIC			ROS	CRU	ANA	MIG
Amaranthaceae									
	<i>Amaranthus albus</i> L.*			CAT		ROS	CRU	ANA	
	<i>Amaranthus blitoides</i> S. Watson					ROS	CRU		
	<i>Amaranthus deflexus</i> L.*			CAT			CRU		
	<i>Amaranthus powellii</i> S. Watson						CRU	ANA	
	<i>Malosma laurina</i> (Nutt.) Abrams	CLE		CAT					
	<i>Rhus integrifolia</i> (Nutt.) Rothr.	CLE		CAT		ROS	CRU	ANA	MIG
	<i>Rhus ovata</i> S. Watson	CLE <sup>47</sup>		CAT			CRU		
	<i>Schinus molle</i> L.*	CLE	NIC	CAT		ROS	CRU		
	<i>Toxicodendron diversilobum</i> (Torr. & A. Gray) Greene	CLE	NIC	CAT		ROS	CRU	ANA	MIG
Apiaceae									
	<i>Apiastrum angustifolium</i> Nutt.	CLE	NIC	CAT	BAR	ROS	CRU	ANA	MIG
	<i>Apium graveolens</i> L.*	CLE	NIC			ROS	CRU		
	<i>Berula erecta</i> (Huds.) Coville		NIC				CRU		MIG
	<i>Bowlesia incana</i> Ruiz & Pav.	CLE		CAT		ROS	CRU		
	<i>Conium maculatum</i> L.*		NIC	CAT			CRU		
	<i>Daucus carota</i> L.*		NIC						
	<i>Daucus pusillus</i> Michx.	CLE	NIC	CAT	BAR	ROS	CRU	ANA	MIG
	<i>Foeniculum vulgare</i> Mill.*	CLE	NIC	CAT		ROS	CRU		MIG
	<i>Lomatium caruiifolium</i> (Hook. & Arn.) J.M. Coult. & Rose					ROS	CRU		MIG

<sup>43</sup>RSA: M.B. Dunkle Aug 20 1940 7671<sup>44</sup>RSA: P.H. Raven Jul 12 1962 18045<sup>45</sup>POM: FR. Fosberg, 4732, Apr 29 1931<sup>46</sup>SBBG: S.A. Junak Aug 26 1997 SCL-936<sup>47</sup>Pers. com. E. Howe

## APPENDIX 2. Continued

Family/species	ssp./var. and infraname	CLE	NIC	CAT	BAR	ROS	CRU	ANA	MIG
<i>Lomatium insulare</i> (Eastw.) Munz		CLE	NIC						
<i>Sanicula arguta</i> J.M. Coult. & Rose		CLE	NIC	CAT		ROS	CRU	ANA	MIG
<i>Sanicula crassicaulis</i> DC.		CLE <sup>48</sup>		CAT					
<i>Sanicula hoffmannii</i> (Munz) R.H. Shan & Constance						ROS	CRU		
<i>Torilis arvensis</i> (Huds.) Link*							CRU		
<i>Torilis nodosa</i> (L.) Gaertn.*			NIC	CAT		ROS	CRU		MIG
<i>Yabea microcarpa</i> (Hook. & Arn.) Koso-Pol.		CLE <sup>49</sup>		CAT <sup>50</sup>			CRU		
Apocynaceae									
<i>Asclepias fascicularis</i> Decne.				CAT		ROS	CRU		
<i>Funastrum cynanchooides</i> (Decne.) Schltr.	var. <i>hartwegii</i> (Vail) Krings			CAT					
<i>Vinca major</i> L.*				CAT			CRU		
Asteraceae									
<i>Achillea millefolium</i> L.		CLE	NIC	CAT	BAR	ROS	CRU	ANA	MIG
<i>Achyrachaena mollis</i> Schauer		CLE		CAT <sup>51</sup>		ROS	CRU		
<i>Acurtia microcephala</i> DC.				CAT		ROS	CRU		
<i>Agoseris apargioides</i> (Less.) Greene	var. <i>apargioides</i>					ROS			
<i>Agoseris grandiflora</i> (Nutt.) Greene						ROS	CRU		MIG
<i>Agoseris heterophylla</i> (Nutt.) Greene						ROS			
<i>Amblyopappus pusillus</i> Hook. & Arn.		CLE	NIC	CAT	BAR	ROS	CRU	ANA	MIG
<i>Ambrosia chamissonis</i> (Less.) Greene		CLE	NIC	CAT		ROS	CRU	ANA	MIG
<i>Ambrosia psilostachya</i> DC.			NIC	CAT		ROS			MIG
<i>Anthemis cotula</i> L.*				CAT		ROS	CRU		
<i>Arctium minus</i> (Hill) Bernh.*						ROS			
<i>Argyranthemum frutescens</i> (L.) Sch. Bip.*				CAT					
<i>Artemisia californica</i> Less.		CLE	NIC	CAT	BAR	ROS	CRU	ANA	MIG
<i>Artemisia douglasiana</i> Besser				CAT		ROS	CRU		
<i>Artemisia dracuncululus</i> L.				CAT					
<i>Artemisia nesiotica</i> P.H. Raven		CLE	NIC		BAR				
<i>Baccharis glutinosa</i> Pers. <sup>52</sup>		CLE		CAT		ROS	CRU		MIG
<i>Baccharis salicina</i> Torr. & A. Gray		CLE <sup>53</sup>		CAT	BAR				
<i>Baccharis pilularis</i> DC.		CLE	NIC	CAT	BAR	ROS	CRU	ANA	MIG
<i>Baccharis plummerae</i> A. Gray	ssp. <i>plummerae</i>						CRU	ANA	

<sup>48</sup>Pers. com. E. Howe<sup>49</sup>POM: P.A. Munz Apr 9 1923 6652<sup>50</sup>UCD: Robert F. Thorne 04 28 1966 36224<sup>51</sup>CAS: Tim Ross, J. Takara, Stacey Otte 24 April 1993 6946<sup>52</sup>Synonym: *Baccharis douglasii* DC.<sup>53</sup>DS: Ira L. Wiggins Feb. 22, 1949 11961

## APPENDIX 2. Continued

Family/species	ssp./var. and infraname	CLE	NIC	CAT	BAR	ROS	CRU	ANA	MIG
<i>Baccharis salicifolia</i> (Ruiz & Pav.) Pers.		CLE <sup>54</sup>	NIC	CAT <sup>55</sup>		ROS	CRU	ANA	MIG
<i>Baccharis sarothroides</i> A. Gray				CAT					
<i>Bahiopsis laciniata</i> (A. Gray) E.E. Schilling & Panero <sup>56</sup> ?		CLE							
<i>Blennosperma nanum</i> (Hook.) S.F. Blake	var. <i>nanum</i>						CRU		
<i>Brickellia californica</i> (Torr. & A. Gray) A. Gray		CLE <sup>57</sup>		CAT			CRU	ANA	
<i>Calendula officinalis</i> L.*			NIC						
<i>Carduus pycnocephalus</i> L.*				CAT <sup>58</sup>		ROS			MIG
<i>Centaurea melitensis</i> L.*		CLE	NIC	CAT	BAR <sup>59</sup>	ROS	CRU	ANA	MIG
<i>Centaurea solstitialis</i> L.*			NIC	CAT			CRU		
<i>Centaurea benedicta</i> (L.) L.*							CRU		
<i>Centromadia pungens</i> (Hook. & Arn.) Greene				CAT <sup>60</sup>					
<i>Centromadia fitchii</i> (A. Gray) Greene							CRU		
<i>Chaenactis glabriuscula</i>	var. <i>lanosa</i> (DC.) H.M. Hall					ROS			
<i>Cichorium intybus</i> L.*							CRU		
<i>Cirsium brevistylum</i> Cronquist							CRU		
<i>Cirsium occidentale</i> (Nutt.) Jeps.	var. <i>californicum</i> (A. Gray) D.J. Keil & C.E. Turner			CAT <sup>61</sup>		ROS	CRU		
<i>Cirsium occidentale</i> (Nutt.) Jeps.	var. <i>coulteri</i>	CLE <sup>62</sup>							
<i>Cirsium occidentale</i> (Nutt.) Jeps.	var. <i>occidentale</i>	CLE <sup>63</sup>	NIC	CAT <sup>64</sup>		ROS	CRU		MIG
<i>Cirsium occidentale</i> (Nutt.) Jeps.	var. <i>venustum</i> (Greene)					ROS			
<i>Cirsium ochrocentrum</i> A. Gray*						ROS			
<i>Cirsium vulgare</i> (Savi) Ten.*				CAT		ROS	CRU		MIG
<i>Constancea nevinii</i> (A. Gray) B.G. Baldwin		CLE		CAT	BAR	ROS			
<i>Corethrogyne filaginifolia</i> (Hook. & Arn.) Nutt.				CAT <sup>65</sup>		ROS	CRU	ANA	MIG
<i>Cotula australis</i> (Spreng.) Hook. f.*		CLE <sup>66</sup>		CAT	BAR	ROS	CRU	ANA	
<i>Cotula coronopifolia</i> L.*			NIC	CAT		ROS	CRU	ANA	MIG
<i>Cynara cardunculus</i> L.*		CLE <sup>67</sup>	NIC	CAT <sup>68</sup>					

<sup>54</sup>SD: Peter H. Raven May 08, 1962 17629<sup>55</sup>HSC: James Henrickson Jan 1973 8113<sup>56</sup>Pers. com. E. Howe<sup>57</sup>CAS: Steven A. Junak 2 Oct 1996 SCI-703<sup>58</sup>SBBG: S.A. Junak, M.L. Hoefs, R.N. Philbrick, SCA-1532, May 18 2001<sup>59</sup>RSA: R.F. Thome, 37492, Apr 28 1968, suspected incorrect georeferencing<sup>60</sup>RSA: Mark Hoefs, 309, Jun 4 1973<sup>61</sup>SD: Robert F. Thorne, P. Everett Jun 23, 1965 35015<sup>62</sup>SBBG: T. Ross, O. Mistretta, M. Hammitt May 20 1991 5325<sup>63</sup>UCR: Steve Boyd, T.S. Ross, Laurel Arnsseth Apr 7 1990 4271<sup>64</sup>UCR: F.R. Fosberg Apr 29 1931 S-4709<sup>65</sup>SBBG: E.R. Blakley Sep 23 1961 4740<sup>66</sup>SBBG: S.A. Junak Feb 25 1997 SCI-724<sup>67</sup>Pers. com. E. Howe<sup>68</sup>SBBG: S.A. Junak, M.L. Hoefs, K. Kirkland

## APPENDIX 2. Continued

Family/species	ssp./var. and infraname	CLE	NIC	CAT	BAR	ROS	CRU	ANA	MIG
<i>Deinandra clementina</i> (Brandege) B.G. Baldwin		CLE	NIC	CAT	BAR		CRU	ANA	
<i>Deinandra fasciculata</i> (DC.) Greene		CLE		CAT	BAR		CRU	ANA	
<i>Deinandra increscens</i> (D.D. Keck) B.G. Baldwin	ssp. <i>increscens</i>					ROS	CRU		
<i>Delairea odorata</i> Lem.*						ROS		ANA	
<i>Encelia californica</i> Nutt.		CLE	NIC	CAT	BAR	ROS	CRU	ANA	
<i>Ericameria ericoides</i> (Less.) Jeps.							CRU		
<i>Ericameria palmeri</i> (A. Gray) H.M. Hall	var. <i>pachylepis</i> (H.M. Hall) G.L. Nesom			CAT					
<i>Erigeron bonariensis</i> L.*		CLE <sup>69</sup>	NIC	CAT <sup>70</sup>	BAR	ROS	CRU	ANA	MIG
<i>Erigeron canadensis</i> L.		CLE <sup>71</sup>	NIC	CAT <sup>72</sup>	BAR	ROS	CRU	ANA	MIG
<i>Erigeron foliosus</i> Nutt.	var. <i>foliosus</i>			CAT		ROS	CRU	ANA	MIG
<i>Erigeron glaucus</i> Ker Gawl.						ROS	CRU	ANA	MIG
<i>Erigeron sanctarum</i> S. Watson						ROS	CRU		
<i>Eriophyllum confertiflorum</i> (DC.) A. Gray	var. <i>confertiflorum</i>	CLE		CAT <sup>73</sup>		ROS	CRU	ANA	MIG
<i>Eriophyllum staechadifolium</i> Lag.						ROS	CRU	ANA	MIG
<i>Eurybia radulina</i> (A. Gray) G.L. Nesom						ROS	CRU		
<i>Euthamia occidentalis</i> Nutt.								ANA	
<i>Gamochaeta ustulata</i> (Nutt.) Holub				CAT		ROS	CRU	ANA	MIG
<i>Glebionis coronaria</i> (L.) Spach <sup>*74</sup>		CLE	NIC	CAT			CRU		
<i>Gnaphalium palustre</i> Nutt.		CLE	NIC	CAT			CRU		
<i>Grindelia camporum</i> Greene				CAT		ROS	CRU	ANA	
<i>Grindelia hirsutula</i> Hook. & Arn.			NIC <sup>75</sup>			ROS			
<i>Grindelia stricta</i> DC.	var. <i>platyphylla</i> (Greene) M.A. Lane					ROS	CRU	ANA	MIG <sup>?</sup>
<i>Hazardia cana</i> (A. Gray) Greene		CLE							
<i>Hazardia detonsa</i> (Greene) Greene						ROS	CRU	ANA	
<i>Hazardia squarrosa</i> (Hook. & Arn.) Greene	var. <i>grindelioides</i> (DC.) W.D. Clark			CAT		ROS	CRU	ANA	MIG
<i>Hedypnois cretica</i> (L.) Dum. Cours.*		CLE <sup>76</sup>			BAR				
<i>Helenium puberulum</i> DC.				CAT <sup>77</sup>					
<i>Helianthus annuus</i> L.*		CLE <sup>78</sup>	NIC	CAT <sup>79</sup>			CRU	ANA	
<i>Helminthotheca echioides</i> (L.) Holub*			NIC	CAT			CRU		
<i>Hesperexax sparsiflora</i> (A. Gray) Greene		CLE <sup>80</sup>				ROS			

<sup>69</sup>SBBG: S.A. Junak, SCL-681, Sep 29 1996<sup>70</sup>POM: ER. Fosberg, 5364, Jul 10 1931<sup>71</sup>SBBG: S.A. Junak Oct 28 1997 SCL-981<sup>72</sup>SBBG: S.A. Junak, K. Kirkland, M. Bushman Oct 21 1998 SCA-813<sup>73</sup>RS: Mark Hoefs, D. Propst Mar 14 1973 119<sup>74</sup>Synonym: *Chrysanthemum coronarium* L.<sup>75</sup>UC: R.M. Beauchamp and H.A. Wier Jun 29 1978<sup>76</sup>CAS: Steven A. Junak 16 May 1996 SCL-470<sup>77</sup>DS: A.J. McClatchie Sept. 1893 s.n.<sup>78</sup>SBBG: H.L. Ferguson, R.M. Beauchamp Sep 15 1979 14<sup>79</sup>POM: L.W. Nuttall, s.n., May 22 1920<sup>80</sup>SBBG: S.A. Junak Mar 13 1997 SCL-784

## APPENDIX 2. Continued

Family/species	ssp./var. and infraname	CLE	NIC	CAT	BAR	ROS	CRU	ANA	MIG
<i>Heterotheca grandiflora</i> Nutt.		CLE	NIC	CAT		ROS	CRU		
<i>Hieracium argutum</i> Nutt.						ROS	CRU		
<i>Hypochaeris glabra</i> L.*		CLE		CAT		ROS	CRU	ANA	
<i>Hypochaeris radicata</i> L.*		CLE	NIC						
<i>Isocoma menziesii</i> (Hook. & Arn.) G.L. Nesom	var. <i>decumbens</i> (Greene) G.L. Nesom	CLE		CAT <sup>81</sup>					
<i>Isocoma menziesii</i> (Hook. & Arn.) G.L. Nesom	var. <i>menziesii</i>	CLE <sup>82</sup>	NIC	CAT <sup>83</sup>					
<i>Isocoma menziesii</i> (Hook. & Arn.) G.L. Nesom	var. <i>sedoides</i> (Greene) G.L. Nesom			CAT <sup>84</sup>		ROS	CRU	ANA	MIG
<i>Isocoma menziesii</i> (Hook. & Arn.) G.L. Nesom	var. <i>vernonioides</i> (Nutt.) G.L. Nesom	CLE	NIC	CAT		ROS	CRU	ANA	MIG
<i>Jaumea carnosa</i> (Less.) A. Gray				CAT		ROS	CRU		MIG
<i>Lactuca saligna</i> L.*				CAT <sup>85</sup>		ROS	CRU		MIG
<i>Lactuca serriola</i> L.*		CLE <sup>86</sup>	NIC	CAT		ROS	CRU	ANA	MIG
<i>Laennecia coulteri</i> (A. Gray) G.L. Nesom		CLE <sup>87</sup>		CAT	BAR				MIG
<i>Lasthenia californica</i> Lindl.		CLE		CAT	BAR	ROS	CRU	ANA	MIG
<i>Lasthenia glabrata</i> Lindl.	ssp. <i>coulteri</i> (A. Gray) Ornduff					ROS			MIG
<i>Lasthenia gracilis</i> (DC.) Greene			NIC	CAT					
<i>Layia platyglossa</i> (Fisch. & C.A. Mey.) A. Gray		CLE		CAT		ROS	CRU		MIG
<i>Lepidospartum squamatum</i> (A. Gray) A. Gray							CRU		
<i>Leptosyne gigantea</i> Kellogg		CLE	NIC	CAT	BAR	ROS	CRU	ANA	MIG
<i>Logfia arizonica</i> (A. Gray) Holub		CLE		CAT	BAR				
<i>Logfia filaginoides</i> (Hook. & Arn.) Morefield		CLE		CAT	BAR	ROS	CRU	ANA	MIG
<i>Logfia gallica</i> (L.) Coss. & Germ.*		CLE <sup>88</sup>		CAT		ROS	CRU		
<i>Madia exigua</i> (Sm.) A. Gray				CAT			CRU		
<i>Madia gracilis</i> (Sm.) Applegate				CAT			CRU		
<i>Madia sativa</i> Molina*		CLE		CAT			CRU		
<i>Malacothrix clevelandii</i> A. Gray						ROS			
<i>Malacothrix coulteri</i> Harv. & A. Gray						ROS	CRU		
<i>Malacothrix foliosa</i> A. Gray	ssp. <i>crispifolia</i> W.S. Davis							ANA	
<i>Malacothrix foliosa</i> A. Gray	ssp. <i>foliosa</i>	CLE							
<i>Malacothrix foliosa</i> A. Gray	ssp. <i>philbrickii</i> W.S. Davis				BAR				
<i>Malacothrix foliosa</i> A. Gray	ssp. <i>polycephala</i> W.S. Davis			NIC					
<i>Malacothrix incana</i> (Nutt.) Torr. & A. Gray		CLE	NIC			ROS			MIG
<i>Malacothrix indecora</i> Greene						ROS	CRU		MIG
<i>Malacothrix junakii</i> W.S. Davis								ANA	

<sup>81</sup>Collections of this taxa have been made on Catalina, but there are taxonomic issues<sup>82</sup>UC: T.S. Brandegee Aug 25 1894<sup>83</sup>SD: E.R. Blakley Sep 24, 1961 4781<sup>84</sup>UC: F.R. Fosberg Apr 29 1931 S4707<sup>85</sup>SBBG: S.A. Junak, K. Kirkland Jul 17 1998 SCA-777<sup>86</sup>RSA: Steven A. Junak Oct 2 1996 SCL700<sup>87</sup>SBBG: S.A. Junak Sep 28 1996 SCL-673<sup>88</sup>SBBG: S.A. Junak May 15 1985 SCL-74

## APPENDIX 2. Continued

Family/species	ssp./var. and infraname	CLE	NIC	CAT	BAR	ROS	CRU	ANA	MIG
<i>Malacothrix saxatilis</i> (Nutt.) Torr. & A. Gray	var. <i>implicata</i> (Eastw.) H.M. Hall		NIC			ROS	CRU	ANA	MIG
<i>Malacothrix saxatilis</i> (Nutt.) Torr. & A. Gray*	var. <i>tenuifolia</i> (Nutt.) A. Gray	CLE <sup>89</sup>	NIC	CAT					
<i>Malacothrix similis</i> W.S. Davis & P.H. Raven							CRU		MIG
<i>Malacothrix squalida</i> Greene							CRU	ANA	
<i>Matricaria occidentalis</i> Greene				CAT <sup>90</sup>					
<i>Matricaria discoidea</i> DC.*				CAT <sup>91</sup>		ROS	CRU	ANA	
<i>Micropus californicus</i> Fisch. & C.A. Mey.	var. <i>californicus</i>			CAT <sup>92</sup>		ROS	CRU		
<i>Microseris douglasii</i> (DC.) Sch. Bip.	ssp. <i>douglasii</i>	CLE	NIC						
<i>Microseris douglasii</i> (DC.) Sch. Bip.	ssp. <i>tenella</i> (A. Gray) K.L. Chambers		NIC			ROS	CRU		MIG
<i>Microseris douglasii</i> (DC.) Sch. Bip.	ssp. <i>platycarpha</i> (A. Gray) K.L. Chambers	CLE		CAT					
<i>Microseris elegans</i> A. Gray		CLE	NIC				CRU		MIG
<i>Munzothamnus blairii</i> (Munz & I.M. Johnst.) P.H. Raven		CLE							
<i>Pentachaeta lyonii</i> A. Gray				CAT					
<i>Perityle emoryi</i> Torr.		CLE		CAT	BAR	ROS	CRU	ANA	
<i>Pluchea odorata</i> (L.) Cass.				CAT			CRU		
<i>Pluchea sericea</i> (Nutt.) Coville				CAT					
<i>Pseudognaphalium biolettii</i> Anderb.		CLE	NIC	CAT	BAR <sup>93</sup>	ROS	CRU	ANA	MIG
<i>Pseudognaphalium californicum</i> (DC.) Anderb.		CLE <sup>94</sup>	NIC	CAT	BAR	ROS	CRU	ANA	MIG
<i>Pseudognaphalium beneolens</i> (Davidson) Anderb.		CLE	NIC	CAT		ROS	CRU		MIG
<i>Pseudognaphalium microcephalum</i> (Nutt.) Anderb.		CLE <sup>95</sup>		CAT	BAR	ROS	CRU	ANA	
<i>Pseudognaphalium luteoalbum</i> (L.) Hilliard & B.L. Burtt*		CLE	NIC	CAT	BAR	ROS	CRU	ANA	MIG
<i>Pseudognaphalium ramosissimum</i> (Nutt.) Anderb.							CRU		
<i>Pseudognaphalium stramineum</i> (Kunth) Anderb.			NIC	CAT		ROS	CRU	ANA	MIG
<i>Psilocarphus brevissimus</i> Nutt.	var. <i>brevissimus</i>	CLE <sup>96</sup>							
<i>Psilocarphus tenellus</i> Nutt.		CLE		CAT		ROS	CRU		
<i>Rafinesquia californica</i> Nutt.		CLE		CAT	BAR	ROS	CRU	ANA	
<i>Senecio glomeratus</i> Poir.*							CRU		MIG
<i>Senecio aphanactis</i> Greene				CAT		ROS	CRU		
<i>Senecio flaccidus</i> Less.	var. <i>douglasii</i> (DC.) B.L. Turner & T.M. Barkley	CLE		CAT			CRU		
<i>Senecio lyonii</i>	A. Gray	CLE		CAT					

<sup>89</sup>RSA: Steven A. Junak, Mary C. Hochberg, H.L. Ferguson Jul 28 1981 sci13<sup>90</sup>SD: Robert F Thorne Apr 29, 1966 36278<sup>91</sup>SBBG: R.F Thorne Apr 29 1966 36290<sup>92</sup>RSA: Tim Ross, Janet Takara, S. Otte Apr 24 1993 6957<sup>93</sup>NPS Park flora checklist<sup>94</sup>UC: Tim Ross Apr 16 1992 6207<sup>95</sup>SDSU: R. M. Beauchamp March 19, 1967 315<sup>96</sup>RSA: Tim Ross, Orlando Mistretta, Mike Hammitt May 18 1991 5184



## APPENDIX 2. Continued

Family/species	ssp./var. and infraname	CLE	NIC	CAT	BAR	ROS	CRU	ANA	MIG
<i>Senecio vulgaris</i> L.*		CLE	NIC	CAT		ROS	CRU	ANA	MIG
<i>Silybum marianum</i> (L.) Gaertn.*			NIC	CAT	BAR <sup>97</sup>	ROS	CRU		
<i>Solidago velutina</i> DC.	ssp. <i>californica</i> (Nutt.) Semple			CAT		ROS	CRU		
<i>Sonchus asper</i> (L.) Hill*		CLE	NIC	CAT		ROS	CRU	ANA	MIG
<i>Sonchus oleraceus</i> L.*		CLE	NIC	CAT	BAR	ROS	CRU	ANA	MIG
<i>Sonchus tenerrimus</i> L.*		CLE	NIC	CAT	BAR				
<i>Stebbinsoseris heterocarpa</i> (Nutt.) K.L. Chambers <sup>98</sup>		CLE	NIC	CAT		ROS	CRU	ANA	
<i>Stephanomeria cichoriacea</i> A. Gray						ROS	CRU		
<i>Stephanomeria diegensis</i> Gottlieb		CLE		CAT		ROS	CRU		
<i>Stephanomeria exigua</i> Benth.	ssp. <i>coronaria</i> (Greene) Gottlieb			CAT <sup>99</sup>		ROS	CRU		MIG
<i>Stephanomeria virgata</i> Benth.	ssp. <i>virgata</i>	CLE		CAT		ROS	CRU		
<i>Stylocline gnaphaloides</i> Nutt.		CLE <sup>100</sup>		CAT		ROS	CRU		
<i>Symphyotrichum chilense</i> (Nees) G.L. Nesom						ROS	CRU		
<i>Symphyotrichum subulatum</i> (Michx.) G.L. Nesom		CLE				ROS	CRU		
<i>Taraxacum erythrospermum</i> Besser*				CAT <sup>101</sup>			CRU <sup>102</sup>		
<i>Taraxacum officinale</i> F.H. Wigg.*			NIC	CAT <sup>103</sup>		ROS	CRU		
<i>Thelesperma megapotamicum</i> (Spreng.) Kuntze*				CAT					
<i>Tragopogon porrifolius</i> L.*		CLE	NIC				CRU		
<i>Uropappus lindleyi</i> (DC.) Nutt. <sup>104</sup>		CLE	NIC	CAT	BAR	ROS	CRU	ANA	MIG
<i>Venegasia carpesioides</i> DC.						ROS	CRU		
<i>Xanthium spinosum</i> L. <sup>105</sup>				CAT	BAR&	ROS	CRU		MIG
<i>Xanthium strumarium</i> L. <sup>106</sup>			NIC	CAT			CRU		
Bataceae									
<i>Batis maritima</i> L.		CLE							
Berberidaceae									
<i>Berberis pinnata</i> Lag.	ssp. <i>insularis</i> Munz					ROS	CRU	ANA	
Boraginaceae									
<i>Amsinckia intermedia</i> Fisch. & C.A. Mey.		CLE	NIC	CAT	BAR	ROS	CRU	ANA	MIG
<i>Amsinckia menziesii</i> (Lehm.) A. Nelson & J.F. Macbr.		CLE <sup>107</sup>		CAT			CRU	ANA	MIG
<i>Amsinckia spectabilis</i> Fisch. & C.A. Mey.	var. <i>spectabilis</i>	CLE	NIC		BAR	ROS	CRU	ANA	MIG
<i>Cryptantha intermedia</i> (A. Gray) Greene	var. <i>intermedia</i>	CLE		CAT					

<sup>97</sup>SBBG: R.N. Philbrick Mar 18 1968 B68-20<sup>98</sup>Synonym: *Microseris heterocarpa* (Nutt.) K.L. Chambers<sup>99</sup>RSA: FR. Fosberg, 4460, Apr 3 1931<sup>100</sup>RSA: Orlando Mistretta Apr 5 1992 206<sup>101</sup>SD: Robert F Thorne Sep 15, 1966 36698<sup>102</sup>SD: Robert F Thorne, P Everett, 36823, Apr 18, 1967<sup>103</sup>SBBG: M.L. Hoefs, R.F Thorne Apr 6 1996 2665<sup>104</sup>Synonym: *Microseris linearifolia* (DC.) Sch. Bip.<sup>105</sup>Native status on islands unknown<sup>106</sup>Native status on islands unknown<sup>107</sup>UCR: J.R. Ekhoff May 16 2001 s.n.

## APPENDIX 2. Continued

Family/species	ssp./var. and infraname	CLE	NIC	CAT	BAR	ROS	CRU	ANA	MIG
<i>Cryptantha clevelandii</i> Greene		CLE		CAT	BAR	ROS	CRU	ANA	MIG
<i>Cryptantha leiocarpa</i> (Fisch. & C.A. Mey.) Greene						ROS			MIG
<i>Cryptantha maritima</i> (Greene) Greene		CLE	NIC	CAT <sup>108</sup>	BAR				
<i>Cryptantha micromeres</i> (A. Gray) Greene				CAT		ROS	CRU		
<i>Cryptantha microstachys</i> (A. Gray) Greene				CAT					
<i>Cryptantha muricata</i> (Hook. & Arn.) A. Nelson & J.F. Macbr.							CRU		
<i>Cryptantha traskiae</i> I.M. Johnst.		CLE	NIC	CAT <sup>109</sup>					
<i>Cryptantha wigginsii</i> I.M. Johnst.				CAT <sup>110</sup>					
<i>Emmenanthe penduliflora</i> Benth.	var. <i>penduliflora</i>	CLE		CAT			CRU		
<i>Eriodictyon traskiae</i> Eastw.	ssp. <i>traskiae</i>			CAT					
<i>Eucrypta chrysanthemifolia</i> (Benth.) Greene	var. <i>chrysanthemifolia</i>	CLE		CAT	BAR	ROS	CRU	ANA	MIG
<i>Harpagonella palmeri</i> A. Gray				CAT					
<i>Heliotropium curassavicum</i> L.	var. <i>oculatum</i> (A. Heller) I.M. Johnst. ex Tidestr.	CLE	NIC	CAT		ROS	CRU	ANA	MIG
<i>Nama stenocarpum</i> A. Gray		CLE <sup>111</sup>							
<i>Nemophila menziesii</i> Hook. & Arn.				CAT					
<i>Nemophila pedunculata</i> Benth.			NIC			ROS	CRU		MIG
<i>Pectocarya linearis</i> (Ruiz & Pav.) DC.	ssp. <i>ferocula</i> (I.M. Johnst.) Thorne	CLE <sup>112</sup>	NIC	CAT		ROS	CRU	ANA	
<i>Pectocarya penicillata</i> (Hook. & Arn.) A. DC.				CAT			CRU		
<i>Phacelia cicutaria</i> Greene	var. <i>hispida</i> J.T. Howell	CLE		CAT		ROS	CRU	ANA	
<i>Phacelia hubbii</i> (J.F. Macbr.) L.M. Garrison <sup>113</sup>							CRU		
<i>Phacelia distans</i> Benth.		CLE	NIC	CAT	BAR	ROS	CRU	ANA	MIG
<i>Phacelia floribunda</i> Greene		CLE							
<i>Phacelia grandiflora</i> (Benth.) A. Gray				CAT		ROS	CRU <sup>114</sup>		
<i>Phacelia insularis</i> Munz	var. <i>insularis</i>					ROS			MIG
<i>Phacelia lyonii</i> A. Gray		CLE		CAT					
<i>Phacelia ramosissima</i> Douglas ex Lehm.						ROS	CRU		MIG
<i>Phacelia viscida</i> (Lindl.) Torr.				CAT		ROS	CRU	ANA	MIG
<i>Pholistoma auritum</i> (Lindl.) Lilja	var. <i>auritum</i>	CLE?		CAT	BAR		CRU		
<i>Pholistoma racemosum</i> (A. Gray) Constance		CLE		CAT	BAR		CRU		
<i>Plagiobothrys acanthocarpus</i> (Piper) I.M. Johnst.				CAT <sup>115</sup>			CRU		
<i>Plagiobothrys canescens</i> Benth.		CLE		CAT		ROS	CRU	ANA	

<sup>108</sup>UC: T.S. Brandegee May 20 1890<sup>109</sup>SD: R. Mitchel Beauchamp, M. Douglas Mar 24, 1972 3222<sup>110</sup>UC: Michael G. Simpson, Lori L. Simpson April 21 2012 3682<sup>111</sup>RSA: E. Kellogg Jun 28 1992 s.n.<sup>112</sup>SBBG: S.A. Junak Mar 7 1997 SCL-732<sup>113</sup>Synonym: *Phacelia cicutaria* Greene var. *hubbii* (J.F. Macbr.) J.T. Howell<sup>114</sup>In Wallace 1985 but not NPS list<sup>115</sup>UCR: T.S. Ross Apr 22 1993 6895

## APPENDIX 2. Continued

Family/species	ssp./var. and infraname	CLE	NIC	CAT	BAR	ROS	CRU	ANA	MIG
<i>Plagiobothrys collinus</i> (Phil.) I.M. Johnst.	var. <i>gracilis</i> (I.M. Johnst.) Higgins	CLE		CAT			CRU	ANA	MIG
<i>Plagiobothrys collinus</i> (Phil.) I.M. Johnst.	var. <i>californicus</i> (A. Gray) Higgins	CLE <sup>116</sup>		CAT <sup>117</sup>			CRU <sup>118</sup>		
Brassicaceae									
<i>Athysanus pusillus</i> (Hook.) Greene		CLE		CAT			CRU		
<i>Boechera hoffmannii</i> (Munz) Al-Shehbaz						ROS	CRU		
<i>Brassica nigra</i> (L.) W.D.J. Koch*		CLE	NIC	CAT	BAR	ROS	CRU	ANA	MIG
<i>Brassica tournefortii</i> Gouan*			NIC						
<i>Brassica rapa</i> L.*		CLE		CAT		ROS	CRU		MIG
<i>Cakile edentula</i> (Bigelow) Hook.*			NIC			ROS			MIG
<i>Cakile maritima</i> Scop.*		CLE	NIC	CAT		ROS	CRU	ANA	MIG
<i>Capsella bursa-pastoris</i> (L.) Medik.*		CLE		CAT		ROS	CRU		MIG
<i>Cardamine californica</i> (Nutt.) Greene				CAT		ROS	CRU	ANA	MIG
<i>Cardamine oligosperma</i> Nutt.							CRU		
<i>Caulanthus lasiophyllus</i> (Hook. & Arn.) Payson <sup>119</sup>		CLE		CAT	BAR	ROS	CRU	ANA	MIG
<i>Descurainia pinnata</i> (Walter) Britton		CLE		CAT		ROS	CRU	ANA	
<i>Dithyrea maritima</i> (Davidson) Davidson			NIC	CAT <sup>120</sup>					MIG
<i>Draba cuneifolia</i> Nutt. ex Torr. & A. Gray		CLE	NIC	CAT			CRU		
<i>Erysimum ammophilum</i> A. Heller						ROS			MIG
<i>Erysimum cheiri</i> (L.) Crantz*				CAT					
<i>Erysimum insulare</i> Greene						ROS	CRU	ANA	MIG
<i>Hirschfeldia incana</i> (L.) Lagr.-Fossat <sup>121</sup> *		CLE	NIC	CAT		ROS	CRU		MIG
<i>Hornungia procumbens</i> (L.) Hayek		CLE <sup>?</sup> 122	NIC		BAR	ROS	CRU	ANA	MIG
<i>Lepidium draba</i> L.*				CAT		ROS	CRU		
<i>Lepidium lasiocarpum</i> Nutt.		CLE	NIC	CAT					
<i>Lepidium latipes</i> Hook.		CLE		CAT			CRU		
<i>Lepidium nitidum</i> Nutt.		CLE	NIC	CAT	BAR	ROS	CRU	ANA	MIG
<i>Lepidium oblongum</i> Small		CLE	NIC	CAT		ROS	CRU	ANA	MIG
<i>Lepidium strictum</i> (S. Watson) Rattan*				CAT <sup>123</sup>					
<i>Lepidium virginicum</i> L. <sup>124</sup> *	ssp. <i>menziesii</i> (DC.) Thell.	CLE		CAT			CRU		
<i>Lobularia maritima</i> (L.) Desv.*		CLE <sup>125</sup>	NIC	CAT					MIG
<i>Nasturtium officinale</i> W.T. Aiton <sup>126</sup>			NIC	CAT			CRU		

<sup>116</sup>POM: P.A. Munz Apr 10 1923 6705<sup>117</sup>RSA: R.F. Thorne, R.C. Rollins, D. Propst, R. Carolin, 36761, Mar 19 1967<sup>118</sup>UC: T.S. Brandegee, Apr 1888<sup>119</sup>Synonym: *Gaullenia lasiophylla* (Hook. & Arn.) Greene<sup>120</sup>No specimens in CCH, extirpated from Catalina? per: <http://www.rareplants.cnps.org/detail/571.html><sup>121</sup>Synonym: *Brassica geniculata* (Desf.) Benth.<sup>122</sup>Pers. com. E. Howe<sup>123</sup>SBBG: S.A. Junak, M.L. Hoefs, J. Takara Mar 28 1997 SCa-388<sup>124</sup>Synonyms: *Lepidium virginicum* var. *pubescens* (Greene) Thell.; *Lepidium virginicum* var. *robinsonii* (Thell.) C.L. Hitchc.<sup>125</sup>SBBG: S.A. Junak, M.C. Hochberg, H. Ferguson Jul 28 1981 SCL-17<sup>126</sup>Native status on islands unknown, doubtful

## APPENDIX 2. Continued

Family/species	ssp./var. and infraname	CLE	NIC	CAT	BAR	ROS	CRU	ANA	MIG
<i>Raphanus raphanistrum</i> L.*		CLE		CAT		ROS	CRU		
<i>Raphanus sativus</i> L.*		CLE	NIC	CAT		ROS	CRU		MIG
<i>Sibara filifolia</i> (Greene) Greene		CLE <sup>127</sup>		CAT			CRU		
<i>Sinapis arvensis</i> L. <sup>128*</sup>		CLE? <sup>129</sup>		CAT			CRU		
<b>Sisymbrium altissimum</b> L.*									
<i>Sisymbrium irio</i> L.*		CLE	NIC	CAT				ANA	
<i>Sisymbrium officinale</i> (L.) Scop.*				CAT			CRU		MIG
<i>Sisymbrium orientale</i> L.*		CLE <sup>130</sup>	NIC	CAT				ANA	
<i>Thysanocarpus conchuliferus</i> Greene							CRU		
<i>Thysanocarpus curvipes</i> Hook.		CLE <sup>131</sup>		CAT			CRU		
<i>Thysanocarpus laciniatus</i> Nutt.		CLE		CAT		ROS	CRU		
<i>Tropidocarpum gracile</i> Hook.		CLE		CAT					
<i>Turritis glabra</i> L.							CRU		
<b>Cactaceae</b>									
<i>Bergerocactus emoryi</i> (Engelm.) Britton & Rose		CLE		CAT					
<i>Cylindropuntia prolifera</i> (Engelm.) F.M. Knuth		CLE	NIC	CAT	BAR	ROS	CRU	ANA	
<i>Opuntia ficus-indica</i> (L.) Mill.*		CLE	NIC	CAT			CRU	ANA	
<i>Opuntia littoralis</i> (Engelm.) Cockerell		CLE	NIC	CAT	BAR	ROS	CRU	ANA	MIG
<i>Opuntia oricola</i> Philbrick		CLE	NIC	CAT	BAR	ROS	CRU	ANA	MIG
<b>Campanulaceae</b>									
<i>Githopsis diffusa</i> A. Gray	ssp. <i>diffusa</i>						CRU		
<i>Triodanis biflora</i> (Ruiz & Pav.) Greene				CAT		ROS	CRU		
<b>Caprifoliaceae</b>									
<i>Lonicera hispidula</i> (Lindl.) Torr. & A. Gray		CLE		CAT		ROS	CRU		
<i>Lonicera interrupta</i> Benth.							CRU		
<i>Lonicera subspicata</i> Hook. & Arn.				CAT		ROS	CRU		
<i>Symphoricarpos mollis</i> Nutt.				CAT		ROS	CRU		
<b>Caryophyllaceae</b>									
<i>Cardionema ramosissimum</i> (Weinm.) A. Nelson & J.F. Macbr.						ROS	CRU		MIG
<i>Cerastium glomeratum</i> Thuill.*		CLE		CAT		ROS	CRU	ANA	MIG
<i>Herniaria hirsuta</i> L.*	var. <i>cinerea</i> (DC.) Loret & Barrandon	CLE	NIC	CAT <sup>132</sup>	BAR	ROS			MIG
<i>Loeflingia squarrosa</i> Nutt.			NIC						
<i>Minuartia douglasii</i> (Torr. & A. Gray) Mattf.		CLE		CAT		ROS	CRU		
<i>Polycarpon depressum</i> Nutt.		CLE		CAT			CRU		MIG

<sup>127</sup>RSA: Orlando Mistretta Apr 5 1992 142<sup>128</sup>Synonym: *Brassica kaber* (DC.) L.C. Wheeler<sup>129</sup>Pers. com. E. Howe<sup>130</sup>SBBG: S.A. Junak May 29 1996 SCI-545<sup>131</sup>UC: Tim Ross Apr 14 1992 6153<sup>132</sup>SBBG: S.A. Junak Mar 27 1997 SCA-346

## APPENDIX 2. Continued

Family/species	ssp./var. and infraname	CLE	NIC	CAT	BAR	ROS	CRU	ANA	MIG
<i>Polycarpon tetraphyllum</i> (L.) L.*				CAT		ROS	CRU	ANA	MIG
<i>Sagina apetala</i> Ard.			NIC			ROS	CRU		MIG
<i>Sagina decumbens</i> (Elliott) Torr. & A. Gray	ssp. <i>occidentalis</i> (S. Watson) G.E. Crow			CAT		ROS	CRU		MIG
<i>Silene antirrhina</i> L.		CLE		CAT		ROS	CRU		MIG
<i>Silene gallica</i> L.*		CLE	NIC	CAT	BAR	ROS	CRU	ANA	MIG
<i>Silene laciniata</i> Cav.	ssp. <i>laciniata</i>	CLE		CAT		ROS	CRU	ANA	MIG
<i>Silene coniflora</i> Otth				CAT			CRU		
<i>Spergula arvensis</i> L.*				CAT		ROS			
<i>Spergularia bocconi</i> (Scheele) Graebn.*		CLE	NIC	CAT	BAR		CRU	ANA	
<i>Spergularia macrotheca</i> (Cham. & Schltdl.) Heynh.	ssp. <i>macrotheca</i>	CLE	NIC	CAT	BAR	ROS	CRU	ANA	MIG
<i>Spergularia marina</i> (L.) Besser		CLE	NIC	CAT	BAR	ROS	CRU	ANA	
<i>Spergularia villosa</i> (Pers.) Cambess.*		CLE		CAT		ROS	CRU		
<i>Stellaria media</i> (L.) Vill.*		CLE		CAT		ROS	CRU	ANA	MIG
<i>Stellaria nitens</i> Nutt.				CAT		ROS	CRU		
<i>Aphanisma blitoides</i> Moq.		CLE	NIC	CAT	BAR	ROS	CRU	ANA	MIG
<i>Arthrocnemum subterminale</i> (Parish) Standl.		CLE		CAT		ROS	CRU		MIG
<i>Atriplex argentea</i> Nutt.	ssp. <i>expansa</i> (S. Watson) S.L. Welsh & Reveal	CLE	NIC	CAT		ROS	CRU		
<i>Atriplex californica</i> Moq.		CLE	NIC	CAT	BAR	ROS	CRU	ANA	MIG
<i>Atriplex canescens</i> (Pursh) Nutt.*	var. <i>canescens</i>		NIC						
<i>Atriplex coulteri</i> (Moq.) D. Dietr.		CLE		CAT		ROS	CRU	ANA	MIG
<i>Atriplex lentiformis</i> (Torr.) S. Watson	(S. Watson) H.M. Hall & Clem.	CLE	NIC	CAT			CRU	ANA	
<i>Atriplex leucophylla</i> (Moq.) D. Dietr.		CLE	NIC	CAT		ROS	CRU	ANA	MIG
<i>Atriplex pacifica</i> A. Nelson		CLE	NIC	CAT	BAR	ROS	CRU	ANA	
<i>Atriplex semibaccata</i> R. Br.*		CLE	NIC	CAT	BAR	ROS	CRU	ANA	MIG
<i>Atriplex serenana</i> Abrams	var. <i> davidsonii</i> (Standl.) Munz			CAT <sup>133</sup>		ROS	CRU		
<i>Atriplex serenana</i> Abrams	var. <i>serenana</i>			CAT					
<i>Atriplex prostrata</i> DC.*			NIC				CRU		MIG
<i>Atriplex watsonii</i> Abrams		CLE	NIC	CAT		ROS	CRU	ANA	MIG
<i>Bassia hyssopifolia</i> (Pall.) Kuntze*		CLE	NIC	CAT					
<i>Beta vulgaris</i> L.*	ssp. <i>maritima</i> (L.) Arcang.	CLE		CAT		ROS	CRU	ANA	MIG
<i>Chenopodium berlandieri</i> Moq.			NIC			ROS	CRU	ANA	
<i>Chenopodium californicum</i> (S. Watson) S. Watson		CLE	NIC	CAT	BAR	ROS	CRU	ANA	MIG
<i>Chenopodium murale</i> L.*		CLE	NIC	CAT	BAR	ROS	CRU	ANA	MIG
<i>Dysphania ambrosioides</i> (L.) Mosyakin & Clemants*			NIC	CAT		ROS	CRU		
<i>Dysphania multifida</i> (L.) Mosyakin & Clemants*		CLE				ROS			
<i>Monolepis nuttalliana</i> (Schult.) Greene		CLE			BAR	ROS	CRU		MIG
<i>Salicornia depressa</i> Standl.			NIC						
<i>Salicornia pacifica</i> Standl.		CLE		CAT		ROS	CRU	ANA	MIG

<sup>133</sup>RSA: Blanche Trask Mar 1901 s.n.

## APPENDIX 2. Continued

Family/species	ssp./var. and infraname	CLE	NIC	CAT	BAR	ROS	CRU	ANA	MIG
<i>Salsola australis</i> R. Br. <sup>134*</sup>		CLE	NIC	CAT		ROS	CRU		
<i>Suaeda calceoliformis</i> (Hook.) Moq.				CAT <sup>135</sup>					
<i>Suaeda taxifolia</i> (Standl.) Standl.		CLE	NIC	CAT	BAR	ROS	CRU	ANA	MIG
Cistaceae									
<i>Helianthemum greenei</i> B.L. Rob.				CAT		ROS	CRU		MIG&
<i>Helianthemum scoparium</i> Nutt.		CLE <sup>?</sup> <sup>136</sup>		CAT		ROS	CRU		
Cleomaceae									
<i>Peritoma arborea</i> (Nutt.) H.H. Iltis		CLE		CAT		ROS			
Convolvulaceae									
<i>Calystegia macrostegia</i> (Greene) Brummitt	ssp. <i>amplissima</i> Brummitt	CLE	NIC		BAR				
<i>Calystegia macrostegia</i> (Greene) Brummitt	ssp. <i>cyclostegia</i> (House) Brummitt			CAT					
<i>Calystegia macrostegia</i> (Greene) Brummitt	ssp. <i>intermedia</i> (Abrams) Brummitt			CAT					
<i>Calystegia macrostegia</i> (Greene) Brummitt	ssp. <i>macrostegia</i>			CAT		ROS	CRU	ANA	MIG
<i>Calystegia malacophylla</i> (Greene) Munz*	ssp. <i>pedicellata</i> (Jeps.) Munz		NIC&						
<i>Calystegia soldanella</i> (L.) R. Br.*		CLE	NIC	CAT		ROS	CRU		MIG
<i>Convolvulus arvensis</i> L.*			NIC	CAT		ROS	CRU		
<i>Convolvulus simulans</i> L.M. Perry		CLE		CAT			CRU		
<i>Cressa truxillensis</i> Kunth		CLE	NIC	CAT		ROS	CRU	ANA	MIG
<i>Cuscuta californica</i> Hook. & Arn.		CLE				ROS	CRU <sup>137</sup>		
<i>Cuscuta campestris</i> Yunck.				CAT <sup>138</sup>					
<i>Cuscuta occidentalis</i> Millsp.				CAT					
<i>Cuscuta pacifica</i> Costea & M. Wright	var. <i>pacifica</i>					ROS	CRU	ANA	
<i>Dichondra occidentalis</i> House				CAT		ROS	CRU		MIG
<i>Ipomoea cairica</i> (L.) Sweet*				CAT					
Cornaceae									
<i>Cornus glabrata</i> Benth.				CAT					
Crassulaceae									
<i>Crassula aquatica</i> (L.) Schönl.				CAT					
<i>Crassula connata</i> (Ruiz & Pav.) A. Berger		CLE	NIC	CAT	BAR	ROS	CRU	ANA	MIG
<i>Crassula ovata</i> (Mill.) Druce*		CLE							
<i>Dudleya blochmaniae</i> (Eastw.) Moran	ssp. <i>blochmaniae</i>						CRU		
<i>Dudleya blochmaniae</i> (Eastw.) Moran	ssp. <i>insularis</i> (Moran) Moran					ROS			
<i>Dudleya caespitosa</i> (Haw.) Britton & Rose								ANA	
<i>Dudleya candelabrum</i> Rose						ROS	CRU		MIG
<i>Dudleya greenei</i> Rose				CAT		ROS	CRU		MIG
<i>Dudleya gnoma</i> S.W. McCabe						ROS			

<sup>134</sup>Synonym: *Salsola tragus* L.<sup>135</sup>SBBG: S.A. Junak Oct 22 1998 SCA-823<sup>136</sup>Pers. com. E. Howe<sup>137</sup>SBBG: M.R. Benedict Sep 30 1969<sup>138</sup>RSA: George B. Grant 45-41

## APPENDIX 2. Continued

Family/species	ssp./var. and infraname	CLE	NIC	CAT	BAR	ROS	CRU	ANA	MIG
<i>Dudleya nesiotica</i> (Moran) Moran							CRU		
<i>Dudleya traskiae</i> (Rose) Moran					BAR				
<i>Dudleya virens</i> (Rose) Moran	ssp. <i>hassei</i> (Rose) Moran			CAT					
<i>Dudleya virens</i> (Rose) Moran	ssp. <i>insularis</i>		NIC	CAT					
<i>Dudleya virens</i> (Rose) Moran	ssp. <i>virens</i>	CLE							
Crossosomataceae									
<i>Crossosoma californicum</i> Nutt.		CLE	NIC	CAT					
Cucurbitaceae									
<i>Cucurbita foetidissima</i> Kunth							CRU		
<i>Marah fabacea</i> (Naudin) Greene		CLE <sup>139</sup>	NIC <sup>140</sup>	CAT <sup>141</sup>			CRU		MIG <sup>142</sup>
<i>Marah macrocarpa</i> (Greene) Greene		CLE	NIC	CAT	BAR	ROS	CRU	ANA	MIG
Ericaceae									
<i>Arbutus menziesii</i> Pursh							CRU		
<i>Arctostaphylos catalinae</i> P.V. Wells				CAT					
<i>Arctostaphylos confertiflora</i> Eastw.						ROS			
<i>Arctostaphylos insularis</i> Parry							CRU		
<i>Arctostaphylos crustacea</i> Eastw.	ssp. <i>insulicola</i> (P.V. Wells) V.T. Parker et al.					ROS	CRU		
<i>Arctostaphylos crustacea</i> Eastw.	ssp. <i>subcordata</i> (Eastw.) V.T. Parker et al.					ROS	CRU		
<i>Arctostaphylos viridissima</i> (Eastw.) McMinn							CRU		
<i>Comarostaphylis diversifolia</i> (Parry) Greene	ssp. <i>planifolia</i> (Jeps.) G.D. Wallace			CAT		ROS	CRU	ANA	
<i>Vaccinium ovatum</i> Pursh						ROS	CRU		
<i>Xylococcus bicolor</i> Nutt.				CAT					
Euphorbiaceae									
<i>Chamaesyce maculata</i> (L.) Small*		CLE <sup>143</sup>			BAR		CRU	ANA	
<i>Chamaesyce serpens</i> (Kunth) Small*		CLE							
<i>Chamaesyce serpyllifolia</i> (Pers.) Small				CAT					
<i>Croton setigerus</i> Hook.		CLE		CAT		ROS	CRU		
<i>Euphorbia crenulata</i> Engelm.				CAT					
<i>Euphorbia misera</i> Benth.		CLE		CAT			CRU		
<i>Euphorbia peplus</i> L.*		CLE		CAT		ROS	CRU		
<i>Euphorbia spathulata</i> Lam.		CLE		CAT					
<i>Ricinus communis</i> L.*		CLE	NIC	CAT					
<i>Stillingia linearifolia</i> S. Watson							CRU		
Fabaceae									
<i>Acacia cyclops</i> G. Don*		CLE <sup>?</sup> 144							

<sup>139</sup>RSA: FH. Elmore Feb 19 1939 422<sup>140</sup>SBBG: M.B. Dunkle Jul 26 1939 8359<sup>141</sup>SD: Darley F. Howe Feb 24, 1968 4486<sup>142</sup>SBBG: M.B. Dunkle Jul 31 1939 8402<sup>143</sup>RSA: Steven A. Junak Nov 9 1990 SCI144<sup>144</sup>Pers. com. E. Howe

## APPENDIX 2. Continued

Family/species	ssp./var. and infraname	CLE	NIC	CAT	BAR	ROS	CRU	ANA	MIG
<i>Acacia decurrens</i> Willd.*				CAT					
<i>Acacia dealbata</i> Link*							CRU		
<i>Acacia melanoxylon</i> R. Br.*							CRU		
<i>Acmispon americanus</i> (Nutt.) Rydb. <sup>145</sup>	var. <i>americanus</i>			CAT			CRU		
<i>Acmispon argophyllum</i> (A. Gray) Brouillet	var. <i>adsurgens</i> (Dunkle)	CLE							
<i>Acmispon argophyllum</i> (A. Gray) Brouillet	var. <i>argenteus</i> (Dunkle)	CLE	NIC	CAT	BAR	ROS <sup>146</sup>			MIG <sup>147</sup>
<i>Acmispon argophyllum</i> (A. Gray) Brouillet	var. <i>niveus</i> (Greene)						CRU		
<i>Acmispon brachycarpus</i> (Benth.) D.D. Sokoloff <sup>148</sup>				CAT					
<i>Acmispon dendroideus</i> (Greene) Brouillet	var. <i>dendroideus</i>	CLE		CAT		ROS	CRU	ANA	
<i>Acmispon dendroideus</i> (Greene) Brouillet	var. <i>veatchii</i> (Greene) Brouillet								MIG
<i>Acmispon dendroideus</i> (Greene) Brouillet	var. <i>traskiae</i> (Abrams) Brouillet	CLE							
<i>Acmispon grandiflorus</i> (Benth.) Brouillet	var. <i>grandiflorus</i>			CAT		ROS	CRU		
<i>Acmispon heermannii</i> (Durand & Hilg.) Brouillet				CAT					
<i>Acmispon maritimus</i> (Nutt.) D.D. Sokoloff <sup>149</sup>	var. <i>maritimus</i>		NIC	CAT		ROS	CRU	ANA	MIG
<i>Acmispon micranthus</i> (Torr. & A. Gray) Brouillet <sup>150</sup>		CLE		CAT		ROS	CRU		
<i>Acmispon parviflorus</i> (Benth.) D.D. Sokoloff <sup>151</sup>							CRU		
<i>Acmispon strigosus</i> (Nutt.) Brouillet		CLE		CAT		ROS	CRU	ANA	MIG
<i>Acmispon wrangelianus</i> (Fisch. & C.A. Mey.) D.D. Sokoloff <sup>152</sup>				CAT		ROS	CRU	ANA	MIG
<i>Albizia lophantha</i> (Willd.) Benth.*							CRU		
<i>Astragalus curtipes</i> A. Gray						ROS			MIG
<i>Astragalus didymocarpus</i> Hook. & Arn.	var. <i>didymocarpus</i>	CLE	NIC	CAT		ROS	CRU	ANA	MIG
<i>Astragalus gambelianus</i> E. Sheld.				CAT			CRU		
<i>Astragalus miguelensis</i> Greene		CLE				ROS	CRU	ANA	MIG
<i>Astragalus nevinii</i> A. Gray		CLE							
<i>Astragalus traskiae</i> Eastw.			NIC		BAR				
<i>Astragalus trichopodus</i> (Nutt.) A. Gray	var. <i>lonchus</i> (M.E. Jones) Barneby			CAT		ROS	CRU	ANA	
<i>Astragalus trichopodus</i> (Nutt.) A. Gray	var. <i>trichopodus</i>			CAT					
<i>Caesalpinia spinosa</i> (Molina) Kuntze*				CAT <sup>153</sup>					
<i>Coronilla valentina</i> L.*				CAT					
<i>Genista linifolia</i> L.*				CAT					
<i>Genista monspessulana</i> (L.) L.A.S. Johnson*				CAT					

<sup>145</sup>Synonym: *Lotus purshianus* Clem. & E.G. Clem.<sup>146</sup>CAS: L.R. Abrams, I.L. Wiggins 30 June, 1931 239<sup>147</sup>DS: E.R. Blakley 3 April 1962 5081<sup>148</sup>Synonym: *Lotus humistratus* Greene; Wallace listed *L. humistratus* on Cruz, but NPS Park Flora did not<sup>149</sup>Synonym: *Lotus subsuginosus* Greene<sup>150</sup>Synonym: *Lotus hamatus* Greene<sup>151</sup>Synonym: *Lotus micranthus* Benth.<sup>152</sup>Synonym: *Lotus wrangelianus* Fisch. & C.A. Mey.; *Lotus subpinnatus* Lag., misappl.<sup>153</sup>RS: Tim Ross Apr 23 1993 6934



## APPENDIX 2. Continued

Family/species	ssp./var. and infraname	CLE	NIC	CAT	BAR	ROS	CRU	ANA	MIG
<i>Lathyrus odoratus</i> L.*		CLE <sup>154</sup>							
<i>Lathyrus tingitanus</i> L.*				CAT					
<i>Lathyrus vestitus</i> Nutt.	var. <i>alefeldii</i> (T.G. White) Isley			CAT					
<i>Lathyrus vestitus</i> Nutt.	var. <i>vestitus</i>	CLE		CAT		ROS	CRU	ANA	
<i>Lotus corniculatus</i> L.*				CAT			CRU		
<i>Lupinus albifrons</i> Benth.	var. <i>douglasii</i> (J. Agardh) C.P. Sm.		NIC	CAT		ROS	CRU	ANA	MIG
<i>Lupinus arboreus</i> Sims						ROS	CRU		MIG
<i>Lupinus bicolor</i> Lindl.		CLE	NIC	CAT		ROS	CRU	ANA	MIG
<i>Lupinus chamissonis</i> Eschsch.						ROS			MIG
<i>Lupinus concinnus</i> J. Agardh		CLE <sup>155</sup>		CAT		ROS	CRU		
<i>Lupinus guadalupensis</i> Greene		CLE							
<i>Lupinus hirsutissimus</i> Benth.		CLE		CAT		ROS	CRU	ANA	
<i>Lupinus microcarpus</i> Sims						ROS	CRU		MIG
<i>Lupinus succulentus</i> K. Koch		CLE	NIC	CAT		ROS	CRU	ANA	MIG
<i>Lupinus truncatus</i> Nutt.		CLE		CAT		ROS	CRU	ANA	
<i>Lupinus variicolor</i> Steud.									MIG
<i>Medicago polymorpha</i> L.*		CLE	NIC	CAT	BAR	ROS	CRU	ANA	MIG
<i>Medicago sativa</i> L.*		CLE	NIC	CAT		ROS	CRU	ANA	MIG
<i>Melilotus albus</i> Medik.*		CLE	NIC	CAT			CRU	ANA	
<i>Melilotus indicus</i> (L.) All.*		CLE	NIC	CAT	BAR	ROS	CRU	ANA	MIG
<i>Pickeringia montana</i> Nutt.	var. <i>montana</i>						CRU		
<i>Pisum sativum</i> L.*							CRU		
<i>Robinia pseudoacacia</i> L.*			NIC				CRU		
<i>Spartium junceum</i> L.*			NIC	CAT			CRU		
<i>Trifolium albopurpureum</i> Torr. & A. Gray			NIC <sup>156</sup>	CAT		ROS	CRU		
<i>Trifolium barbigerum</i> Torr.						ROS			MIG
<i>Trifolium ciliolatum</i> Benth.				CAT		ROS	CRU		
<i>Trifolium depauperatum</i> Desv.	var. <i>amplectens</i> (Torr. & A. Gray) McDermott	CLE		CAT					
<i>Trifolium depauperatum</i> Desv.	var. <i>truncatum</i> (Greene) Isely	CLE	NIC	CAT		ROS	CRU	ANA	MIG
<i>Trifolium fucatum</i> Lindl.		CLE		CAT		ROS	CRU	ANA	MIG
<i>Trifolium gracilentum</i> Torr. & A. Gray		CLE	NIC	CAT	BAR	ROS	CRU	ANA	MIG
<i>Trifolium hirtum</i> All.		CLE							
<i>Trifolium macraei</i> Hook. & Arn.				CAT		ROS	CRU		
<i>Trifolium microcephalum</i> Pursh		CLE	NIC	CAT		ROS	CRU	ANA	MIG
<i>Trifolium microdon</i> Hook. & Arn.			NIC	CAT					
<i>Trifolium palmeri</i> S. Watson		CLE	NIC	CAT	BAR			ANA	
<i>Trifolium repens</i> L.*				CAT					

<sup>154</sup>SD: Steven A. Junak May 19, 1997 SCL877<sup>155</sup>SBBG: M.R. Benedict Jun 26 1971<sup>156</sup>EPS93564 (SN-846) det. var. *dichotomum* (= *T. dichotomum* in TJM2) by Michael Vincent in 2005.

## APPENDIX 2. Continued

Family/species	ssp./var. and infraname	CLE	NIC	CAT	BAR	ROS	CRU	ANA	MIG
<i>Trifolium variegatum</i> Nutt.	var. <i>major</i> Loja.						CRU		
<i>Trifolium willdenovii</i> Spreng.		CLE <sup>157</sup>		CAT <sup>158</sup>	BAR	ROS	CRU	ANA	MIG
<i>Vicia americana</i> Willd.						ROS	CRU		MIG
<i>Vicia benghalensis</i> L.*				CAT <sup>159</sup>			CRU	ANA	
<i>Vicia hassei</i> S. Watson		CLE	NIC	CAT		ROS	CRU	ANA	MIG
<i>Vicia ludoviciana</i> Torr. & A. Gray	ssp. <i>ludoviciana</i>	CLE <sup>160</sup>		CAT <sup>161</sup>		ROS	CRU	ANA	
<i>Vicia sativa</i> L.*	ssp. <i>nigra</i> (L.) Erhart					ROS			
<i>Vicia sativa</i> L.*	ssp. <i>sativa</i>		NIC			ROS	CRU	ANA	
<i>Vicia villosa</i> Roth	(Host) Corb.		NIC	CAT <sup>162</sup>					
<i>Quercus agrifolia</i> Née	var. <i>agrifolia</i>					ROS	CRU		
<i>Quercus chrysolepis</i> Liebm.		CLE		CAT		ROS	CRU	ANA	
<i>Quercus douglasii</i> Hook. & Arn.				CAT			CRU		
<i>Quercus engelmannii</i> Greene				CAT		ROS			
<i>Quercus kelloggii</i> Newb.							CRU		
<i>Quercus lobata</i> Née				CAT		ROS	CRU		
<i>Quercus ×macdonaldii</i> Greene				CAT		ROS	CRU		
<i>Quercus pacifica</i> Nixon & C.H. Mull.				CAT		ROS	CRU		
<i>Quercus parvula</i> Greene	var. <i>parvula</i>						CRU		
<i>Quercus tomentella</i> Engelm.		CLE		CAT		ROS	CRU	ANA	
Frankeniaceae									
<i>Frankenia salina</i> (Molina) I.M. Johnst.		CLE	NIC	CAT		ROS	CRU	ANA	MIG
Garryaceae									
<i>Garrya veatchii</i> Kellogg							CRU		
Gentianaceae									
<i>Zeltnera davyi</i> (Jeps.) G. Mans.		CLE				ROS	CRU		
<i>Zeltnera venusta</i> (A. Gray) G. Mans.			NIC	CAT					
Geraniaceae									
<i>California macrophylla</i> (Hook. & Arn.) J.J. Aldasoroet				CAT <sup>163</sup>					
<i>Erodium botrys</i> (Cav.) Berol.*		CLE	NIC	CAT <sup>164</sup>		ROS	CRU		
<i>Erodium brachycarpum</i> (Godr.) Thell.*		CLE <sup>165</sup>		CAT <sup>166</sup>		ROS			
<i>Erodium cicutarium</i> (L.) Aiton*		CLE	NIC	CAT	BAR	ROS	CRU	ANA	MIG
<i>Erodium moschatum</i> (L.) Aiton*		CLE	NIC	CAT	BAR	ROS	CRU	ANA	MIG

<sup>157</sup>RSA: P.H. Raven May 8 1962 17614<sup>158</sup>UC: F.R. Fosberg Mar 25 1931 s4367<sup>159</sup>SBBG: P.H. Raven May 20 1962 17789<sup>160</sup>UCR: Steve Boyd, T.S. Ross, L. Arnseth Apr 7 1990 4260<sup>161</sup>SBBG: R.F. Thorne Mar 7 1966 35954<sup>162</sup>SD: Robert F. Thorne, D. Propst May 29, 1968 37691<sup>163</sup>GH: W.A. Wallace<sup>164</sup>SBBG: S.A. Junak, K. Kirkland, L. Vorobik May 16 1998 SCa-697<sup>165</sup>SBBG: T. Ross, O. Mistretta, M. Hammitt May 18 1991 5191<sup>166</sup>SBBG: S.A. Junak, M.L. Hoefs, K. Kirkland Apr 5 1998 SCa-549

## APPENDIX 2. Continued

Family/species	ssp./var. and infraname	CLE	NIC	CAT	BAR	ROS	CRU	ANA	MIG
<i>Erodium texanum</i> A. Gray				CAT					
<i>Geranium carolinianum</i> L.				CAT		ROS	CRU		
<i>Geranium dissectum</i> L.*						ROS			
<i>Geranium molle</i> L.*							CRU		
<i>Pelargonium ×hortorum</i> L.H. Bailey*		CLE <sup>167</sup>	NIC	CAT		ROS	CRU		MIG <sup>168</sup>
<i>Pelargonium peltatum</i> (L.) L'Hér.*			NIC						
Grossulariaceae									
<i>Ribes malvaceum</i> Sm.	var. <i>malvaceum</i>	CLE				ROS	CRU	ANA	
<i>Ribes viburnifolium</i> A. Gray				CAT					
<i>Ribes thacherianum</i> (Jeps.) Munz							CRU		
Juglandaceae									
<i>Juglans californica</i> S. Watson*				CAT					
<i>Juglans regia</i> L.*							CRU		
Lamiaceae									
<i>Clinopodium douglasii</i> (Benth.) Kuntze				CAT		ROS	CRU		
<i>Lamium amplexicaule</i> L.*							CRU		
<i>Lepechinia fragrans</i> (Greene) Epling				CAT		ROS	CRU		
<i>Marrubium vulgare</i> L.*		CLE	NIC	CAT		ROS	CRU		MIG
<i>Mentha aquatica</i> L.*				CAT					
<i>Mentha spicata</i> L.*				CAT			CRU		
<i>Nepeta cataria</i> L.*				CAT					
<i>Salvia apiana</i> Jeps.				CAT					
<i>Salvia brandegeei</i> Munz						ROS			
<i>Salvia columbariae</i> Benth.		CLE		CAT		ROS	CRU		
<i>Salvia leucophylla</i> Greene							CRU		
<i>Salvia mellifera</i> Greene		CLE <sup>?</sup> 169		CAT			CRU	ANA	
<i>Scutellaria tuberosa</i> Benth.						ROS	CRU		
<i>Stachys ajugoides</i> Benth.									MIG
<i>Stachys bullata</i> Benth.						ROS	CRU	ANA	
<i>Trichostema lanceolatum</i> Benth.				CAT					
Linaceae									
<i>Hesperolinon micranthum</i> (A. Gray) Small				CAT					
Loasaceae									
<i>Mentzelia affinis</i> Greene		CLE	NIC	CAT		ROS	CRU		
<i>Mentzelia micrantha</i> (Hook. & Arn.) Torr. & A.		CLE		CAT			CRU		
Lythraceae									
<i>Ammannia robusta</i> Heer & Regel				CAT					

<sup>167</sup>SBBG: T. Ross May 22 1991 5435<sup>168</sup>SBBG: R.N. Philbrick Mar 25 1966 B66-91<sup>169</sup>Pers. com. E. Howe

## APPENDIX 2. Continued

Family/species	ssp./var. and infraname	CLE	NIC	CAT	BAR	ROS	CRU	ANA	MIG
<i>Lythrum californicum</i> Torr. & A. Gray							CRU		
<i>Lythrum hyssopifolia</i> L.*		CLE	NIC	CAT <sup>170</sup>		ROS	CRU		
Malvaceae									
<i>Alcea rosea</i> L.*				CAT			CRU		
<i>Eremalche exilis</i> (A. Gray) Greene		CLE		CAT			CRU		
<i>Lavatera assurgentiflora</i>	ssp. <i>assurgentiflora</i>	CLE*	NIC*			ROS	CRU	ANA	MIG
<i>Lavatera assurgentiflora</i>	ssp. <i>glabra</i> (Munz & I.M. Johnst.) Kearney	CLE		CAT			CRU*		
<i>Malacothamnus clementinus</i>	var. <i>catalinensis</i> (Eastw.) Kearney	CLE		CAT					
<i>Malacothamnus fasciculatus</i> (Torr. & A. Gray) Greene	var. <i>nesioticus</i> (B.L. Rob.) Kearney						CRU		
<i>Malva pseudolavatera</i> Webb & Berthel.*		CLE <sup>171</sup>				ROS		ANA	
<i>Malva nicaeensis</i> All.*						ROS	CRU		
<i>Malva parviflora</i> L.*		CLE	NIC	CAT	BAR	ROS	CRU	ANA	MIG
<i>Malvella leprosa</i> (Ortega) Krapov.		CLE		CAT		ROS			
<i>Sidalcea malviflora</i> (DC.) A. Gray	ssp. <i>malviflora</i>					ROS	CRU		MIG
Montiaceae									
<i>Calandrinia breweri</i> S. Watson						ROS	CRU		
<i>Calandrinia ciliata</i> Fisch. & C.A. Mey.		CLE	NIC	CAT	BAR	ROS	CRU	ANA	MIG
<i>Cistanthe maritima</i> (Nutt.) Hershk.		CLE		CAT	BAR	ROS	CRU	ANA	
<i>Claytonia parviflora</i> Hook.	ssp. <i>parviflora</i>		NIC	CAT <sup>172</sup>	BAR		CRU		MIG
<i>Claytonia perfoliata</i> Willd.	ssp. <i>mexicana</i> (Rydb.) John M. Mill. & K.L. Chambers	CLE <sup>173</sup>	NIC	CAT <sup>174</sup>	BAR	ROS	CRU	ANA	MIG
<i>Claytonia perfoliata</i> Willd.	ssp. <i>perfoliata</i>	CLE		CAT		ROS	CRU		
<i>Montia fontana</i> L.				CAT			CRU		
Moraceae									
<i>Ficus carica</i> L.*		CLE <sup>175</sup>		CAT			CRU		MIG
Myrsinaceae									
<i>Anagallis arvensis</i> L.*		CLE	NIC	CAT	BAR	ROS	CRU	ANA	MIG
<i>Anagallis minima</i> (L.) E.H.L. Krause						ROS			
Myrtaceae									
<i>Eucalyptus camaldulensis</i> Dehnh.*				CAT <sup>176</sup>		ROS	CRU		
<i>Eucalyptus cladocalyx</i> F. Muell.*				CAT <sup>177</sup>					
<i>Eucalyptus globulus</i> Labill.*		CLE		CAT	BAR	ROS	CRU	ANA	

<sup>170</sup>RSA: Mark Hoefs, Steven A. Junak, Janet Takara, M. Gay Jul 14 1995 2401<sup>171</sup>SD: Steven A. Junak Apr 23, 1997 SCI855<sup>172</sup>SBBC: S.A. Junak, K. Kirkland Apr 13 2001 SCA-1421<sup>173</sup>SBBC: Tim Ross, Orlando Mistretta, Mike Hammitt May 19 1991 5286<sup>174</sup>SBBC: E.R. Blakley Apr 7 1963 5537<sup>175</sup>SBBC: S.A. Junak May 20 1996<sup>176</sup>UCR: T.S. Ross Apr 23 1993 6926<sup>177</sup>UCR: O.F. Clarke Feb 25 1968 s.n.

## APPENDIX 2. Continued

Family/species	ssp./var. and infraname	CLE	NIC	CAT	BAR	ROS	CRU	ANA	MIG
<i>Eucalyptus polyanthemos</i> Schauer*				CAT <sup>178</sup>					
<i>Eucalyptus sideroxylon</i> Woolls*							CRU		
<i>Eucalyptus tereticornis</i> Sm.*						ROS	CRU		
Nyctaginaceae									
<i>Abronia latifolia</i> Eschsch.									MIG
<i>Abronia maritima</i> S. Watson		CLE	NIC	CAT		ROS	CRU	ANA	MIG
<i>Abronia umbellata</i> Lam.		CLE	NIC	CAT		ROS	CRU		MIG
<i>Mirabilis laevis</i> (Benth.) Curran	var. <i>crassifolia</i> (Choisy) Spellenb.	CLE		CAT	BAR	ROS	CRU	ANA	
Oleaceae									
<i>Olea europaea</i> L.*					BAR		CRU	ANA	
Onagraceae									
<i>Camissonia strigulosa</i> (Fisch. & C.A. Mey.) P.H. Raven						ROS			
<i>Camissoniopsis cheiranthifolia</i> (Spreng.) W.L. Wagner & Hoch	ssp. <i>cheiranthifolia</i>	CLE	NIC		BAR	ROS	CRU		MIG
<i>Camissoniopsis cheiranthifolia</i> (Spreng.) W.L. Wagner & Hoch	ssp. <i>suffruticosa</i> (S. Watson)		NIC						
<i>Camissoniopsis guadalupensis</i> (S. Watson) W.L. Wagner & Hoch	ssp. <i>clementina</i> (P.H. Raven)	CLE							
<i>Camissoniopsis hirtella</i> (Greene) W.L. Wagner & Hoch	W.L. Wagner & Hoch						CRU		
<i>Camissoniopsis ignota</i> (Jeps.) W.L. Wagner & Hoch						ROS	CRU		
<i>Camissoniopsis intermedia</i> (P.H. Raven) W.L. Wagner & Hoch				CAT			CRU		MIG
<i>Camissoniopsis micrantha</i> (Spreng.) W.L. Wagner & Hoch		CLE		CAT		ROS	CRU	ANA	MIG
<i>Camissoniopsis robusta</i> (P.H. Raven) W.L. Wagner & Hoch		CLE		CAT			CRU		MIG
<i>Clarkia davyi</i> (Jeps.) H. Lewis & M. Lewis						ROS			
<i>Clarkia epilobioides</i> (Torr. & A. Gray) A. Nelson & J.F.		CLE		CAT		ROS	CRU	ANA	
<i>Clarkia prostrata</i> H. Lewis & M. Lewis									
<i>Clarkia purpurea</i> (Curtis) A. Nelson & J.F. Macbr.	ssp. <i>quadrivulnera</i> (Lindl.) H. Lewis & M. Lewis			CAT		ROS	CRU		
<i>Clarkia unguiculata</i> Lindl.				CAT			CRU		
<i>Epilobium brachycarpum</i> C. Presl		CLE <sup>?</sup> 179					CRU		
<i>Epilobium canum</i> (Greene) P.H. Raven <sup>180</sup>	ssp. <i>angustifolium</i>			CAT <sup>181</sup>		ROS	CRU	ANA	MIG
<i>Epilobium canum</i> (Greene) P.H. Raven	ssp. <i>canum</i>	CLE		CAT			CRU	ANA	

<sup>178</sup>UCR: T.S. Ross, Janet Takara, Stacey Otte Apr 24 1993 6964<sup>179</sup>Pers. com. E. Howe<sup>180</sup>This taxa unresolved<sup>181</sup>SDSU: R.M. Beauchamp August 8, 1966 54

## APPENDIX 2. Continued

Family/species	ssp./var. and infraname	CLE	NIC	CAT	BAR	ROS	CRU	ANA	MIG	
<i>Epilobium ciliatum</i> Raf.	ssp. <i>ciliatum</i>			CAT			CRU		MIG	
<i>Eulobus californicus</i> Torr. & A. Gray				CAT		ROS	CRU			
<i>Ludwigia peploides</i> (Kunth) P.H. Raven	ssp. <i>peploides</i>						CRU			
<i>Oenothera xenogaura</i> W.L. Wagner & Hoch*							CRU			
<i>Oenothera sinuosa</i> W.L. Wagner & Hoch*				CAT						
<i>Oenothera elata</i> Kunth.	ssp. <i>hirsutissima</i> (S. Watson) W. Dietr.						CRU			
Orobanchaceae										
<i>Castilleja affinis</i> Hook. & Arn.	ssp. <i>affinis</i>			CAT		ROS	CRU	ANA	MIG	
<i>Castilleja attenuata</i> (A. Gray) T.I. Chuang & Heckard							CRU			
<i>Castilleja densiflora</i> (Benth.) T.I. Chuang & Heckard			NIC			ROS	CRU		MIG	
<i>Castilleja exserta</i> (A. Heller) T.I. Chuang & Heckard				CAT		ROS	CRU		MIG	
<i>Castilleja foliolosa</i> Hook. & Arn.				CAT						
<i>Castilleja grisea</i> Dunkle		CLE								
<i>Castilleja hololeuca</i> Greene						ROS	CRU	ANA	MIG	
<i>Castilleja mollis</i> Pennell						ROS			MIG	
<i>Kopsiopsis strobilacea</i> (A. Gray) Beck						ROS				
<i>Orobanche bulbosa</i> Beck				CAT		ROS	CRU			
<i>Orobanche californica</i> Cham. & Schlttdl.						ROS				
<i>Orobanche fasciculata</i> Nutt.	ssp. <i>grandis</i> Heckard	CLE	NIC	CAT		ROS	CRU	ANA	MIG	
<i>Orobanche parishii</i> (Jeps.) Heckard	ssp. <i>brachyloba</i> Heckard		NIC	CAT		ROS	CRU		MIG	
<i>Orobanche uniflora</i> L.		CLE?					CRU			
Oxalidaceae										
<i>Oxalis articulata</i> Savigny*	ssp. <i>rubra</i> (A. St.-Hil.) Lourteig					ROS				
<i>Oxalis californica</i> (Abrams) R. Knuth				CAT			CRU			
<i>Oxalis corniculata</i> L.*		CLE <sup>183</sup>	NIC	CAT		ROS	CRU			
<i>Oxalis pes-caprae</i> L.*		CLE	NIC	CAT			CRU			
Papaveraceae										
<i>Dendromecon harfordii</i> Kellogg		CLE		CAT		ROS	CRU			
<i>Ehrendorferia ochroleuca</i> (Engelm.) Fukuhara							CRU			
<i>Eschscholzia californica</i> Cham.		CLE <sup>184</sup>	NIC	CAT		ROS	CRU		MIG	
<i>Eschscholzia ramosa</i> (Greene) Greene		CLE	NIC	CAT	BAR	ROS	CRU			
<i>Meconella denticulata</i> Greene							CRU			
<i>Papaver californicum</i> A. Gray						ROS	CRU			
<i>Papaver heterophyllum</i> (Benth.) Greene		CLE		CAT	BAR	ROS	CRU	ANA	MIG	
<i>Papaver somniferum</i> L.*				CAT			CRU			
<i>Platystemon californicus</i> Benth.			NIC	CAT	BAR	ROS	CRU	ANA	MIG	
<i>Romneya coulteri</i> Harv.*				CAT						

<sup>182</sup>Pers. com. E. Howe<sup>183</sup>RSA: Steven A. Junak May 14 1985 SC1-56<sup>184</sup>RSA: M.B. Dunkle May 27 1928 1983

## APPENDIX 2. Continued

Family/species	ssp./var. and infraname	CLE	NIC	CAT	BAR	ROS	CRU	ANA	MIG
Phrymaceae									
<i>Mimulus aurantiacus</i> Curtis	var. <i>aurantiacus</i>			CAT <sup>185</sup>					
<i>Mimulus aurantiacus</i> Curtis	var. <i>parviflorus</i> (Greene) D.M. Thoms.	CLE				ROS	CRU	ANA	
<i>Mimulus aurantiacus</i> Curtis	var. <i>pubescens</i> (Torr.) D.M. Thoms.					ROS	CRU		
<i>Mimulus aurantiacus</i> Curtis	var. <i>pumiceus</i> (Nutt.) D.M. Thoms.			CAT					
<i>Mimulus cardinalis</i> Benth.				CAT			CRU		
<i>Mimulus floribundus</i> Lindl.		CLE <sup>186</sup>		CAT		ROS			
<i>Mimulus guttatus</i> DC.		CLE		CAT		ROS	CRU		
<i>Mimulus latifolius</i> A. Gray				CAT <sup>187</sup>			CRU		
<i>Mimulus traskiae</i> A.L. Grant				CAT					
Pittosporaceae									
<i>Pittosporum undulatum</i> Vent.*				CAT <sup>188</sup>					
Plantaginaceae									
<i>Antirrhinum kelloggii</i> Greene				CAT			CRU		
<i>Antirrhinum multiflorum</i> Pennell							CRU		
<i>Antirrhinum nuttallianum</i> A. DC.	ssp. <i>subsessile</i> (A. Gray) D.M. Thoms.	CLE		CAT		ROS	CRU	ANA	MIG
<i>Callitriche marginata</i> Torr.		CLE		CAT					
<i>Collinsia heterophylla</i> Graham		CLE				ROS			
<i>Gambelia speciosa</i> Nutt.		CLE		CAT	BAR				
<i>Keckiella cordifolia</i> (Benth.) Straw		CLE		CAT		ROS	CRU	ANA	
<i>Kickxia elatine</i> (L.) Dumort.*				CAT <sup>189</sup>					
<i>Linaria bipartita</i> (Vent.) Willd.*				CAT					
<i>Nuttallanthus texanus</i> (Scheele) D.A. Sutton		CLE		CAT		ROS	CRU	ANA	MIG
<i>Veronica anagallis-aquatica</i> L.*							CRU		
<i>Plantago coronopus</i> L.*			NIC	CAT				ANA	MIG
<i>Plantago elongata</i> Pursh						ROS	CRU		MIG
<i>Plantago erecta</i> E. Morris		CLE		CAT		ROS	CRU	ANA	
<i>Plantago lanceolata</i> L.*		CLE		CAT <sup>190</sup>			CRU		MIG
<i>Plantago major</i> L.*			NIC	CAT			CRU		
<i>Plantago maritima</i> L.						ROS			
<i>Plantago ovata</i> Forssk.	var. <i>insularis</i> (Eastw.) S.C. Meyers & A. Liston	CLE	NIC	CAT	BAR	ROS	CRU	ANA	MIG
<i>Plantago subnuda</i> Pilg.*						ROS	CRU		MIG
Plantanaceae									
<i>Platanus racemosa</i> Nutt.				CAT*			CRU		

<sup>185</sup>OBI: John Knapp, Denise Knapp, 7, April 13, 2003<sup>186</sup>SBBG: S. Boyd, T. Ross, L. Arnsseth Apr 8 1990 4291<sup>187</sup>Dave M. Thompson 2012. *Mimulus*, in Jepson Flora Project (eds.) Jepson eFlora, accessed on May 7 2014<sup>188</sup>GH: R.F. Thorne & A.D. Probst 1974-09-12 45100<sup>189</sup>SBBG: M.L. Hoefs, R.F. Thorne, J. Takara Jul 25 1995 2438<sup>190</sup>SBBG: M.L. Hoefs, R.F. Thorne Apr 6 1996 2671

## APPENDIX 2. Continued

Family/species	ssp./var. and infraname	CLE	NIC	CAT	BAR	ROS	CRU	ANA	MIG
Plumbaginaceae									
<i>Armeria maritima</i> (Mill.) Willd.	ssp. <i>californica</i> (Boiss.) A.E. Porsild					ROS			
<i>Limonium californicum</i> (Boiss.) A. Heller*		CLE <sup>191</sup>							
<i>Limonium perezii</i> (Stapf) F.T. Hubb.*		CLE		CAT					
<i>Limonium sinuatum</i> (L.) Mill.*				CAT				ANA&	MIG&
Polemoniaceae									
<i>Allophylum glutinosum</i> (Benth.) A.D. Grant & V.E. Grant		CLE		CAT					
<i>Eriastrum filifolium</i> (Nutt.) Wooton & Standl.		CLE		CAT			CRU		
<i>Gilia achilleifolia</i> Benth.	ssp. <i>multicaulis</i> (Benth.) V.E. Grant & A.D. Grant					ROS			
<i>Gilia angelensis</i> V.E. Grant		CLE		CAT			CRU		
<i>Gilia capitata</i> Sims	ssp. <i>abrotanifolia</i> (Greene) V.E. Grant			CAT			CRU		
<i>Gilia clivorum</i> (Jeps.) V.E. Grant				CAT		ROS	CRU	ANA	MIG
<i>Gilia nevinii</i> A. Gray		CLE	NIC	CAT	BAR	ROS	CRU	ANA	
<i>Gilia tenuiflora</i> Benth.	ssp. <i>hoffmannii</i> (Eastw.) A.D. Grant & V.E. Grant					ROS			
<i>Leptosiphon bicolor</i> Nutt.		CLE		CAT					
<i>Leptosiphon parviflorus</i> Benth.						ROS	CRU		MIG
<i>Leptosiphon pygmaeus</i> (Brand) J.M. Porter & L.A. Johnson	ssp. <i>pygmaeus</i>	CLE							
<i>Linanthus dianthiflorus</i> (Benth.) Greene				CAT			CRU		
<i>Navarretia atractyloides</i> (Benth.) Hook. & Arn.		CLE		CAT		ROS	CRU		
<i>Navarretia hamata</i> Greene	ssp. <i>leptantha</i> (Greene) H. Mason	CLE		CAT					
Polygalaceae									
<i>Polygala californica</i> Nutt.							CRU		
<i>Chorizanthe staticoides</i> Benth.				CAT					
<i>Chorizanthe wheeleri</i> S. Watson						ROS	CRU		
<i>Eriogonum arborescens</i> Greene						ROS	CRU	ANA	
<i>Eriogonum cinereum</i> Benth.			NIC <sup>192*</sup>			ROS			
<i>Eriogonum fasciculatum</i> Benth.*	var. <i>fasciculatum</i>			CAT <sup>193</sup>					
<i>Eriogonum fasciculatum</i> Benth.*	var. <i>polifolium</i> (Benth.) Torr. & A. Gray		NIC						
<i>Eriogonum giganteum</i> S. Watson	var. <i>compactum</i> Dunkle				BAR				
<i>Eriogonum giganteum</i> S. Watson	var. <i>formosum</i> K. Brandegeee	CLE							
<i>Eriogonum giganteum</i> S. Watson	var. <i>giganteum</i>			CAT			CRU*		
<i>Eriogonum grande</i> Greene	var. <i>grande</i>	CLE		CAT		ROS	CRU	ANA	

<sup>191</sup>Pers. com. E. Howe<sup>192</sup>SBBG: S.A. Junak, T. Murphey, SN-432, Feb 21 1990<sup>193</sup>HSC: R.F. Thorne, D. Propst, M. Haefs Sep 12 1974 45110



## APPENDIX 2. Continued

Family/species	ssp./var. and infraname	CLE	NIC	CAT	BAR	ROS	CRU	ANA	MIG
<i>Eriogonum grande</i> Greene	var. <i>rubescens</i> (Greene) Munz					ROS	CRU	ANA	MIG
<i>Eriogonum grande</i> Greene	var. <i>timorum</i> Reveal		NIC						
<i>Lastarriaea coriacea</i> (Goodman) Hoover				CAT		ROS	CRU		
<i>Persicaria lapathifolia</i> (L.) Gray							CRU		
<i>Polygonum argyrocoleon</i> Kunze*		CLE	NIC	CAT			CRU		
<i>Polygonum aviculare</i> L.*	ssp. <i>depressum</i> (Meisn.) Arcang.	CLE	NIC	CAT		ROS	CRU	ANA	
<i>Pterostegia drymarioides</i>	Fisch. & C.A. Mey.	CLE	NIC	CAT	BAR	ROS	CRU	ANA	MIG
<i>Rumex acetosella</i> L.*						ROS	CRU		
<i>Rumex conglomeratus</i> Murray*						ROS	CRU		
<i>Rumex crispus</i> L.*		CLE <sup>194</sup>		CAT		ROS	CRU		
<i>Rumex fueginus</i> Phil.		CLE	NIC	CAT		ROS	CRU	ANA	MIG
<i>Rumex obtusifolius</i> L.*			NIC						
<i>Rumex pulcher</i> L.*							CRU		
<i>Rumex salicifolius</i> Weinm.		CLE	NIC	CAT		ROS	CRU		MIG
Portulacaceae									
<i>Portulaca oleracea</i> L.*				CAT			CRU		
Primulaceae									
<i>Dodecatheon clevelandii</i> Greene	ssp. <i>insulare</i> H.J. Thomps.	CLE	NIC	CAT		ROS	CRU	ANA	MIG
Ranunculaceae									
<i>Clematis lasiantha</i> Nutt.							CRU		
<i>Clematis ligusticifolia</i> Nutt.				CAT		ROS	CRU		
<i>Clematis pauciflora</i> Nutt.							CRU		
<i>Delphinium parryi</i> A. Gray	ssp. <i>maritimum</i> (Davidson) M.J. Warnock			CAT		ROS	CRU	ANA	MIG
<i>Delphinium parryi</i> A. Gray	ssp. <i>parryi</i>			CAT			CRU		
<i>Delphinium variegatum</i> Torr. & A. Gray	ssp. <i>kinkiense</i> (Munz) M.J. Warnock	CLE							
<i>Delphinium variegatum</i> Torr. & A. Gray	ssp. <i>thornei</i> Munz	CLE							
<i>Ranunculus californicus</i> Benth.				CAT		ROS	CRU		MIG
<i>Ranunculus hebecarpus</i> Hook. & Arn.				CAT					
Resedaceae									
<i>Oligomeris linifolia</i> (Hornem.) J.F. Macbr.		CLE	NIC	CAT	BAR	ROS	CRU	ANA	MIG
<i>Reseda odorata</i> L.*				CAT					
Rhamnaceae									
<i>Ceanothus arboreus</i> Greene				CAT		ROS	CRU		
<i>Ceanothus megacarpus</i> Nutt.	var. <i>insularis</i> (Eastw.) Munz	CLE		CAT		ROS	CRU	ANA	MIG&
<i>Ceanothus megacarpus</i> Nutt.	var. <i>megacarpus</i>	CLE		CAT			CRU		
<i>Frangula californica</i> (Eschsch.) A. Gray	ssp. <i>californica</i>						CRU		
<i>Rhamnus pirifolia</i> Greene		CLE		CAT		ROS	CRU		MIG&
Rosaceae									
<i>Adenostoma fasciculatum</i> Hook. & Arn.	var. <i>fasciculatum</i>	CLE		CAT		ROS	CRU		

<sup>194</sup>SD: Steven A. Junak May 18, 1996 SCI488a

## APPENDIX 2. Continued

Family/species	ssp./var. and infraname	CLE	NIC	CAT	BAR	ROS	CRU	ANA	MIG
<i>Adenostoma fasciculatum</i> Hook. & Arn.	var. <i>prostratum</i> Dunkle			CAT		ROS	CRU		
<i>Aphanes occidentalis</i> (Nutt.) Rydb.		CLE		CAT		ROS	CRU		
<i>Cercocarpus betuloides</i> Nutt.	var. <i>betuloides</i>			CAT					
<i>Cercocarpus betuloides</i> Nutt.	var. <i>blancheae</i> (C.K. Schneid.) Little			CAT		ROS	CRU		
<i>Cercocarpus traskiae</i> Eastw.				CAT					
<i>Drymocallis glandulosa</i> (Lindl.) Rydb. <sup>195</sup>				CAT					
<i>Heteromeles arbutifolia</i> (Lindl.) M. Roem.		CLE		CAT		ROS	CRU	ANA	MIG
<i>Holodiscus discolor</i> (Pursh) Maxim.				CAT			CRU		
<i>Lyonothamnus floribundus</i> A. Gray	ssp. <i>aspleniifolius</i> (Greene) P.H. Raven	CLE				ROS	CRU		
<i>Lyonothamnus floribundus</i> A. Gray	ssp. <i>floribundus</i>			CAT					
<i>Potentilla anserina</i> L.	ssp. <i>pacifica</i> (Howell) Rousi						CRU		MIG
<i>Poterium sanguisorba</i> L.*				CAT <sup>196</sup>					
<i>Prunus ilicifolia</i> (Hook. & Arn.) D. Dietr.	ssp. <i>lyonii</i> (Eastw.) P.H. Raven	CLE		CAT		ROS	CRU	ANA	
<i>Rosa californica</i> Cham. & Schltld.				CAT		ROS	CRU		
<i>Rubus ursinus</i> Cham. & Schltld.				CAT		ROS	CRU		MIG
Rubiaceae									
<i>Galium angustifolium</i> subsp.	ssp. <i>foliosum</i> (Hilend & J.T. Howell) Dempster & Stebbins					ROS	CRU	ANA	
<i>Galium angustifolium</i> A. Gray	ssp. <i>angustifolium</i>			CAT					
<i>Galium aparine</i> L.		CLE	NIC	CAT	BAR	ROS	CRU	ANA	MIG
<i>Galium buxifolium</i> Greene							CRU		MIG
<i>Galium californicum</i> Hook. & Arn.	ssp. <i>flaccidum</i> (Greene) Dempster & Stebbins						CRU		
<i>Galium californicum</i> Hook. & Arn.	ssp. <i>miguelense</i> (Greene) Dempster & Stebbins					ROS			MIG
<i>Galium catalinense</i> A. Gray	ssp. <i>acrispum</i> Dempster	CLE							
<i>Galium catalinense</i> A. Gray	ssp. <i>catalinense</i>			CAT					
<i>Galium nuttallii</i> A. Gray	ssp. <i>insulare</i> Ferris			CAT		ROS	CRU		
<i>Galium parisiense</i> L.*				CAT <sup>197</sup>		ROS			
<i>Galium porrigens</i> Dempster	var. <i>porrigens</i>			CAT		ROS	CRU		
Rutaceae									
<i>Ruta chalepensis</i> L.*				CAT					
Salicaceae									
<i>Populus fremontii</i> S. Watson	ssp. <i>fremontii</i>			CAT			CRU		
<i>Populus trichocarpa</i> Hook.				CAT		ROS	CRU		
<i>Salix exigua</i> Nutt.			NIC				CRU		
<i>Salix gooddingii</i> C.R. Ball		CLE							
<i>Salix laevigata</i> Bebb				CAT			CRU		

<sup>195</sup>Synonym: *Potentilla glandulosa* Lindl.<sup>196</sup>UC: Tim Ross, 6923, Apr 22 1993<sup>197</sup>SBBC: S.A. Junak, M.L. Hoefs, K. Kirkland Jul 17 1998 SCA-769

## APPENDIX 2. Continued

Family/species	ssp./var. and infraname	CLE	NIC	CAT	BAR	ROS	CRU	ANA	MIG
<i>Salix lasiandra</i> Benth.	var. <i>lasiandra</i>						CRU		
<i>Salix lasiolepis</i> Benth.		CLE <sup>?</sup> 198	NIC	CAT		ROS	CRU	ANA	MIG
Sapindaceae									
<i>Acer macrophyllum</i> Pursh							CRU		
Saxifragaceae									
<i>Heuchera maxima</i> Greene						ROS	CRU	ANA	
<i>Jepsonia malvifolia</i> (Greene) Small		CLE	NIC	CAT		ROS	CRU		
<i>Lithophragma affine</i> A. Gray				CAT					
<i>Lithophragma cymbalaria</i> Torr. & A. Gray						ROS	CRU		
<i>Lithophragma maximum</i> Bacig.		CLE							
<i>Micranthes californica</i> (Greene) Small <sup>199</sup>		CLE <sup>200</sup>				ROS	CRU		
Scrophulariaceae									
<i>Myoporum laetum</i> G. Forst.*		CLE <sup>201</sup>	NIC				CRU&		
<i>Scrophularia californica</i> Cham. & Schltdl.						ROS			
<i>Scrophularia villosa</i> Pennell		CLE		CAT					
<i>Verbascum thapsus</i> L.*							CRU		
Solanaceae									
<i>Datura wrightii</i> Regel		CLE <sup>?</sup> 202*		CAT		ROS	CRU		
<i>Lycium brevipes</i> Benth.		CLE	NIC	CAT&					
<i>Lycium californicum</i> Nutt.		CLE	NIC	CAT	BAR		CRU	ANA	MIG
<i>Lycium fremontii</i> A. Gray						ROS			
<i>Lycium verrucosum</i> Eastw.			NIC&						
<i>Lycopersicon esculentum</i> Mill.*		CLE <sup>?</sup> 203	NIC	CAT <sup>204</sup>	BAR&		CRU	ANA&	MIG&
<i>Nicotiana clevelandii</i> A. Gray				CAT <sup>205</sup>	BAR		CRU	ANA	
<i>Nicotiana glauca</i> Graham*		CLE <sup>?</sup> 206	NIC	CAT			CRU		
<i>Nicotiana quadrivalvis</i> Pursh				CAT <sup>207</sup>					
<i>Petunia parviflora</i> Juss.						ROS			
<i>Solanum americanum</i> Mill.*		CLE <sup>208</sup>	NIC			ROS <sup>209</sup>		ANA	
<i>Solanum douglasii</i> Dunal		CLE	NIC	CAT	BAR	ROS	CRU	ANA	MIG

<sup>198</sup>Pers. com. E. Howe<sup>199</sup>Synonym: *Saxifraga californica* Greene<sup>200</sup>SBBG: S.A. Junak Mar 13 1997 SCL-770<sup>201</sup>SBBG: S.A. Junak Jul 31 1981 SCL-53<sup>202</sup>Pers. com. E. Howe<sup>203</sup>Pers. com. E. Howe<sup>204</sup>RSA: R.F. Thorne, 47381, Sep 4 1975<sup>205</sup>RSA: Blanche Trask Mar 1901 s.n.<sup>206</sup>Pers. com. E. Howe<sup>207</sup>SD: Robert F. Thorne, P. Everett, 34883, Jun 22, 1965<sup>208</sup>SBBG: H.L. Ferguson, R.M. Beauchamp Sep 15 1979<sup>209</sup>SBBG: S.A. Junak Sep 23 1998 SR-896

## APPENDIX 2. Continued

Family/species	ssp./var. and infraname	CLE	NIC	CAT	BAR	ROS	CRU	ANA	MIG
<i>Solanum elaeagnifolium</i> Cav.*				CAT		ROS	CRU		
<i>Solanum wallacei</i> (A. Gray) Parish				CAT		ROS	CRU		
Tamaricaceae									
<i>Tamarix aphylla</i> (L.) H. Karst.*						ROS			
<i>Tamarix chinensis</i> Lour.*		CLE <sup>210</sup>							
<i>Tamarix parviflora</i> DC.*				CAT <sup>211</sup>				ANA	
<i>Tamarix ramosissima</i> Ledeb.*		CLE	NIC			ROS	CRU		MIG
Theophrastaceae									
<i>Samolus parviflorus</i> Raf.							CRU		
Tropaeolaceae									
<i>Tropaeolum majus</i> L.*		CLE <sup>212</sup>		CAT	BAR&				
Ulmaceae									
<i>Ulmus xhollandica</i> Mill.*							CRU		
Urticaceae									
<i>Hesperocnide tenella</i> Torr.		CLE		CAT	BAR	ROS	CRU		
<i>Parietaria hespera</i> Hinton		CLE	NIC	CAT	BAR	ROS	CRU	ANA	MIG
<i>Soleirolia soleirolii</i> (Req.) Dandy*			NIC						
<i>Urtica dioica</i> L.	ssp. <i>holosericea</i> (Nutt.) Thorne			CAT		ROS	CRU	ANA	
<i>Urtica urens</i> L.*				CAT		ROS	CRU		MIG
Valerianaceae									
<i>Centranthus ruber</i> (L.) DC.*				CAT			CRU		
<i>Plectritis ciliosa</i> (Greene) Jeps.							CRU		
Verbenaceae									
<i>Phyla nodiflora</i> (L.) Greene*		CLE <sup>213</sup>		CAT			CRU <sup>214</sup>		
<i>Verbena bracteata</i> Lag. & Rodr.		CLE <sup>215</sup>		CAT		ROS			
<i>Verbena lasiostachys</i> Link	var. <i>lasiostachys</i>	CLE	NIC	CAT					
<i>Verbena lasiostachys</i> Link	var. <i>scabrida</i> Moldenke			CAT		ROS	CRU		MIG
Violaceae									
<i>Viola pedunculata</i> Torr. & A. Gray		CLE		CAT		ROS	CRU		
Vitaceae									
<i>Vitis girdiana</i> Munson				CAT					
Zygophyllaceae									
<i>Tribulus terrestris</i> L.*				CAT <sup>216</sup>					
<b>NUMBER OF SPECIES</b>		<b>436</b>	<b>279</b>	<b>633</b>	<b>150</b>	<b>519</b>	<b>662</b>	<b>271</b>	<b>296</b>

<sup>210</sup>Pers. com. E. Howe<sup>211</sup>RSA: R.F. Thorne, 45759, Mar 22 1975<sup>212</sup>UCR: T.S. Ross, 5434, May 22 1991<sup>213</sup>SBBG: H.L. Ferguson Mar 12 1981 234<sup>214</sup>SBBG: S.A. Junak, R.N. Philbrick, M.C. Hochberg, SC-63, May 9 1979<sup>215</sup>RSA: E. Kellogg Jun 28 1992 s.n.<sup>216</sup>SBBG: S.A. Junak, K. Kirkland, M. Bushman Oct 21 1998 SCA-815