

VASCULAR PLANT CHECKLIST FOR THE UNIVERSITY OF CALIFORNIA NATURAL RESERVE SYSTEM'S SAN JOAQUIN FRESHWATER MARSH RESERVE

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ABSTRACT: The University of California Natural Reserve System's San Joaquin Freshwater Marsh Reserve was established in 1969, and is administered by the University of California, Irvine campus. The Reserve comprises 81.75 ha (202 ac) and is located in the City of Irvine, Orange County; 75 km (45 mi) southeast of Los Angeles, 30 km (20 mi) west of the Santa Ana Mountains; 2 km (1.25 mi) upstream from Upper Newport Bay, adjacent to the Irvine campus. The elevation of the site is 2-3 m (7 to 10 ft), it receives 30 cm (12 in) of precipitation per year, and average temperatures are 29° C (86° F) in September, 4° C (40° F) minimum in January, with an annual mean of 17° C (62° F). The San Diego Creek flood control channel crosses the Reserve along its southwestern boundary. Approximately 20 ha (50 ac) of the Reserve have been restored into twelve palustrine habitats dominated by bulrushes (*Schoenoplectus americanus*, *S. californicus* and *Bolboschoenus maritimus*), and remainder is predominantly a cattail marsh. Nineteen acres (7.7 ha) surrounding the wetlands are a buffer zone between future development on the University's North Campus and the Reserve. The buffer zone is currently being restored to a coastal sage scrub community, and seven vernal pools have been created at its base using inoculum from pools taken on University and adjacent Irvine Company land. Including 31 species that have been deliberately introduced for restoration or habitat enhancement purposes. The vascular plant flora includes one Pteridophyte and 188 species in 46 families of dicotyledones and 54 species in 9 families of monocotyledones. Of the total 242 species in the Reserve and buffer zone, 114 (47%) are non-native. Voucher specimens from the Reserve for most of the species are held in the UCI Herbarium (IRVC), a part of the UCI Arboretum. The non-native species *Avena sativa* (Poaceae), *Washingtonia robusta*, *Phoenix dactylifera* (Arecaceae), *Chenopodium glaucum* (Chenopodiaceae), *Eucalyptus citriodora* (Myrtaceae), *Diospyros lycioides* (Ebenaceae), *Atriplex suberecta* (Chenopodiaceae), *Phalaris canariensis* (Poaceae), and *Callistemon citrinus* (Myrtaceae) are new records for Orange County.

KEYWORDS: University of California Natural Reserve System, San Joaquin Freshwater Marsh Reserve, Irvine, Orange County, California, Wetland Restoration, Coastal Sage Scrub Restoration, Vernal Pool Creation, California Coastal Conservancy

INTRODUCTION

The University of California Natural Reserve System's San Joaquin Freshwater Marsh Reserve is located in the City of Irvine (Orange County) adjacent to the University of California (UCI) campus, located approximately 2 km from Newport Back Bay. The Reserve comprises 81.75 ha (202 ac) and includes the channelized San Diego Creek that passes through it.

Pollen in cores obtained from the Reserve indicate that several times in the last 6,000 years, the site was a salt marsh, switching back and forth between freshwater and salt marsh plant species as the ocean level rose and fell (Davis, 1992; Davis, Jirikowic, and Kalin, 1992). The Marsh is a remnant wetland on a filled canyon of the Santa Ana River, inland from the Newport Bay Gap; one of five such canyons marking the shifting course of the Santa Ana River in the past. An historic dam on San Diego Creek, an artificial stream draining urban and agricultural runoff from Irvine and surrounding areas, caused several meters of sediment to collect in the southern portion of the Reserve. The dam was constructed about 1937 to protect salt desiccation ponds in Newport Back Bay, and was dismantled in the late 1950s. The sediment behind the dam raised the ground level above natural wetland elevations, and the site was actually farmed as upland for several decades. The bluffs surrounding the wetlands were similarly used for agriculture, and the Reserve experienced cattle grazing until the University purchased it in 1969. The California Coastal Conservancy sponsored restoration efforts in 1998 on 18.6 ha (46 ac) of the Reserve, allowing the creation of 11 palustrine habitats at historic pre-dam elevations. These ponds have about 40 percent of their area designed to provide permanent deep water habitat, with the remainder being shallow or seasonally dry shelves dominated by *Bolboschoenus maritimus*, *Schoenoplectus americanus* and *S. californicus*. An additional 2.4 ha (6 ac) are a created marsh as part of a mitigation project. The Conservancy has also supported creating coastal sage scrub as a complementary upland community along 7.7 ha (19 ac) of bluffs embracing the wetland as part of a 50 m buffer zone between existing and future development on the University's North Campus. The remaining 60.7 ha (150 ac) are primarily a *Typha*-dominated seasonal wetland, with a natural soil sequence underlying it. In addition to precipitation (30 cm/year), water can be introduced to the Reserve from San Diego Creek, a well, or allowed to flow under adjacent Campus Drive from upstream sources. The Reserve System manages the site following the area's natural hydrologic cycle so that much of the wetlands are seasonally wet or dry as the natural climate dictates. Prior to disturbance, the site was a ground water depression wetland supported by a shallow aquifer. This part of Orange County has had vast losses of wetlands including over 20,000 ha in the historic Cienega de las Ranas that once covered the Tustin Plain, the construction of the Irvine Ranch Water District's Michelson Sewage Treatment Plant and associated facilities, the placement of Campus Drive through the wetlands, and the channelization and construction of the San Diego Creek channel for flood control purposes. Thus the UCNRS San Joaquin Freshwater Marsh Reserve is a significant wetland remnant near the larger salt marsh wetlands in the State's Upper Newport Bay Ecological Reserve. The UCNRS uses the wetlands Reserve for teaching and research, and because of controlled human access it is a true refuge, with 263 bird species and abundant other wildlife having been recorded there. The present Checklist includes vascular plant species within the Reserve and within the 50 m protected buffer zone surrounding it on the western side along University lands.

The current Vascular Plant Checklist for the UCNRS San Joaquin Marsh Reserve is based upon Bowler and Wolf (1993), with many additions since the original Checklist was published a decade ago. Checklists are works in progress, and subject to change as taxa invade, are discovered, are purposely introduced, or disappear from a site. Taxa introduced deliberately as part of coastal sage scrub restoration in the buffer zone between the Marsh Reserve and North (UCI) Campus development include *Chlorogalum pomeridianum* (Bowler, 1999), *Dudleya lanceolata*, *D. multicaulis*, *D. pulverulenta*, *Eriogonum cinereum*, *Eriogonum elongatum*, *Eriogonum*

fasciculatum, *Ceanothus megacarpus*, *Rhus integrifolia*, *Leymus condensatus*, *Malosma laurina*, *Mimulus aurantiacus*, *Mirabilis laevis*, *Cylindropuntia prolifera*, *Opuntia littoralis*, *Heteromeles arbutifolia*, *Salvia mellifera*, *Sisyrinchium bellum*, and *Isomeris arborea*. *Rosa californica* obtained from Laguna Canyon was introduced at the gate between the Reserve and UCI Arboretum, and it is now established in the buffer zone at that location, as well as having been introduced elsewhere in the Reserve. *Platanus racemosa*, *Populus fremontii*, and *Quercus agrifolia* have been planted both at the edge of the Marsh and in the buffer zone. In 1998, two vernal pools were created along the edge of the marsh, and these were inoculated with mud from pools on the main UCI campus that included, among others, the following taxa new to the marsh flora: *Psilocarphus brevissimus*, *Plagiobothrys acanthicarpus*, *Juncus bufonius*, *Lythrum hyssopifolium*, *Lythrum tribracteatum*, *Plantago elongata*, *Veronica peregrina* ssp. *xalapensis*, and *Eleocharis macrostachya*. Five additional pools were established during November 2002, using the same inoculum. In both cases, the source material was from the University of California, Irvine main campus, or other local sites. In addition to the vernal pool flora, the Riverside fairy shrimp, *Branchinecta lindahlia* (Packard), was successfully established in them. Adrian Wolf found *Atriplex coulteri*, the rare native Coulter's saltbush, on the UCI Landfill that abuts the Reserve. It is included in the Checklist because it may have been found within the buffer zone that includes part of the landfill. This rare species is on the California Native Plant Society's 1B list, "species that are rare throughout their range and occur primarily within California (Roberts 1998). *Centromadia parryi* ssp. *australis*, southern tarplant, reported from the Marsh in the initial checklist, is a special concern taxon tracked by the California Natural Diversity Data Base. *Juncus balticus*, the native wire rush, *Ludwigia peploides*, yellow waterweed, *Cyperus odoratus*, fragrant umbrella-sedge, *Pentagramma triangularis*, silverback fern, *Lemna minuta* (overlooked but in IRVC), *Chaemaesyce albomarginata* (also overlooked but in IRVC), *Asclepias fascicularis*, the narrow-leaf milkweed, *Pectocarya linearis* ssp. *ferocula*, slender Pectocarya, *Cardamine oligosperma*, few-seeded bittercress, *Opuntia X occidentalis*, western prickly pear, *Daucus pusillus*, rattlesnake weed, *Datura stramonium*, Jimson weed, *Cuscuta californica*, *Cuscuta subinclusa*, and *Lepidium lasiocarpum* were also added to the list. Since 1993, the European garland or crown daisy, *Chrysanthemum coronarium*, has established a large stand along San Diego Creek in the Reserve, and has some presence on the adjacent dikes in the Marsh. Other exotics added to the list are *Urtica urens*, the Old World dwarf nettle, *Oxalis pes-caprae*, Bermuda buttercup, *Chenopodium glaucum*, glaucous leaved saltbush, *Erodium botrys*, long-beaked filaree, *Marrubium vulgare*, common horehound, *Cotula australis*, Australian brass-buttons, *Melilotus officinalis*, yellow sweet-clover, *Malva sylvestris*, high mallow, *Callistemon citrinus*, bottlebrush, *Schinus terebinthifolius*, Brazilian pepper tree, *Gnaphalium luteo-album*, weedy cudweed, *Bellis perennis*, English daisy, *Avena sativa*, cultivated oat, *Lobularia maritima*, sweet-alyssum, *Washingtonia robusta*, Mexican fan palm, *Phoenix dactylifera*, date palm, *Eucalyptus citriodora*, *Callistemon citrinus*, lemon bottle brush, *Diospyros lycioides*, *Atriplex suberecta*, halberd-leaved saltbush, *Phalaris canariensis*, canary grass, *Lamarckia aurea*, goldentop, and *Lycopersicon esculentum*, the South American tomato. See Bowler and Wolf (1994) for a discussion of invasive plants in the Reserve.

In a September, 2002 survey of the Irvine Ranch Water District (IRWD) mitigation areas across Campus Drive from the UCNRS San Joaquin Marsh Reserve, Tara Schoenwetter recorded a number of taxa not yet occurring the Reserve. Because of their establishment in a site adjacent the Reserve, I have listed them as likely invaders in the Checklist with the location identified as IRWD. The IRWD taxa include the natives *Chenopodium berlandieri*, pitseed goosefoot, *Salix laevigata*, red willow, and *Paspalum distichum*, knot grass, and the exotics are *Lepidium draba*, the Eurasian heart-podded hoary-cress, *Chamaesyce serpens*, the South American annual rattlesnake spurge, *Chamaesyce maculata*, spotted spurge from the eastern U.S., *Oenothera speciosa*, showy-evening primrose from the central US and Mexico, *Epilobium* sp., *Rumex conglomeratus*, whorled dock from Europe, *Polygonum persicaria*, lady's-thumb from Europe, *Plantago major*, common

plantain from Europe, *Pennisetum clandestinum*, Kikuyu grass, and *Lepidium latifolium*, the Eurasian broad-leaved peppergrass that has recently invaded the Irvine Ranch Water District's property across Campus Drive. *Lepidium latifolium* is the primary species of concern for the Reserve, since the other exotics are already ubiquitous in Orange County. It is hoped that exotics such as *Acacia*, *Eucalyptus*, *Myoporum*, *Phoenix*, *Washingtonia*, *Celtis*, *Schinus*, *Callistemon*, and *Disospyros* will be eliminated from the Reserve, and an on-going aggressive eradication effort is being conducted upon tamarisk, fennel, poison hemlock, artichoke, star thistle, castor bean, giant reed, and black mustard. Taxa will continue to be added to the Checklist as they are discovered on the Reserve.

Including 31 species deliberately introduced for restoration or habitat enhancement purposes, the vascular plant flora consists of one Pteridophyte and 188 species in 46 families of dicotyledones, and 54 species in 9 families of monocotyledones. Of the total 242 species in the Reserve and buffer zone, 114 (47%) are non-native. Nine non-native and three native species apparently not in Reserve occur on adjacent IRWD property. The numbers of native and non-native taxa in the ten largest families are presented in Table 1, the genera and species numbers in the Reserve with their counterparts in the Orange County flora appear in Table 2, and the number of native and non-native species in each family occurring on the Reserve comprise Table 3.

Table 1. The number of species in the ten largest families in Orange County (Roberts 1998) compared with those same families as represented in the UC Natural Reserve System's San Joaquin Marsh Reserve. The last column entry for a family indicates the current flora including deliberate restoration introductions.

Family	Orange County species (native; non-native)	San Joaquin Marsh Reserve species (native; non-native)	including restoration introductions
Asteraceae	186 (121; 65)	53 (32; 21)	54 (33; 21)
Poaceae	124 (50; 74)	30 (4; 26)	31 (5; 25)
Fabaceae	84 (49; 35)	6 (1; 5)	
Brassicaceae	47 (22; 25)	13 (4; 9)	
Chenopodiaceae	41 (26; 15)	16 (7; 9)	
Cyperaceae	34 (31; 3)	8 (8; 0)	10 (10; 0)
Scrophulariaceae	38 (29; 9)	1 (0; 1)	3 (2; 1)
Polygonaceae	32 (25; 7)	4 (2; 2)	7 (5; 2)
Apiaceae	30 (22; 8)	5 (2; 3)	
Onagraceae	28 (24; 4)	1 (1; 0)	

Table 2. A summary of the Angiosperm flora of Orange County (OC) (adapted from Roberts 1998) and the UCNRS San Joaquin Marsh Reserve. The Marsh figures in brackets represent the introduced restoration taxa added into the broader flora.

	Genera		Species (all)		native		non- native	
	OC	Marsh	OC	Marsh	OC	Marsh	OC	Marsh
Angios.	528	144[165]	1,156	204[236]	773	97[128]	383	112[114]
Dicots	426	112[130]	927	162[188]	634	79[103]	293	83[85]
Monocots	102	35[36]	229	49[54]	139	20[25]	90	29

Table 3. The families of Angiosperms and their native and non-native representatives in the UCNRS San Joaquin Marsh Reserve. The first three columns following the family are the flora not reflecting deliberate restoration (RI) or vernal pool creation (VPI) introductions. The final column on the right indicates the current flora, including them.

GROUP Family	Flora Totals (without introductions) species (native; non-native)	Introductions	Flora Totals (with introductions) species (native; non-native)
DICOTS			
Adoxaceae	1 (1;0)		
Aizoaceae	4 (1; 3)		
Amaranthaceae	3 (1; 2)		
Anacardiaceae	3 (1; 2)	RI 2 native	5 (3; 2)
Apiaceae	5 (2; 3)		
Asclepiadaceae	1 (1; 0)		
Asteraceae	53 (32; 21)	VPI 1 native	54 (33; 21)
Boraginaceae	3 (3; 0)	VPI 1 native	4 (4; 0)
Brassicaceae	13 (4; 9)		

Cactaceae	1 (1; 0)	RI 2 native	3 (3; 0)
Capperaceae	0 (0; 0)	RI 1 native	1 (1; 0)
Caryophyllaceae	3 (1; 2)		
Chenopodiaceae	16 (7; 9)		
Convolvulaceae	3 (2; 1)		
Crassulaceae	1 (1; 0)	RI 3 native	4 (4; 0)
Cucurbitaceae	1 (1; 0)		
Cuscutaceae	3 (3; 0)		
Ebenaceae	1 (0; 1)		
Euphorbiaceae	5 (3; 2)		
Fabaceae	6 (1; 5)		
Fagaceae	0 (0; 0)	RI 1 native	1 (1; 0)
Frankeniaceae	1 (1; 0)		
Geraniaceae	3 (0; 3)		
Lamiaceae	2 (0; 2)	RI 1 native	3 (1; 2)
Linaceae	1 (0; 1)		
Lythraceae	0 (0; 0)	VPI 2 non-native	2 (0; 2)
Malvaceae	4 (1; 3)		
Myoporaceae	1 (0; 1)		
Myrtaceae	2 (0; 2)		
Nyctaginaceae	0 (0; 0)	RI 1 native	1 (1; 0)
Onagraceae	1 (1; 0)		
Oxalidaceae	1 (0; 1)		
Plantaginaceae	1 (1; 0)	VPI 1 native	2 (2; 0)
Platanaceae	0 (0; 0)	RI 1 native	1 (1; 0)
Polygonaceae	4 (2; 2)	RI 3 native	7 (5; 2)
Portulacaceae	1 (0; 1)		
Primulaceae	1 (0; 1)		
Rhamnaceae	0 (0; 0)	RI 1 native	1 (1; 0)
Rosaceae	0 (0; 0)	RI 2 native	2 (2; 0)
Rubiaceae	1 (0; 1)		
Salicaceae	3 (3; 0)	RI 1 native	4 (4; 0)
Saururaceae	1 (1; 0)		
Scrophulariaceae	1 (0; 1)	VPI/RI 2 native	3 (2; 1)
Solanaceae	8 (5; 3)		
Tamaricaceae	1 (0; 1)		
Urticaceae	2 (1; 1)		
MONOCOTS			
Arecaceae	3 (0; 3)		
Cyperaceae	8 (8; 0)	VPI 1 native	9 (9; 0)
Iridaceae	0 (0; 0)	RI 1 native	1 (1; 0)
Juncaceae	1 (1; 0)	VPI 1 native	2 (2; 0)
Lemnaceae	1 (1; 0)		
Liliaceae	3 (2; 1)	RI 1 native	4 (3; 1)
Poaceae	30 (4; 26)	RI 1 native	31 (5; 25)
Potamogetonaceae	1 (1; 0)		
Typhaceae	3 (3; 0)		

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The Vascular Plant Checklist for the University of California Natural Reserve System's San Joaquin Freshwater Marsh Reserve

PTERIDOPHYTA — Ferns and Fern-Allies and ANTHOPHYTA — Flowering Plants

The following symbols are used to indicate in which habitat most species might be anticipated to occur: W = wet, standing water; M = moist, saturated soils; I = intermediate; D = dry, water may be limiting. There are undoubtedly overlaps in areas of occurrence. WI = National Wetlands Indicator Species (Reed 1988a, 1988b; Bowler, Wolf and Bradley 1995). The symbol + indicates that a voucher collection of the species from the UCNRS San Joaquin Freshwater Marsh Reserve is in the UCI Herbarium (IRVC) curated by the UCI Arboretum. RI appearing before a scientific name = a deliberate introduction for restoration or habitat enhancement purposes. VPI appearing before a scientific name indicates a deliberate introduction in created vernal pools adjacent the Marsh. IRWD appearing before a scientific name = a species not yet recorded from the Reserve that occurs on adjacent IRWD property. Flowering times are primarily taken from Munz (1968) and scientific nomenclature follows the Jepson Manual (Hickman 1993), except where superseded names are given in the Jepson Online Interchange [updated by the Editor].

PTERIDOPHYTA — FERNS AND FERN-ALLIES

Pteridaceae — Brake Family

<i>Pentagramma triangularis</i> (Kaulfuss) Yatskievych, Windham & Wollenweber	D
Silverback Fern	

ANTHOPHYTA — FLOWERING PLANTS

DICOTYLEDONES — DICOTS

Adoxaceae — Honeysuckle Family

<i>Sambucus mexicana</i> C. Presl	+, WI	Spring-Fall	I, D
Blue Elderberry			

Aizoaceae — Fig-Marigold or Carpet-Weed Family

* <i>Malephora crocea</i> (Jacq.) Schwantes			
Croceum Ice Plant	S Africa	Summer	D
* <i>Mesembryanthemum crystallinum</i> L.	+		
Crystalline Ice Plant	S Africa	Mar-Oct	D

* <i>Mesembrythemum nodiflorum</i> L.	+		
Slender-leaved Ice Plant	S Africa	Apr-Nov	D
<i>Sesuvium verrucosum</i> Raf.	+, WI		
Western Sea-Purslane		Apr-Nov	D

Amaranthaceae — Amaranth Family

* <i>Amaranthus albus</i> L.	+, WI		
Tumbleweed	Trop. Am.	May-Oct	D
<i>Amaranthus blitoides</i> S. Watson	+, WI		
Prostrate Pigweed	Europe	May-Nov	D
* <i>Amaranthus retroflexus</i> L.	WI		
Rough Pigweed	Trop. Am.	Jun-Nov	I, D

Anacardiaceae — Cashew or Sumac Family

<i>Rhus integrifolia</i> (Nuttall) Brewer & S. Watson	+, RI		
Lemonade berry		Feb-May	I, D
<i>Malosma laurina</i> (Nuttall) Abrams	+, RI		
Laurel sumac		Jun-Jul	I, D
* <i>Schinus terebinthifolius</i> Raddi	+		
Brazilian peppertree			I
<i>Toxicodendron diversilobum</i> (Torrey & A. Gray) E. Greene			+
Western Poison-Oak		Apr-May	I, D

Apiaceae (Umbelliferae) — Carrot Family

* <i>Apium graveolens</i> L.	+, WI		
Celery	Eurasia	May-Jul	M, I
<i>Apiastrum angustifolium</i> Nuttall			
Mock Parsley		Mar-Apr	D
* <i>Conium maculatum</i> L.	+, WI		
Poison-Hemlock	Europe	Apr-Sep	M, I
<i>Daucus pusillus</i> Michaux	+		
Rattlesnake Weed		Feb-Apr	D
* <i>Foeniculum vulgare</i> Miller	+, WI		
Fennel	Europe	May-Sep	M, I

Asclepiadaceae — Milkweed Family

<i>Asclepias fascicularis</i> Decne.	WI		
Narrow-leaf Milkweed		Apr-Jun	I, D

Asteraceae (Compositae) — Sunflower Family

* <i>Acroptilon repens</i> (L.) DC.	+		
Russian Knapweed	Europe	May-Sep	M
<i>Ambrosia acanthicarpa</i> Hook.	+		
Annual Bur-sage		Aug-Nov	M, I, D
<i>Ambrosia psilostachya</i> DC.	+, WI		
Western Ragweed		Jul-Nov	I, D

* <i>Anthemis cotula</i> L.	+, WI		
Dog-fennel, Mayweed	Europe	Apr-Sep	M, I, D
<i>Artemisia biennis</i> Willd.	+, WI		
Biennial Sagewort		Aug-Oct	I
<i>Artemisia californica</i> Lessing	+		
Coastal Sagebrush		Aug-Dec	D
<i>Artemisia douglasiana</i> Besser	+, WI		
Mugwort		Jun-Oct	I
<i>Artemisia dracunculus</i> L.	+		
Dragon Sagewort, Tarragon		Aug-Oct	I, D
<i>Symphotrichum divaricatum</i> (Nutt.) G.L. Nesom			
[<= <i>Aster subulatus</i> Michaux var. <i>ligulatus</i> Shinners]	+, WI		
Slender Aster		Jul-Oct	I, D
<i>Baccharis emoryi</i> A. Gray.	+, WI		
Emory's Baccharis		Aug-Dec	M, I
<i>Baccharis pilularis</i> DC.	+		
Coyote Bush, Chaparral Broom		Aug-Dec	M, I
<i>Baccharis salicifolia</i> (Ruiz Lopez & Pavon) Pers.	+, WI		
Mule Fat		Mar-Jun	W, M, I, D
* <i>Bellis perennis</i> L.	+		
English Daisy	Europe	Early spring	W, M
* <i>Centaurea melitensis</i> L.	+		
Tocalote	Europe	May-Jun	M, I, D
<i>Centromadia parryi</i> E. Greene ssp. <i>australis</i> (Keck) Baldwin			
[<= <i>Hemizonia parryi</i> E. Greene ssp. <i>australis</i> Keck]	+		
Southern Tarplant		June-Sep	I, D
<i>Chamomilla suaveolens</i> (Pursh.) Rydb.	+, WI		
Common Pineapple Weed		May-Aug	I, D
* <i>Chrysanthemum coronarium</i> Linn.	+		
Garland or Crown Daisy	Europe	May-Jul	I
* <i>Cirsium vulgare</i> (Savi) Ten.	+, WI		
Bull Thistle	Europe	Jun-Sep	I
* <i>Conyza bonariensis</i> (L.) Cronq.	+		
Flax-Leaved Horseweed	S Am.	Jun-Sep	D
<i>Conyza canadensis</i> (L.) Cronq.			
Horseweed		Jun-Sep	I, D
<i>Conyza coulteri</i> A.Gray var. <i>virgata</i> (Benth.) Gray		WI	
Coulter's Horseweed		Jun-Sept	M, I, D
<i>Corethrogyne filaginifolia</i> (Hooker & Arnott) Nutt. [<= <i>Lessingia</i> f. M. A. Lane var. <i>f.</i>]			
Virgate Cudweed Aster		Jul-Oct	I, D
* <i>Cotula australis</i> (Sieber) Hook. f.	+		
Australian Brass-Buttons	Australia	Mar-May	D
* <i>Cotula coronopifolia</i> L.	+, WI		
African Brass-Buttons	S Africa	Feb-Jul	M, I
* <i>Cynara cardunculus</i> L.	+		
Cardoon, Globe Artichoke	Medit.	May-Jul	I, D
<i>Eclipta prostrata</i> (L.) L.			
False Daisy		All mo.	M
<i>Ericameria palmeri</i> (A. Gray) H.M. Hall	+		
Goldenbush		Aug-Dec	D

<i>Euthamia occidentalis</i> Nuttall	+, WI		
Western Goldenrod		Jul-Nov	M
<i>Filago californica</i> Nutt.	+		
California Filago, Fluffweed		Mar-Jun	I
<i>Gnaphalium californiacum</i> DC.	+		
California Everlasting		Jan-Jul	I, D
<i>Gnaphalium canescens</i> DC.			
ssp. <i>microcephalum</i> (Nuttall) Stebbins & Keil	+		
White Everlasting		Jul-Oct	I
* <i>Gnaphalium luteo-album</i> L.	+		
Weedy Cudweed	Eurasia	Apr-Jul	D
<i>Gnaphalium palustre</i> Nutt.	WI		
Lowland Cudweed		May-Oct	M
<i>Grindelia camporum</i> E. Greene			
var. <i>bracteosum</i> (J. Howell) M.A. Lane	+, WI		
Big Gumplant		Mar-Sep	M, I, D
<i>Helianthus annuus</i> L.	+, WI		
Western Sunflower		Feb-Oct	M, I
<i>Hemizonia fasciculata</i> (DC.) Torr. & A. Gray	+		
Fascicled Tarweed		May-Sep	I, D
<i>Heterotheca grandiflora</i> Nutt.	+		
Telegraph Weed		Jan-Dec	I, D
<i>Heterotheca sessiliflora</i> (Nutt.) Shinn. ssp. <i>echioides</i> (Benth.) Semple			
Goldenaster		Jul-Nov	I, D
* <i>Hypochaeris glabra</i> L.	+		
Smooth Cat's-Ear	Europe	Apr-Jun	I, D
<i>Isocoma menziesii</i> (Hook. & Arn.) G. Nesom			
var. <i>vernonioides</i> (Nutt.) G. Nesom	+, WI		
Coastal Goldenbush		Apr-Dec	D
* <i>Lactuca serriola</i> L.	+, WI		
Prickly or Wild Lettuce	Europe	May-Sep	M, I, D
* <i>Picris echioides</i> L.	+, WI		
Bristly Ox-Tongue	Europe	Jun-Dec	M, I
<i>Pluchea odorata</i> (L.) Cass.	+, WI		
Salt Marsh-Fleabane		Jul-Nov	M, I
<i>Psilocarphus brevissimus</i> Nutt. var. <i>brevissimus</i>		+, VPI, WI	
Dwarf Woolly Heads		Apr-May	VP
* <i>Pulicaria paludosa</i> Link	+		
Spanish Sunflower	Europe	Aug-Sep	M
* <i>Senecio vulgaris</i> L.	+, WI		
Common Groundsel	Eurasia	Spring-Summer	I, D
* <i>Silybum marianum</i> (L.) Gaertner	+		
Milk Thistle	Medit.	May-Jul	I
* <i>Soliva sessilis</i> Ruiz Lopez & Pavon		+	
Coast Soliva	S Am.	Apr-Jul	M
* <i>Sonchus asper</i> (L.) Hill.	+, WI		
Prickly Sow Thistle	Europe	Most mos.	M, I
* <i>Sonchus oleraceus</i> L.	+, WI		
Common Sow Thistle	Europe	Most mos.	M, I
* <i>Sonchus tenerrimus</i> L.	WI		
Slender Sow Thistle		Apr-Jul	?

Stebbinsoseris heterocarpa (Nutt.) Chambers

Derived Stebbinsoseris	+	Apr-May	M, I, D
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Stephanomeria virgata Benth.

Tall Wreath-Plant		Jul-Oct	I, D
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Xanthium strumarium L.

Cocklebur	+, WI	Jun-Oct	M
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Boraginaceae — Borage Family*Amsinckia menziesii* (Lehm.) A. Nelson & J.F. Macbr.

var. <i>intermedia</i> (Fischer & C. Meyer) Ganders	+		
Rancher's Fireweed		Feb-May	I, D

Heliotropium curassavicum L. +, WI

Salt or Alkali Heliotrope		Mar-Oct	I, D
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Plagiobothrys acanthicarpus (Piper) I.M. Johnston

Adobe Popcorn Flower		WI, VPI	
		Mar	I, M

Pectocarya linearis (R. & P.) DC. ssp. *ferocula* (Jtn.) Thorne +

Slender Pectocarya		Feb-Apr	D
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Brassicaceae (Cruciferae) — Mustard Family**Brassica nigra* (L.) Koch

Black Mustard	Europe	Apr-Jul	I
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**Brassica rapa* L.

Field Mustard	Europe	May-Oct	I
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Cardamine oligosperma Torrey & A. Gray

Few-Seeded Bittergrass		+, WI	
		Mar-Jul	D

**Hirschfeldia incana* (L.) Lagr.-Fossat

Shortpod/Summer Mustard	Medit. Basin	May-Oct	I
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**Lepidium didymum* L. [\leq *Coronopus didymus* (L.) Sm.]

Lesser wart-cress	Eurasia	Feb-Apr	D
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**Lepidium draba* L. ssp. *draba* [\leq *Cardaria draba* (L.) Desv.] IRWD

Heart-podded Hoary Cress	Eurasia	Mar-May	D, M, I
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**Lepidium latifolium* L. IRWD

Broad-leaved Peppergrass	Eurasia	May-Sep	I, M
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Lepidium lasiocarpum Torrey & A. Gray +

Sand Peppergrass		Feb-May	D
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Lepidium nitidum Torrey & A. Gray +

Shining Peppergrass		Feb-May	I
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Lepidium virginicum L. var. *pubescens* (E. Greene) Thell.

Wild Peppergrass		Mar-Aug	+, WI
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**Lobularia maritima* (L.) Desv.

Sweet-Alyssum	+		
	Medit.	Spring-Fall	I, D

**Raphanus sativus* L.

Wild Radish	+		
	Medit.	Feb-Jul	I

**Sisymbrium irio* L.

London Rocket	+		
	Europe	Feb-May	M, I, D

Cactaceae — Cactus Family

<i>Cylindropuntia prolifera</i> (Engelm.) F.M. Knuth [\leq <i>Opuntia p.</i> Engelm.]			+, RI
Coastal Cholla		Late spring	D
<i>Opuntia littoralis</i> (Engelm.) Cockerell	+, RI		
Coastal Prickly Pear		May-Jun	I, D
<i>Opuntia X occidentalis</i> Engelm.	+		
Western Prickly-Pear		May-Jul	D

Capparaceae — Caper Family

<i>Isomeris arborea</i> Nutt.	+, RI		
Bladderpod		All year	D

Caryophyllaceae — Pink Family

<i>Spergularia marina</i> (L.) Griseb.	+, WI		
Salt-marsh Sand Spurry		Mar-Sep	I, D
* <i>Spergularia villosa</i> (Pers.) Cambess.			
Villous Sand Spurry	S Am.	Apr-Jul	I, D
* <i>Spergularia cf. rubra</i> (L.) J.S. Presl & C. Presl	+		
Red Sand Spurry	Europe	Summer	I, D

Chenopodiaceae — Goosefoot Family

<i>Atriplex canescens</i> (Pursh) Nutt.	+, WI		
Fourwing Saltbush; Shadscale		May-Jul	D
<i>Atriplex coulteri</i> (Moq.) D. Dietr.	WI		
Coulter's Saltbush		Mar-Oct	D
<i>Atriplex lentiformis</i> (Torrey) S. Watson ssp. <i>lentiformis</i>			+, WI
Big Saltbrush		May-Aug	S
* <i>Atriplex rosea</i> L.	+, WI		
Tumbling Oracle	Eurasia	Jul-Oct	I, D
* <i>Atriplex semibaccata</i> R.Br.	+, WI		
Australian Saltbush	Australia	Apr-Dec	M, I, D
* <i>Atriplex suberecta</i> I. Verd.	+		
Halberd-leaved Saltbrush	Australia	Mar-Jul	M
<i>Atriplex triangularis</i> Willd.	+, WI		
Halberd-leaved Saltbrush		Jun-Nov	M
* <i>Bassia hyssopifolia</i> (Pallas) Kuntze	+, WI		
Five-hook Bassia	Eurasia	Jul-Oct	I, D
* <i>Beta vulgaris</i> L.	+, WI		
Beet	Europe	Jul-Oct	M, I
* <i>Chenopodium album</i> L.	+, WI		
Lamb's Quarters; Pigweed	Europe	Spring-Summer	M, I
* <i>Chenopodium ambrosioides</i> L.	+, WI		
Mexican Tea	Trop. Am.	Jun-Oct	I
<i>Chenopodium berlandieri</i> Moq.	IRWD		
Pitseed Goosefoot		Mar-Sept	I, D

* <i>Chenopodium glaucum</i> L.	+		
	Eurasia	Spring?	I
* <i>Chenopodium murale</i> L.	+, WI		
Nettle-leaved Goosefoot	Europe	Mar-Jul	I
<i>Salicornia virginica</i> L.	+, WI		
Common Woody Pickleweed		Aug-Nov	M
* <i>Salsola tragus</i> L.	+		
Russian Thistle	Eurasia	Jul-Oct	I, D
<i>Sueda esteroa</i> W. Ferren & S. Whitmore			
Estuary Sea-Blite		Jul-Oct	I

Convolvulaceae — Morning-Glory Family

<i>Calystegia sepium</i> (L.) R.Br.	+, WI		
Hedge Bindweed		Spr-Sum	D
* <i>Convolvulus arvensis</i> L.	+		
Orchard Morning-Glory	Europe	May-Oct	I, D
<i>Cressa truxillensis</i> Kunth	+, WI		
Alkali Weed		May-Oct	I

Crassulaceae — Stonecrop Family

<i>Crassula connata</i> (Ruiz Lopez & Pavon) A. Berger	+, WI		
Pygmy Stonecrop		Feb-May	I, D
<i>Dudleya lanceolata</i> (Nutt.) Britton & Rose	+, RI		
Lance-leaf Dudleya		Spring	D
<i>Dudleya multicaulis</i> (Rose) Moran	+, RI		
Many-Stemmed Dudleya		Late Spring	D
<i>Dudleya pulverulenta</i> (Nutt.) Britton & Rose	+, RI		
Chalky Live-forever		Early Summer	D

Cucurbitaceae — Gourd Family

<i>Cucurbita foetidissima</i> Kunth.	+		
Calabazilla; Stinking Gourd		Jun-Oct	I, D

Cuscutaceae — Dodder Family

<i>Cuscuta salina</i> Engelm.			
Pickleweed Dodder		Jul-Nov	M, I
<i>Cuscuta californica</i> Durand & Hilg.			
Dodder		May-Jul	I, D
<i>Cuscuta subinclusa</i> Durand & Hilg.	+		
Dodder		May-Jul	W, M, I

Ebenaceae — Ebony Family

* <i>Diospyros lycioides</i> Desf.	+		
	S. Africa	Mar-Aug	I, D

Euphorbiaceae — Spurge Family

<i>Chamaesyce albomarginatus</i> (Torrey & A. Gray) Small			+
Rattlesnake Spurge		Spring-Summer	D
* <i>Chamaesyce maculata</i>	IRWD		
Spotted Spurge	E USA	Spring-Summer	I, D
* <i>Chamaesyce prostrata</i> (Aiton) Small			
Prostrate Euphorbia	S Am.	Aug-Sep	D
* <i>Chamaesyce serpens</i> (Kunth) Small	IRWD		
Annual Rattlesnake Spurge	S Am.	Spr-Summer	D, I
<i>Chamaesyce serpyllifolia</i> (Pers.) Small			
var. <i>hirtula</i> (S. Watson) Koutnik			
Thyme-Leaved Spurge		Aug-Oct	D
<i>Croton setigerus</i> Muell. Arg. [\leq <i>Eremocarpus</i> s. (Hook.) Benth.]			+
Dove Weed		May-Oct	I, D
* <i>Ricinus communis</i> L.	+, WI		
Castor-bean	Europe	Most mos.	I

Fabaceae (Leguminosae) — Legume Family

* <i>Acacia longifolia</i> (Andrews) Willd.	+		
Sydney Golden; Golden Wattle	Australia	Spring	D
<i>Lotus scoparius</i> (Nutt.) Ottley	+		
Coastal Deerweed; CA Broom		Mar-Aug	I
* <i>Medicago polymorpha</i> L.	+		
California Burclover	Medit.	Mar-Jun	I
* <i>Melilotus albus</i> Medikus	+, WI		
White Sweetclover	Eurasia	May-Sep	M, I
* <i>Melilotus indica</i> (L.) All.	+, WI		
Yellow Sweetclover	Medit.	Apr-Oct	M, I
* <i>Melilotus officinalis</i> (L.) Pall.	+		
Sweetclover			

Fagaceae — Oak Family

<i>Quercus agrifolia</i> Nee var. <i>agrifolia</i>	+, RI		
Coast Live Oak; Encina		Spring	I, D

Frankeniaceae — Frankenia Family

<i>Frankenia salina</i> (Molina) I.M. Johnston	+, WI		
Alkali Heath		Jun-Oct	M

Geraniaceae — Geranium Family

* <i>Erodium botrys</i> (Cav.) Bertol.	+		
Long-Beaked Filaree		Feb-May	D
* <i>Erodium cicutarium</i> (L.) L'Her.	+		
Red-Stemmed Filaree	Eurasia	Feb-May	I, D
* <i>Erodium moschatum</i> (L.) L'Her.	+		
White-Stemmed Filaree	Europe	Feb-May	I

Lamiaceae (Labiatae) — Mint Family

* <i>Lamium amplexicaule</i> L.			
Dead Nettle	Eurasia	Apr-Sep	D
* <i>Marrubium vulgare</i> L.	+ , WI		
Common Horehound	Europe	Spr-Sum	I
<i>Salvia mellifera</i> E. Greene	+ , RI		
Black Sage		Spring	D

Linaceae — Flax Family

* <i>Linum usitatissimum</i> L.	+		
Common Flax	Europe	Apr-May	D

Lythraceae — Loosestrife Family

* <i>Lythrum hyssopifolium</i> L.	WI, VPI		
Hyssop Loosestrife	Europe	(Spring-early summer)	VP
* <i>Lythrum tribracteatum</i> Sprengel			
Three-bracted Loosestrife	Europe	(Spring-early summer)	VP

Malvaceae — Mallow Family

* <i>Abutilon theophrasti</i> Medikus	+ , WI		
Velvet Leaf	S Asia	Jul-Aug	?
* <i>Malva parviflora</i> L.	+		
Cheeseweed	Eurasia	Most mos.	M
* <i>Malva sylvestris</i> L.	+		
High mallow	Europe	Spring	M, I, D
<i>Malvella leprosa</i> (Ortega) Krapov.	+		
Alkali-Mallow; Whiteweed		May-Oct	M, I

Myoporaceae — Myoporum Family

* <i>Myoporum laetum</i> Forster f.	+		
Myoporum	NZ	Spring	M

Myrtaceae — Myrtle Family

* <i>Callistemon citrinus</i> (Curtis) Skeels	+		
Lemon Bottlebrush	Australia	Summer	D
* <i>Eucalyptus citriodora</i> Hook.	+		
	Australia	Spring	I, D

Nyctaginaceae — Four O'Clock Family

<i>Mirabilis laevis</i> (Benth.) Curran var. <i>crassifolia</i> (Choisy) Spellenb.			
[<= <i>M. californica</i> A. Gray; <i>M. c.</i> var. <i>c.</i>]	+ , RI		
California Wishbone Bush		Spring	D

Onagraceae — Evening Primrose Family

<i>Epilobium</i> sp.	IRWD, WI	Summer-Fall	I, D
<i>Ludwigia peploides</i> (Kunth) Raven	+, WI		
Yellow Waterweed		Spr-Summer	W
* <i>Oenothera speciosa</i> Nutt.	IRWD		
Showy-white Evening Primrose	c US, Mex.	?	D

Oxalidaceae — Oxalis Family

* <i>Oxalis pes-caprae</i> L.	+		
Bermuda Buttercup	S Africa	Late fall-early summer	D

Plantaginaceae — Plantain Family

<i>Plantago elongata</i> Pursh	VPI, WI		
California alkali plantain		Late Spring	I, D
<i>Plantago erecta</i> E. Morris	+		
California plantain		Spring	D
* <i>Plantago major</i> L.	IRWD, WI		
Common plantain	Europe	Late Spring-Summer?	M, I, D

Platanaceae — Sycamore or Plane Tree Family

<i>Platanus racemosa</i> Nutt.	+, RI, WI		
Western Sycamore		Spring	M, I

Polygonaceae — Buckwheat Family

<i>Eriogonum fasciculatum</i> Benth.	+, RI		
California Buckwheat		Late Spring-Early Fall	D
<i>Eriogonum cinereum</i> Benth.	+, RI		
Gray Coast Buckwheat		Late Spring	D
<i>Eriogonum elongatum</i> Benth.	+, RI		
Long-stemmed Buckwheat		Late Spring	D
* <i>Polygonum arenastrum</i> Boreau	+, WI		
Common Knotweed, Doorweed	Eurasia	May-Nov	I
<i>Polygonum amphibium</i> L. var. <i>emersum</i> Michaux			
Water Smartweed; Kelp		Jul-Sep	W, M
<i>Polygonum lapathifolium</i> L.	WI		
Willow Smartweed		Jun-Oct	M
* <i>Polygonum persicaria</i> L.	IRWD, WI		
Lady's Thumb	Europe	?	M
* <i>Rumex conglomeratus</i> Murr.	IRWD, WI		
Whorled Dock	Europe	Spring-Summer	M
* <i>Rumex crispus</i> L.	+, WI		
Curly Dock	Eurasia	Mar-Jun	I

Portulacaceae — Purslane Family

* <i>Portulaca oleracea</i> L.	WI		
Common Purslane	Europe	May-Sep	S

Primulaceae — Primrose Family

* <i>Anagallis arvensis</i> L.	+, WI		
Scarlet Pimpernel	Europe	Mar-Jul	I

Rhamnaceae — Buckthorn Family

<i>Ceanothus megacarpus</i> Nutt. ssp. <i>megacarpus</i>	+, RI		
Bigpod Lilac	Spring		D

Rosaceae — Rose Family

<i>Heteromeles arbutifolia</i> (Lindley) Roemer	+, RI		
Toyon; Christmas Berry	Jun-Oct		D
<i>Rosa californica</i> Cham. & Schldl.	+, RI, WI		
California Rose	Spring-Summer		M

Rubiaceae — Madder Family

* <i>Galium aparine</i> L.	+, WI		
Comon Bedstraw; Goose Grass	Mar-Jul		M

Salicaceae — Willow Family

<i>Populus fremontii</i> S. Watson ssp. <i>fremontii</i>	+, RI, WI		
Fremont or Alamo Cottonwood	Spring		M, I
<i>Salix exigua</i> Nutt.	+		
Sandbar; Narrow-Leaved Willow	Mar-May		W, M
<i>Salix gooddingii</i> C. Ball	+, WI		
Goodding's Black Willow	Mar-Apr		W, M, S
<i>Salix laevigata</i> Bebb	IRWD		
Red willow	Spring		W, M
<i>Salix lasiolepis</i> Benth.	+, WI		
Arroyo Willow	Feb-Apr		M, I, S

Saururaceae — Lizard Tail Family

<i>Anemopsis californica</i> (Nutt.) Hook. & Arn.	+, WI		
Yerba Mansa	Mar-Sep		W, M

Scrophulariaceae — Figwort Family

<i>Mimulus aurantiacus</i> Curt.	RI		
Bush Monkey Flower		Spring-Late Spring	D
* <i>Veronica anagallis-aquatica</i> L.	+, WI		
Great Water Speedwell	Europe	May-Sep	S
<i>Veronica peregrina</i> L. ssp. <i>xalapensis</i> (Kunth) Pennell			VPI, WI
Purslane sor Mexican speedwell		Spring-Early Summer	I

Solanaceae — Nightshade Family

* <i>Datura stramonium</i> L.	+		
Jimson Weed		Apr-Sept	M, I
<i>Datura wrightii</i> Regel	+		
Jimson Weed		Apr-Oct	M, I, D
<i>Lycium californicum</i> Nutt.	+		
California Box Thorn		Mar-Jul	D
* <i>Lycopersicon esculentum</i> L.			
Tomato	S. and C. Amer.	Spring	M
<i>Nicotiana bigelovii</i> (Torr.) Wats. var. <i>wallacei</i> Gray	+, WI		
Wallace's Tobacco		May-Oct	S
* <i>Nicotiana glauca</i> Grah.	+, WI		
Tree Tobacco	S Am.	Spr-Sum	M, I, D
* <i>Solanum americanum</i> Mill.	+, WI		
White Nightshade		Mar-Sept	I, D, S
<i>Solanum douglasii</i> Dunal in DC.	+, WI		
Douglas' Nightshade		Most mos.	M, I, D, S

Tamaricaceae — Tamarisk Family

* <i>Tamarix chinensis</i> Lour.	+, WI		
Tamarix	SWAsia	Sum	W, M

Urticaceae — Nettle Family

<i>Urtica dioica</i> L. ssp. <i>holosericea</i> (Nutt.) Thorne	+, WI		
Hoary Nettle		Jan-Apr	M, I
* <i>Urtica urens</i> L.	+		
Dwarf Nettle	Europe	Spring	M, I

MONOCOTYLEDONES — MONOCOTS
Arecaceae (Palmae) — Palm Family

* <i>Phoenix canariensis</i> Chabaud			
Canary Island Date Palm	Canary Isl.	?	M
* <i>Phoenix dactylifera</i> L.	+		
Date Palm	N Africa	?	M
* <i>Washingtonia robusta</i> H. Wendl.	+		
Mexican Fan Palm	Baja, Mex.	Early summer	M, I, D

Cyperaceae — Sedge Family

<i>Bolboschoenus maritimus</i> (L.) Palla [\leq <i>Scirpus maritimus</i> L.]			+, WI
Alkali Bulrush		Spring	S
<i>Cyperus eragrostis</i> Lam.	+, WI		
Tall Umbrella-Sedge		May-Nov	W, M
<i>Cyperus esculentus</i> L.	WI		
Yellow Umbrella-Sedge		Jun-Oct	S
<i>Cyperus odoratus</i> L.	WI		
Fragrant Umbrella-Sedge		?	W
<i>Eleocharis macrostachya</i> Britton	VPI, WI		
Creeping Spikerush		Spring	W
<i>Schoenoplectus americanus</i> (Pers.) Volkart ex Schinz & R. Keller [\leq <i>Scirpus a.</i> Pers.]	+, WI		
Olney's Bulrush		Jun-Aug	W, M
<i>Schoenoplectus californicus</i> (C. A. Mey.) Soják [\leq <i>Scirpus c.</i> (C. Meyer) Steudel]			+, WI
California Bulrush		Jun-Sep	W, M, S
<i>Schoenoplectus robustus</i> (Pursh) M. T. Strong [\leq <i>Scirpus r.</i> Pursh]			+, WI
Coastal Bulrush		Apr-Aug	W, M, S

Iridaceae — Iris Family

<i>Sisyrinchium bellum</i> S. Wats.	+, RI		
Blue-Eyed Grass		Spring	D

Juncaceae — Rush Family

<i>Juncus balticus</i> Willd.	+, WI		
Wire Rush		?	M, I
<i>Juncus bufonius</i> L.	VPI, WI		
Toad Rush		Mar-Aug	M

Lemnaceae — Duckweed Family

<i>Lemna minuta</i> Kunth	+, WI		
Duckweed		?	W

Liliaceae — Lily Family

* <i>Asparagus officinalis</i> L.	+, WI		
Garden Asparagus	Europe	Spring	S
<i>Bloomeria crocea</i> (Torrey) Cov.	+		
Common Goldenstars		Apr-Jun	D
<i>Dichelostemma capitatum</i> Alph.	+		
Blue Dicks, Wild Hyacinth		Mar-May	I, D
<i>Chlorogalum pomeridianum</i> (DC.) Kunth	RI, +		
Soap Plant		Apr-Jun	D

Poaceae (Gramineae) — Grass Family

* <i>Arundo donax</i> L.	+, WI		
Giant Reed	Europe	Mar-Sep	M, S
* <i>Avena barbata</i> Link	+		
Slender Wild Oat	Europe	Mar-Jun	S
* <i>Avena fatua</i> L.	+		
Wild Oat	Europe	Apr-Jun	I, D
* <i>Avena sativa</i> L.	+		
Cultivated Oat	Europe	Spring	D
* <i>Bromus diandrus</i> Roth	+		
Common Ripgut Grass	Europe	Mar-Jun	I, D, S
* <i>Bromus hordeaceus</i> L.	+		
Soft Chess	Eurasia	Apr-Jul	I, D, S
* <i>Bromus inermis</i> Leyss.			
Smooth Brome	Europe	May-Aug	I, D
* <i>Bromus madritensis</i> L. ssp. <i>rubens</i> (L.) Husnot	+, WI		
Foxtail Chess	Europe	Mar-Jun	I, D
* <i>Cortaderia selloana</i> (Schultes) Asch. & Graebner			
Pampas Grass	S Am.	Late Summer	M
* <i>Crypsis schoenoides</i> (L.) Lam.	WI		
Swamp Grass	Europe	Jun-Jul	I
* <i>Cynodon dactylon</i> (L.) Pers.	+, WI		
Bermuda Grass		Jun-Aug	M
* <i>Digitaria sanguinalis</i> (L.) Scop.	+, WI		
Crab Grass	Europe	Jun-Sep	S
<i>Distichlis spicata</i> (L.) E. Greene	+, WI		
Coastal Salt Grass		Apr-Jul	M
* <i>Echinochloa colona</i> (L.) Link	+		
Jungle Rice	Eurasia	Jul-Oct	M
* <i>Echinochloa crus-galli</i> (L.) P. Beauv.	+, WI		
Common Barnyard Grass	Eurasia; Africa	Jul-Oct	S
<i>Hordeum brachyantherum</i> Nevski			
ssp. <i>californicum</i> (Covas & Stebb.) Bothmer, N. Jacobsen & O. Seberg			+
California Barley		Apr-Aug	I, D
* <i>Hordeum murinum</i> L. ssp. <i>leporinum</i> (Link) Arcangeli			+
Hare Barley	Europe	Apr-Jun	I, D
* <i>Hordeum vulgare</i> L.			
Cultivated Barley	Europe	Apr-Jul	I, D

* <i>Lamarckia aurea</i> (L.) Moench	+		
Goldentop	Mediterranean	Mar-Apr	D
<i>Leymus condensatus</i> (S. Presl) A. Love	+, RI		
Giant Wild Rye		Spring	D
<i>Leymus triticoides</i> (Buckley) Pilger	+, WI		
Beardless Wild-Rye		Jun-Jul	I, D
<i>Leptochloa uninervia</i> (C. Presl) A. Hitchc. & Chase	+, W		
Dense-flowered Sprangletop		Jul-Oct	I
* <i>Lolium multiflorum</i> Lam.	+		
Italian Ryegrass	Europe	Jun-Aug	I
<i>Nassella pulchra</i> (A. Hitchc.) Barkworth	+		
Purple Needlegrass		Mar-May	I, D
* <i>Paspalum dilatatum</i> Poir.	+, WI		
Dallis Grass	S Am.	May-Nov	M
<i>Paspalum distichum</i> L.	IRWD		
Knot Grass		Late Spring	M
* <i>Pennisetum clandestinum</i> Chiov.	IRWD, WI		
Kikuyu Grass	Africa	Apr-Jun	M, I
* <i>Phalaris minor</i> Retz.	+		
Little Seed Canary Grass	Mediterranean	Apr-Aug	M, I, D
* <i>Phalaris canariensis</i> L.	+		
Canary Grass	Medit. Eur.	Apr-Aug	M, I
* <i>Polypogon monspeliensis</i> (L.) Desf.	+, WI		
Annual Beard Grass	Europe	Apr-Aug	M, I
* <i>Schismus barbatus</i> (L.) Thell.	+		
Mediterranean Schismus	Eurasia; Africa	Mar-Apr	I
* <i>Setaria verticillata</i> (L.) P. Beauv.	+, WI		
Bur Bristlegrass	Europe	May-Sep	?
* <i>Sorghum halepense</i> (L.) Pers.	+, WI		
Johnson Grass	Medit.	Mar-Sep	?
* <i>Vulpia myuros</i> (L.) K.C. Gmelin var. <i>hirsuta</i> (Hackel) Asch. & Graebner			+, WI
Foxtail Fescue	Europe	Mar-Jun	I

Potamogetonaceae — Pondweed Family

<i>Potamogeton pectinatus</i> L.	WI		
Fennel-leaved Pondweed		Apr-Jun	W

Typhaceae — Cattail Family

<i>Typha angustifolia</i> L.	+, WI		
Narrow-Leaved Cattail		Jun-Jul	W, M
<i>Typha domingensis</i> Pers.	WI		
Southern Cattail		Late Spring	W, M
<i>Typha latifolia</i> L.	+, WI		
Broad-Leaved Cattail		Jun-Jul	W, M



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