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Cover:

Photograph: Calystegia macrostegia (probably *C.m.* subsp. *intermedia*), taken 13 May 2010 by Dan Cooper while on Cahuenga Peak, with Burbank and the base of the Verdugo Mountains in the background. Three subspecies of *C. macrostegia* have been collected in Griffith Park, but much remains to be learned about their distribution. Cahuenga Peak is the park’s highest point and the tallest peak in the eastern Santa Monica Mountains. One of the most productive areas of the park for native forbs, it also supports a large population of *Arctostaphylos glandulosa* subsp. *mollis* and *Pickeringia montana* on a high plateau.

FLORA OF GRIFFITH PARK, LOS ANGELES, CALIFORNIA

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ABSTRACT: Covering roughly 17 km² (4,200 acres), Griffith Park represents one of the most significant reserves of natural habitat in the central Los Angeles Basin and the largest contiguous expanse of open space in the eastern Santa Monica Mountains. The study area covers all of Griffith Park and adjacent open space west to State Route 101 and north to State Route 134. Here I provide information on 430 native or naturalized plant taxa reported from Griffith Park, including 326 naturally-occurring natives and 104 naturalized non-natives. Most of these taxa are vouchered with herbarium specimens, and I provide additional lists for unvouchered specimens and those documented only by photographs, as well as vouchered taxa for which there exists some question as to the origin of their occurrence within the park. The species richness of the park flora may be compared to that of the nearby Verdugo Mountains (585 native or naturalized taxa) and the Santa Monica Mountains/Simi Hills (875-1005 taxa). This represents the first full treatment of the native plant species of Griffith Park, and it provides a baseline of diversity for what is arguably the most significant area of open space in the central Los Angeles Basin, informing and encouraging future investigation and documentation of the flora of the Los Angeles area.

KEYWORDS: Griffith Park, Los Angeles, Historical, Extirpation

INTRODUCTION

Study Area

One of the largest municipal parks in the world, Griffith Park covers roughly 17 km² (4,200 acres) at the far eastern end of the Santa Monica Mountains and features rugged canyons, ridges and rocky outcrops. It is situated within the coastal lowlands of the Los Angeles Basin, one of the botanical “black holes” recently identified as being in need of botanical exploration and documentation (Soza et al. 2000). I have defined the Griffith Park study area to extend from Cahuenga Pass, north and east to the edge of the Los Angeles River channel, and south and east to the urban edge of Hollywood/Los Feliz, roughly bounded on the south by Los Feliz Boulevard and Franklin Avenue (Figure 1). This includes the entire park property (City of Los Angeles, Department of Recreation and Parks), Hollywood Reservoir and surrounding open space and utility easements (Los Angeles Department of Water and Power), Forest Lawn Memorial Park, and areas of private property mainly at the northwestern edge of the park.

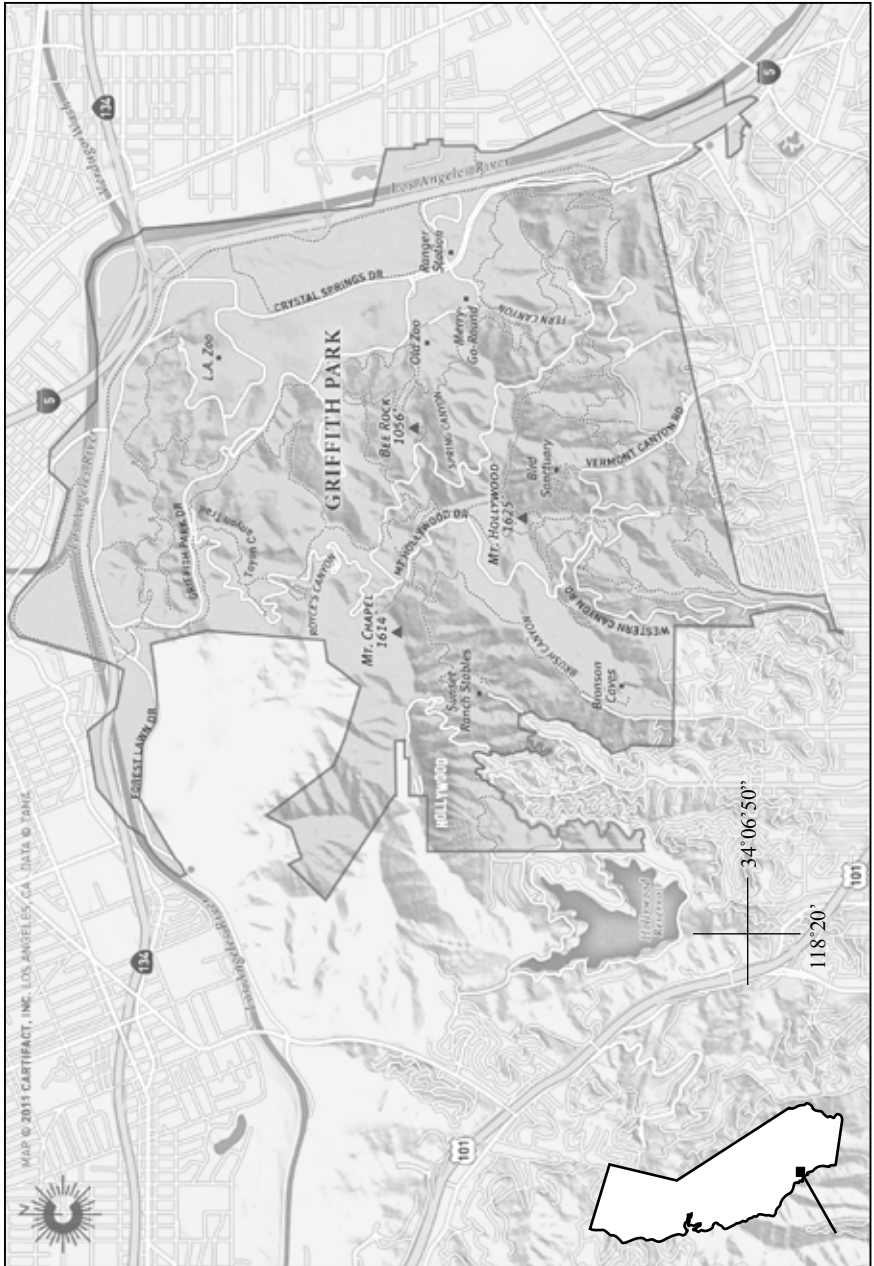


Figure 1: The location and relationship of the Griffith Park study area.

The peaks of Griffith Park include Cahuenga Peak (555 m/1,821'), which is located along a ridge separating the Los Angeles coastal plain from the interior San Fernando Valley and which continues southeast, terminating at the Griffith Observatory just south of Mt. Hollywood (495 m/1,625'). The lowest elevations at the base of the park are just over 120 m. Most of the park's drainage flows to the Los Angeles River and southeast toward Long Beach, but waters in the southwestern corner of the park flow into Ballona Creek, which reaches Santa Monica Bay to the southwest at Playa del Rey. The topography of Griffith Park is steeper on the north flank than the south, with the north and west slopes of Cahuenga Peak and Burbank Peak descending more than 400 meters down to the Los Angeles River in a distance of roughly one kilometer.

The park's geology is complex, with several northwest-trending faults, and includes both sedimentary deposits as well as exposed rock outcrops (Neuerburg 1953). Soil types over much of the park have not been formally mapped or described, but that of the far western area, east to Cahuenga Peak, has been classified as the Topanga-Mipolomol-Sapwi association: "30 to 75% slopes, derived from sandstone, shale and slate; well-drained and non-hydric" (Soil Survey Staff 2016), or more generally, the "Lower, Middle, and Upper Topanga Formations" (SMMNRA 2007). This association is more widespread to the west, starting in the vicinity of Topanga Canyon and is separated from that in the park by much older rock in the vicinity of Sepulveda Pass, including the "Santa Monica Formation" (SMMNRA 2007). Areas of more recent sedimentary shale uplifted from the basin floor dominate the southeastern corner of the park and feature exposed strata of soft, blocky, whitish rock. These sedimentary soils, detrital sediments of the Lindero Canyon, Monterey, and Modelo Formations, extend west across the northern slope of the Santa Monica Mountains well into the San Fernando Valley to the Simi Hills (SMMNRA 2007). Localized but significant areas of non-sedimentary soils include area of igneous rock with granitic outcrops in the Mt. Hollywood/Griffith Observatory area and appear at the far northeastern edge of the park, just above the Los Angeles River plain and east of Forest Lawn Cemetery. Smaller, conglomerate areas of sedimentary breccia are described as being comparatively barren, with a thin cover of soil that supports a sparse chaparral cover (see Figure 9 in Neuerberg 1953). Finally, small areas of coarser alluvial soils and, to a limited extent, sand, are found on former alluvial areas at the base of the park, notably at the extreme northern edge adjacent to the Los Angeles River.

Because the central ridge of the park intercepts cool, moist air coming off the Pacific Ocean most of the year, the southern flank of the park and its peaks tend to stay cooler during hot summer days than the northern and eastern inland flank. The average August high temperature is 26°C (79°F) for West Hollywood, versus 31°C (88°F) for Burbank (U.S. Climate Data 2016). High temperatures

in portions of the eastern Santa Monica Mountains can exceed 37°C (100°F) in late summer and fall, particularly in interior canyons where coastal air flows are blocked (CDFG 2006). During winter this pattern is reversed as the ocean moderates temperature extremes, resulting in higher winter temperatures on the coastal slope. The average low December temperature is 10.5°C (51°F) at West Hollywood, versus 5.0°C (41°F) for Burbank.

Annual precipitation in the Los Angeles Basin averages 15 inches per year but is highly variable, with dry years receiving less than half of this rainfall and wet years receiving nearly double this amount. As with temperature, rainfall patterns are variable even within the park, as rainfall at slightly higher elevations tends to be greater than at the floor of the basin. Annual precipitation ranges from 18 to 22 inches at peaks in the eastern Santa Monica Mountains (CDFG 2006). During spring and early summer, a predictable onshore flow results in an inversion layer, with coastal fog moving inland and remaining through the morning and often all day, obscuring the tops of the park's peaks and central ridge. This may explain the persistence of certain cool-weather plant species at upper elevations in the park, such as manzanita (*Arctostaphylos* sp.) at roughly the level of densest fog (see Vasey et al. 2014; author, pers. obs.).

Natural Communities of Griffith Park

Dozens of vegetation communities have been mapped within Griffith Park and the eastern Santa Monica Mountains (AIS/ESRI 2007). The park's vegetation is strongly dominated by shrubland habitats, notably by expanses of high, dense chaparral. As is the case over much of California, tall, evergreen chaparral and low, deciduous coastal sage scrub habitats in the park are diverse at multiple scales and often often show no single dominant species. The natural plant communities are most intact (i.e., have the fewest non-native species) on higher ridges and on the western flank of the park, which feature a mix of ceanothus (*Ceanothus megacarpus*, *C. spinosus*), chamise (*Adenostoma fasciculatum*), birch-leaf mountain-mahogany (*Cercocarpus betuloides*), sumacs (*Malosma laurina*, *Rhus ovata*, *R. integrifolia*), scrub oak (*Quercus berberidifolia*), black sage (*Salvia mellifera*), toyon (*Heteromeles arbutifolia*), California sagebrush (*Artemisia californica*), California buckwheat (*Eriogonum fasciculatum*), blue elderberry (*Sambucus nigra* subsp. *caerulea*), California sunflower (*Encelia californica*), western poison oak (*Toxicodendron diversilobum*), chaparral mallow (*Malacothamnus fasciculatum*) and sticky monkeyflower (*Mimulus aurantiacus*).

These species vary in abundance based on elevation, slope, aspect, and microclimate; but in general, large and dense chaparral species (e.g., chamise, ceanothus, mountain-mahogany and scrub oak) dominate at highest elevations, with coastal scrub species (e.g., sagebrush, sages, California buckwheat, blue

elderberry, and California sunflower) dominating the lower slopes.

Native woodland associations are relatively uncommon compared to areas of similar elevations in the central and western Santa Monica Mountains and consist largely of just two tree species, southern California black walnut (*Juglans californica*) and coast live oak (*Quercus agrifolia*), with small stands of western sycamore (*Platanus racemosa*) in moister canyons. Riparian communities are very poorly developed and limited to patches of willow, mainly *Salix lasiolepis*, blue elderberry, and mulefat (*Baccharis salicifolius*). There are no riparian woodlands or extensive riparian scrub in the park. Non-native woodlands are largely dominated by eucalyptus (*Eucalyptus* spp.) and pines (*Pinus* spp.), and all appear to have been planted over the years rather than naturalized from areas outside the park.

Herbaceous communities are scattered through all habitats within the park and are dominated by non-natives, often including non-native bromes (*Bromus* spp.) and other Mediterranean grasses, filaree (*Erodium* spp.) and tocolote (*Centaurea melitensis*), but small (<0.1 ha) areas of native forbs do exist. These stands deserve mention because of their significant contribution to the diversity of the native flora, if not for their extent (see Cooper 2011). One association occurs on clay lenses that form atop non-clay soils, typically along ridgelines and at rock outcrops. Most are on shaded, north-facing slopes or are associated with seasonally moist areas where these heavy soils stay wet through the spring. They provide important habitat for geophytes such as chocolate lily (*Fritillaria biflora*), golden-stars (*Bloomeria crocea*), Catalina mariposa-lily (*Calochortus catalinae*), sanicles (*Sanicula* spp.), and blue-eyed grass (*Sisyrinchium bellum*) in the park. By mid-spring, non-native grasses have largely invaded these communities, and they become almost indistinguishable from other grassy/weedy openings in scrub.

Another native forb association occurs on steeper, eroding ridges where soil is thin and competition with non-natives is apparently reduced. These areas also support a distinctive community of native annuals, including Turkish rugging (*Chorizanthe staticoides*), pincushions (*Chaenactis* spp.), bushy spikemoss (*Selaginella bigelovii*) and Los Angeles gilia (*Gilia angelensis*). Areas of rock outcrops support several locally scarce species including “moss gardens,” which support a variety of delicate annuals on moss and fern-covered pockets within sandstone outcroppings, including Cleveland’s shooting-stars (*Primula clevelandii*), California saxifrage (*Micranthes californica*), peninsular onion (*Allium peninsulare*), and various ferns and native grasses. Areas of these moss gardens that are rich in clay may support rare clay-associated species such as Johnny jump-up (*Viola pedunculata*), while thinner soil within the outcrops feature more rock-associated taxa like mountain fringe-pod (*Thysanocarpus lacinatus*).

A third important and distinct microhabitat of the park includes the high plateau that includes Cahuenga Peak and Burbank Peak, located above and just west of the iconic Hollywood sign, which supports a large expanse of Eastwood's manzanita (*Arctostaphylos glandulosa* subsp. *mollis*), which co-occurs with higher-elevation shrubs like chamise and chaparral pea (*Pickeringia montana*) on a northwest-facing exposure.

Lastly, the northern base of the park, roughly traced by Forest Lawn Drive, is worth noting as a key microhabitat, as it represents the historic southern edge of what was the broad floodplain of the Los Angeles River as it flowed through the east San Fernando Valley. While the river, including the soft-bottomed, lushly-vegetated stretch, has been completely encased in cement levees here and is not treated in this flora, areas of relict vegetation remain within the park. Taxa associated with sandy or gravelly washes that may be found locally here include scalebroom (*Lepidospartum squamatum*), California croton (*Croton californicus*) and annual buckwheat (*Eriogonum gracile* var. *gracile*). Patches of cane cholla (*Cylindropuntia californica* var. *parkeri*) in this area were also presumably associated with the Los Angeles River wash.

Several canyons with consistent, often year-round water, including Royce Canyon, Spring Canyon, Brush Canyon, and Fern Canyon, allow various rushes (*Juncus* sp.), cardinal monkeyflower (*Erythranthe cardinalis*) and even aquatic species, including watercress *Nasturtium officinale*, to occur in an otherwise arid environment. However, these wetland areas are extremely small (<< 1 ac)) and are even more restricted or entirely absent in dry years.

Various floristic curiosities of Griffith Park, compared with the rest of the Santa Monica Mountains, include an apparent absence of more coastal shrubs such as purple sage (*Salvia leucophylla*) and ashy-leaf buckwheat (*Eriogonum cinereum*), as well as the lack of several perennial herbs that become locally common farther west in the Santa Monicas, e.g., pitcher sage (*Salvia spathacea*). Several lower-foothill shrubs and trees, such as hairy-leaf ceanothus (*Ceanothus oliganthus*), white alder (*Alnus rhombifolia*), and bigleaf maple (*Acer macrophylla*) are rare or absent, while other higher-elevation taxa such as American yellowrocket (*Barbarea orthoceras*) are present, though highly localized. A handful of species are known in the entire Santa Monica Mountains/Simi Hills only from Griffith Park and vicinity, notably cane cholla (*Cylindropuntia californica*) and giant blazing-star (*Mentzelia laevicaulis*); others are particularly common here, such as red-gland spurge (*Euphorbia melanadenia*) (Prigge and Gibson 2013).

Botanical Investigation of Griffith Park

Plant collectors working in Griffith Park during the first three decades of the 20th Century include Carl Epling (133 known vouchered specimens), Ernest Braunton (54 specimens), and Fredrica “Freda” Detmers (32 specimens). The first rangewide treatment of the flora of the Santa Monica Mountains appeared as a comprehensive checklist by Raven and Thompson in 1966 (Raven and Thompson 1966). Since then, floristic knowledge of the range has been further refined in both the scientific (Raven et al. 1986, Wishner 1997) and the popular literature (McAuley 1996). Both Raven et al. (1986) and McAuley (1996) made frequent references to “Griffith Park” in their treatments of the Santa Monica Mountains flora. However, information on the abundance or ecology of particular species across this range and detail on local habitat preferences was sparse until 2013, when Prigge and Gibson produced a fully updated treatment of all vouchered taxa from the range. Still, only a handful of sites in the range have species checklists (e.g., Muns 1983), and these are mainly for the larger state parks in the western and central ranges. The far eastern portion of the range where Griffith Park is located, east of Sepulveda Pass, has long been less well-known, botanically (*vide* B. Prigge).

Prior to 2007, a synthesis of the park’s flora had been limited to a single unpublished checklist (Brusha 2003). Following a major fire in May 2007, public interest in documenting the park’s natural resources increased, resulting in a comprehensive habitat management plan with associated species inventories released two years later (Cooper and Mathewson 2009), and research on flora and fauna here has continued since then (Cooper 2011, Bonebrake and Cooper 2014). Today, nearly 1,000 specimens have been vouchered for the park (Consortium of California Herbaria 2016), including more than 200 by Cooper since 2007. Most Griffith Park plant collectors were active in the first decades of the 20th century. Fewer than 30% of the vouchered specimens from the park have been collected since 1970, most of these by Cooper. The UCLA herbarium houses the most Griffith Park specimens (260), followed by University of California, Riverside (249) and Rancho Santa Ana Botanic Garden/Pomona College (217).

METHODS

The following lists are based on my hundreds of field hours spent in Griffith Park since 2007, combined with my own research using online databases and visits to local herbaria to confirm specimen identity. Starting in 2007, I have made a concerted effort to collect all native species in the park, initially while working on a habitat management plan for the Los Angeles Department of Recreation and Parks (Cooper and Mathewson 2009). During this same time period (2007 to 2010), Jorge Ochoa, a city of Los Angeles employee interested in local botany, was

also working in the park and would exchange photographs of discoveries. Finally, a rare plant survey initiated in 2010 and financially supported by neighborhood groups added substantially to our knowledge of key localities for plant diversity in the park (Cooper 2011).

The main list (Appendix A) includes only taxa for which there exists a vouchered specimen in a herbarium that is a member of the Consortium of California Herbaria. All specimens I have personally collected have been deposited at the University of California Riverside Herbarium for verification and vouchering by Andrew Sanders. To locate other specimens, I relied on Calflora (2016) and the Consortium of California Herbaria (2016) database, searching under the following names: Griffith Park, Barham, Cahuenga, Ferndell/Fern Dell, Hollywood, Los Feliz, Vermont, and Western Avenue. Following Roberts (2008), I have cited the most recent specimen for each species, to encourage others to search for and voucher (or photograph) taxa known only from early material.

In cases where a species proved difficult to voucher locally for various reasons, I confirmed identification of fresh or pressed material by local experts Andrew Sanders Barry Prigge, Art Gibson, and Tarja Sagar (often in the field). Certain difficult-to-collect species, such as cacti and very large succulents such as *Agave americana* were similarly left un-vouchered but were photographed; I include these and other taxa known from the park but documented only by photographs on a second, “supplemental list” (Appendix B), separate from the main list.

I considered “excluded taxa” to be vouchered specimens for which some doubt exists as to their occurrence in the park, and have placed these in a third list (Appendix C). These include species that have been collected but that are not native or not yet naturalized in the park. Others on this list have possibly been misidentified. These should not be confused with presumably valid records of species that are considered extirpated in the park, which are generally included in the main list, and most of which I examined and photographed with their original labels.

I have not treated strictly ornamental species, many of which were treated by Brusha 2003, “lawn weeds” that have not expanded to natural habitat, or taxa native to California but likely represented in Griffith Park only by introduced individuals, such as valley oak (*Quercus lobata*), unless they are represented by an existing specimen in a herbarium, in which case I treat them in the excluded species list. I included in the main list plants that are not naturally-occurring but which are found growing in a wild state away from their presumed point of introduction, and are therefore naturalized, such as Nevin’s barberry (*Berberis nevinii*). Aquatic species known from specimens but likely to have been collected along the Los Angeles River are generally treated in the excluded species list.

Even though much of this area is technically within the political boundaries of Griffith Park, this habitat is isolated from the study area by Interstate 5, is comprised of entirely different vegetation (riparian and freshwater marsh), and has not been botanically explored in many decades.

As with any study involving historical collections from urban areas or areas that have experienced dramatic changes in land use, deciphering label information may be challenging. Plants listed as having been collected nearly a century ago could have been found in the study area or along the once-wild Los Angeles River bed at the park's border. My research located at least one important collecting area, Providence (a.k.a. "Providencia") Ranch that would have been adjacent to the park. According to several label annotations and early maps, Providence Ranch apparently included lands that have since been developed as Forest Lawn Memorial Park, near the base of Cahuenga Peak along the Los Angeles River. However, specimens from this area must to be treated with caution, as this ranch extended north across the eastern San Fernando Valley to the base of the Verdugo Mountains and would have included extensive alluvial fan scrub habitat and potentially other habitats not historically or currently found in Griffith Park.

I follow Soza et al. (op cit.) for abundance data, as follows:

- **Scarce:** Apparently rare, documented at only one or two, relatively localized and often historic occurrences, and with relatively few plants at any given site;
- **Infrequent:** Documented at only a few (3-6), often widely-scattered occurrences, and with relatively few plants at any given site;
- **Occasional:** Documented at several (7-20) clustered or scattered occurrences, though generally with numerous plants at any given site;
- **Frequent:** Documented at many (>20), generally widely-scattered occurrences, and usually common at any site where present;
- **Common:** Documented at almost any location within the habitat(s) occupied by a given taxon, generally with numerous individuals present at most locations.

Taxonomy and nomenclature generally follow the most recent version of the Jepson Manual (Baldwin et al. 2012), which has resulted in family reassignments and name changes for many groups including *Lotus*, Brassicaceae, Polemoniaceae, and Scrophulariaceae. For common names, I used Calflora (Calflora 2016) as a guide, occasionally substituting more commonly-heard names where appropriate.

FINDINGS

Due to ongoing taxonomic changes and uncertainty over historical collections as well as the continuous establishment of "new" non-natives in the park, assigning

a number to the total flora of Griffith Park will always be a moving target. This list provides information through 2016 on 326 native species plus an additional 104 naturalized non-natives that have been collected or reliably reported in and around the park (Appendices A and B).

Considerable extirpation has apparently occurred in the Griffith Park flora, and I found evidence for 46 native taxa known only from historical (pre-1960) collections in Griffith Park, exclusive of the Los Angeles River¹ (Table 1), which represents 14% of the total known flora for the study area. These extirpations have occurred across several families, with Asteraceae leading the list (8 extirpated species), followed by Brassicaceae (5 extirpated species), and Papaveraceae and Polemoniaceae with 4 each. Of course, these are also some of the most species-rich families, so further analysis is needed to reveal patterns of extirpation.

Table 1. Presumed extirpated native taxa of Griffith Park with year last collected (see text).

<i>Family</i>	<i>Species</i>	<i>Year Last Collected</i>
DICOTS		
APIACEAE	<i>Apiastrum angustifolium</i>	1925
APIACEAE	<i>Bowlesia incana</i>	1925
APIACEAE	<i>Osmorhiza brachypoda</i>	1925
ASTERACEAE	<i>Achyrachaena mollis</i>	1928
ASTERACEAE	<i>Ericameria linearifolia</i>	1942
ASTERACEAE	<i>Ericameria parishii</i>	1958
ASTERACEAE	<i>Gutierrezia californica</i>	1902
ASTERACEAE	<i>Lasthenia californica</i>	1924
ASTERACEAE	<i>Leptisyne bigelovii</i>	1926
ASTERACEAE	<i>Monolopia lanceolata</i>	1861
ASTERACEAE	<i>Pseudognaphalium ramosissimum</i>	1902
BORAGINACEAE	<i>Cryptantha muricata</i>	1925
BRASSICACEAE	<i>Boechera californica</i>	1925
BRASSICACEAE	<i>Caulanthus heterophyllus</i>	1924
BRASSICACEAE	<i>Caulanthus lasiophyllus</i>	1930
BRASSICACEAE	<i>Erysimum capitatum var. capitatum</i>	1931
BRASSICACEAE	<i>Turritis glabra</i>	1928
CLEOMACEAE	<i>Peritoma arborea</i>	1930

¹Species possibly recently extirpated are not included in this figure, such as *Heliotropium curassavicum* var. *oculatum* and *Brodiaea terrestris* subsp. *kernensis*. Those in need of more study in the park to determine correct taxonomy, such as *Galium nuttallii* var. *nuttallii* and *Lemma* spp., are also omitted. Refer to the "Excluded Species" list (Appendix C) for additional taxa reported from the park.

<i>Family</i>	<i>Species</i>	<i>Year Last Collected</i>
CRASSULACEAE	<i>Dudleya multicaulis</i>	1925
DATISCEAE	<i>Datisca glomerata</i>	1902
FABACEAE	<i>Lupinus formosus</i>	1928
GENTIANACEAE	<i>Zeltnera venusta</i>	1908
GROSSULARIACEAE	<i>Ribes californicum</i> var. <i>hesperium</i>	1925
LAMIACEAE	<i>Stachys rigida</i> var. <i>rigida</i>	1902
MONTIACEAE	<i>Calandrinia breweri</i>	1928
ONAGRACEAE	<i>Eremothera boothii</i> subsp. <i>decorticans</i>	1928
OROBANCHACEAE	<i>Castilleja applegatei</i> subsp. <i>martinii</i>	1931
OROBANCHACEAE	<i>Castilleja exserta</i>	1925
PAPAVERACEAE	<i>Dendromecon rigida</i>	1925
PAPAVERACEAE	<i>Escholzia caespitosa</i>	1930
PAPAVERACEAE	<i>Meconella denticulata</i>	1928
PAPAVERACEAE	<i>Platystemon californicus</i>	1925
PHRYMACEAE	<i>Diplacus brevipes</i>	1925
PLANTAGINACEAE	<i>Penstemon centranthifolius</i>	1931
PLANTAGINACEAE	<i>Plantago erecta</i>	1925
POLEMONIACEAE	<i>Leptosiphon liniflorus</i>	1902
POLEMONIACEAE	<i>Linanthus dianthiflorus</i>	1925
POLEMONIACEAE	<i>Microsteris gracilis</i>	1925
POLEMONIACEAE	<i>Saltugilia splendens</i>	1931
RANUNCULACEAE	<i>Delphinium parryi</i> subsp. <i>parryi</i>	1926
RANUNCULACEAE	<i>Ranunculus californicus</i>	1903
SOLANACEAE	<i>Solanum americanum</i>	1925
MONOCOTS		
CYPERACEAE	<i>Carex triquetra</i>	1928
POACEAE	<i>Agrostis pallens</i>	1936
POACEAE	<i>Bromus laevipes</i>	1925
POACEAE	<i>Elymus glaucus</i> subsp. <i>glaucus</i>	1946

Table 2 lists species known from just one or two small populations in the park, sometimes just a handful of individuals, and includes those that may be possibly be extirpated, as they have not been refound in recent years. While the locations are scattered around the park, a few names appear more than once, including Royce Canyon, which includes the moss gardens on the north-facing slope south of the stream; Western Canyon/One-Mile Tree, an important, and fairly undisturbed, clay lens just west of Western Canyon Road near a pullout roughly one mile up

the road from Fern Dell; and Cahuenga-Burbank Peak, the highest ridge in the eastern Santa Monica Mountains.

Table 2. “Scarce” native taxa of Griffith Park, known only from one or two populations in study area; excludes cryptic species (e.g., certain grasses) and those for which more work is needed (e.g., *Camissoniopsis*; see text).

<i>Family</i>	<i>Species</i>	<i>Known Locations</i>
FERNS		
EQUISETACEAE	<i>Equisetum hyemale</i> subsp. <i>affine</i>	Ferndell
PTERIDACEAE	<i>Pellaea mucronata</i>	Mt. Hollywood
DICOTS		
AMARANTHACEAE	<i>Amaranthus blitoides</i>	Vic. Hollywood Res.
APIACEAE	<i>Sanicula tuberosa</i>	Royce Cyn.
APOCYNACEAE	<i>Funastrum cynanchoides</i> var. <i>hartwegii</i>	Vic. Hollywood Res.
ASTERACEAE	<i>Achillea millefolium</i>	Royce Cyn., Boys Camp Cyn. Hill
ASTERACEAE	<i>Ambrosia confertiflora</i>	Skyline Trail
ASTERACEAE	<i>Ambrosia psilostachya</i>	Edge of Roosevelt Golf Course
ASTERACEAE	<i>Ericameria pinifolia</i>	Mt. Hollywood
ASTERACEAE	<i>Grindelia camporum</i>	Oak Cyn., Coyote Cyn.
ASTERACEAE	<i>Heterotheca sessiliflora</i> subsp. <i>fastigiata</i>	Northern edge/ Forest Lawn Dr.
ASTERACEAE	<i>Lepidospartum</i> <i>squamatum</i>	Northern edge/ Forest Lawn Dr.
ASTERACEAE	<i>Solidago velutina</i> subsp. <i>californica</i>	Brush Cyn.
BORAGINACEAE	<i>Pectocarya linearis</i>	Burbank Peak utility road
BORAGINACEAE	<i>Plagiobothrys collinus</i>	Burbank Peak utility road
BRASSICACEAE	<i>Barbarea orthoceras</i>	Royce Cyn., Mt. Bell
BRASSICACEAE	<i>Draba cuneifolia</i>	Western Cyn./One-Mile Tree
CARYOPHYLLACEAE	<i>Silene antirrhina</i>	Western Cyn./One-Mile Tree
CHENOPODIACEAE	<i>Chenopodium</i> <i>californicum</i>	Vermont Cyn./ “Tennis Court Cyn.”
CONVOLVULACEAE	<i>Convolvulus simulans</i>	Western Canyon/One-Mile Tree
FABACEAE	<i>Astragalus gambelianus</i>	Royce Canyon, Cahuenga Pass

Family	Species	Known Locations
FABACEAE	<i>Lupinus excubitus</i> var. <i>hallii</i>	Vermont Cyn.
FABACEAE	<i>Pickeringia montana</i> var. <i>montana</i>	Cahuenga-Burbank Peak
FABACEAE	<i>Trifolium microcephalum</i>	Fern Cyn.
FAGACEAE	<i>Quercus durata</i> var. <i>gabrielensis</i>	Spring Cyn.
FAGACEAE	<i>Quercus wislizenii</i> var. <i>fructescens</i>	Vermont Cyn./ "Tennis Court Cyn."; Cahuenga-Burbank Peak
HELIOTROPACEAE	<i>Heliotropium curassavicum</i> var. <i>oculatum</i>	Ferndell
LAMIACEAE	<i>Trichostema lanatum</i>	Northerndedge/Travel Town
LOASACEAE	<i>Mentzelia laevicaulis</i>	Brush Cyn.
MONTIACEAE	<i>Calandrinia ciliata</i>	Skyline Tr.
MONTIACEAE	<i>Calyptidium monandrum</i>	Skyline Tr., Cahuenga-Burbank Peak
ONAGRACEAE	<i>Clarkia unguiculata</i>	Northern edge/ Forest Lawn Dr.
ONAGRACEAE	<i>Epilobium canum</i> subsp. <i>latifolium</i>	Northern edge/Forest Lawn Dr.
OXALIDACEAE	<i>Oxalis californica</i>	Cahuenga Peak
PHRYMACEAE	<i>Erythrante cardinalis</i>	Brush Cyn., Spring Cyn.
POLEMONIACEAE	<i>Allophyllum glutinosum</i>	Vermont Cyn., Fern Cyn.
POLEMONIACEAE	<i>Gilia capitata</i> subsp. <i>abrontanifolia</i>	Vermont Cyn.
POLYGONACEAE	<i>Eriogonum cithariforme</i>	Royce Cyn.
PRIMULACEAE	<i>Primula clevelandii</i> var. <i>clevelandii</i>	Royce Cyn.
RANUNCULACEAE	<i>Ranunculus hebecarpus</i>	Royce Cyn.
RANUNCULACEAE	<i>Thalictrum fendleri</i>	Royce Cyn.
RHAMNACEAE	<i>Ceanothus oliganthus</i> var. <i>oliganthus</i>	Vista del Valle Rd.
ROSACEAE	<i>Holodiscus discolor</i>	Vista del Valle Rd.
SALICACEAE	<i>Populus fremontii</i>	Northern edge/Oak Cyn.
SAPINDACEAE	<i>Acer macrophyllum</i>	Northern edge/near Victory Blvd.

<i>Family</i>	<i>Species</i>	<i>Known Locations</i>
SAXIFRAGACEAE	<i>Lithophragma affine</i>	Royce Cyn., Oak Cyn.
SAXIFRAGACEAE	<i>Micranthes californica</i>	Royce Canyon, Mt. Bell
SOLANACEAE	<i>Nicotiana quadrivalvis</i>	Vermont Cyn./“Tennis Court Cyn.”
VIOLACEAE	<i>Viola pedunculata</i>	Royce Cyn.
MONOCOTS		
AMARYLLIDACEAE	<i>Allium haematochiton</i>	Mt. Hollywood
AMARYLLIDACEAE	<i>Allium peninsulare</i>	Royce Cyn., Mt. Bell
JUNCACEAE	<i>Juncus balticus</i>	Brush Cyn.
JUNCACEAE	<i>Juncus macrophyllus</i>	Spring Cyn.
JUNCACEAE	<i>Juncus rugulosus</i>	Spring Cyn.
JUNCACEAE	<i>Juncus textilis</i>	Brush Cyn., Oak Cyn.
LILIACEAE	<i>Calochortus clavatus</i>	
	var. <i>gracilis</i>	Mt. Chapel
LILIACEAE	<i>Fritillaria biflora</i>	
	var. <i>biflora</i>	Western Cyn./One-Mile Tree
POACEAE	<i>Aristida adscensionis</i>	Western Cyn.

Comparison with Nearby Ranges

The scrub vegetation in Griffith Park shows strong affinities with that of the nearby Verdugo Mountains, San Rafael Hills, and lower San Gabriel Mountains, which are geographically closer than the western Santa Monica Mountains. Conspicuously, wild canterbury-bells (*Phacelia minor*) is abundant in early spring in the park as it is in the hills to the north, and yet it is much less common farther west in the Santa Monicas.

Table 3 lists taxa known from elsewhere in the eastern Santa Monica Mountains (i.e., west of Griffith Park/Cahuenga Pass to Sepulveda Pass) but not from Griffith Park; however, since recent fieldwork and collection in this area has been almost non-existent, future exploration of the remaining large areas of open space such as Franklin Canyon and Stone Canyon may yield additional significant records. Similarly, a thorough review and re-collection of the flora of the soft-bottomed stretches of the Los Angeles River adjacent to Griffith Park (“Glendale Narrows”) could add dozens of species, including natives, to the total flora of the area.

Table 3. Additional species known from eastern Santa Monica Mountains (east of Sepulveda Pass) but unknown in Griffith Park Study Area, with latest year collected.

<i>Family/ Species</i>	<i>Location</i>	<i>Collector</i>	<i>Year Collected (Herbarium)</i>
FERNS AND SPHENOPSIS			
BLECHNACEAE			
<i>Woodwardia fimbriata</i>	“c. 2 mi. west of Laurel Cyn. in canyon north of Mulholland Dr.”	Kiefer	1966 (LA)
EQUISETACEAE			
<i>Equisetum telmateia</i> subsp. <i>braunii</i>	Nichols Cyn.	L.L. Keifer	1966 (LA)
DICOTS			
APIACEAE			
<i>Daucus pusillus</i>	Coldwater Cyn.	Munz	1920 (POM)
<i>Perideridia parishii</i> subsp. <i>latifolia</i>	Laurel Cyn.	Peirson	n.d. (RSA)
<i>Tauschia hartwegii</i>	Mulholland Dr. near Beverly Glen	W.O. Griesel	1936 (LA)
ASTERACEAE			
<i>Psilocarphus brevissimus</i>	Laurel Cyn.	Peirson	n.d. (RSA)
<i>Symphotrichum greatae</i>	Benedict Cyn.	Peirson	n.d. (RSA)
BORAGINACEAE			
<i>Cryptantha clevelandii</i>	Mulholland Dr. near Beverly Glen Blvd.	Griesel	1936 (LA)
CARYOPHYLLACEAE			
<i>Polycarpon depressum</i>	Stone Cyn.	M. Hilend	1935 (LA)
CORNACEAE			
<i>Cornus sericea</i> subsp. <i>occidentalis</i>	Laurel Cyn.	Peirson	n.d. (RSA)
EUPHORBIACEAE			
<i>Euphorbia serpyllifolia</i>	Laurel Cyn.	Peirson	n.d. (RSA)
FABACEAE			
<i>Acmispon wrangelianus</i>	lower Franklin Cyn.	D.S. Cooper	2009 (UCR)
<i>Astragalus trichopodus</i> var. <i>phoxus</i>	Deervale-Stone Cyn. Park	D.S. Cooper	2012 (UCR)
<i>Rupertia physodes</i>	Stone Cyn.	O.A. Plunkett	1932 (LA)
<i>Trifolium albopurpureum</i>	Laurel Cyn.	E.S. Spalding	1923 (POM)
<i>Vicia americana</i>	Laurel Cyn.	Davidson	n.d. (POM)
LAMIACEAE			
<i>Salvia leucophylla</i> ²	Mulholland Dr. 300 yards west of Beverly Glen Cyn.	N. Haller	1953 (UCSB)
NAMACEAE			
<i>Eriodyction parryi</i>	Franklin Cyn.	B.C. Templeton	1930 (RSA)

²A 1927 specimen from “Universal City” (s.n., LA) is potentially within the Griffith Park study area, but it has no other information (including collector). Since the species is widely planted, I have opted to omit this record. The species becomes common in the western Santa Monica Mountains, but its current natural eastern distributional limit is unclear.

<i>Family/ Species</i>	<i>Location</i>	<i>Collector</i>	<i>Year Collected (Herbarium)</i>
<i>Eriodyction trichocalyx</i>	Franklin Cyn. near Mulholland Dr.	B.C. Templeton	1930 (RSA)
ONAGRACEAE			
<i>Clarkia epilobioides</i>	Coldwater Cyn.	P.A. Munz and R.D. Harwood	1920 (POM)
OROBANCHACEAE			
<i>Cordylanthus rigidus</i>	Laurel Cyn.	D.S. Cooper	2011 (UCR)
<i>Pedicularis densiflora</i>	Laurel Cyn.	F. Detmers	1929 (RSA)
PLANTAGINACEAE			
<i>Antirrhinum coulterianum</i>	Laurel Cyn.	Unknown	1903 (UC)
POLEMONIACEAE			
<i>Leptosiphon parviflorus</i>	Mulholland Dr. near Beverly Glen Blvd.	W.O. Griesel	1936 (LA)
RANUNCULACEAE			
<i>Clematis ligusticifolia</i>	Bel-Air Cyn.	H.L. Bauer	1932 (RSA)
MONOCOTS			
CYPERACEAE			
<i>Carex barbarae</i>	Laurel Cyn.	Eastwood	1906 (CAS)
ORCHIDACEAE			
<i>Epipactis gigantea</i>	Cahuenga Pass near Woodrow Wilson Dr.	P.H. Raven	1959 (LA)
POACEAE			
<i>Bromus arizonicus</i>	Beverly Glen Blvd. at Mulholland Dr.	O.H. Kappler	1943 (LA)
<i>Poa secunda</i>	Woodrow Wilson Dr., 1.2 mi. east of Laurel Cyn.	P.H. Raven	1959 (LA)

A recent treatment of the flora of the Verdugo Mountains/San Rafael Hills just northeast of the park (422 native taxa, including historical collections; Soza et al. 2013) allows for a full comparison with Griffith Park, and a comparison of native species extirpated from each range provides important conservation insights. While nearly 100 more native taxa are known from the Verdugos than occur or occurred historically at Griffith Park, fully 96% of the currently- or historically-known taxa in Griffith Park also occur or occurred in the Verdugos. A total of 312 native taxa (285 extant and 27 extirpated) of the 326 total for Griffith Park are shared with the Verdugos. Interestingly, the percentage of extirpated (native) taxa in Griffith Park (14%) appears to be lower than that of the Verdugos, where 97 of 423 taxa, or 23%, are known only from early records. While it is not possible to analyze these extirpation rates statistically, and this obviously does not count species that disappeared before they could be collected, this lower percentage is puzzling, given the much smaller size and greater, more long-term isolation of Griffith Park from adjacent, larger open space compared to the Verdugo Mountains. Table 4 presents a summary of patterns of extirpation in the Verdugos and Griffith Park. Of particular interest are the seven taxa considered extirpated in both Griffith Park and the Verdugos, as these may suggest broader factors at work,

including loss of native pollinators and climate change, and they may warrant conservation attention: *Ericameria linearifolia*, *Zeltnera venusta*, *Castilleja exserta* subsp. *exserta*, *Penstemon centranthifolius*, *Plantago erecta*, *Leptosiphon liniflorus*, and *Ranunculus californicus*. While it is impossible to prove, several other taxa extirpated from Griffith Park (see Table 1) yet unknown from the Verdugos actually may have been present in the Verdugos in the recent past but not collected, including such locally rare and declining native forbs such as *Achyrrachaena mollis*, *Lasthenia californica*, and *Microsteris gracilis*.

Table 4. Comparison of patterns of species presence/absence between Verdugo Mountains (see Soza et al. 2013) and Griffith Park (species believed extirpated in the park denoted by asterisk).

<i>Species</i>	<i>Known from GP; unknown in Verdugos</i>	<i>Known from GP; extirpated from Verdugos</i>	<i>Extirpated from GP and Verdugos</i>
<i>Achillea millefolium</i>	X		
<i>Achyrrachaena mollis</i> *	X		
<i>Adiantum jordanii</i>		X	
<i>Agoseris grandiflora</i>	X		
<i>Allium peninsulare</i>		X	
<i>Allophyllum glutinosum</i>	X		
<i>Amaranthus blitoides</i>		X	
<i>Ambrosia confertiflora</i>	X		
<i>Asclepias fascicularis</i>		X	
<i>Aristida ascensionis</i>		X	
<i>Astragalus gambelianus</i>	X		
<i>Barbarea orthoceras</i>	X		
<i>Boechera californica</i> *	X		
<i>Brodiaea terrestris</i> subsp. <i>kernensis</i> *?	X		
<i>Bromus laevipes</i> *	X		
<i>Calochortus catalinae</i>	X		
<i>Calystegia macrostegia</i> subsp. <i>arida</i>	X		
<i>Calystegia macrostegia</i> subsp. <i>cyclostegia</i>	X		
<i>Camissoniopsis intermedia</i>	X		
<i>Camissoniopsis robusta</i>	X		
<i>Castilleja exserta</i> subsp. <i>exserta</i> *			X
<i>Ceanothus megacarpus</i> var. <i>megacarpus</i>		X ³	
<i>Convolvulus simulans</i>	X		
<i>Cuscuta subinclusa</i>	X		
<i>Delphinium patens</i> subsp. <i>hepaticoides</i>	X		
<i>Dudleya multicaulis</i> *	X		

³Apparently always marginal in Verdugos, so perhaps better treated as “unknown” here (see Soza et al. 2013).

Species	Known from GP; unknown in Verdugos	Known from GP; extirpated from Verdugos	Extirpated from GP and Verdugos
<i>Epilobium brachycarpum</i>	X		
<i>Eremothera boothii</i> subsp. <i>decoritans</i> *	X		
<i>Ericameria palmeri</i> var. <i>pachylepis</i>	X		
<i>Ericameria linearifolia</i>			X
<i>Eriogonum cithariforme</i>	X		
<i>Galium nuttallii</i> var. <i>nuttallii</i>	X		
<i>Geranium carolinianum</i>		X	
<i>Grindelia camporum</i>	X		
<i>Heliotropium curassavicum</i> var. <i>oculatum</i> *?	X		
<i>Holodiscus discolor</i>		X	
<i>Juncus balticus</i>		X	
<i>Lasthenia californica</i> *	X		
<i>Lemna minuta</i>	X		
<i>Leptosiphon liniflorus</i> *			X
<i>Leptosyne bigelovii</i> *	X		
<i>Lupinus excubitus</i> var. <i>hallii</i>	X		
<i>Madia gracilis</i>		X	
<i>Mentzelia laevicaulis</i>	X		
<i>Micropus californicus</i>		X	
<i>Microsteris gracilis</i> *	X		
<i>Monolopia lanceolata</i> *	X		
<i>Navarretia atractyloides</i>	X		
<i>Nicotiana quadrivalvis</i>	X		
<i>Nuttallanthus texanus</i>		X	
<i>Oxalis californica</i>	X		
<i>Penstemon centranthifolius</i> *			X
<i>Peritoma arborea</i> *	X		
<i>Phacelia hubbyi</i>	X		
<i>Phacelia viscida</i>	X		
<i>Phoradendron serotinum</i> subsp. <i>macrophyllum</i>	X		
<i>Platago erecta</i> *			X
<i>Primula clevelandii</i> subsp. <i>clevelandii</i>		X	
<i>Psilocarphus tenellus</i>		X	
<i>Ranunculus californicus</i> *			X
<i>Ribes californicum</i> var. <i>hesperium</i> *	X		
<i>Rumex salicifolius</i>	X		
<i>Saltugilia splendens</i> *	X		
<i>Sanicula bipinnata</i>	X		
<i>Solanum americanum</i> *	X		
<i>Stachys rigida</i> var. <i>rigida</i> *	X		
<i>Stephanomeria diegensis</i>	X		

<i>Species</i>	<i>Known from GP; unknown in Verdugos</i>	<i>Known from GP; extirpated from Verdugos</i>	<i>Extirpated from GP and Verdugos</i>
<i>Thalictrum fendleri</i>	X		
<i>Trifolium ciliolatum</i>		X	
<i>Trifolium microcephalum</i>	X		
<i>Trifolium willdenovii</i>	X		
<i>Viola pedunculata</i>		X	
<i>Zeltnera venusta*</i>			X

The proportion of native vs. non-native ornamental taxa from the two ranges is similar, (28% non-native for Verdugos versus 24% non-native for Griffith Park⁴). Despite being roughly 1/8 the size of the Verdugo Mountains/San Rafael Hills, Griffith Park supports or historically supported 77% of the natives known from the larger range. Notably, up to 50 native taxa known from Griffith Park have never been found in the Verdugos (Table 4), which is probably reflective of the former’s affinity with the rest of the Santa Monica Mountain range versus the San Gabriel Mountains.

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⁴ I made an effort to be consistent with the analysis by Soza et al. (2013) when determining whether a non-native taxa is naturalized; for example, they also omit common, established groups like eucalyptus that are known only from planted individuals.

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APPENDIX A

ANNOTATED CHECKLIST OF GRIFFITH PARK FLORA (MAIN LIST)

Data from herbaria at the following institutions were used: CAS (California Academy of Sciences), CDA (California Department. of Food and Agriculture), JEPS (Jepson Herbarium, University of California, Berkeley), UCLA (University of California, Los Angeles), POM (Pomona Herbarium at RSA); RSA (Rancho Santa Ana Botanic Garden), SBBG (Santa Barbara Botanic Garden), SD (San Diego Natural History Museum), UC (University Herbarium, University of California, Berkeley), UCR (University of California, Riverside), and UCSB (University of California, Santa Barbara). All are part of the Consortium of California Herbaria, with data available online (Consortium of California Herbaria 2016). Specimens of established/native species vouchered only in the small herbarium at the Santa Monica Mountains National Recreation Area (“SAMO”) have not been critically examined and are listed here if a recognizable photo also exists (e.g., in iNaturalist).

Non-native species are marked with an asterisk (*). Underlined species have yet to be collected or photographed in recent years, and may be extirpated. Special-status species (see Cooper 2011) are marked with a cross (†) symbol.

LYCOPODIAE

SELAGINELLACEAE

Selaginella bigelovii Underw., bushy spikemoss. Perennial herb. Frequent at seeps on rock faces throughout park; also appearing on hard-packed soil along ridges (e.g., on ridge north of One-Mile Tree), which presumably allow water to collect and linger in winter and early spring. *Epling 6215, 25 Jan 1925* (UCLA).

FILICAE

DENNSTAEDTIACEAE

Pteridium aquilinum (L.) Kuhn var. *pubescens* Underw., hairy brackenfern. Perennial herb. Infrequent, scattered populations: upper Spring Canyon; lowermost Boy’s Camp Canyon adjacent to golf course parking lot; a small drainage on the south face of Mt. Lee above end of Deronda Dr.; and Fern Canyon. Plants in more developed areas of the park (e.g., Bird Sanctuary, Vermont Canyon) may have been planted as part of an old water feature here, or they may be naturally-occurring, or both. *Cooper s.n., Mar 2008* (UCR).

DRYOPTERIDACEAE

Dryopteris arguta (Kaulf.) Maxon, coastal woodfern. Perennial herb. Frequent in deep shade, including in the understory of mature chaparral, especially in mesic spots such as seeps and amid boulders in seasonal drainages. *Cooper 514-49, 23 May 2014* (UCR).

EQUISETACEAE

Equisetum hyemale L. subsp. ***affine*** (Engelm.) Calder & Roy L. Taylor, common horsetail. Perennial herb. Scarce; occurs in permanently wet areas of lower Fern Dell (Western Canyon). *Ritter s.n., 21 Apr 1931* (UCR).

POLYPODIACEAE

Polypodium californicum Kaulf., California polypody. Perennial herb. Frequent at mesic rock outcrops, including exposed/sunny locations that stay wet through winter and spring, and especially numerous at “moss gardens” in the park. *Cooper 510-48B, 10 May 2010* (UCR).

PTERIDACEAE

Adiantum jordanii Müll. Hal., California maiden-hair fern. Perennial herb. Infrequent and in variable numbers from year to year, probably depending on timing of winter rains. Many appeared in several side canyons along Oak Canyon Trail in February 2012, but were scarce/absent in subsequent years. Occurs year-round at water in Spring Canyon and at a seep along Lower Beacon Trail east of Fern Canyon. *Cooper 212-9, 13 Feb. 2012* (UCR).

Aspidotis californica (Hook.) Nutt. ex Copel., California lacefern. Perennial herb. Occasional on rock outcrops and steep, eroding places on the eastern slope of the park, including near the summit of Mt. Bell, upper Boy’s Camp Canyon, and along the ridge above Vista del Valle Drive north of Mt. Hollywood. *Braunton 419, 4 June 1902* (DS).

Pellaea andromedifolia (Kaulf.) Fée, coffee fern. Perennial herb. Frequent in shady areas within chaparral, typically on boulder outcrops or in thin, often rocky soil. *Cooper, s.n., 12 May 2008* (UCR).

Pellaea mucronata (D.C. Eaton) D.C. Eaton var. ***mucronata*** bird’s-foot fern. Perennial herb. Scarce; observed in 2011 only in a crevice on a rocky slope on the southern flank of Mt. Hollywood, just north of the tunnel over Mt. Hollywood Road; possibly more common historically. *Epling 6226, 1 Jan 1925* (LA).

Pentagramma triangularis (Kaulf.) Yatsk., Windham & Wollenw. goldback fern. Perennial herb. Frequent throughout park, found on most shaded roadcuts and rocky outcrops, ubiquitous at seeps. *Epling 6216, 1 Jan. 1925 (LA)*.

MAGNOLIIDS

LAURACEAE

Umbellularia californica (Hook. & Arn.) Nutt., California bay. Tree. Frequent only in both Western and Vermont canyons in the south-central section of the park; locally elsewhere such as the Crystal Springs area where the population is possibly augmented by planted landscape trees. *Cooper 20170211-02, 11Feb 2017 (UCR)* [in preparation].

EUDICOTS

ADOXACEAE

Sambucus nigra* L. subsp. *caerulea (Raf.) Bolli, blue elderberry. Large shrub. Common throughout park. *Carlson s.n., 26 Apr 1918 (CAS)*.

AMARANTHACEAE

Amaranthus blitoides S. Watson, mat amaranth (Prostrate pigweed). Annual. Scarce; collected recently in area cleared for weed abatement adjacent to Wonderview Place west of Hollywood Reservoir. *Cooper 514-58, 19 May 2014 (UCR)*.

Chenopodium berlandieri Moq., pitseed goosefoot. Annual. Occasional in fuel modification zones and other highly disturbed, often eroding soils. *Cooper 813-49, 8 Aug 2013 (UCR)*.

Chenopodium californicum (S. Watson) S. Watson. California goosefoot. Annual. Scarce; recently discovered by Miguel Ordeñana in the upper portion of a side canyon just east of Vermont Canyon north of the tennis courts, where 10-20 plants are growing in loose soil directly along a hiking trail and in the adjacent floor of the drainage. *Cooper 25 April 2016 (UCR)* [specimen in prep.].

****Chenopodium murale*** L., nettleleaf goosefoot. Annual. Infrequent, but probably overlooked; mainly seen in sandy debris basins. *Cooper 315-23, 22 Mar 2015 (UCR)*.

****Salsola australis*** R. Br., Russian thistle. Annual. Common invasive weed in burned areas, particularly on sedimentary/clay soils, and often forming a monoculture in disturbed areas. After the May 2007 fire, entire hillsides

sprouted with this species. However, fewer emerged in subsequent years, indicating the often temporary nature of its invasion. *M.V. Hood 44-124-k, 8 Oct 1944 (LA)*.

ANACARDIACEAE

Malosma laurina (Nutt.) Nutt. ex Abrams, laurel sumac. Large shrub. Common throughout park, though less so in mesic areas. *M. Hilend and K. Kinsel s.n., 9 Mar 1929 (LA, "W of Hollywood Lake")*.

Rhus aromatica Aiton, fragrant sumac (skunkbrush). Small shrub. Occasional along seasonal drainages, particularly at seeps at lower elevations along base of park. *J.T. Howell 3364, 2 Mar 1968 (CAS)*.

Rhus integrifolia (Nutt.) Brewer & S. Watson, lemonadeberry. Large shrub. Common on lower slopes throughout park, mainly on coastal/southern flank of park. *Carlson s.n., 24 Apr 1918 (CAS)*.

Rhus ovata S. Watson, sugar bush. Large shrub. Frequent but scattered throughout park, rarely forming thickets. *Braunton 389, 4 June 1902 (DS)*.

Toxicodendron diversilobum (Torr. & A. Gray) Greene, western poison oak. Common throughout, particularly along drainages, at seeps, and on northern exposures. *Epling s.n., 18 May 1925 (LA)*.

APIACEAE

****Anthriscus caucalis*** M. Bieb., bur-chervil. Annual. Frequent weed in understory of oak woodland and in disturbed riparian areas. *A. Mayers s.n., 14 May 1978 (UCR)*.

Apiastrum angustifolium Nutt., mock parsley. Annual. No extant occurrences known; to be looked for in gravelly soil within coastal sage scrub. *Epling s.n., 18 May 1925 (LA)*.

Bowlesia incana Ruiz & Pav., hoary bowlesia. Annual. No extant occurrences known. *Epling 6521, Mar 1925 (LA)*.

****Conium maculatum*** L., poison hemlock. Biennial herb. Frequent weed along drainages and mesic sites (e.g., Brush Canyon); particularly robust after fire. *Cooper 514-56, 19 May 2014 (UCR)*.

****Cyclospermum leptophyllum*** (Pers.) Britton & P. Wilson, marsh parsley. Annual. Scarce; recently collected at an "urban seep" (leaky spigot) just south of Forest Lawn Drive, and found in a similar situation at Hollywood Reservoir. *Cooper 614-22, 26 June 2014 (UCR)*.

Lomatium lucidum (Torr. & A. Gray) Jeps., shiny biscuitroot. Perennial herb. Occasional on rocky soil at highest elevations in park at Burbank/Cahuenga Peak; possibly encouraged by recent fire. *Cooper 409-18, 30 Apr 2009 (UCR)*.

- Osmorhiza brachypoda*** Torr., California sweet-cicely. Perennial herb. No extant occurrences known in the park, though fairly common in oak woodland just west of Cahuenga Pass in the vicinity of Laurel Canyon. *Epling s.n.*, 25 Apr 1925 (LA).
- Sanicula arguta*** J.M. Coult. & Rose, sharptooth blacksnake root (Snakeroot). Perennial herb. Occasional in mesic, grassy areas on clay soil, particularly on southern slope of Royce Canyon. *Cooper 20100409-30A*, 9 Apr 2010 (UCR).
- Sanicula bipinnata*** Hook. & Arn., Poison sanicle. Perennial herb. Infrequent in grassy areas on clay or loamy soil, often with *Sanicula arguta*, but much rarer. *Cooper 20100409-27*, 9 Apr 2010 (UCR).
- Sanicula crassicaulis*** Poepp. ex DC., Pacific blacksnakeroot (Pacific sanicle). Perennial herb. Frequent in clay soil, often on roadcuts and other openings in coastal sage scrub and woodland; far more common than other *Sanicula* species in park. *Cooper 20100409-24*, 9 Apr 2010 (UCR).
- Sanicula tuberosa*** Torr., turkey pea. Perennial herbaceous geophyte. Scarce; found recently only on the moss gardens of Royce Canyon. *Cooper 313-53*, 17 Mar 2013 (UCR).
- Tauschia arguta*** (Torr. & A. Gray) J.F. Macbr., southern tauschia. Perennial herb. Frequent in scrub throughout park; essentially replaces *Sanicula crassicaulis* in rockier/better-drained soil and along roadcuts through chaparral. *Cooper 309-2.2*, 6 Mar 2009 (UCR).

APOCYNACEAE

- Asclepias fascicularis*** Decne., narrow-leaf milkweed. Perennial herb. Infrequent in grassy/open areas throughout park. *Cooper 514-10*, 23 May 2014 (UCR).
- Funastrum cynanchoides*** (Decne.) Schltr. var. ***hartwegii*** (Vail) Krings, climbing milkweed. Suffruticose perennial. No extant occurrences known, but recently found near Runyon Canyon to the west (*vide* B. Prigge). The cited collection suggests that the population near the reservoir may still exist, as it persists elsewhere within the urbanized Los Angeles Basin (e.g., San Jose Hills, pers. obs.). *Wishner 24041 21 Aug 1996* (LA, "Ridge E of Mulholland terminus and W of Hollywood Reservoir").

ARALIACEAE

- **Hedera helix*** L., English ivy. Liana. Occasional along drainages at urban edge of the park, e.g. Coolidge Canyon and Brush Canyon. *Cooper 614-74*, 26 June 2014 (UCR).

ASTERACEAE

- Achillea millefolium*** L., common yarrow. Perennial herb. Scarce; two occurrences

known, each with a few individual plants; both occurrences from remote, grassy openings in chaparral on the northern slope of the park (upper Royce Canyon and upper Boys Camp Canyon). *L. Wedberg 9332, 17 May 1954* (UCSB).

Achyrachaena mollis Schauer, blow wives. Annual. No extant occurrences known. This joins a long list of native annuals that have apparently vanished or are now extremely rare in Griffith Park. *Howell 3357, 2 Mar 1928* (CAS).

Acourtia microcephala DC., sacapellote (perezia). Perennial herb. Frequent in scrub throughout park, often occurring in dense stands on one slope, and absent across wide areas nearby. Especially abundant along western edge of park in the vicinity of Hollywood Reservoir. *Purer s.n., 8 May 1931* (SD).

****Ageratina adenophora*** (Spreng.) R.M. King & H. Rob., sticky snakeroot (eupatory). Suffruticose perennial. Common near water throughout park, including along drainages, near sprinkler heads, etc. Extensively invasive, it now forms pure stands along certain drainages, including upper Spring Canyon, where it seems to preclude the establishment of native flora. *H. Daniels, Foster s.n., 1 Feb 1952* (CDA).

Agoseris grandiflora (Nutt.) E Greene. California dandelion. Perennial herb. Scarce; single individual collected recently on eastern flank of Beacon Hill, south of Fern Canyon. *Cooper 514-12A, 19 May 2014* (UCR).

Ambrosia acanthicarpa Hook., annual bur-sage. Annual. Frequent in sandy soil, particularly at northeastern corner of park (Skyline Trail, Forest Lawn Dr.), where it is probably a relict of the historical Los Angeles River flora. *Cooper 610-66, 13 June 2010* (UCR).

Ambrosia confertiflora DC., weakleaf bur-ragweed. Perennial herb. Scarce; known recently from two disturbed, low-elevation sites: a small patch along Skyline Trail, and a vacant lot south of Hollywood Reservoir, the latter possibly being at or near an earlier (1959) collection. *Cooper 614-15, 4 June 2014* (UCR).

Ambrosia psilostachya DC., western ragweed. Perennial herb. Scarce; known from un-irrigated edge of lawn at Wilson-Harding Golf Course. *Cooper 614-13, 12 June 2014* (UCR).

Artemisia californica Less., California sagebrush. Small shrub. Common throughout park, particularly at lower elevations on southern face of park. *Purer s.n., 11 Feb 1931* (SD).

Artemisia douglasiana Besser, mugwort. Perennial herb. Common along drainages and at seeps throughout park. *Cooper 610-60A, 6 June 2010* (UCR).

Artemisia dracunculus L. wild tarragon. Suffruticose perennial. Occasional in sandy areas, especially along drainage bottoms and on steep, eroding hillsides on the southern and southeastern corner of the park such as near Vermont Canyon. *Cooper 711-85, 22 Jul 2011* (UCR).

- Baccharis pilularis*** DC., chaparral broom (Coyotebush). Large shrub. Common at lower elevations, particularly on coastal/southern flank of park. *A. Davidson 1452, Oct 1905* (POM; “Hollywood Hills”).
- Baccharis salicifolia*** (Ruiz & Pav.) Pers., mule fat. Large shrub. Frequent at seeps and springs throughout the park; common along lower portions of drainages, particularly in debris basins. *A.M. Johnson s.n., 17 Feb 1928* (LA).
- ****Bidens pilosa*** L., common beggar’s-tick. Annual. Occasional at irrigation lines along Forest Lawn Drive at the northern edge of the park; the status of this and other species of *Bidens* in the park is unknown, but it is presumably a locally common weed. *Cooper 912-74, 6 Sept 2012* (UCR).
- Brickellia californica*** (Torr. & A. Gray) A. Gray, California bricklebrush. Small shrub. Common throughout park, though not forming pure stands. *G.L. Moxley 1075b, 16 Oct 1921* (GH).
- Brickellia nevinii*** A. Gray, Nevin’s bricklebrush. Small shrub. Fairly common on rocky sites, including roadcuts, ridgelines and very steep slopes. *Cooper 911-111, 27 Sept 2011* (UCR).
- ****Centaurea melitensis*** L., tocolote. Annual. Common weed along trail edges and at disturbed sites. *Braunton 494, 24 June 1902* (UC).
- Chaenactis artemisiifolia*** (A. Gray) A Gray, white pincushion. Annual. Infrequent on steep, eroding ridges, mainly on upper slopes of south-draining canyons along the main ridge of the park, e.g., upper Western Canyon. *Ewan s.n., 25 May 1929* (POM).
- Chaenactis glabriuscula*** DC. var. ***glabriuscula***, yellow pincushion. Frequent in open patches on ridges and eroding slopes, including along edges of footpaths, particularly where underlain by rocky soil. *Braunton 248, 1 Apr 1902* (UC).
- Cirsium occidentale*** (Nutt.) Jeps. var. ***californicum***, cobwebby thistle. This species is frequent in coastal scrub and chaparral throughout park; the distribution of the two varieties is not known. *L.S. Rose 46247, 24 Jul 1946* (CAS, “S. slope of Cahuenga Peak”).
- Cirsium occidentale*** (Nutt.) Jeps. var. ***occidentale***, cobwebby thistle. This species is frequent in coastal scrub and chaparral throughout park; the distribution of the two varieties is not known. *Braunton 247, 1 Apr 1902* (UC).
- Corethrogyne filaginifolia*** (Hook. & Arn.) Nutt., California-aster. Suffruticose perennial. Common throughout park, particularly along trails and road edges. *Cooper s.n., 9 Nov 2011* (UCR).
- Deinandra fasciculata*** (DC.) Greene, clustered tarweed. Annual. Frequent throughout park, appearing in midsummer, often at the edges of footpaths. Particularly common in hard-packed clay and fine soils. *Cooper 20100308-34A, 8 Mar 2010* (UCR).
- ****Dimorphotheca sinuata*** DC., Cape marigold. Annual. Occasional; possibly seeded where it occurs along fireroads, e.g., Skyline Trail and in the vicinity of Aberdeen Canyon, so unknown whether actually naturalized, or just introduced at multiple locations. *Cooper; 415-20, 22 Mar 2015* (UCR).

- Encelia californica*** Nutt., California brittlebush (Bush sunflower). Small shrub. Common in coastal sage scrub at lower elevations, especially on southern flank of park. *Purer s.n.*, 8 May 1931 (SD).
- Ericameria linearifolia*** (DC.) Urbatsch & Wussow, linear-leaved goldenbush. Shrub. No extant occurrences known; apparently collected at the “planetarium” (= Griffith Observatory). *F. Collins s.n.*, 27 Feb 1942 (POM).
- Ericameria palmeri*** (A. Gray H.M. Hall) var. ***pachylepis*** (H.M. Hall) G. Nesom. Palmer’s goldenbush. Shrub. Infrequent on sandy and eroding soil at the lowest elevations, as along Forest Lawn Drive (former Los Angeles River wash area). *Cooper s.n.*, 5 Apr 2008 (UCR).
- Ericameria parishii*** (Greene) H.M. Hall, Parish’s goldenbush. Small shrub. No extant occurrences known; specimen label notes: “roadside in chaparral on granite soil just north of Mt. Hollywood, elev. 1250”, 10/22/58”. If correctly labeled, this represents one of just two known specimens from the Santa Monica Mountains, neither of which appears to be from an extant population (Prigge and Gibson 2013); this species tends to occur at higher elevations than Griffith Park, so it possible it was a relictual occurrence that is now extirpated. *Thompson 1811*, 22 Oct 1958 (RSA).
- Ericameria pinifolia*** (A. Gray) H.M. Hall, pine-bush (Pine goldenbush). Small shrub. Scarce; a single large plant discovered just west of the Mt. Hollywood overlook in October 2011 (DC) appears to be the sole occurrence in the park and perhaps in the entire eastern Santa Monica Mountains. A puzzling specimen, the foliage is particularly pale and grayish, but the inflorescences key to *E. pinifolia* (*vide* B. Prigge). *Cooper 1011-118*, 10 Oct 2011 (UCR).
- **Erigeron bonariensis*** (L.) Cronquist, asthmaweed. Annual. Probably occasional near irrigation lines and on disturbed soil. *Cooper 813-44*, 8 Aug 2013 (UCR).
- Erigeron canadensis*** (L.) Cronquist, Canadian horseweed. Annual. Occasional, mainly in disturbed areas at base of park. *Cooper 1108-19*, Nov 2008 (UCR).
- Erigeron foliosus*** Nutt. var. ***foliosus*** leafy fleabane (Fleabane aster). Perennial herb. Frequent throughout park, usually in grassy openings in scrub on rocky slopes, but also in deep shade of riparian zones. *Cooper s.n.*, 12 May 2008 (UCR).
- Eriophyllum confertiflorum*** (DC.) A. Gray var. ***confertiflorum***, golden yarrow. Suffruticose perennial. Common throughout park, particularly on roadcuts, ridgelines, and other eroding sites. *Epling s.n.*, May 1925 (LA).
- **Gamochaeta pensylvanica*** (Willd.) Cabrera, Pennsylvania everlasting. Annual. Scarce; known recent collection in open area of roadside near Griffith Observatory. *Cooper 315-30*, 28 Mar 2015 (UCR).
- Grindelia camporum*** E. Greene, common gumplant. Perennial herb. Scarce; known from just two locations on the northwestern edge of the park, both on heavy clay soils at lower elevations (Oak Canyon Trail and “Coyote Canyon” just south of Barham Boulevard) where it grows with various clay-associated annuals and grasses. *L.S. Rose 46223*, 21 Jul 1946 (CAS,

“N. end of Hollywood Reservoir”). This specimen has been identified as both *Grindelia camporum* var. *bracteosa* and *G. hirsutula* (Consotrium of California Herbaria 2016); as Prigge and Gibson (2013) write, “*Grindelia camporum* formerly was also called forms of *G. hirsutula*, *G. robusta*, or *G. bracteosa*, but most populations from across western North America have been collapsed into one species without recognizing varieties or subspecies, and *G. hirsutula* is still recognized but has been narrowly redefined.”

Gutierrezia californica (DC.) Torr. & A. Gray, California matchweed. Suffruticose perennial. No extant occurrences known. *Braunton 570, 1 July 1902* (UC).

Hazardia squarrosa (Hook. & Arn.) Greene var. ***grindelioides*** (DC.) W.D. Clark, saw-toothed goldenbush. Small shrub. Frequent in coastal scrub and chaparral throughout park, but fairly localized away from Mt. Hollywood, where it is locally common. *A.M. Johnson 2675, 11 Nov. 1927* (LA).

****Hedypnois cretica*** (L.) Dum.-Cours., Crete-weed. Annual. Frequent weed, often occurring on compact soil at edges of trails and roads. *A. Roos s.n., 17 May 1954* (UCR, “Hollywood”).

Helianthus annuus L., common sunflower. Annual. Infrequent, mainly at disturbed sites at lower elevations such as the mouth of Oak Canyon in the vicinity of Travel Town. *J.I. Carlson s.n., 24 Apr 1918* (CAS, “Hollywood”).

Heterotheca grandiflora Nutt., telegraph weed. Biennial herb. Widespread and common weedy native, often along roadsides. *G.W. Fisher s.n., 8 Feb 1948* (RSA, “Hollywood Reservoir”).

Heterotheca sessiliflora (Nutt.) Shinnars subsp. ***fastigiata*** (Greene) Semple, sessileflower false goldenaster (Erect goldenaster). Perennial herb. Scarce; known from a single small occurrence near the mouth of Oak Canyon adjacent to Forest Lawn Cemetery, where it occurs on a gravelly slope that was probably the historical southern bank of the Los Angeles River. *Cooper 810-95, 26 Aug 2010* (UCR).

****Hypochaeris glabra*** L., smooth cat’s-ear. Annual. Common weed throughout park, all habitats, including fairly remote, undisturbed sites. *Cooper 409-17, 30 Apr 2009* (UCR).

Isocoma menziesii (Hook. & Arn.) G.L. Nesom var. ***vernionoides*** (Nutt.) G.L. Nesom, Menzies’ goldenbush. Small shrub. This species (variety not determined) is frequent at lower elevations on southwestern edge of park, especially in the vicinity of Hollywood Reservoir, continuing west toward Cahuenga Pass. It does not appear to occur, or is at least very uncommon, on the northern and eastern edges of the park and within the park interior, including on ridges, and may be associated with coastal moisture -- a distribution similar to *Baccharis pilularis*, *Rhus integrifolia*, and other coastal-slope taxa. *F. Grinnell, Jr. s.n., 9 Sep 1917* (DS).

Lasthenia californica Lindley, California goldfields. Annual. No extant occurrences known. *Oster s.n., 27 Apr 1924* (POM, “Foothills N, between Vermont and Western Ave – Los Angeles”).

- Lepidospartum squamatum*** (A. Gray) A. Gray, scalebroom (Nevada broomsage). Scarce, persisting locally along Forest Lawn Drive, where it is probably a relict of the historical Los Angeles River wash and is now largely protected from disturbance such as mowing and disking by growing along fencelines. *Cooper 810-97, 26 Aug 2010* (UCR).
- Leptosyne bigelovii*** (A. Gray) A. Gray. Bigelow's tickseed. Annual. No extant occurrences known. *O.A. Plunkett s.n., 20 Mar 1926* (LA; as *Coreopsis bigelovii*).
- Logfia flaginoides*** (Hook. & Arn.) Morefield, California cottonrose. Annual. Occasional on rocky, open sites, including on compacted soil along small footpaths through scrub. *Cooper 409-3.3, 30 Apr 2009* (UCR).
- ****Logfia gallica*** (L.) Coss. & Germ., narrowleaf cottonrose. Annual. Frequent along edges of trails and other compacted soil. *Cooper 509-09, 30 May 2009* (UCR).
- Madia gracilis*** (Sm.) D.D. Keck, slender tarweed. Annual. Occasional; restricted to clay or compacted soils, particularly in shaded or moist sites where surrounding grasses remain green well into spring. *Cooper 510-47B, 10 May 2010* (UCR).
- Malacothrix saxatilis*** (Nutt.) Torr. & A. Gray **var. *tenuifolia*** (Nutt.) A. Gray, cliff-aster. Perennial herb. Frequent on steep, eroding sites throughout park. *Cooper 1011-124, 5 Oct 2011* (UCR).
- ****Matricaria discoidea*** (Less.) Porter, pineapple weed. Annual. Occasional on well-used trails and fireroads throughout the park, occasionally invading more natural areas. *Cooper 315-16, 3 Apr 2015* (UCR).
- Monolopia lanceolata*** Nutt., common monolopia. Annual. No extant occurrences known. This localized annual appears to have been collected just once in the park, and like several other now-scarce annuals, this very early collection comes from an era when the landscape would have been essentially wild and comprised of large ranchos. Ordinarily, such a record might be considered hypothetical, but the location description seems to fit Cahuenga Peak, which has rocky, eroding habitat that seems suitable. *W.H. Brewer 185, 12 Feb 1861* (UC, "high rocky ridge east of Cahuenga Pass").
- Pseudognaphalium biolettii*** Anderb., two-toned everlasting (Rabbit tobacco). Perennial herb. Frequent throughout park, scattered through coastal scrub and xeric chaparral. *Cooper 514-52, 23 May 2014* (UCR; as "*Pseudognaphalium bicolor*").
- Pseudognaphalium californicum*** (DC.) Anderb., California everlasting (Ladies' tobacco). Perennial herb. Common, particularly along roadsides, roadcuts, and other somewhat disturbed sites. *A.M. Johnson 118, 16 Feb 1928* (LA).
- Pseudognaphalium microcephalum*** (Nutt.) Anderb., Wright's cudweed (White everlasting). Frequent throughout park, scattered through scrub and chaparral habitats and along roadcuts and fireroads. It is possible that *P. beneolens* also occurs. *Cooper 1011-123, 5 Oct 2011* (UCR).

- Pseudognaphalium ramosissimum*** (Nutt.) Anderb., pink everlasting (Cudweed). Perennial herb. No extant occurrences known. Apparently rare in Los Angeles County, with mainly early specimens scattered across Los Angeles Basin/Channel Islands, it appears to be mainly confined to sandy, coastal strand habitats, at least in southern California. The cited specimen from 1902 is likely correct, particularly considering that the northern and eastern edges of the park would have included the sandy wash of the Los Angeles River, where it might have occurred. If it were to be found again, the powerline right-of-way along Forest Lawn Drive would be a logical area for its rediscovery, probably in late summer when it flowers. *Braunton 643, 1 Aug 1902* (UC).
- Pseudognaphalium stramineum*** (Knuth) Anderb., cotton-batting plant. Annual. Photographed recently along Skyline Trail, and may be widespread in the park. No effort has been made to search for and identify it to date. *Braunton 237, 1 Apr 1902* (UC).
- Psilocarphus tenellus*** Nutt., wooly-marbles (Slender woolyheads). Annual. Occasional along edges of trails, often on coarse soil where rainfall typically collects but drains after a few days, such as One-Mile Tree and the western base of Caheunga Peak. *Cooper 315-10, 3 Mar 2015* (UCR).
- Rafinesquia californica*** Nutt., California chicory. Annual. Frequent in scrub and chaparral, particularly in some disturbed areas such as openings in scrub or roadsides, often on loose or well-drained soil. Like *Brickellia californica*, *Pseudognaphalium californica*, or *Hazardia squarrosa*, this species occurs widely as a sub-dominant, not generally forming pure stands. *Cooper 514-50, 23 May 2014* (UCR).
- Senecio flaccidus*** Less. var. *douglasii* (DC.) B.L. Turner & T.M. Barkley, bush senecio (Douglas's ragwort). Small shrub. Infrequent in loose soil in coastal scrub at lower elevations, as near Roosevelt Golf Course and in the right-of-way along Forest Lawn Drive, in what was once the Los Angeles River wash. Typically occurs singly, with individuals widely scattered, unlike in intact alluvial wash habitat where it can form small stands. *Cooper s.n., 5 Apr 2008* (UCR).
- ****Senecio vulgaris*** L., common groundsel. Annual. Common weed throughout park, including in remote, undisturbed habitats such as the summit of Cahuenga Peak, Royce Canyon rock outcrops, etc. *Cooper 409-35, 14 Apr 2009* (UCR).
- ****Silybum marianum*** (L.) Gaertn., milkthistle. Annual or perennial herb. Scarce weed; collected recently at small debris basin on north side of Fern Dell picnic area. *Cooper 614-33, 26 June 2014* (UCR).
- Solidago velutina*** DC. subsp. *californica* (Nutt.) Semple, California goldenrod. Perennial herb. Scarce; known only from Brush Canyon, along the stream near the small waterfall about midway up the drainage from the park entrance. *Cooper 712-46, 22 July 2012* (UCR).

Stephanomeria diegensis Gottlieb, San Diego milk aster. Annual. A small, whitish annual *Stephanomeria* is frequent throughout the park in early spring; local material has been recently identified as this species, but its abundance in the park is uncertain. The similar *Stephanomeria exigua* Nutt. subsp. *coronaria* (Greene) Gottlieb may yet be discovered in the park or, material collected may be re-identified as this species, as it has been documented in the Santa Monica Mountains and in the nearby Verdugo Mountains (Soza et al. 2013). *Prigge 16131, 20 Oct 2011* (LA).

Stephanomeria virgata Benth. subsp. *virgata*, tall wirelettuce. Annual. Frequent in openings in scrub, particularly in sandy soil, as along Forest Lawn Drive and along Boys Camp Canyon. *Cooper 911-114, 27 Sept 2011* (UCR).

Uropappus lindleyi (DC.) Nutt. Lindley's Silverpuffs. Annual. Frequent; occurrences of this species have been confirmed from a gravelly slope adjacent to Forest Lawn Cemetery (cited specimen), but this or a similar species occurs widely wherever native forbs are present. The relationship between it and *Stebbinsoseris heterocarpa* (Nutt.) Chambers and the distribution of both in the park remain unclear. Prigge and Gibson (2013) recognize the local plants as two stable hybrids, *Uropappus* × *lindleyi* and *Microseris* × *heterocarpa*, and write in their treatment of *M.* × *heterocarpa*, "in many places treated as *Stebbinsoseris heterocarpa*, [it] is an allotetraploid interspecific hybrid between *Microseris douglasii* and *M.* × *lindleyi* (= *Uropappus* × *lindleyi*), itself an interspecific hybrid with one parent also being a species of *Microseris*." *Cooper s.n. 5 Apr 2008* (UCR).

Venegasia carpesioides DC. canyon sunflower. Small shrub. Formerly unknown from Griffith Park (see Raven and Thompson 1966), recent fieldwork has revealed this shrub to be occasional in canyons on the northwestern slope of the park, as along Sennett Canyon, where it is numerous, at a seep atop Cahuenga Peak, and along Mt. Hollywood Road near the top of the Toyon Canyon Landfill, adjacent to upper Royce Canyon. Though common in coastal-draining canyons in the western Santa Monica Mountains, it apparently becomes more localized to the east. *Cooper s.n., 9 Apr 2008* (UCR).

****Verbesina encelioides*** (Cav.) Benth. & Hook. f. ex A. Gray, golden crownbeard. Annual. Infrequent and local, persisting along the 134 Freeway (DSC, pers. obs.) and locally elsewhere on the extreme northern base of the park. *Cooper 813-42, 8 Aug 2013* (UCR).

Xanthium strumarium L. cocklebur. Annual. Locally common in constructed debris basins in the park. *Cooper 614-32, 26 June 2014* (UCR).

BERBERIDACEAE

(†)****Berberis nevini*** A. Gray, Nevin's barberry. Shrub. Frequent near Griffith Observatory on the ridge between Vermont and Western canyons; scattered

occurrences elsewhere, including lower Brush Canyon and near the Toyon Canyon Landfill. The oldest plants appear to have been planted, possibly from natural occurrences in the region, but almost certainly were not themselves naturally occurring in the park, as suggested by their strong association with roads and landscaped areas. This species is readily dispersed by birds, and most “off-trail” occurrences are young, small shrubs, often just downslope of established stands, as opposed to the larger, older plants along roads and near vista points. Soza et al. 1060, 16 Nov 2000 (SBBG).

BORAGINACEAE

Amsinckia intermedia Fisch. & C.A. Mey, common fiddleneck. Annual. Occasional and highly variable from year to year, depending on rainfall. Often in small, scattered colonies on trail edges and roadsides (e.g., at Cedar Grove, Mt. Hollywood, and along roadsides near Bee Rock and Royce Canyon) and in sandy debris basins. It occurs amid non-native grasses and weeds, so it seems unlikely that competition with these plants accounts for its local rarity. Bristly, small-flowered individuals that had been identified as *A. menziesii* [e.g., *Epling 6446, Mar 1925 (LA)*] are likely *A. retrorsa* Suksd. (*vide* A.C. Sanders), with *A. menziesii* confined to extreme northern California. Review of all *Amsinckia* specimens from the park is recommended. *Cooper 10100323-05B, 23 Mar 2010 (UCR)*.

Cryptantha intermedia (A. Gray) Greene, intermediate cryptantha (Popcorn-flower). Annual. Frequent after sufficient late winter rains along trails and roadsides, roadcuts, tiny open patches within coastal sage scrub, and on exposed ridgelines. *Cooper 510-52B, 10 May 2010 (UCR)*.

Cryptantha micromeres (A. Gray) Greene, pygmyflower cryptantha. Annual. Probably occasional, occurring in rockier, more gravelly soils than *C. intermedia*, which appears to favor eroding patches of sedimentary soils and fine clay; identified from material collected recently in burned areas and on steep, semi-disturbed sites, especially the hard-packed soil along footpaths. *Cooper 410-56A, 23 Apr 2010 (UCR)*.

Cryptantha microstachys (A. Gray) Greene, Tejon cryptantha. Annual. Probably occasional in similar habitat as *C. micromeres*. *Cooper 210-56A, 23 Apr 2010 (UCR)*.

Cryptantha muricata (Hook. & Arn.) A. Nelson & J.F. Macr. Pointed cryptantha. Annual. No extant occurrences known; four early collections; it may persist locally, particularly following fires. *Epling s.n., 25 Apr 1925 (LA)*.

Pectocarya linearis Ruiz & Pavón DC., sagebrush combseed. Annual. Scarce; recently collected along utility road at western base of Cahuenga Peak, where it was locally common in spring 2015. *Cooper 315-9, 3 Mar 2015 (UCR)*.

Pectocarya penicillata (Hook. & Arn.) A. DC., winged pectocarya (Winged combseed). Annual. Infrequent; numerous along the high ridge connecting

Cahuenga and Burbank peaks, with scattered occurrences elsewhere on rocky ridges and outcroppings (e.g., just east of the Ford Amphitheater). *J.T. Howell 3560, 20 Mar 1928* (JEPS).

Plagiobothrys collinus (Phil.) I.M. Johnson, Cooper's popcorn-flower. Annual. Scarce; known from a very small population of unknown variety along a dirt utility road at the northern base of Burbank Peak, where a variable number of plants grow on compacted soil directly in the roadbed and its edges. *Cooper 315-8, 3 Mar 2015* (UCR).

BRASSICACEAE

****Arabidopsis thaliana*** (L.) Heynh., mouse-ear cress. Perennial herb. Infrequent; recently observed in grassy patches in rock outcrops at the Royce Canyon "moss gardens", but probably more widespread. *Cooper 313-52, 17 Mar 2013* (UCR).

Barbarea orthoceras Ledeb., winter cress. Perennial herb. Scarce; occurs in "moss gardens" on the southern slope of Royce Canyon and the northern slope of Mt. Bell. Apparently more of a foothill/montane species in the region, it occurs in the park at an unusually low elevation. *Cooper 20100409-26, 9 Apr 2010* (UCR).

Boechera californica (Rollins) Windham & Al-Shehbaz, California rockcress. Perennial herb. No extant occurrences known. *Epling s.n., 25 Apr 1925* (LA; as "*Arabis sparsiflora* var. *californica*").

****Brassica tournefortii*** Gouan, Saharan mustard (Asian mustard). Annual. Scarce but probably increasing; recently collected along access road around Hollywood Reservoir, where it is established locally, and also seen in the vicinity of Commonwealth Nursery. *Cooper 413-58, 22 Apr 2013* (UCR).

****Capsella bursa-pastoris*** (L.) Medik., shepherd's purse. Annual. Frequent lawn weed, spreading into nearby disturbed and even native habitats. *Cooper 20170211-01, 11 Feb 2017* (UCR) [in preparation].

Cardamine oligosperma Nutt., Little western bittercress. Annual or biennial. Infrequent but locally numerous in "moss gardens" and on rocky/sandy areas, particularly in "splash zones" of boulders and along trails where water collects and supports patches of native annual vegetation in late winter/early spring. *Cooper 211-8, 13 Feb 2012* (UCR).

Caulanthus heterophyllus (Nutt.) Payson, slender-pod jewelflower. Annual. No extant occurrences known. The specimen cited was collected along with several presumed extirpated species, with the label notation "N(orth?). bet(ween?) Vermont and Western (avenues), hills chaparral"; another early collection lists "floor of Vermont Canyon, Griffith Park". *H.M. Oster s.n., 30 Apr 1924* (RSA).

Caulanthus lasiophyllus (Hook. & Arn.) Payson, California mustard. Annual. No extant occurrences known. One early collection “near the summit of Mt. Hollywood”, with one noting an elevation of 1,657’, which is near the actual 1,640’ elevation of the peak. The label on the cited specimen adds “common in moist soil of open slope”, which could describe the western slopes of the peak, which are often rich with native forbs. *J.A. Ewan 2354, 3 May 1930* (RSA).

Draba cuneifolia Torrey & A. Gray, wedgeleaf draba. Annual. Scarce. Discovered in February 2015 along the ridge just southwest of One-Mile Tree, growing near several other locally-scarce annuals, including *Scutellaria tuberosa* and *Silene antirrhina*. *G. Hans s.n., January 2015* (UCR) [specimen in prep.].

Erysimum capitatum (Douglas ex Hook.) Greene var. ***capitatum***, western wallflower. Biennial herb. No extant occurrences. Its abundance and conspicuousness in the nearby San Gabriel Mountains suggests that it is extirpated. *D. Bullock 16034, 10 Jul 1931* (RSA).

****Lepidium didymum*** L., lesser swinecress. Annual. Presumably a common lawn weed; its distribution in wildland areas of the park is unknown. *Raven 13818, 1 Mar 1959* (CAS).

****Lepidium strictum*** (S. Watson) Rattan, prostrate peppergrass. Annual. Scarce; recently collected in open, hard-packed dirt of trail edge on southwestern flank of Mt. Hollywood. *Cooper 315-29, 28 Mar 2015* (UCR).

****Lobularia maritima*** (L.) Desv., sweet alyssum. Suffruticose perennial. Frequent weed throughout park, mainly around irrigation. *W.O. Griesel s.n., 16 May 1936* (LA, “Hollywood Hills”).

****Sisymbrium orientale*** L., Oriental hedge mustard. Annual or perennial herb. Frequent along roadsides and in grassy openings and woodland and scrub, appearing in late winter. *Cooper 315-26, 22 Mar 2015* (UCR).

Thysanocarpus laciniatus Nutt., mountain fringe-pod. Annual. Infrequent on rock outcrops, particularly at seeps, as along Camp Canyon Road near the northeastern corner of the park and in “moss gardens” elsewhere. *Cooper s.n. 7 Apr 2008* (UCR).

Turritis glabra L., tower mustard. Biennial herb. No extant occurrences known. The sole early collection was from the “floor of Vermont Canyon”, an area that has been extensively altered since. *J.T. Howell 3453, 20 Mar 1928* (CAS).

CAPRIFOLIACEAE

****Centranthus ruber*** (L.) DC., red valerian. Perennial herb. Infrequent on rock faces and similar habitats, mainly along Vista del Valle Road and in lower Brush Canyon; occurs widely along roadcuts in adjacent residential areas. *A. Mayers s.n., 14 Apr 1978* (UCR).

Lonicera subspicata Hook. & Arn. var. ***denudata*** Rehder, southern (Santa Barbara) honeysuckle. Liana, sometimes a scandent shrub. Frequent in chaparral and coastal sage scrub, particularly in somewhat mesic sites. *Braunton 471, 11 June 1902* (DS).

Symphoricarpos mollis Nutt., creeping snowberry. Small shrub. Frequent in understory of mesic chaparral and woodland, including walnut and sumac scrub. *Cooper 20100326-11B, 26 Mar 2010* (UCR).

CARYOPHYLLACEAE

****Polycarpon tetraphyllum*** (L.) L., four-leaved allseed. Annual. Common on hard-compacted roadbeds, trails, lawns, and other disturbed areas, even far from the urban edge. *Cooper 510-58C, 13 May 2010* (UCR).

Silene antirrhina L., sleepy catchfly. Annual. Scarce; known only from one collection, in coastal sage scrub southwest of One-Mile Tree on the western edge of Western Canyon. This inconspicuous annual may be more common and simply overlooked. *Cooper 410-53B, 19 Apr 2010* (UCR).

****Silene gallica*** L., common catchfly. Annual. Frequent in disturbed, often grassy patches within native scrub habitat. *Epling s.n., 25 Apr 1925* (LA).

Silene laciniata Cav. subsp. ***laciniata*** cardinal catchfly. Perennial herb. Frequent on rocky sites throughout park, typically on shady, north-facing exposures. *Epling s.n., 15 May 1925* (LA).

****Spergula arvensis*** L., corn spurry. Annual. Scarce; recently collected along utility road at western base of Cahuenga Peak, where it was locally common in spring 2015. *Cooper 315-11, 3 Mar 2015* (UCR).

****Stellaria media*** (L.) Vill., common chickweed. Annual. Common in understory of chaparral and woodland, particularly on moist soil, where it tends to form thin mats by late winter. *Epling 6441, Mar 1925* (LA).

CHENOPODIACEAE

****Atriplex semibaccata*** R. Br., Australian saltbush. Suffruticose perennial. Infrequent along hard-packed trails and other disturbed sites. *L.C. Wheeler 158, 25 Sep 1931* (POM, "Los Feliz Blvd. at Los Angeles River").

CISTACEAE

Crocanthemum scoparium Nutt., rush-rose. Suffruticose perennial. Frequent though inconspicuous when not in bloom, most common on recent burns on thin, well-drained or rocky soil, occurring locally in unburned areas, as along very steep, worn footpaths. *Braunton 444, 11 June 1902* (UC).

CLEOMACEAE

Peritoma arborea (Nutt.) H.H. Iltis, bladderpod. Shrub. No extant occurrences known. Collected on a “hillside” in Griffith Park in June 1930 (see cited specimen below), this species was likely part of the relictual Los Angeles River wash flora, represented by several alluvial fan scrub species, but is now almost certainly extirpated as a naturally-occurring species. It is occasionally used for revegetation projects in the area (e.g., a roadcut along the Glendale Freeway through Glendale). *A. Eatherton s.n.* (as “*Cleome isomeris*”), *May 1930* (RSA).

CONVOLVULACEAE

Calystegia macrostegia (Greene) Brummitt subsp. ***arida*** (Abrams) Brummitt, southern California morning glory (Island false bindweed). Perennial herb or vine. Probably infrequent; known from two areas of sandy soil, one along Forest Lawn Drive in what was historically the Los Angeles River wash along the northern base of the park, and one on the eastern side of Hollywood Reservoir. *Cooper s.n., 19 Sept 2011* (UCR).

Calystegia macrostegia (Greene) Brummitt subsp. ***cyclostegia*** (House) Brummitt, coast morning glory (Island morning glory). Perennial herb or vine. The species is common in all habitats at all elevations, including burns and disturbed areas; however, the subspecific identity of individual plants is unknown except for a handful of collections. *Epling s.n., 15 May 1925* (LA).

Calystegia macrostegia (Greene) Brummitt subsp. ***intermedia*** (Abrams) Brummitt, south coast morning-glory (Island false bindweed). Status unknown. *Mullins 249, 13 May 1931* (RSA).

†***Convolvulus simulans*** Perry, clay bindweed. Annual. Scarce; discovered in a small area of moist, heavy clay soil near One-Mile Tree in April, 2010 by T. Sagar, but not found here in subsequent years. This species is nearly unknown elsewhere in the Santa Monica Mountains and was not included by Wishner (1997). This occurrence is therefore highly significant. Interestingly, an early collection [*A. Davidson 2337, s.d.* (RSA)] is labeled as being from “Brumholly Hill”, which may be near present-day Brunholly Drive, located not far from the 2010 collection. *Cooper 410-53A, 19 Apr 2010* (UCR).

Cuscuta californica Hook. & Arn., chaparral dodder. Parasitic annual. Dodder is common in the park by late spring, and two similar-appearing species have been collected in the park; more study is needed to determine the status of each. Recently identified from material on square-leaf goldenbush (*Hazardia squarrosa*) in scrub just north of Commonwealth Avenue, and presumably widespread in the park. *Cooper 614-30, 26 Jun 2014* (UCR).

Cuscuta subinclusa Durand & Hilg., canyon dodder. Parasitic annual. Identified from material collected on *Eriogonum fasciculatum* in 2011 at Mt. Hollywood in the vicinity of Commonwealth Nursery. See note on above species. *Cooper 315-27, 22 Mar 2015* (UCR).

CRASSULACEAE

Crassula connata (Ruiz & Pav.) A. Berger, pygmy-weed. Annual. Frequent in flat, hard-packed areas of soil where rainfall collects briefly, often occurring in mats of dozens or hundreds of individuals. *P.H. Raven and H.J. Thompson 15074, no date* (LA; “Mt. Hollywood”).

Dudleya lanceolata (Nutt.) Britton & Rose, lanceleaf liveforever. Succulent perennial herb. Frequent on steep rocky or stony soils and rock outcrops, and extremely variable throughout the park in terms of flower color and leaf width and length. Interestingly, several other species of *Dudleya* occur in the Santa Monica Mountains, but this appears to be the only one in the eastern Santa Monica Mountains, east of Sepulveda Pass. *Kline s.n., 1 June 1924* (RSA).

Dudleya multicaulis (Rose) Moran, many-stemmed live-forever. Perennial herb. No extant occurrences known. Specimens from 1905 and 1924 include material from the area (see cited specimen). This species is typically found on shallow patches of soil atop boulders, often within grassland or chaparral, a habitat that still exists in the park. Upon examination of the material at RSA, several were presumably incorrectly labeled, including “Tehachapi”, lending a degree of uncertainty to all local collection locales. More recent fieldwork has revealed it to be restricted to a narrow band of low hills from southeastern Los Angeles County east of San Gabriel Valley, east to extreme southwestern San Bernardino County and south into northwestern San Diego County. However, as undeveloped clay hills were once contiguous across the Los Angeles Basin, I have retained it on the main list until these early collections are shown to be in error. *H.M. Oster s.n., 27 Apr 1924* (RSA, “Foothills N, between Vermont and Western Ave.”).

CUCURBITACEAE

Marah macrocarpa (Greene) Greene, wild cucumber. Perennial herb. Common throughout park, all habitats except areas of major soil disturbance. *Epling s.n., 18 May 1925* (LA).

DATISCAEAE

Datisca glomerata (C. Presl) Baill., Durango root. Perennial herb. No extant occurrences known. One early collection from the “n(orth) side of Griffith

Park.” It is possible that it occurred in lower Sennett/Royce Canyon, both now highly modified by Forest Lawn Cemetery. This species occurs along rocky canyons, and these would have been the major drainages on the north slope of the park. *Braunton 478, 13 June 1902 (UC).*

ERICACEAE

Arctostaphylos glandulosa Eastw. subsp. *mollis* (J.E. Adams) P.V. Wells, Eastwood’s manzanita. Large shrub. One of the “flagship species” of Griffith Park, a sizable, geographically isolated population of this large shrub cloaks the high plateau between Cahuenga and Burbank Peak, where hundreds of plants occur with chamise as a co-dominant. A 2007 burn thinned out portions of this stand, resulting in a more diverse array of shrub species, but the manzanita recovered strongly. Scattered plants also occur in mixed chaparral on steep, granitic ridges just north of Mt. Hollywood, extending downslope to the east toward Vista del Valle Road This subpopulation is recovering following the 2007 fire. Otherwise, despite much searching, the species has not been located on the other peaks in the park, such as Mt. Chapel and Mt. Bell. ` (DS).

EUPHORBIACEAE

Croton californicus Muell. Arg., California croton. Suffruticose perennial. Infrequent; locally numerous in powerline right-of-way and other flat, sandy areas along Forest Lawn Drive on the northern base of the park. *Cooper 610-69, 13 June 2010 (UCR).*

Croton setiger Hook., turkey mullein (doveweed). Annual. Infrequent; occurs in late summer and fall in same areas as *Croton californicus* along Forest Lawn Drive, and more widely in sandy areas elsewhere, including along Vista del Valle Drive and in “fuel modification zones” around houses. *Cooper 614-43, 26 June 2014 (UCR).*

**Euphorbia maculata* L., spotted spurge. Annual. Occasional; mostly a lawn weed, collected recently at debris basin at lower Brush Canyon *Cooper 614-39, 26 June 2014 (UCR).*

Euphorbia melanadenia (Torr.) Millsp., red-gland spurge. Perennial herb. Infrequent; locally numerous on exposed slopes in the vicinity of Mt. Hollywood, but not documented elsewhere. *Cooper 1011-117, 10 Oct 2011 (UCR).*

**Euphorbia pepplus* L., petty spurge. Annual. Frequent weed in disturbed areas, often in understory of shady woodland and scrub, but also around irrigation. *Cooper 510-57C, 10 May 2010 (UCR).*

Euphorbia polycarpa (Benth.) Millsp., smallseed spurge. Perennial herb. Frequent on open, gravelly soil in several parts of the park, including ridges

around Hollywood Reservoir and above One-Mile Tree. *M. Morris s.n.*, 11 Mar 1929 (RSA).

- **Euphorbia terracina* L, carnation spurge. Infrequent along roads and in other disturbed areas; apparently a recent invader, now established widely in the Los Angeles Basin. *Cooper 313-56*, 7 Mar 2013 (UCR).
- **Ricinis communis* L., castor bean. Large shrub. Invasive shrub of disturbed soil, frequent at lower elevations and associated with drainages, but also observed forming thickets on slopes post-fire, where it represents a serious pest. It is periodically treated/controlled along trails in the park. Even minor soil modification, such as trampling by hikers, dogs and bicycles, can result in infestations that are difficult to eradicate. *T.E. Hesketh s.n.*, 7 Feb 1948 (RSA).

FABACEAE

- **Acacia baileyana* F. Muell. Cootamundra wattle. Tree. Scarce; naturalized at Coolidge Canyon adjacent to Tregnan Golf Academy, where it covers several acres, but has not strayed widely in the park. Material collected from this occurrence in 2014 has been identified as the similar *A. dealbata* (*fide* A. Gibson), and additional *Acacia* species may yet prove to be naturalized in the park. *Cooper 614-76*, 26 Jun 2014 (UCR).
- Acmispon americanus* (Nutt.) Rydb., Spanish clover. Annual. Infrequent in sandy, open areas, including along Forest Lawn Drive and on the upper slopes of Fern Canyon. *Cooper s.n.*, 30 May 2008 (UCR).
- Acmispon glaber* (Vogel) Brouillet var. *glaber*, deerweed. Suffruticose perennial. One of the most abundant plants in the park, it is particularly common along footpaths, so may seem especially common. *Epling s.n.*, May 1925 (LA).
- Acmispon maritimus* (Nutt.) D.D. Sokoloff var. *maritimus*, coastal bird's-foot trefoil. Annual. Abundant on recent burn at Coolidge Canyon/Beacon Hill, and probably widespread in the park on recently-disturbed sites. *Cooper 20100409-31*, 9 Apr 2010 (UCR).
- Acmispon strigosus* (Nutt.) Brouillet, strigose bird's-foot trefoil (Bishop's lotus). Annual. Infrequent and local, emerging in early spring on steep, rocky, and eroding areas, such as the high ridgeline between Burbank and Cahuenga Peak and at the edge of a debris basin in Vermont Canyon, both of which burned in 2007. *Cooper 409-1.1*, 22 Apr 2009 (UCR).
- Amorpha californica* (Nutt.) var. *californica*, California false indigo. Occasional in shady, protected spots, as along canyons, including Fern Canyon, and in the understory of walnut woodland at Beacon Hill. Often occurs in clusters of several plants, but absent from large areas of seemingly suitable habitat. *Cooper 413-61*, 22 Apr 2013 (UCR).

Astragalus gambelianus E. Sheld., Gambel's milkvetch. Annual. Scarce; a tiny population of approximately 10 plants occurs in loamy soil on a bench along the south side of the stream in upper Royce Canyon; a second population recently found near the base of a large cross sculpture on the ridgeline above Ford Amphitheater just west of Cahuenga Pass, where a moderate amount of foot traffic and clearing provides just enough bare ground for it to thrive. *Cooper 10100409-28A, 9 Apr 2010* (UCR).

Lathyrus vestitus Nutt. var. *vestitus*, Pacific pea. Perennial herb. Frequent vine climbing over chaparral and scrubby oak woodland, most common on northern exposures. The taxonomy of this species has been repeatedly revised, and the local form is now known as var. *vestitus*; two other named forms have been vouchered, subsp. *laetiflorus* and subsp. *laevicarpus*. *Cooper s.n., 5 Apr 2008* (UCR).

Lupinus bicolor Lindl., miniature lupine. Annual. Frequent in early spring on sandy soil at lower elevations, as in the vicinity of Aberdeen Canyon, particularly in somewhat disturbed sites such as former burns, fire road edges, etc. *Cooper 315-14, 3 Mar 2015* (UCR).

Lupinus excubitus M.E. Jones var. *hallii* (Abrams) C.P. Smith, grape soda lupine (Hall's bush-lupine). Shrub. Scarce; known positively from a single occurrence on a landslide on a grassy slope above the Bird Sanctuary of upper Vermont Canyon. This species, or *L. longifolius* (see below) may also comprise a small population of bush-lupine on the north side of Mt. Lee, as well as to a very old individual above Deronda Drive, south of Mt. Lee. *Cooper 20100409-33, 10 Mar 2010* (UCR).

Lupinus formosus Greene, summer lupine. Perennial herb. No extant occurrences known. Reportedly collected twice in the park, once from "Vermont Canyon," an area that has been subjected to significant land use change in the past century. *J.T. Howell 3473, 20 Mar 1928* (UC).

Lupinus hirsutissimus Benth., stinging lupine. Annual. Common following the 2007 burn in the southeastern corner of the park, this species is otherwise local, mainly restricted to areas of soil disturbance within chaparral. *A. Eatherton 15992, May 1930* (RSA).

Lupinus longifolius (S. Watson) Abrams, Pauma bush-lupine (Watson's bush-lupine). Shrub. Status uncertain; possibly includes the bush-lupines found on Mt. Lee (see *L. excubitus* var. *hallii*). From B. Prigge (*pers. comm.* 2011): "As for the perennial lupines of Griffith Park, I think there are two species for sure: the herbaceous perennial *Lupinus formosus* and a shrubby one that has been called either *L. excubitus* (var.) *hallii* or *L. longifolius*". Clearly, more study is needed, particularly to determine whether an herbaceous perennial lupine (i.e., *L. formosus*) persists in the park. *Epling s.n., 15 May 1925* (LA).

- Lupinus sparsiflorus*** Benth., Coulter's lupine. Annual. The specimen could not be located during a 2011 visit to RSA, and it is not known where in the park it was collected, except that the label apparently notes "chaparral." An apparently natural population of several dozen plants was recently discovered just outside the study area, along a firebreak at Hollywood Bowl west of Cahuenga Pass (Cooper 2015). *Anon. s.n., 11 Jul 1941* (RSA).
- Lupinus succulentus*** Douglas ex K. Koch, arroyo lupine. Annual. Frequent in late winter and spring in clay and other non-volcanic soils and in somewhat disturbed sites at lower elevations at the perimeter of the park such as slopes adjacent to houses cleared for weed abatement; much less frequent (absent?) in intact habitat in the interior of the park. *Cooper 610-72, 16 June 2010* (UCR).
- Lupinus truncatus*** Nutt., collar lupine. Annual. Frequent in grassy openings in coastal sage scrub, roadcuts, and areas that support patches of other native forbs. *J. Clizbe 16057, 6 May 1930* (RSA).
- ****Melilotus albus*** Medik., white sweet clover. Annual to perennial herb. Occasional in moist, somewhat disturbed situations, as at the edges of picnic areas where irrigation extends into wildland habitat, or in seasonal drainages, particularly after a disturbance such as fire. *J. Clizbe s.n., 6 May 1930* (POM).
- ****Melilotus indicus*** (L.) All., sour clover. Annual. Presumably similar to above species; the distribution of these two species has not been studied. *Epling s.n., 18 May 1925* (LA).
- †***Pickeringia montana*** Nutt. var. *montana*, chaparral pea. Shrub. Scarce; a small stand on the high plateau between Burbank and Cahuenga peaks has probably expanded somewhat since a 2007 fire. This occurrence is one of only a handful in the Santa Monica Mountains (*vide* B. Prigge), with the nearest stand located far to the west in the Topanga Canyon area. *Cooper 510-58A, 13 May 2010* [UCR; also collected by E. Braunton (*Braunton 355, 27 May 1902*) at "summit Cahuenga Mtns." which may have been the same area (DS)].
- ****Spartium junceum*** L., Spanish broom. Shrub. Occasional in the vicinity of Hollywood Reservoir, possibly derived from early plantings for slope-stabilization here. *Cooper 614-60, 14 June 2014* (UCR).
- Trifolium ciliolatum*** Benth., tree clover (Foothill clover). Annual. Infrequent on clay or loamy soil in oak or black walnut woodland (e.g., Oak Canyon, Coolidge Canyon). *Cooper 410-59, 19 Apr 2010* (UCR).
- ****Trifolium hirtum*** All., rose clover. Annual. Scarce; established on a clay slope at the edge of oak woodland at the western base of Cahuenga Peak at the end of Primera Drive. *Cooper 413-65, 22 Apr 2013* (UCR).

FAGACEAE

Quercus agrifolia Née var. *agrifolia*, coast live oak. Tree. Common throughout the park, the largest individuals are found in and around picnic areas near the lower portions of the major drainages in the park, which were formerly low-gradient streams favored by oaks. Closed-canopy oak woodland in its native condition, i.e., with a largely native shrub/herb layer, is highly localized in the park, found only in small scattered pockets, including along lower Brush Canyon, lower Spring Canyon, and on the north slope of Mt. Lee. Several former oak woodlands have been “augmented” with non-native plantings, though they still retain elements of this natural community, for example at the Bird Sanctuary in Vermont Canyon. *R. Martinolich* 3, 7 Apr 1991 (RSA).

Quercus berberidifolia Liebm., scrub oak. Large shrub. Frequent parkwide, highly variable in terms of leaf shape and overall appearance, with leaves varying from strongly indented and spine-tipped to nearly entire. *Braunton s.n.*, June 1902 (DS).

†***Quercus durata*** Jeps. var. *gabrielensis* Nixon & C.H. Muller, San Gabriel Mountains leather oak. Large shrub. Scarce; restricted to Spring Canyon downstream of Bee Rock on the northeast side of the park, where several individuals occur in chaparral along the southern border of the Old Zoo picnic area. A single, early collection of *Quercus* X *grandidentata* Ewan, a hybrid between *Q. durata* var. *gabrielensis* and *Q. engelmannii*, is also known from the park [*Braunton* 485, 11 Jun 1902 (POM)], but has not been relocated. *Cooper* 514-06, 30 May 2014 (UCR).

Quercus wislizenii A. DC. var. *frutescens*, Engelm., interior live oak. Large shrub. Scarce; occurs as a small grove of <10 individuals on a high slope just east of Vermont Canyon, which burned in May 2007. Elsewhere, a single individual was found recently on the high plateau between Burbank and Cahuenga Peak (DSC), with more likely in this same area. *Cooper* 510-45, 13 May 2010 (UCR).

GENTIANACEAE

Zeltnera venusta (A. Gray) G. Mans., canchalagua. Annual. No extant occurrences known. Now rather rare in the Los Angeles area, this striking native wildflower was collected a century ago and is probably extirpated in the park. *Minthorn s.n.* 2 Aug 1908 (POM).

GERANIACEAE

****Erodium moschatum*** (L.) L’Hér. Ex Aiton, whitestem filaree. Annual. Probably frequent in disturbed areas, but like most common weeds in the park, overlooked. *Epling s.n.*, May 1925 (LA).

Geranium carolinianum L. Carolina geranium. Annual. Occasional on heavy clay soil, larger populations of several dozen individuals have been encountered in Oak, Fern and Coolidge canyons, typically within non-native grassland or grassy woodland understory that has retained at least some native forb and grass components. *Cooper 20100326-23, 26 Mar 2010* (UCR).

GROSSULARIACEAE

Ribes aureum Pursh var. ***gracilimum*** (Coville & Britton) Jeps., golden currant. Small shrub. Frequent at lower elevations throughout park, particularly along broad, seasonal drainages and at seeps in coastal sage scrub. *Epling 6522, Mar 1925* (LA).

Ribes californicum Hook. & Arn. var. ***hesperium*** (McClatchie) Jepson, hillside gooseberry. Small shrub. No extant occurrences known. Collected once in the park. This species occurs locally west of the park on the north slope of the eastern Santa Monica Mountains in the vicinity of Dixie Canyon in Sherman Oaks (Cooper), so could yet be discovered somewhere in similar habitat of shady oak-walnut woodland on shale. *Epling s.n. 18 May 1925* (LA).

Ribes malvaceum Sm. var. ***viridifolium*** Abrams, chaparral currant. Small shrub. Occasional in chaparral and coastal sage scrub throughout park, typically scattered in low densities among much more common chaparral shrubs. *Epling 6277, 10 Feb 1925* (A)

Ribes speciosum Pursh, fuchsia-flowered gooseberry. Small shrub. Frequent in chaparral and oak woodland understory, particularly on shaded slopes and seasonal streams. *Epling s.n., 10 Feb 1925* (A).

HYDROPHYLLACEAE

Emmenanthe penduliflora Benth. var. ***penduliflora***, whispering bells. Annual. Frequent on recent burns and in other disturbed sites within coastal sage scrub and chaparral. *Epling s.n., 18 May 1925* (LA).

Eucrypta chrysanthemifolia (Benth.) Greene var. ***chrysanthemifolia***, spotted hideseed (Common eucrypta). Annual. Locally common following the 2007 burn, particularly in the understory of oak woodland and chaparral; lately more localized but still widespread. *Braunton 243, Apr 1902* (UC).

Nemophila menziesii Hook. & Arn. var. ***integrifolia*** Parish, baby blue-eyes. Annual. Infrequent in scattered grassy pockets, including on a rugged slope in upper Brush Canyon, a ridge between Mt. Lee and Cahuenga Peak, and a roadcut near Mineral Wells; each area features patches of clay within well-drained soil and with a thin cover of grasses and relatively high diversity of other uncommon wildflowers (e.g., *Gilia angelensis* and *Madia gracilis*). Another recognized variety, *menziesii*, may also occur. *J.T. Howell 3724, 18 Apr 1928* (JEPS).

- Phacelia cicutaria*** Greene var. ***hispida*** (A. Gray) J.T. Howell, caterpillar phacelia. Annual. Common in spring, large patches are found throughout in every natural habitat, most commonly on somewhat rocky areas between shrubs within chaparral and coastal sage scrub. *Cooper 614-17, 4 Jun 2014* (UCR).
- Phacelia distans*** Benth., common phacelia. Occasional on loose soil; most common after wet winters;; particularly numerous in the vicinity of Cahuenga Pass. *Cooper 311-29, 21 Mar 2011* (UCR).
- Phacelia grandiflora*** (Benth.) A. Gray, large-flowered phacelia. Annual. Bloomed in profusion following the 2007 wildfire in the southeastern sector of the park; now rather uncommon, as is apparently normal for this species. *M.V. Hood 38-12, 30 May 1938* (LA).
- †***Phacelia hubbyi*** (J.F. Macbr.) L.M. Garrison, Hubby's phacelia. Annual. Restricted to small, compact patches on eroding layers of sedimentary rock at the extreme southeastern edge of the park on slopes south of Fern Canyon, the largest population probably being directly above Griffith Park Drive near the on-/off-ramps along Interstate 5. *Cooper s.n., 10 May 2007* (RSA).
- Phacelia minor*** (Harv.) Thell. Ex F. Zimm., wild caterbury bells. Annual. Frequent after wet winters, particularly in burned openings and open, eroding, or rocky patches of soil. *Braunton 210, 13 Apr 1902* (UC).
- Phacelia ramosissima*** Douglas ex Lehm. var. ***latifolia*** (Torr.) Cronquist, branching phacelia. Perennial herb. Occasional in loose soil at lower elevations; particularly common in the northeastern corner near the Los Angeles Zoo on what appears to be an old alluvial bench of the Los Angeles River. *Cooper 514-11, 23 May 2014* (UCR).
- Phacelia viscida*** (Benth.) Torrey, sticky phacelia. Annual. Common throughout 2007 burn area in southeastern sector of park, though becoming less frequent as vegetation recovers; large patch just north of Commonwealth Nursery. Most local plants have rather pale blue flowers, and so are presumably this variety; however small numbers of white-flowered plants, which have been treated as var. *albiflora*, occur on an eroding slope in the park just north of Commonwealth Nursery/Cedar Grove along with individuals with more typical blue flowers. *Purer s.n., 8 May 1931* (SD).
- Pholistoma auritum*** (Lindl.) Lilja var. ***auritum***, fiesta flower. Annual. Frequent in the understory of oak woodland and mature chaparral, typically on moist, shady slopes (e.g., Fern Canyon). *J.I. Carlson s.n., 24 Apr 1918* (CAS).

JUGLANDACEAE

- †***Juglans californica*** S. Watson, Southern California black walnut. Tree or large shrub. Locally common, forming a near-monoculture in Coolidge Canyon in the extreme southeastern corner of the park, remaining common west through Vermont and Western canyons, and occurring somewhat locally elsewhere,

mainly as a co-dominant within oak woodland and less commonly, as a shrubby component of chaparral and sumac-dominated scrub. Large, old trees along the northern base of the park in the vicinity of Forest Lawn Drive and lower Oak Canyon may represent hybrids with cultivated, non-native walnuts, which were frequent orchard trees of several varieties planted in the early decades of modern settlement in the San Fernando Valley [e.g., *Cooper 315-18, 3 Apr 2015* (UCR)]. Along the northern slope of the park, walnuts are common on exposed slopes in the far northeast but are largely restricted to canyons farther west and absent from the highest elevations in the park (e.g., Cahuenga Peak), where they are replaced by higher-elevation chaparral species, such as chamise. *Braunton 535, 8 Jul 1902* (JEPS).

LAMIACEAE

**Lamium amplexicaule* L., henbit. Annual. Infrequent on disturbed soil, photographed in 2008 by J. Ochoa near Fern Canyon. *J.C. Dittes 28, 18 Feb 1990* (SFV).

**Marrubium vulgare* L., horehound. Suffruticose perennial. Common weed, mainly in disturbed areas such as along trails and fire roads but also in relatively pristine stands of scrub. *Epling s.n., 18 May 1925* (LA).

Salvia apiana Jeps., white sage. Small shrub. Occasional in intact coastal sage scrub at lower elevations in areas not too frequently disturbed by burns, as on slopes of lower Brush Canyon and along Skyline Trail (*unknown collector, 379, SAMO; iNaturalist 2744178*). Interestingly, no natural occurrence of purple sage (*S. leucophylla*) is known in the park, though it is a popular native landscaping plant on the park's periphery, particularly in and around Hollywood Reservoir, and has been collected as close as "Universal City" [*unknown collector s.n., 7 May 1927* (LA)].

Salvia columbariae Benth., chia. Annual. Frequent, particularly after wet winters, though nearly absent in dry years, on steep, rocky exposures and eroding slopes where bare ground has been exposed to reveal patches of loose soil free of invasive grasses, often along the edges of footpaths, where it occurs in small colonies of up to several dozen individuals. Like many native wildflowers in the park, this species is not nearly as abundant as it is in nearby foothills, e.g., the San Gabriel Mountains. *Epling s.n., 15 May 1925* (LA).

Salvia mellifera Greene, black sage. Small shrub. Among the most abundant plant species in the park, common except on the most disturbed sites and at the highest elevations above approximately 1,600', such as atop Cahuenga Peak, where it is replaced by higher-elevation chaparral species such as manzanita and chamise. *J.P. Hill s.n., 11 Mar 1929* (RSA).

Scutellaria tuberosa Benth., Danny's skull-cap. Perennial herb. Infrequent, in part due to its being a fire-follower, and known from three small, widely-scattered locations: near One-Mile Tree in upper Western Canyon, upper

Royce Canyon, and on the western slope of Mt. Hollywood, all in openings in coastal sage scrub, typically in association with other native annuals. *Cooper 509-16, 13 May 2009* (UCR).

Stachys rigida* var. *rigida Benth., rough hedge-nettle. Perennial herb. No extant populations known. It might persist in the shady understory of walnut or oak woodland on heavy clay soil, a situation not uncommon in the park. The taxonomy of local *Stachys* with longer leaves and smaller, whiter flowers (as compared to all-pink floweres in *S. bullata*) has been in flux. Two local collections have been made, one identified as *S. ajugoides* var. *rigida* [*Braunton 544, July 1902* (UC)], and the other *S. rigida* var. *rigida* [*Epling, s.n., May 1927* (LA)]. J.B. Nelson (2012) considered *S. ajugoides* var. *rigida* an inactive name, distinct from *S. ajugoides*, and comprised of two forms: *S. rigida* var. *quercetorum* and *S. rigida* var. *rigida*. Of these two varieties, Prigge and Gibson (2013) consider only *S. rigida* var. *quercetorum* to be the only one in the Santa Monica Mountains. Rather than try to resolve this here, I have listed Epling's collection as the taxon known from the park until more information is gathered. More than one taxon may be present; material identified as *S. ajugoides* was collected recently from near Ernest E. Debs Park [*Cooper 411-16, 14 Apr 2011* (UCR)] and a mainly white-flowered *Stachys* occurs in similar habitat in the Whittier Hills to the east (pers. obs.).

Stachys bullata Benth., California hedge-nettle. Frequent throughout park in shady situations, including oak woodland understory and along protected canyon bottoms. *N.K. Berg s.n., 26 Mar 1904* (UC).

Trichostema lanatum Benth., wooly blue curls. Small shrub. Scarce; two individual plants photographed by J. Ochoa in spring 2008 on a north-facing slope above Travel Town in lower Oak Canyon represent the sole known occurrence of this distinctive genus in the park. The sole specimen notes only "N(orth) side" of Griffith Park, so potentially came from the same area. *Braunton 382, 4 Jun 1902* (UC).

LOASACEAE

Mentzelia micrantha (Hook. & Arn.) Torr. & A. Gray, small-flowered stickleaf. Annual. Occasional on sandy patches of soil, including along eroding ridgelines. Possibly encouraged by the 2007 fire in the southeastern sector, it was observed to be one of the earliest species to return to affected slopes, along with *Phacelia viscida*, *Acmispon maritimus* and *Calystegia macrostegia* (pers. obs.). *Cooper 409-05, 14 Apr 2009* (UCR).

MALVACEAE

- **Abutilon palmeri* A. Gray, Palmer's indian mallow. Perennial herb. A small naturalized population is present along roadsides along Western Canyon Rd. and Vermont Canyon Rd. *Rochford 9, Apr 30 2016* (UCR).
- Malacothamnus fasciculatus* (Nutt. ex Torr. & A. Gray) Greene var. *fasciculatus*, chaparral bush-mallow. Small shrub. Frequent in coastal sage scrub and open chaparral at lower elevations in the park, occasionally forming solid stands, particularly within the 2007 burn zone in Vermont Canyon. *Braunton 220, Apr 1902* (UC).
- **Malva pseudolavatera* Webb & Berthel, Cretan mallow. Shrub. Infrequent weed, locally established at roadsides and other disturbed areas at the park's border. *Cooper 315-21, 22 Mar 2015* (UCR).

MONTIACEAE

- †*Calandrinia breweri* S. Watson, Brewer's red-maids. Annual. No extant occurrences known. Aside from the cited specimen, which notes "growing on 'burn' in Vermont Cañon", this species is unknown in the park and likely extirpated. However, it has been collected recently in the nearby Verdugo Mountains (Soza et al. 2013), so it may yet be discovered in rocky/sandy areas such as on steep slopes along Vista del Valle Road within the 2007 burn area. *J.T. Howell 466, 20 Mar 1928* (JEPS).
- Calandrinia ciliata* (Ruiz & Pav.) DC., red-maids. Annual. Scarce; a single individual was found recently in a burn area along a sandy ridge upslope (south) of Travel Town; otherwise known only from historical collections. *Cooper 2015-35, 13 Mar 2015* (UCR).
- Calyptridium monandrum* Nutt., pussy-paws. Annual. Scarce; a small number of individuals have been recorded from just two areas of open, sandy soil: the ridge upslope of Travel Town, where it grows with *Calandrinia ciliata*, and on the high plateau between Burbank and Cahuenga peaks following a 2007 fire, where it was found in 2009. *F. Detmers s.n., 1 Apr 1931* (RSA).
- Claytonia perfoliata* Donn ex Willd. subsp. *mexicana* (Rydb.) John M. Mill. & K.L. Chambers, miner's lettuce. Annual. Common in shady, mesic situations, or in more exposed sites where maintained by a seep or water source. *A.M. Johnson 122, 16 Feb 1928* (LA).

NAMACEAE

- Eriodictyon crassifolium* Benth., thick-leaved yerba santa. Shrub. Infrequent; known from several small, scattered populations, including along a sandy powerline right-of-way along Forest Lawn Drive, on sandy soil near Commonwealth Nursery, and on loose soil on a ridge just north of Mt.

Hollywood (DSC). Two varieties, *crassifolium* and *nigrescens*, may occur locally. *Cooper 614-20, 26 June 2014* (UCR).

NYCTAGINACEAE

Mirabilis laevis (Benth.) Curran var. *crassifolia* (Choisy) Spellpenb., wishbone bush. Suffruticose perennial. Occasional on steep slopes, often in barren patches of eroding soil and rock outcrops. *Braunton 795, 6 Jan 1903* (UC).

OLEACEAE

**Fraxinus uhdei* (Wenz.) Lingelsh., shamel ash. Tree. Infrequent in lower portions of major canyons in park where naturalized; commonly planted around picnic areas. *R. Reifner 15-345, 23 Aug 2015* (CAS).

ONAGRACEAE

Camissoniopsis bistorta (Torr. & A. Gray) W.L. Wagner & Hoch, California suncup. Annual. Status uncertain; the most recent collection is from the Vermont Canyon area, from a slope of open, sandy soil used as a footpath. *Cooper 20100323-02, 23 Mar 2010* (UCR).

Camissoniopsis hirtella (Greene) W.L. Wagner & Hoch, Santa Cruz Island suncup. Annual. Status uncertain; two recent collections (2009, 2013) are from widely scattered sites, one near the summit of Cahuenga Peak, the other from the northeastern base of the park near the Los Angeles Zoo. *Cooper 309-04, 6 Mar 2009* (UCR).

Camissoniopsis ignota (Jeps.) W.L. Wagner & Hoch, Jurupa Hills suncup. Annual. A single early collection from Griffith Park, exact location unknown, should probably be re-examined in light of recent taxonomic changes, as this species is not known from recent material from the park and is considered "scarce" in the Verdugo Mountains (Soza et al. 2013). *A. Davidson s.n., 9 Apr 1906* (RSA).

Camissoniopsis intermedia (P.H. Raven) W.L. Wagner & Hoch, intermediate suncups. Annual. Known from several early collections from Griffith Park, exact location unknown. This material should probably be re-examined, as this species has not been identified in the nearby Verdugo Mountains (Soza et al. 2013). *A. Davidson 1449, 9 Apr 1906* (RSA).

Camissoniopsis micrantha (Spreng.) W.L. Wagner & Hoch, miniature suncup. Annual. Occasional on sandy soil, occurring widely in park, mainly at lower elevations. *Cooper 412-20, 14 Apr 2012* (UCR).

Camissoniopsis robusta (P.H. Raven) W.L. Wagner & Hoch, robust suncup. Annual. Presumably scarce; identified from material collected in sandy soil

along Forest Lawn Drive at the northern base of the park. *Cooper 610-68, 13 Jun 2010* (UCR).

[General note regarding *Camissoniopsis*: This confusing genus of small, yellow-flowered annuals that typically occur on sandy, well-drained soil with full sun exposure has recently undergone significant revision, and characters used by different keys/authors have resulted in the same specimen being called two or more different names over the years. Of the various species of *Camissonia/Camissoniopsis* that have been identified by various experts from material collected in Griffith Park, there appear to be three “morphospecies” in the park: a very large-flowered, robust plant (cf. *Camissoniopsis bistorta*), a tiny-flowered plant (cf. *C. micrantha*), and intermediate forms that have been variously identified as *hirtella*, *ignota*, *intermedia*, and *robusta*. Fruit shape and structure appears to be variable within these named species, ranging from straight to tightly-coiled fruits, to square to round ones, as is leaf size and shape, amount of hairs on the leaves and flower parts, etc. Some listed taxa appear to be the result of misidentifications or labeling errors, including two coastal dune species that do not occur inland (see Excluded Taxa, below). More collecting and, preferably, careful photography of the plants around the park in various phenological stages (flowering, fruiting), is needed.]

Clarkia bottae (Spach) F.H. Lewis & M.E. Lewis, punchbowl godetia. Annual. This [or the look-alike *C. cylindrica* subsp. *cylindrica* (see below)] is frequent on exposed, often grassy slopes in late spring; *C. bottae* may be the more common of the two, based on number of collections (6 vs. 1); however, more study is needed. *Cooper s.n., 5 Apr 2008* (UCR).

Clarkia cylindrica (Jepson) Harlan Lewis and M. Lewis subsp. *cylindrica*. speckled clarkia. Known from a single early collection made the same day as one of the above species (*C. bottae*); possibly frequent on exposed, often grassy slopes in late spring, but more study is needed due to similarity to *C. bottae*. *Epling s.n., 25 Apr 1925* (LA).

Clarkia purpurea (Curtis) A. Nelson & J.F. Macbr. Subsp. *quadrivulnera* (Douglas ex Lindl.) F.H. Lewis & M.E. Lewis, winecup clarkia (four-spot). Annual. Infrequent in openings within a variety of native scrub habitats, such as grassy patches in sparse coastal sage scrub. *Cooper 413-64, 22 Apr 2013* (UCR).

Clarkia unguiculata Lindl., elegant clarkia. Annual. Scarce; known from a small occurrence in the understory of oak woodland, just south of Forest Lawn Drive. A large-flowered pink or white form in Brush Canyon appears to be a cultivar, probably from a seed mix or an escapee from a garden nearby. *Cooper 315-17, 3 Apr 2015* (UCR).

- Epilobium brachycarpum*** C. Presl, annual fireweed. Annual. Scarce; recently collected in ruderal site at mouth of Oak Canyon but otherwise unknown in the park. *Cooper 911-112, 27 Sept 2011* (UCR).
- Epilobium canum*** (Greene) P.H. Raven subsp. ***canum***, California fuchsia. Suffruticose perennial. Frequent on rock outcrops and at seeps in native scrub. *Braunton 717, Oct 1902* (UC).
- Epilobium canum*** (Greene) P.H. Raven subsp. ***latifolium*** (Hooker) P.H. Raven, broad-leaved California fuchsia. Perennial herb. Scarce; known from a single occurrence (c. 10 plants) on a gravelly slope adjacent to Forest Lawn Cemetery at lower Oak Canyon. This species is typical at higher elevations, especially in the San Gabriel Mountains, but oddly, it is not known from the nearby Verdugo Mountains, nor westward in the Santa Monicas (*vide* A. Gibson; Soza et al. 2013). *Cooper 810-94, 27 Aug 2010* (UCR).
- Epilobium ciliatum*** Raf. subsp. ***ciliatum***, fringed willow-herb. Perennial herb. Occasional at permanent water, including pools along Fern Canyon and along irrigation lines. *Cooper s.n., Mar 2008* (UCR).
- Eremothera boothii*** (Dougl.) W.L. Wagner & Hoch subsp. ***decorticans***, shredding evening-primrose. Annual. No extant occurrences known. *A.M. Johnson 2800, 16 Feb 1928* (LA).
- Eulobus californicus*** Torr. & A. Gray, mustard evening-primrose. Annual. Frequent on loose soil, such as roadcuts and areas where somewhat sandy or loose soil has been mechanically disturbed, typically in full sun. *Epling s.n., 18 May 1925* (LA).

OROBANCHACEAE

- Castilleja applegatei*** Fernald subsp. ***martinii*** (Abrams) T.I. Chuang & Heckard, wavyleaf paintbrush. Parasitic perennial herb. No extant occurrences known. *M. Jensen s.n., 10 Jul 1931* (RSA).
- Castilleja exserta*** (A. Heller) T.I. Chuang & Heckard subsp. ***exserta***, purple owl's-clover. Parasitic annual. No extant occurrences known. Nothing is known about where this species may have occurred in the park, but coastal-slope populations in Los Angeles Co. have been widely extirpated, and it likely no longer occurs in Griffith Park. *Epling s.n., 25 Apr 1925* (LA).

OXALIDACEAE

- Oxalis californica*** (Abrams) R. Knuth, California woodsorrel. Perennial herb. Scarce; found once at a small seep on the east side of Cahuenga Peak, where it was photographed in April 2010 (GH), but not found in subsequent years. *M. Morris s.n., 11 Mar 1929* (UCR).

PAEONIACEAE

Paeonia californica Nutt., California peony. Perennial herb. Frequent, but never numerically abundant, in grassy openings in chaparral and coastal sage scrub. *Epling s.n., May 1925* (LA).

PAPAVERACEAE

Dendromecon rigida Benth., bush poppy. Large shrub. No extant occurrences known. This fire-follower may yet prove irregularly present, as it is locally common in the western Santa Monica Mountains and in the foothills of the nearby San Gabriel Mountains in disturbed areas and former burns. *Epling s.n., 25 Mar 1925* (LA).

Eschscholzia caespitosa Benth., tufted poppy. Annual. No extant occurrences known. Plants resembling this species, with small, yellowish flowers, occur on thin soil along dry ridges near Vermont and Fern canyons. However, at least the Vermont Canyon plants were identified as *E. californica* (*vide* A.C. Sanders). *J.A. Ewan 2242, 30 May 1930* (RSA, “E shoulder, Cahuenga Peak”).

*?***Eschscholzia californica*** Cham., California poppy. Perennial herb. The popularity of this species in “wildflower seed mix” calls into question the origin of most plants in the park, which are occasional along trails and roads. One recent collection from a fairly remote footpath on a high ridge east of Bird Sanctuary may be wild plants. *Cooper s.n., 5 Jun 2008* (UCR).

Meconella denticulata Greene, small-flowered meconella. Annual. No extant occurrences known. However, it is possible that future fires will reveal a population. One specimen is labeled “just north of Mt. Hollywood”, an area that still supports quality scrub habitat. *M. Hilend 127, 18 Apr 1928* (RSA).

Platystemon californicus Benth., cream cups. Annual. No extant occurrences known. This species remains fairly common in the Santa Clarita area and on the north slope of the San Gabriel Mountains; however, Los Angeles Basin collections are mainly historical (c. 100 years old), indicating a significant local decline. *Epling 6442, Mar 1925* (LA).

PHRYMACEAE

Diplacus brevipes (Benth.) G.L. Nesom [= *Mimulus brevipes* Benth.], slope semaphore. Annual. No extant occurrences known. An early specimen indicates it was found “near Cahuenga Peak, Brush Canyon”. Normally a fairly conspicuous species, it may yet be located in arid coastal sage scrub on gravelly soil along a lightly traveled footpath. *Epling s.n., 2 May 1925* (LA).

Diplacus longiflorus Nuttall [= *Mimulus aurantiacus* Curtis var. *pubescens* (Torr.) D.M. Thompson], sticky monkeyflower. Small shrub. Frequent in

scrub throughout, often at seeps on rocky outcrops, but also in arid chaparral and scrub on various substrates. *Epling s.n.*, 15 May 1925 (LA).

*?***Diplacus puniceus*** Nutt. [= *Mimulus aurantiacus* Curtis var. *puniceus* (Nutt.) D.M. Thompson], red bush monkeyflower. Small shrub. Scarce; a handful of plants have been located in upper Western Canyon. Given that this species becomes rare west of the eastern San Gabriel Valley, and the historical and ongoing species introductions in the park, the origin of these individuals could be questioned. However, both are along rugged footpaths where no sign of irrigation or other plantings exist. Griffith Park may simply be near the western edge of the overlap zone between *D. longiflorus* and *D. puniceus*. Most “bush monkeyflowers” in the park have deep orange flowers typical of those of central Los Angeles County, though paler yellow forms are frequent toward the western side of the park, such as near Cahuenga Peak). *Cooper 410-50A*, 19 Apr 2010 (UCR).

Erythranthe cardinalis (Douglas ex Benth.) Spach [= *Mimulus cardinalis* Douglas ex Benth.], scarlet monkeyflower. Perennial herb. Scarce; known from recent collections in just two canyons, upper Brush Canyon and upper Spring Canyon, near pools of perennial water. *Cooper 810-93*, 27 Aug 2010 (UCR).

Erythranthe guttata (Fisch. ex DC.) G.L. Nesom [= *Mimulus guttatus* DC.], seep monkeyflower. Annual or perennial herb. Occasional in wet, sandy soil along drainages, mainly in debris basins. *G.B. Grant 788*, Apr 1901 (UC; as “*Mimulus nasutus*”).

PLANTAGINACEAE

Antirrhinum kelloggii Greene, climbing snapdragon. Annual. Infrequent in chaparral; conspicuous after the 2007 burn, as on a ridge in lower Fern Canyon. *Cooper 315-12*, 3 Mar 2015 (UCR).

Collinsia heterophylla Buist, Chinese houses. Annual. Occasional at grassy seeps where it grows with other native forbs. Known from three small, widely-spaced populations on shaded, north-facing canyon slopes: along Boy’s Camp Road, along a ridge north of One-Mile Tree, and along the utility road along the northern base of Burbank Peak. *Cooper s.n.* 7 Apr 2008 (UCR).

Keckiella cordifolia (Benth.) Straw, heartleaf penstemon. Frequent in chaparral, most abundant in mature, mesic chaparral on the northern slope of the park. *Braunton 550*, July 1902 (UC).

Nuttallanthus texanus (Scheele) D.A. Sutton, blue toadflax. Annual. Occasional on sandy patches of soil, including within the 2007 burn west of Cahuenga Peak. *Cooper 409-3.1*, 30 Apr 2009 (UCR; as “*Linaria canadensis*”).

Penstemon centranthifolius (Benth.) Benth., scarlet bugler. Suffruticose perennial. No extant occurrences known. The lone specimen was taken in

“chaparral” in the park, but nothing further is known of its former extent. *M. Solomen s.n. 16 July 1931* (RSA).

Penstemon spectabilis Thurb. var. ***subviscosus*** (D.D. Keck) McMinn, showy penstemon. Suffruticose perennial. Frequent but irregular from year to year in granitic and other well-drained soil, as along ridges in the west, Vista del Valle Road, and near Vermont Canyon, occasionally forming solid stands of dozens of plants. *Cooper 610-70, 6 Jun 2010* (UCR).

Plantago erecta E. Morris, dotseed plantain. Annual. No extant occurrences known. This species joins several native annuals that appear to have been extirpated from the park in recent decades. It might yet persist on a roadcut through clay or loamy soil, where other wildflowers and native forbs are common and competition from non-native grasses is low. *Epling s.n., Mar 1925* (LA).

****Plantago arenaria*** Waldst. & Kit., Indian plantain UCR216563 Scarce weed, possibly a waif, in sandy soil along Forest Lawn Drive. *Cooper 610-644, 15 Jun 2010* (UCR).

****Veronica anagallis-aquatica*** L., water speedwell. Perennial herb. Scarce at pooled water (natural seeps?) along the perimeter road at Hollywood Reservoir. *Cooper 413-62, 22 Apr. 2013* (UCR).

PLATANACEAE

Platanus racemosa Nutt., western sycamore. Tree. Frequent as a naturally occurring, large tree along major drainages, but scattered individuals are also found throughout chaparral, often at seeps. Numerous individuals, likely including cultivars, have been planted widely at picnic areas and elsewhere. *E. Benjamine 113, 17 Mar 1929* (RSA).

POLEMONIACEAE

Eriastrum sapphirinum (Eastw.) H. Mason, sapphire woolly-star Annual. Frequent along the hard-packed edges of footpaths and in flat areas on otherwise steep slopes and ridges where water collects but does not persist long. *G.R. Johnstone s.n., 14 Jul 1929* (RSA).

Gilia angelensis V.E. Grant, chaparral gilia. Annual. Infrequent in moist, loamy patches of soil atop the highest ridges in the park, mainly between Cahuenga Peak east across Mt. Lee toward Mt. Chapel, often in the grassy margins of footpaths. On the eastern slope of Cahuenga Peak and Mt. Lee, it occurs with *Nemophila menziesii* and *Calochortus catalinae*. *Epling s.n., 15 May 1925* (LA).

Gilia capitata Sims subsp. ***abrotanifolia*** (Nutt. ex Greene) V.E. Grant., globe gilia. Annual. Scarce; currently known only from small area of upper Vermont

Canyon on a landslide on the eastern slope of the Bird Sanctuary, where it occurs in slightly bare patches within annual grassland. *Braunton 238, Apr 1902* (UC).

Leptosiphon liniflorus (Benth.) J.M. Porter & L.A. Johnson, flax-flowered linanthus. Annual. No extant occurrences known. This late-flowering, delicate annual should be looked for in grassy, wildflower-rich areas from late May on, after the bulk of blooming has ended. However, given the rarity of these habitat types, this species may be extirpated in the park. *Braunton 449, 13 Jun 1902* (UC).

Linanthus californicus (Hook. & Arn.) J.M. Porter & L.A. Johnson, prickly phlox. Small shrub. Infrequent, with single individuals or small numbers in widely-scattered locations, typically on steep, rocky/eroding slopes where not crowded out by larger shrubs. *M. Elmer s.n., 18 Jul 1929* (RSA).

Linanthus dianthiflorus (Benth.) Greene, fringed linanthus. Annual. No extant occurrences known. *Epling s.n. Mar 1925* (LA).

Microsteris gracilis (Hook.) Greene, slender phlox. Annual. No extant occurrences known. As is the case with other wildflowers, this species, once apparently fairly common and widespread, is largely restricted to the desert slope in the county, the coastal populations having suffered major declines. *Epling 6526, Mar 1925* (LA).

Navarretia atractyloides (Hook.) Greene, holly-leaved navarretia. Annual. Scarce; known from just two collections, one recent, in 2008, but not found in subsequent years, despite searching. The last known location was a small, sandy debris basin just south of Forest Lawn Drive northwest of the park boundary. *Braunton 477, 13 Jun 1902* (UC).

Navarretia hamata Greene subsp. *hamata*, hooked pincushionplant. Annual. Infrequent, in scattered populations on hard-packed patches of well-drained soil, often along the edges of footpaths (e.g., Cahuenga Peak, Skyline Trail south of the Los Angeles Zoo) in association with *Chorizanthe staticoides*, *Eriastrum sapphirinum*, *Stylocline gnaphalioides*, and other annuals. *Cooper 510-44B, 13 May 2010* (UCR).

Saltugilia splendens (Dougl. ex H. Mason & A.D. Grant) L.A. Johnson, splendid gilia. Annual. No extant occurrences known. The label on the only known specimen from Griffith Park is simply annotated “chaparral”, but the mid-summer date, July 10, suggests that it may bloom later than most annuals in the park, and therefore could be overlooked in spring. The subspecies has not been determined on the single known specimen. *D. Bullock s.n., 10 Jul 1931* (RSA).

POLYGONACEAE

Chorizanthe staticoides Benth., Turkish rugging. Annual. Frequent on sandy soil where competition from annual grasses and other plants is low. Often

found along footpaths on ridges and in pockets of loose soil on rock outcrops throughout the park. *Cooper 409-3.2, 30 Apr 2009* (UCR).

Eriogonum cithariforme S. Watson, cithara buckwheat. Annual. Scarce; restricted to a few square meters of hard-packed soil at the Royce Canyon overlook along Mt. Hollywood Road. *Cooper s.n., 18 Oct 2011* (UCR).

Eriogonum elongatum Benth. var. ***elongatum***, wand buckwheat. Suffruticose perennial. Locally common on rocky outcrops and roadcuts, typically at lower elevations, such as in the vicinity of Aberdeen Canyon, along Zoo Drive, and near the mouth of Oak Canyon along Forest Lawn Drive. *Cooper 711-78, 1 Jul 2011* (UCR).

Eriogonum fasciculatum Benth. var. ***foliosum*** (Nutt.) S. Stokes ex Abrams, California buckwheat. Small shrub. Presumably the form common in the park as a sub-dominant component of coastal sage scrub and, to a lesser extent, in chaparral, where it occurs on steeper, more barren sites. *Epling 6505, Mar 1925* (LA).

Eriogonum fasciculatum Benth. var. ***polifolium*** (Benth.) Torr. & A. Gray, California buckwheat. Small shrub. Status uncertain due to similarity to above variety. *Epling s.n., 25 Apr 1925* (LA).

Eriogonum gracile Benth. var. ***gracile***, annual buckwheat. Annual. Infrequent; known from areas of flat, open, sandy soil from the vicinity of Oak Canyon adjacent to Travel Town east along Forest Lawn Drive; south of here it may be found on coarse, compacted soil along a footpath in upper Royce Canyon where it grows with *E. cithariforme*. *Cooper 610-62, 6 Jun 2010* (UCR).

****Polygonum aviculare*** L., prostrate knotweed. Annual or perennial herb. Infrequent in highly disturbed and cleared areas mainly at border of park and adjacent residential areas. *Cooper 514-57, 19 May 2014* (UCR).

Pterostegia drymarioides Fisch. & C.A. Mey., threadstem. Annual. Infrequent amid boulders and in rocky areas throughout park, such as the vicinity of Burbank Peak, occasionally forming dense mats in early spring before drying out and vanishing. *Cooper s.n., 30 Apr 2009* (UCR).

****Rumex acetosella*** L., sheep dock. Perennial herb. No extant occurrences known. *Epling s.n., 25 Apr 1925* (LA).

****Rumex conglomeratus*** Murray, clustered dock. Scarce; small population in lower Boys Camp Canyon at edge of Wilson-Harding Golf Course. *Ewan s.n., 28 June 1938* (LA; Los Angeles River at Los Feliz Blvd.).

****Rumex crispus*** L., curly dock. Perennial herb. Infrequent; scattered in disturbed areas throughout park, such as small debris basins and in sandy soil along drainages. *Cooper 614-38, 26 June 2014* (UCR).

Rumex salicifolius J.A. Weinm., willow dock. Perennial herb. Recently collected in mesic scrub just north of Hollywood Reservoir, and probably more widespread but overlooked in the park. *Cooper 711-86, 22 Jul 2011* (UCR).

PRIMULACEAE

Primula clevelandii (Greene) Mast & Reveal var. ***clevelandii***, Padre's shooting-star. Perennial herb. Scarce; restricted to a single, dispersed population amid the moss gardens of Royce Canyon south of the creek. The local form features pure white petals with yellow centers, different from the rose-magenta form that dominates farther west. *Cooper 2020100409-30B, 9 Apr 2010* (UCR).

RANUNCULACEAE

Clematis lasiantha Nutt. Liana. chaparral clematis. Infrequent; locally numerous in small area on the northwestern slope of Mt. Hollywood; also along lowermost Sennett Creek at Forest Lawn Drive and probably elsewhere. *Epling 25 Apr 1925* (LA).

Delphinium cardinale Hook., scarlet larkspur. Perennial herb. Occasional but widespread late-blooming wildflower in chaparral, often not conspicuous until late spring (June) when its true abundance is clear. Often found on rocky patches along roadcuts, and openings between shrubs in dense scrub. *M. Emler s.n. 18 Jul 1929* (RSA).

Delphinium parryi A. Gray subsp. ***parryi***, Parry's larkspur. Perennial herb. No extant occurrences known. *O.A. Plunket 52183, 22 Apr 1926* (LA).

Delphinium patens Benth. subsp. ***hepaticoideum*** Ewan, spreading larkspur. Perennial herb. Scarce; two known occurrences, both in mesic, grassy patches on rock faces where water seeps in late winter/early spring: the southern slope of Royce Canyon (dozens of plants), and a handful at a seep along Boys Camp Canyon in the northeastern corner of the park. *Cooper 20100409-29, 9 Apr 2010* (UCR).

Ranunculus californicus Benth., California buttercup. Perennial herb. No extant occurrences known. The rarity and possible absence of this species in the park is difficult to explain. In nearby Debs Park (Highland Park, near South Pasadena), it occurs on a mesic roadcut in heavy clay, in the understory of oak-walnut woodland, a habitat not uncommon in the park (pers. obs.). *Braunton 814, Feb 1903* (UC).

Ranunculus hebecarpus Hook. & Arn., delicate buttercup. Annual. Scarce; photographed by J. Ochoa in April 2008 on the south slope of Royce Canyon, but otherwise unknown in the park. This species joins a list of scarce wildflowers that persist on the south slope of Royce Canyon, which serves as an important refugium for native flora in the park/region. *Epling 6510, Mar 1925* (LA).

RHAMNACEAE

Ceanothus megacarpus Nutt. var. ***megacarpus***, bigpod ceanothus. Large shrub.

Common; one of the most abundant and ubiquitous shrubs in the park, it bursts into bloom with sprays of tiny white flowers in mid-winter, allowing its true abundance on hillsides to be known. It is dominant in mature chaparral throughout the entire southern flank of the park at lower elevations, and also on all but the most shaded north-facing slopes elsewhere. Its leaf size and shape may be somewhat variable depending on shade, age, and other local conditions. *G.B. Grant s.n., 21 Apr 1901* (DS).

Ceanothus oliganthus Nutt. var. ***oliganthus***, hairy ceanothus. Large shrub.

Scarce; several early collections from, for example, Vermont Canyon, where it is apparently extirpated. In 2014, a small population was found in mixed chaparral in a steep canyon above Vista del Valle Road on the eastern flank of the park (DSC). See note below for potential hybrids with *C. spinosus*. *Cooper 514-09, 23 May 2014* (UCR).

Ceanothus spinosus Nutt., greenbark ceanothus. Large shrub. Common; most

numerous on the southern and eastern flank of the park, but also north-facing exposures, where it is a co-dominant in mixed chaparral. Like the preceding species, its leaf size and shape can vary, with the longest leaves on young stems. Plants with leaves approaching *C. oliganthus* in appearance, being wide and distinctly three-veined, but without tomentum on lower leaf surface, have been observed and are presumed hybrids [labeled as “*Ceanothus* sp.” from upper Royce Canyon; *Cooper 313-51, 17 Mar 2013* (UCR); *Cooper 209-25.2, Feb 2009* (UCR).

Frangula californica (Eschsch.) A. Gray subsp. ***californica***, California coffeeberry. Frequent, particularly at lower elevations in the northeastern corner of the park such as in the vicinity of Skyline Trail, including in areas that have recently burned. *Cooper 614-19, 26 June 2014* (UCR).

Rhamnus ilicifolia Kellogg, holly-leaved redberry. Large shrub. Common in scrub throughout park, though never forming pure stands and rarely dominant. *Braunton 483, Jun 1902* (UC).

ROSACEAE

Adenostoma fasciculatum Hook & Arn. var. ***fasciculatum***, chamise. Large shrub.

Common; found virtually throughout the park with the exception of the sedimentary soils of the southeast such as Beacon Hill and Coolidge Canyon. Most dominant on the park’s highest slopes, such as Cahuenga Peak/Burbank Peak and Mt. Lee; less frequent at lower elevations, but still persists in these areas such as along the Skyline Trail, scattered through chaparral or even coastal sage scrub. *Epling s.n., 18 May 1925* (LA).

Cercocarpus betuloides Nutt. var. *betuloides*, birch-leaf mountain-mahogany. Large shrub. Common, but never dominant, in mixed chaparral throughout the park. As with chamise, least common in the sedimentary soils of the southeast, though still found where dense stands of chaparral remain. *Braunton 542, Jul 1902* (UC).

Drymocallis glandulosa (Lindl.) Rydb. var. *glandulosa*, sticky cinquefoil. Perennial herb. Occasional; widespread but local in mesic spots, including along shaded roadcuts through oak woodland and around seasonal seeps in grassy patches within chaparral; occasionally common, but never forming solid stands, and apparently absent from large areas of the park. *Cooper 610-60B, 6 Jun 2010* (UCR).

Heteromeles arbutifolia (Lindl.) M. Roem., toyon. Large shrub. Common throughout park, found in virtually every habitat type, becoming dominant in the tall, mesic scrub on the northern slope of the park (e.g., upper Oak Canyon). *F. Detmers s.n., 18 Jul 1929* (RSA).

Holodiscus discolor (Pursh) Maxim, creambush (Oceanspray). Small shrub. Scarce; a single individual was photographed by J. Ochoa in May 2009 along a very steep, slide-like drainage northeast of Mt. Hollywood, upslope of Vista del Valle Road, in chaparral regenerating from the 2007 burn. *Braunton 462, 13 Jun 1902* (UC).

Prunus ilicifolia (Nutt. ex Hook & Arn.) Walp. subsp. *ilicifolia*, holly-leaved cherry. Large shrub. Infrequent in mature mixed chaparral, such as above Brush Canyon and on slopes just north of Mt. Hollywood. *Cooper 614-25, 26 Jun 2014* (UCR).

****Prunus ilicifolia*** (Nutt.) Walp. ssp. *lyonii* (Eastw.) Raven, Catalina cherry. Tree. Occasional weed tree endemic to Channel Islands and widely planted on mainland, naturalized and introduced at roadsides and irrigated areas, as along Coolidge Canyon. *Cooper 614-71, 26 June 2014* (UCR).

Rosa californica Cham. & Schltld., California rose. Small shrub. Infrequent at larger seeps and springs throughout; particularly numerous along the far eastern end of Skyline Trail and along Oak Canyon *J.A. Ewan 3501, 25 May 1929* (LA).

Rubus ursinus Cham. & Schltld., California blackberry. Small shrub. What is presumably this species is infrequent in larger drainages throughout the park. [*Rubus pennsylvanicus* has been collected once (see “Excluded Taxa” below)] *Cooper 212-10, 13 Feb 2012* (UCR).

RUBIACEAE

Galium angustifolium Nutt. ex Gray subsp. *angustifolium*, narrow-leaved bedstraw. Suffruticose perennial. Frequent in steep, eroding sites throughout, such as along roadcuts. *Cooper 1011-126, 5 Oct 2011* (UCR).

Galium aparine L., cleavers. Annual. Common in all habitat types, but most common in shady, protected spots, such as in the understory of oak and walnut woodland. *Cooper 20100326-13A, 26 Mar 2010* (UCR).

Galium nuttallii A. Gray var. ***nuttallii***, Nuttall's bedstraw. Perennial herb. No extant occurrences known, but there are several early collections from Cahuenga Pass and the park, although the locations are vague. Recent collections of plants at Griffith Park resembling this species have been identified as *G. porrigens*, as has material from the Verdugo Mountains (Soza et al. 2013), but the species is known farther west in the Santa Monica Mountains. *Epling s.n., Mar 1925* (LA).

Galium porrigens Dempster var. ***porrigens***, climbing bedstraw. Suffruticose perennial. Occasional in the understory of chaparral and scrubby woodland. *Cooper 412-23, 14 Apr 2012* (UCR).

SALICACEAE

Populus fremontii S. Watson subsp. ***fremontii***, Fremont cottonwood. Tree. Scarce; several mature trees are found at the mouth of Oak Canyon, just west of Travel Town, where they occur along a narrow, shallow swale that retains water during rainy periods. A handful of saplings were noted in 2014 (DSC) in upper Spring Canyon. *Cooper s.n., 5 Apr 2008* (UCR).

Populus trichocarpa Torr. & A. Gray ex Hook., black cottonwood. Tree. Infrequent along wetter drainages, e.g., upper Brush Canyon and Sennett Creek. *Cooper 614-44, 26 Jun 2014* (UCR).

Salix exigua Nutt., narrow-leaved willow. Large shrub. Scarce; a small occurrence recently found along lower Sennett Creek, adjacent to Forest Lawn Drive, where either naturally-occurring, or naturalized from material planted as part of Sennett Creek restoration project within Forest Lawn Cemetery. *Cooper 614-61, 26 June 2014* (UCR).

Salix laevigata Bebb, Red willow. Tree. Scarce; recently collected in lower Sennett Canyon, where it was possibly introduced from plantings/restoration upstream within Forest Lawn Memorial Park, though it is also native to the region. *Cooper 614-46, 26 June 2014* (UCR).

Salix lasiolepis Benth., arroyo willow. Large shrub. Frequent in wetter drainages throughout park, though rarely forming large stands. *Cooper 614-45, 26 Jun 2014* (UCR).

SAPINDACEAE

Acer macrophyllum Pursh, bigleaf maple. Tree. Scarce; two (formerly three) somewhat stunted trees occur on a granitic outcrop near Victory Boulevard bridge over the Los Angeles River in the northeastern corner of park. This

species was presumably more common prior to the channelization of the river. *Cooper s.n. 10 May 2007* (UCR).

*?*Acer negundo* L., box elder. Tree. Scarce; trees appear to be naturalized in the Bird Sanctuary (Vermont Canyon), Fern Dell, and adjacent to the Los Angeles Zoo parking lot; the origin of these individuals is difficult to determine, as they have been planted locally as street trees and continue to be used in landscaping away from their native local stronghold in the foothills of the San Gabriel Mountains. *Cooper 813-47, 13 Aug 2013* (UCR).

SAXIFRAGACEAE

Lithophragma affine A. Gray, San Francisco woodland-star. Perennial herb. Scarce; two known occurrences, both in clay pockets in rock outcrops, and neither consisting of more than a handful of individuals, including lower Oak Canyon and along the southern slope of Royce Canyon (DSC). *Epling 6046, Mar 1925* (LA).

Micranthes californica (Greene) Small, California saxifrage. Perennial herb. Scarce; two known occurrences, but fairly numerous at both; the southern slope of Royce Canyon and on the northern face of Mt. Bell, in mesic, grassy “moss gardens” within rocky outcrops, typically in association with *Allium peninsulare* and *Selaginella bigelovii*. *Cooper 209-14, 24 Feb. 2009* (UCR).

SCROPHULARIACEAE

Scrophularia californica Cham. & Schtdl., California bee-plant (California figwort). Perennial herb. Frequent but somewhat localized in chaparral throughout park; most numerous at seeps and in dense chaparral, but also occurs in recently burned, fairly weedy scrub as well. *Epling s.n. 18 May 1925* (LA).

SOLANACEAE

Datura wrightii Regel, Jimsonweed. Perennial herb. Frequent in areas of disturbed and sandy soil, such as along roadsides. *Cooper 1011-122, 6 Oct 2011* (UCR).

**Nicotiana glauca* Graham, tree-tobacco. Large shrub. Frequent in all habitats as a scattered shrub; the large, dense stands of this species typical of disturbed sites of the Los Angeles Basin are infrequent in the park. *Epling, s.n., 18 May 1925* (LA).

Nicotiana quadrivalvis Pursh, indian tobacco. Annual. Scarce; a single individual was photographed in 2008 by J. Ochoa in side canyon of Vermont Canyon, north of the tennis courts, growing in lightly-traveled roadbed within the 2007 burn zone. *Epling s.n. 15 May 1925* (LA).

- **Salpichroa origanifolia* (Lam.) Bailon, lily-of-the-valley vine. Perennial herb. Occasional; established mainly at the southwestern corner of the park, where it is recorded from several sites near Hollywood Reservoir and Vermont Canyon. *Cooper 614-16, 4 June 2014* (UCR).
- Solanum americanum* Miller, American black nightshade. Perennial herb. No extant occurrences known. *Epling s.n., May 1925* (LA).
- Solanum douglasii* Dunal, Douglas' nightshade. Suffruticose perennial. Frequent in shady, mesic sites throughout park. *O.A. Plunkett s.n., 20 Mar; 1925* (LA).
- Solanum xanti* A. Gray, chaparral nightshade. Suffruticose perennial. Frequent throughout park, in a variety of habitats. Specimens have been alternately identified as the similar *S. umbelliferum* [(e.g., *H. Mullins s.n., 27 Apr 1931* (RSA)], but there is likely only one native purple-flowered nightshade in the park, and we follow Prigge and Gibson (2013) in using *xanti*. *A.M. Johnson 2779, 16 Feb 1928* (LA).

ULMACEAE

- **Celtis australis* L., European hackberry. Tree. Scarce; locally established along Oak Canyon. *Cooper s.n., 12 May 2008* (UCR).

URTICACEAE

- Hesperocnide tenella* Torr. western stinging nettle. Annual. Frequent in shady/mesic areas, particularly under oaks and mature chaparral. *Epling 6439* (LA).
- Parietaria hespera* Hinton var. *hespera*, western pellitory. Annual. Frequent in early spring around bounders and in protected, rocky areas. *Cooper 410-56B, 23 Apr 2010* (UCR).
- Urtica dioica* L. subsp. *holosericea* (Nutt.) Thorne, stinging nettle. Perennial herb. Infrequent; most common along larger, wetter drainages such as, Royce Canyon, Coolidge Canyon, etc. *Unk. collector; 1 Apr 1980* (UCLA).
- **Urtica urens* L., dwarf nettle. Annual. Common in shady spots throughout park, typically found at the edges of trails and in other high-disturbance zones. *Epling 6431, Mar 1925* (LA).

VERBENACEAE

- Verbena lasiostachys* Link, western vervain. Perennial herb. Infrequent in a variety of habitats along footpaths and in somewhat cleared areas, even on dirt fireroads themselves. *Cooper 510-47C, 10 May 2010* (UCR).

VIOLACEAE

Viola pedunculata Torr. & A. Gray, Johnny-jump-up. Perennial herb. Scarce; confined to a single population on the southern slope of Royce Canyon, where it is found in small numbers amid grassy patches amid moss gardens at rock faces along the slope. Likely much more widespread historically in the park, as Comstock's fritillary, the butterfly for which this species is a host plant, was once common in Vermont Canyon (Bonebrake and Cooper 2014), but both the plant and the butterfly appear to have been widely extirpated, the latter entirely absent in the park. *Epling 6447, Mar 1925 (LA)*.

VISCACEAE

Phoradendron leucarpum (Raf.) Reveal & M.C. Johnst. American mistletoe. Parasitic shrub. Frequent on large sycamores (*Platanus racemosa*) along major canyons in park, such as Oak Canyon, is probably best assigned to this taxon. *Cooper 20170211-03, 11 Feb 2017 (UCR)* [in preparation].

VITACEAE

Vitis girdiana Munson, desert wild grape. Liana. Infrequent at seeps on the north side of the park, in upper Oak Canyon, and just northwest of Bee Rock, along Vista del Valle Road, and along Forest Lawn Drive. *Cooper 514-54, 19 May 2014 (UCR)*.

ANGIOSPERMAE – MONOCOTYLEDONS

AMARYLLIDACEAE

Allium haematochiton S. Watson, red-skinned onion. Perennial herb. Scarce; only known population a small colony along the ridge south of the Mt. Hollywood overlook, just north of the tunnel over Mt. Hollywood Drive, where several dozen plants are growing on either side of a well-used footpath. *J.T. Howell 3359, 2 Mar 1928 (LA)*.

Allium peninsulare Lemmon ex Greene var. *peninsulare*, peninsular onion. Perennial herb. Scarce; two occurrences of this striking onion are known, both in moss gardens on rocky slopes: a large population of dozens of plants on the north-facing southern slope of Royce Canyon, and a much smaller population on the north-facing slope of Mt. Bell. Similar habitats elsewhere in the park, such as rock outcroppings and smaller moss gardens within lower Brush Canyon, appear not to support this species. *Cooper s.n. 5 Apr 2008 (UCR)*.

ARACEAE

Lemna minuta Kunth, least duckweed. Perennial herb. No extant occurrences known, but may persist at Fern Dell, the site of the original collection. A *Lemna* sp. observed (DSC) in July 2014 in runoff-fed pools along the perimeter road around Hollywood Reservoir awaits identification. *L.C. Wheeler 7801, 28 Feb. 1961* (RSA; as “*L. minuscula*”).

Lemna valdiviana Phil., Valdivia duckweed. Perennial herb. No extant occurrences known. The cited specimen’s collection location within park is not known. However, a *Lemna* sp., which is extant in the park, awaits identification, so this species is kept on the main list for now. *F. Detmers s.n. 11 Nov. 1931* (RSA).

ASPARAGACEAE

Bloomeria crocea (Torr.) Coville var. *crocea*, goldenstars. Perennial herb. Infrequent in heavy clay and wet, rich soil on rock outcrops, as in the moss gardens of Royce Canyon. This species seems to always occur in areas with *Dichelostemma capitatum*, but it is much less numerous and widespread. *Cooper s.n., 4 May 2008* (UCR).

Brodiaea terrestris Kellogg subsp. *kernensis* (Hoover) T. Niehaus, dwarf brodiaea. Perennial herb. Discovered May 2010 on Forest Lawn Cemetery property adjacent to Griffith Park (GH), but presumably extirpated during road construction in 2014. This lily occur(ed) on a small, flat bench along lower Royce Canyon, apparently where larger shrubs were removed at one time, growing with *Deinandra fasciculata*, *Bloomeria crocea*, *Sanicla arguta*, and other clay-loving species. *Cooper, 510-48A, 10 May 2010* (UCR).

Chlorogalum pomeridianum (DC.) Knuth var. *pomeridianum*, soap plant. Perennial herb. Infrequent in scattered small colonies on clay soil in scrub throughout park. *Cooper 614-36, 26 June 2014* (UCR).

Dichelostemma capitatum (Benth.) Alph. Wood subsp. *capitatum*, blue dicks. Perennial herb. Frequent both in dense coastal sage scrub and on open, relatively undisturbed soil in a variety of habitats. This species will not tolerate major soil disturbance such as grading and is therefore rarely found along fireroads, where it may also be picked by people. Certain individuals atop Mt. Bell are extremely pale, almost pure white. *Epling 6507, Mar 1925* (LA).

Hesperoyucca whipplei (Torr.) Trel., chaparral yucca. Succulent shrub. Frequent in scrub throughout park. *T.B. Merson 20512, 1 Aug 1940* (RSA).

CYPERACEAE

- Carex triquetra* Boott, triangular-fruit sedge. Perennial herb. No extant occurrences known. Single early collection from Vermont Canyon; this inconspicuous species may yet be discovered in the moss gardens of Royce Canyon or similar mesic rocky habitat. *J.T. Howell 3457, 20 Mar 1928* (LA).
- Cyperus eragrostis* Lam., tall flatsedge. Perennial herb. Occasional near perennially wet or moist areas, as along Royce Canyon. *Cooper, 911-128, 30 Sep 2011* (UCR).
- **Cyperus involucratus* Rottb., umbrella sedge. Perennial herb. Scarce; established at Coolidge Canyon and probably elsewhere at the urban edge. *Cooper 614-73, 26 June 2014* (UCR).
- **Kyllinga brevifolia* Rottb., shortleaf spikesedge. Perennial herb. Scarce; collected recently at a leaky spigot in lower Sennett Canyon, just south of Forest Lawn Drive. *Cooper 614-21, 26 June 2014* (UCR).

IRIDACEAE

- Sisyrinchium bellum* S. Watson, blue-eyed grass. Perennial herb. Widespread but infrequent and local on heavy clay, appearing within grassy patches, often with natives and clay-loving invasives such as *Avena fatua*. Prefers locales that remain moist through spring, though not associated with surface water or springs *per se*. *Cooper 20100323-05A, 23 Mar 2010* (UCR).

JUNCACEAE

- Juncus balticus* Willd., Baltic rush. Perennial herb. Scarce; known from a large seep along the streambank of lower Brush Canyon. Also apparently established in a wet sump just north of Lake Hollywood where likely introduced as part of habitat restoration following a landslide in the 1990s. *Cooper 614-37, 26 June 2014* (UCR).
- Juncus macrophyllus* Coville, long-leaved rush. Perennial herb. Scarce; collected recently at a pool of water in upper Spring Canyon. *Cooper 810-92, 27 Aug 2010* (UCR).
- Juncus rugulosus* Engelm., wrinkled rush. Perennial herb. Scarce; collected recently at a pool of water in upper Spring Canyon with *J. macrophyllus*. *Cooper 810-91, 27 Aug 2010* (UCR).
- Juncus textilis* Buchenau, basket rush. Perennial herb. Scarce; a few plants at Oak Canyon, where it is associated with runoff from neighboring Forest Lawn Cemetery. *Cooper 610-63, 6 Jun 2010* (UCR).

LILIACEAE

†*Calochortus catalinae* S. Watson, Catalina mariposa lily. Perennial herb. Occasional in heavy clay soil on upper slopes of Western and Brush Canyons, and on the southeastern flank of the park south of Fern Canyon. *C.B. Wolf 73, 3 Apr 1926* (RSA; “Cahuenga Pass”).

†*Calochortus plummerae* Greene, Plummer’s mariposa lily. Perennial herb. Frequent as scattered groups of plants along ridges and on steep, almost eroding slopes in undisturbed coastal sage scrub and open chaparral throughout in the park; largest population probably in the Mt. Lee-Cahuenga Peak area. This species is typically associated with *Eriogonum fasciculatum*, and often not far from *Hesperoyucca whipplei*. *Cooper s.n. 12 May 2008* (UCR).

Fritillaria biflora Lindl. var. *biflora*, chocolate lily. Perennial herb. Scarce; restricted to a small area of wet, heavy clay soil near One-Mile Tree, where it grows on a grassy slope in openings between shrubs, including *Artemisia californica*. No more than approximately 50 individuals are present, many fewer in dry years. *J.T. Howell 3361, 2 Mar 1928* (CAS).

MELANTHIACEAE

Toxicoscordion fremontii (Torr.) Rydb., Fremont’s star-lily. Perennial herb. Infrequent on clay and loamy soil, often in grassy openings within scrub, particularly on more remote, undisturbed slopes, often reached only via footpath. *M. Reynolds 112, 15 Apr 1937* (LA).

POACEAE

Agrostis pallens Trin., seashore bentgrass. Perennial herb. No extant occurrences known. *Stone s.n. 11 Apr 1936* (RSA).

Aristida adscensionis L. sixweeks threeawn. Annual. Scarce; recently discovered along a short section of a ridgeline trail in upper Western Canyon, south of Western Canyon Drive and northwest of the Griffith Observatory, growing with *Chaenactis artemisiifolia*, *Chorizanthe staticoides*, and other species typical of thin, eroding soil. *Cooper 90316-09, 9 Mar 2016* (UCR).

**Avena barbata* Pott ex Link, slender wild oat. Annual. Status unknown due to similarity with *A. fatua*. *H.A. Jensen 332, 4 Jun 1933* (RSA; “Hollywood Lake”).

**Avena fatua* L., wild oat. Annual. Frequent in open areas, particularly dominant on clay and loamy soils. *S. Pusateri s.n., 17 Jul 1941* (RSA).

**Brachypodium distachyon* (L.) Beauv., false brome. Annual. Recently discovered in the park, apparently becoming established in disturbed areas such as roadsides and debris basins. *Cooper 315-28, 3 Mar 2015* (UCR).

- Bromus carinatus*** Hook. & Arn., California brome. Perennial herb. Possibly scarce; this native has been recently collected in heavy clay soil along upper Oak Canyon, near other clay-associated natives, such as *Bloomeria crocea* and *Madia gracilis*. It may be more widespread in similar habitats, such as near One-Mile Tree and in upper Brush Canyon. *Cooper 510-54, 10 May 2010* (UCR).
- ****Bromus diandrus*** Roth, figgut brome. Annual. Common in highly disturbed sites; often forms a solid monoculture, particularly where brush-clearance and disking have been done for fuel modification and weed abatement. *Epling 6763, 18 Apr 1925* (LA).
- ****Bromus hordeaceus*** L., soft chess (Soft brome). Annual. Occasional at mesic sites, such as clay lenses and at the edges of seasonal drainages. *H.A. Jensen 284, 10 Apr 1930* (UC; "Hollywood Lake").
- Bromus laevipes*** Shear, woodland brome. Annual or perennial herb. No extant occurrences known. *Epling 6765, 18 Apr 1925* (LA).
- ****Bromus madritensis*** L. subsp. *rubens* (L.) Husn., red brome (Foxtail chess). Annual. Like *B. diandrus*, this species occurs in highly disturbed areas throughout the park, but is nowhere abundant. *Epling 6764, 18 Apr 1925* (LA).
- ****Bromus sterilis*** L., poverty brome. Annual. Collected once in the park along the trail between Fern Dell and the observatory; its similarity to the abundant *B. tectorum* renders its identification difficult in the field, and it may well be a common species. *D. Tahara 69, 8 May 1975* (POM).
- Elymus condensatus*** J. Presl., giant wild-rye. Perennial herb. Common; forms solid stands at springs and seeps throughout park. This species often grows in association with *Toxicodendron diversilobum*, *Sambucus nigra* subsp. *caerulea* and other seep indicators virtually anywhere moist soil is present, including seasonal drainages. *Cooper 610-71, 16 Jun 2010* (UCR).
- Elymus glaucus*** Buckley subsp. *glaucus*, blue wildrye. Perennial herb. No extant occurrences known. *L.S. Rose 46230, 21 Jul 1946* (CAS; "N end of Hollywood Reservoir").
- ****Ehrharta erecta*** Lam., panic veldtgrass. Perennial herb. Frequent in various habitats, particularly along roads and trails, where it is presumably spread by dogs and people. *Cooper 614-68, 26 June 2014* (UCR).
- ****Festuca myuros*** L., tat-tail fescue. Presumably widespread in the park; recently collected along roadside just north of Observatory. *Cooper 315-31, 28 Mar 2015* (UCR).
- Festuca octoflora*** Walter, sixweeks fescue (slender fescue). Known positively only from rocky coastal sage scrub along a steep footpath on the western flank of Cahuenga Peak; possibly more widespread in park, in similar habitat. *F. Detmers s.n., 1 Apr 1931* (POM).

- **Festuca perennis* (L.) Columbus & J.P. Sm., Italian ryegrass. Perennial herb. Infrequent on clay and loamy soils, often growing with *Avena* spp. and native forbs, and rarely forming extensive stands. “J.R.” s.n. 25 May 1936 (POM; as “*Lolium multiflorum*”).
- **Hordeum murinum* L. ssp. *leporinum* (Link) Arcang., foxtail barley. Scarce; collected recently on floor of small debris basin at the north end of Ferndell picnic area and at a similar site at “Coyote Canyon” just west of the park boundary. Cooper 614-02, 26 June 2014 (UCR).
- **Lamarckia aurea* (L.) Moench, goldentop. Annual. Infrequent weed along hard-packed roads and trails, rarely forming large infestations. Epling s.n. 15 May 1925 (LA).
- Melica imperfecta* Trin., chaparral melic. Perennial herb. Common; found in a variety of substrates and conditions, from mesic seeps to rock outcrops, seemingly with no preference in terms of aspect, soil, etc. Cooper 315-15, 3 Mar 2015 (UCR).
- Muhlenbergia microsperma* (DC.) Trin., littleseed muhly. Annual. Occasional but widespread on steep, eroding sandstone outcrops, such as the south face of Mt. Hollywood and east of the Ford Amphitheater, where it occurs in small clumps in cracks in rock. Cooper 412-21, 14 Apr 2012 (UCR).
- **Pennisetum setaceum* (Forssk.) Chiov., fountaingrass. Perennial herb. Frequent on roadsides and steep slopes where historically seeded. F. Detmers 16836, 18 Apr 1931 (POM, “Griffith Peak”).
- **Polypogon monspeliensis* (L.) Desf., rabbit’s-foot grass. Occasional in clay/loamy soil, especially in areas that retain moisture through winter and early spring. Epling s.n., 15 May 1925 (LA).
- **Polypogon viridis* (Gouan) Breistr., beardless rabbit’s-foot grass. Occasional at leaky pipes and similar situations in disturbed areas; single recent collection from Skyline Trail horse “guzzler”. Cooper 411-19, 15 Apr 2011 (UCR).
- **Schismus barbatus* (Loefl. ex L.) Thell., Mediterranean grass. Recently observed on hard, gravelly or sandy soil in openings in scrub where water collects briefly such as on the low ridge north of Commonwealth Nursery. Raven 13815, 1 Mar 1959 (LA).
- Stipa coronata* Thurber., Giant needlegrass. Perennial herb. Frequent on steep, rocky slopes in chaparral and coastal sage scrub. Cooper s.n., 12 May 2008 (UCR).
- Stipa lepida* Hitchc., foothill needlegrass. Perennial herb. Status unclear, but presumably frequent in scrub. F. Detmers s.n., 1 Apr 1931 (LA).
- **Stipa miliacea* (L.) Hoover, smilo grass. Perennial herb. Invasive along drainages and disturbed areas. G.D. Wallace 1877, 17 Aug 1979 (RSA, “Hollywood”; as *Piptatherum miliaceum*).
- Stipa pulchra* Hitchc., purple needlegrass. Perennial herb. Frequent on clay soil, e.g., at One-Mile Tree in upper Western Canyon. Cooper 514-47, 30 May 2014 (UCR).

APPENDIX B

UNVOUCHERED TAXA (SUPPLEMENTAL LIST)

The following taxa are known from the park from photographs or repeated observations through 2016, including images submitted to iNaturalist (iNaturalist 2016) and Calflora (Calflora 2016), which are listed by their unique observation number (e.g., “iNaturalist 2744178”). There are still several taxa that occur or are very likely to occur that could not be documented in time for publication of this flora, including *Geranium molle* L., *Micropus californicus* Fisch & C.A. Meyer, and a species of *Vicia* that had not been identified as of this writing. It is hoped further investigation of the park will lead to these and others being vouchered as part of the park’s known flora.

ANGIOSPERMAE – EUDICOTYLEDONS

APIACEAE

**Foeniculum vulgare* Mill., fennel. Suffruticose perennial. Occasional weed in disturbed areas as well as within intact scrub, though not forming large monocultures as at more coastal sites (iNaturalist 2964083).

APOCYNACEAE

Asclepias eriocarpa Benth., indian milkweed. Perennial herb. Infrequent; occurs in several areas along the northwestern border of the park (e.g., Coyote Canyon), in lower Vermont Canyon, and probably elsewhere in semi-disturbed areas at lower elevations (iNaturalist 4928071).

**Vinca major* L., greater periwinkle. Occasional along drainages at urban-wildland interface, mainly along urban edge along southern portion of park (iNaturalist 2556381).

ASTERACEAE

**Carduus pycnocephalus* L., Italian thistle. Perennial herb. Common weed, especially along road edges and at disturbed sites, particularly on loamy soil (iNaturalist 2987519).

**Helminthotheca echioides* (L.) Holub, Bristly ox-tongue. Perennial herb. Infrequent weed, mainly disturbed sites, often on woodchips, mulch, and where clippings have been dumped. Nearest collection: A.R. Van Dam 008, 16 May 2004 (UCR, “Franklin Canyon Park”).

**Lactuca serriola* L. Prickly lettuce. Annual. Frequent weed throughout park, particularly in disturbed sites. Nearest collection: P.H. Raven and H.J.

Thompson 14428, 18 Sep 1959 (JEPS, “Santa Monica Blvd. near Beverly Glen Blvd.”).

Micropus californicus Fisch. & C.A. Meyer, slender cottonweed (Cottontop). Annual. Infrequent on gravelly soils, such as at the Royce Canyon overlook along Mt. Hollywood Road (specimen examined by A.C. Sanders), where it grows along a footpath with *Eriastrum sapphirinum*, *Eriogonum cithariforme*, *Chorizanthe staticoides*, and other species typical of thin, compacted soil. Nearest collection: *F.A. McFadden 3181, Apr 1931* (RSA, “La Tuna Canyon”).

****Pseudognaphalium luteoalbum*** (L.) Hilliard & B.L. Burt, Jersey cudweed. Annual. Occasional in disturbed areas, including small debris basins (*iNaturalist 2987371*).

****Sonchus oleraceus*** L., sow thistle. Annual. Frequent in highly disturbed areas, often appearing quickly after soil disturbance (*iNaturalist 2971863*).

Stylocline gnaphaloides Nutt., everlasting nest straw. Annual. Photographed along Skyline Trail (*vide* A. Gibson) and reported along nearby Condor Trail (J. Sullivan), this species appears to be locally common in flat, hard-packed patches of soil along fireroads and trails, particularly where rainwater collects. However, due to its similarity to *Psilocarphus tenellus*, its precise distribution is not known at this time, and more collections are needed of both inconspicuous, ephemeral asters to determine their true abundance (*iNaturalist 4921370*).

Stephanomeria cichoriacea A. Gray, Fort Tejon milk aster (Chicoryleaf wirelettuce). Perennial herb. Occasional on rock faces and very steep, rocky sites, mainly in the Mt. Lee-Cahuenga Peak area, but locally at lower elevations, such as near the tunnels between Mt. Hollywood and the Griffith Observatory, and even on roadcuts in residential areas in the Beachwood Canyon area. This large species blooms late, so is recognized first by its distinctive whitish-gray rosettes scattered amid rocks, appearing almost like a succulent (*iNaturalist 4928059*).

BORAGINACEAE

****Echium candicans*** L. f., Pride-of-Madeira. Shrub. Locally established in scrub at the urban edge south of the Hollywood Reservoir and possibly elsewhere. Nearest collection: *G. Vowels, s.n., 10 Mar 1968* (POM, Mulholland Dr. between Laurel Canyon and Coldwater Canyon).

BRASSICACEAE

****Brassica nigra*** (L.) Koch, black mustard. Annual. Common on clay lenses and other disturbed areas throughout park. (*Calflora Observation we927*).

- **Hirschfeldia incana* (L.) Lagr.-Fossat, shortpod mustard. Annual to short-lived perennial. Common; this species occurs ubiquitously along roadsides, footpaths, recent burns, and in other disturbed situations, particularly during wet years (*iNaturalist* 2979918).
- Nasturtium officinale* R. Br., watercress. Perennial herb. Infrequent in permanent streams (*iNaturalist* 4920399).
- **Raphanus sativus* L., wild radish. Annual. Frequent in heavy soils at the edge of the park, typically in areas with major disturbance such as earth-moving, tree-planting, etc. Nearest collection: *M.N. Ackley 132, Apr 1928* (SBBG, “Eagle Rock”).

CACTACEAE

- Cylindropuntia californica* (Torr. & A. Gray) F.M. Knuth var. *parkeri* (J.M. Coult.) Pinkava, cane cholla. Succulent shrub. Infrequent; this distinctive cactus occurs in small patches along the northeastern corner of the park. Its western boundary in the park is near Travel Town, and individuals appear on slopes south to Spring Canyon. It has recently been noted just west of Cahuenga Pass in scrub surrounding the Hollywood Bowl (DSC), which appears to mark its western limit in the Santa Monica Mountains (Prigge and Gibson 2013; *iNaturalist* 2685261).
- Opuntia littoralis* (Engelm.) Cockerell, coastal pricklypear. Succulent shrub. This taxon appears to be the only native “prickly pear” cactus in the park, forming small, low stands in coastal scrub and in open patches within chaparral, most commonly at lower elevations. Generally under one meter in height, pads have cylindric, yellowish spines of variable length (e.g., *iNaturalist* 2556036). A related taxon more typical of coastal sites, *Opuntia oricola*, is known from a single early collection made in “Hollywood” [*A. Davidson s.n., May 1916* (UC)]; at least two stands located on a steep slope south of Hollywood Reservoir appear to have the tall, branching habit typical of *O. oricola*, but this occurrence has not been collected/confirmed as pertaining to this species.
- **Opuntia ficus-indica* (L.) Mill., Indian-fig. Succulent shrub. Occasional as naturalized stands on arid hillsides, in particular near houses along the southern flank of the park, but occasionally on fairly remote/inaccessible slopes such as slopes north of Hollywood Reservoir (*iNaturalist* 2970393).

FABACEAE

- **Dipogon lignosus* (L.) Verdc. Australian pea. Perennial vine. This highly invasive vine with deep magenta flowers has been observed recently in the upper Vermont Canyon area between the Bird Sanctuary and the Griffith Observatory and is apparently naturalized (*iNaturalist* 4928940).

- ****Medicago polymorpha*** L., Bur clover. Annual. Presumably common around landscaped areas, including irrigated lawns and roadsides (*iNaturalist* 2943471).
- Trifolium microcephalum*** Pursh., Small-headed field-clover. Annual. Scarce; one photographed in Fern Canyon in April 2008 (J. Ochoa; *iNaturalist* 4920425) is the only record.
- Trifolium willdenovii*** Sprengel, tomcat clover. Annual. Occasional in grassy patches, typically on clay or loamy soil, particularly in the southeastern corner of the park (*iNaturalist* 4921419).

GERANIACEAE

- ****Erodium cicutarium*** (L.) L'Hér. Ex Aiton, redstem filaree. Annual. Probably frequent in disturbed areas, but like most common weeds in the park, overlooked. *Unk. collector* 2215 (SAMO); *iNaturalist* 2943462.
- ****Geranium molle*** L., dove's-foot geranium. Annual. Frequent in grassy openings in the park, including in remote areas rich in native forbs. Nearest collection: *R.L. Armacost s.n., May 1928* (POM, "Sawtelle").

HELIOTROPACEAE

- Heliotropium curassavicum*** L. var. ***oculatum*** (A. Heller) Tidestr., wild heliotrope. Perennial herb. Scarce, and possibly extirpated; Known from just a single occurrence in the park -- a tiny patch in a streambed along Western Canyon just north of the Ferndell picnic area and just upstream of a small debris basin was photographed 2 Jul 2008 (J. Ochoa; *iNaturalist* 4920391).

LOASACEAE

- Mentzelia laevicaulis*** (Hook.) Torrey & A. Gray, Giant blazing star. Perennial herb. Scarce; a handful of plants flower in late spring at the base of a scree slope at "Bronson Caves", an old rock quarry in lower Brush Canyon. This rock-dwelling species occurs in the eastern San Gabriel Mountains and locally in alluvial fan scrub and rocky habitats at the entire base of the range, including at Big Tujunga Wash north of the Verdugo Mtns., but it is apparently unknown farther west in the Santa Monica Mtns. (Prigge and Gibson 2013; *iNaturalist* 2556158).

MALVACEAE

- ****Malva parviflora*** L., cheeseweed. Annual. Occasional near irrigated/disturbed areas of the park (*iNaturalist* 2990796).

MONTIACEAE

Montia fontana L., Water montia. Annual. A small number were photographed in early February 2015 at the moss garden at Royce Canyon (*vide* T. Sagar), growing amid grasses on patches of wet, heavy soil (*iNaturalist 4919692*).

MYRSINACEAE

**Lysimachia arvensis* (L.) U. Manns & Anderb., scarlet pimpernel. Annual. Frequent trailside weed, invading native habitat along footpaths and in grassy openings in native scrub and woodland (*iNaturalist 2971581*).

OXALIDACEAE

**Oxalis pes-caprae* L. Bermuda buttercup. Perennial herb. Occasional weed, typically on lawns or other irrigated areas (*iNaturalist 2553158*).

PAPVERACEAE

Papaver californicum A. Gray, fire poppy. Annual. Occasional following the May 2007 burn, this species continues to show up sparingly on loose, often eroding soil throughout the park, but it is much less common each year. Photographed at Spring Canyon 6 Apr 2009 (DSC; *iNaturalist 4919703*).

POLEMONIACEAE

Allophyllum glutinosum (Benth.) A.D. Grant & V. Grant, sticky gilia. Annual. Scarce; photographed in two locations in early June 2008 (J. Ochoa; *iNaturalist 4920433*): upper Fern Canyon and in Vermont Canyon (“canyon next to Bird Sanctuary”).

PORTULACACEAE

**Portulaca oleracea* L., common purslane. Frequent in highly disturbed areas, such as cleared zones around houses at the edge of the park and within debris basins (*iNaturalist 2368014*).

RANUNCULACEAE

Thalictrum fendleri A. Gray, meadow-rue. Perennial herb. Scarce; collected once in 2007 (specimen examined by A.C. Sanders and discarded) along lower Royce Canyon on Forest Lawn Cemetery, but not refound since and possibly extirpated by recent construction (*iNaturalist 4919728*).

SALICACEAE

Salix gooddingii C.R. Ball, Goodding's black willow. Tree. Infrequent; local and ephemeral in debris basins along larger creeks, e.g., lower Brush Canyon. Nearest collection: *L. Gross 2621, 6 Apr 2007* (RSA, "Burbank").

SIMAROUBACEAE

****Ailanthus altissima*** (Mill.) Swingle, tree-of-heaven. Tree. Frequent at lower elevations, especially along the park's eastern flank (*iNaturalist 2943420*).

ZYGOPHYLLACEAE

****Tribulus terrestris*** L., puncture-vine. Annual. Infrequent in disturbed areas, often on sandy soil (*iNaturalist 1749294*).

ANGIOSPERMAE – MONOCOTYLEDONS

AMARYLLIDACEAE

****Amaryllis belladonna*** L. naked lady. Perennial herb. Occasional on somewhat disturbed slopes (especially fuel modification zones around houses), though usually only after wet winters (*iNaturalist 4023441*).

ARECACEAE

****Washingtonia robusta*** H. Wendl., Mexican fan palm. Tree. Occasional invasive in wet and disturbed areas, often arriving in mulch and quickly resprouting (*iNaturalist 2971928*).

ASPARAGACEAE

****Agave americana*** L., Century plant. Perennial herb. Occasional escapee on the southern flank of the park including Western Canyon and in the vicinity of Hollywood Reservoir, on rocky slopes. (Calflora Observation in:2679049).

LILIACEAE

†***Calochortus clavatus*** S. Watson, Clubhair mariposa lily. Perennial herb. Scarce; fewer than 10 individual plants were found in 2009 (GH) in a grassy opening within low chaparral on the north slope of Mt. Chapel near the peak; however, these plants do not appear annually. Griffith Park lies within the range of

both local varieties of this taxon (var. *clavatus* and var. *gracilis* Ownbey); (*iNaturalist 4919762*).

†***Lilium humboldtii*** Roezl & Leichtlin ex Duch. subsp. ***ocellatum*** (Kellogg) Thorne, Humboldt lily. Perennial herb. Occasional in deep shade along streams in several drainages in park, with most individuals (dozens of plants) in upper Brush Canyon (*iNaturalist 4919721*).

POACEAE

****Arundo donax*** L. Giant reed. Perennial herb. Infrequent in small patches in the lowermost portions of canyons, including Western Canyon, but also in disturbed areas such as atop Toyon Landfill (*iNaturalist 4739634*).

APPENDIX C

EXCLUDED TAXA

For a variety of reasons, I have excluded several taxa growing in the park from the main list and the supplemental list, even though there are voucher specimens in herbaria. Some were questionably collected in the park, or there exists some doubt as to their identification, or they appear to persist only with supplemental water at their presumed point of introduction. Because of the countless and ongoing introductions of plants in the park, it is impossible to include all species one might observe in the park on one list. For example, none of the many species of eucalyptus in the park appear to have become widely naturalized, and none have been vouchered. This group has therefore been left off of the prior lists and the excluded taxa list. The excluded taxa list below includes:

1. Aquatic plants and other wetland obligates known from a specimen labeled simply “Griffith Park”, but lacking enough detail to rule out their having been collected along the Los Angeles River (not treated here), a small portion of which lies within the park’s boundaries;
2. Plants known from early collections with vague location data (e.g., “near Cahuenga Pass”, “Hollywood Hills”) and otherwise unknown in Griffith Park or vicinity;
3. Plants known only from early collections but essentially unknown otherwise in the area. Several of these have been used in landscaping or as part of wildflower seed mixes over the years;
4. Vouchered taxa that are non-native and known either from a handful of individuals in a very small area (i.e., “waifs”), or as an occurrence that has not spread beyond what was likely their original introduction location – in other words, established but not naturalized. These may be very common numerically, even causing local “infestations”, but only within a small, well-defined, and often highly disturbed area. I include lawn weeds and those in highly modified habitats only if represented by a vouchered specimen. Obviously some of these may be moved to the main list should they become more widely naturalized in the future.

As a rule, plants native to the Los Angeles area are not assigned an asterisk, even if they are determined here to not be native to Griffith Park (see individual accounts).

The list below does not include possibly naturalized taxa observed that do not appear to be clearly established at this time. These may become so in the future, but for now they are left off the main and supplemental lists and are not

considered “excluded” because they have not been vouchered. Examples include: *Leonotis nepetifolia* (L.) R. Br. (along Wonderview Drive just north of Hollywood Reservoir); *Buddleja saligna* Willd. (Vermont Canyon); *Cortaderia selloana* (Schult. & Schult. f.) Asch. & Graebn. (shoreline of Hollywood Reservoir); *Grevillea robusta* A. Cunningham ex R. Br. (Vermont and Western canyons); *Olea europaea* L. (Western Canyon northeast of Fern Dell; *Tropaeolum majus* L. (urban edge and around irrigated areas); *Ulmus pumila* L. (southeastern corner of park); and *Genista monspessulana* (L.) L. Johnson (debris basin along Forest Lawn Drive northwest of park).

FILICAE

SALVINEACEAE

Azolla filiculoides Lam., Pacific mosquitofern. Aquatic annual or perennial herb. Probably not collected in the park itself, but rather along the Los Angeles River, where it is presumably still extant. *Detmers s.n., 11 Nov 1931* (RSA).

CONIFERAE

PINACEAE

**Pinus muricata* D. Don, Bishop pine. Tree. Not a commonly planted landscape tree in the area, and not naturalizing. Of the hundreds of individual conifers of more than a dozen species planted in the park over the past century or more, none appear to be truly naturalizing or persisting beyond their point of introduction. *B.C. Templeton s.n., 1 Oct 1936* (RSA).

ANGIOSPERMAE - MAGNOLIIDS

LAURACEAE

**Cinnamomum camphora* (L.) J. Presl, camphortree. Tree. Waif; recently collected in lower Brush Canyon. *Cooper 614-35, 26 June 2014* (UCR).

ANGIOSPERMAE – EUDICOTYLEDONS

ANACARDIACEAE

**Schinus molle* L., Peruvian pepper tree. Tree. Planted as an ornamental, possibly naturalizing locally at the edges of wildland, such as at Fern Dell, but mainly near roads/trails and not invasive. *Cooper 614-29, 26 Jun 2014* (UCR).

ASTERACEAE

- Baccharis douglasii*** DC., marsh baccharis. Suffruticose perennial. Most likely collected along the Los Angeles River, where it is probably extirpated. *Braunton 644, August 1902* (DS).
- ****Cotula australis*** (Sieber ex Spreng.) Hook. f., Australian waterbuttons (Brass-buttons). Annual. A weed of lawns and mesic areas; whether it persists in natural habitats in the park is not known. *Raven 13819, 1 Mar 1959* (CAS).
- ****Iva hayesiana*** A. Gray, San Diego marsh-elder. Perennial herb. Apparently introduced as part of habitat “restoration”, a small population was found in 2010 in a heavily landscaped, marshy sump just north of Hollywood Reservoir. *Cooper 610-75, 17 June 2010* (UCR).
- Layia platyglossa*** (Fisch. & C.A. Mey.) A. Gray, tidy-tips. Annual. Recently collected in a small debris basin in upper Oak Canyon, but also reported to occur in nearby upper Royce Canyon (J. Sullivan). As this species is frequently used in re-vegetation projects, the provenance of the population(s) in the park should be investigated. If it is indeed natural, and as rare as it appears to be, it may be nearing extirpation in the park; most records in the Los Angeles Basin are old (pre-1960) and from widely scattered locations. It may well be restricted to very large open space areas in the region at this time, such as the western Santa Monica Mountains, Gorman area, etc. *Cooper 510-47A, 10 May 2010* (UCR).
- Senecio californicus*** DC., California butterweed. Annual. Aside from an early collection, this uncommon but conspicuous aster has not been detected in the park, and since I could not locate the specimen in the collection at RSA, I have excluded it from the main list. *H.M. Oster 13769, 27 Apr 1924* (RSA, “Foothills n. end of Vermont Ave.”).
- ****Tanacetum parthenium*** (L.) Sch. Bip., feverfew. Perennial herb. Scarce; apparently a waif, collected recently at the base of the Royce Canyon, possibly arriving via equestrians that frequent the area. *Cooper 911-130, 30 Sept 2011* (UCR).
- ****Tragopogon porrifolius*** L. salsify. Perennial herb. One early collection; possibly a waif. *I.L. Ulberg s.n., 21 Apr 1949* (RSA).

BIGNONIACEAE

- ****Tecoma capensis*** (Thunb.) Lindl., Cape honeysuckle Shrub. Locally persisting at seeps adjacent to landscaped areas such as at the Old Zoo; generally near roads, picnic areas, and other disturbed sites. *Gross 2741, 16 May 2007* (RSA, “Burbank”).

BORAGINACEAE

Cryptantha clevelandii E. Greene, common cryptantha. Known from a single collection at “western border of park” (SAMO 350), this species is left off the above lists for now until it can be critically examined and compared with material of other local species.

Plagiobothrys nothofulvus (A. Gray) A. Gray, rusty popcorn flower. Annual. The specimen cited could not be located in the UCLA herbarium in 2011, and given the lack of records of this species in the park and only one other known occurrence of the genus (see above), I have elected to assign this to the Excluded Taxa list for now. *Epling s.n. Mar 1925* (LA).

BRASSICACEAE

**Brassica rapa* L., turnip. Annual. Known from a single early specimen so considered a waif, but possibly widespread. *P. Allen s.n., 6 Mar 1931* (RSA).

Tropidocarpum gracile Hook., dobie pod. Annual. No extant collections known. Possibly extirpated by freeway/road development, but early date of specimen and location detail is insufficient to include in the main list, which treats the area east of Cahuenga Pass (see also *Ribes indecorum*). *Davidson s.n., 10 Apr 1890* (RSA, “Cahuenga Pass”).

CAPRIFOLIACEAE

**Lonicera japonica* Thunb., Japanese honeysuckle. Vine. Frequently planted at the borders of the park, it is unclear whether this specimen was from an established/naturalized population, as none are currently known. *Mayers s.n., 14 May 1978* (CSUSB)

COMMELINACEAE

**Tradescantia fluminensis* (Vell.) Conc., small-leaved spiderwort. Perennial herb. Frequently planted at the borders of the park, it apparently persists locally (e.g., just uphill of Ford Amphitheater, July 2014, DSC) but does not appear to be naturalized. *T.C. Fuller 6295, 8 May 1961* (CDA).

CONVOLVULACEAE

Calystegia purpurata (E. Greene) Brummitt, Pacific false bindweed. Perennial herb. The lone collection appears to be one of just three known collections from Los Angeles County. Questioned by AG, it could represent a misidentification of the more common *C. macrostegia*, or a labeling error. Without inspecting the specimen, however, its occurrence in the park is

probably best considered hypothetical until this species, which is more of a northern and central California taxon, can be confirmed, ideally through re-collection, however unlikely. *Emery s.n., 5 Apr 1947* (SBBG).

FABACEAE

- ****Bituminaria bituminosa*** (L.) C.H. Stirt., Arabian pea. Perennial herb. Scarce; a sizable population at Commonwealth Nursery and surrounding slopes, including Cedar Grove likely originated as an escapee from the nursery; fortunately it has not spread widely in the park, and it is excluded until its status is better known. *Cooper 20100323-06B, 23 Mar 2010* (UCR).
- ****Lotus corniculatus*** L., bird's-foot trefoil. Perennial herb. Apparently a waif; single recent collection along an irrigation line near Mineral Wells, but apparently not spreading. *Cooper 810-98, 26 Aug 2010* (UCR).

FAGACEAE

- ****Quercus ilex*** L., holly oak. Tree. Waif. Recently collected at lower Sennett Canyon, just south of Forest Lawn Drive, and while widely planted in the area, apparently not naturalizing. *Cooper 614-42, 26 June 2014* (UCR).

GROSSULARIACEAE

- Ribes indecorum*** Eastw. white-flowered currant. Shrub. Known from a very early collection at "Cahuenga Pass", but left off main list due to insufficient location detail; it is possible this was collected along the Los Angeles River wash at the northern base of the pass, and not in the mountains themselves. *Brewer 182, Feb 1861* (UC).

HYDROPHYLLACEAE

- Phacelia parryi*** Torrey, Parry's phacelia. Annual. Examination of this specimen found it to be originally labeled "*Phacelia viscida*," probably correctly, and subsequently annotated as "*P. campanularia*", a desert taxon which would be out of range here. *P. parryi* is unrecorded in the eastern Santa Monica Mountains and the Verdugo Mountains (*vide* A. Gibson; Soza et al. 2013). *Mullins s.n., 27 Apr 1931* (RSA).
- Phacelia longipes*** A. Gray, long-stalk phacelia. Annual. Known from a single, early collection. A small, white-flowered annual *Phacelia* sp. is fairly common after wet winters on loose/eroding soil in black walnut woodland on the north slope of the Santa Monica Mtns. a few miles west of the park along Laurel Canyon Road and in the Repetto Hills at Mt. Washington (DSC), which have been identified as *P. longipes* (*vide* A.C. Sanders), suggesting this taxon may

occur locally at lower elevations in the eastern Santa Monica Mountains and points east. However, others (including B. Prigge) have raised concerns about these identifications, as well as the appropriate features separating *P. longipes* from small, white-flowered *P. viscida* (cf. var. *albiflora*), which also occurs scattered among populations of more widespread blue-flowered plants in the park, especially just north of Commonwealth Nursery. More study is clearly needed, and until the two taxa are sorted out, I have elected to keep *P. longipes* off the main list. *M. Hilend s.n.*, 30 Apr 1928 (LA).

Phacelia tanacetifolia Benth., tansy-leaved phacelia. Annual. Two specimens collected in Griffith Park in 1961 were recently examined at the UCLA herbarium, and while suggestive of this species, the similar *P. distans* could not be conclusively ruled out (*vide* B. Prigge). *Epling 6503, Mar 1925* (LA).

LOASACEAE

*?***Mentzelia lindleyi*** Torrey & A. Gray, Lindley's blazing star. Annual. Fewer than 10 known specimens exist for this species in southern California, three of which, including the one cited here, were collected in 1930-31 in Griffith Park. It was not included in recent treatments of the flora of the Santa Monicas (Wishner 1997, Prigge and Gibson 2013), and it is probably best kept off the main park list. As it was, and remains a popular "wildflower" species to plant in gardens, it is likely that these were taken from a cultivated source in or near the park. *A. Eatherton s.n.*, Apr 1930 (RSA).

LYTHRACEAE

Lythrum californicum Torrey & A. Gray, California loosestrife. Perennial herb. An early specimen was almost certainly collected along the Los Angeles River. *Braunton 442, 13 Jun 1902* (UC).

MORACEAE

****Ficus carica*** L., edible fig. Large shrub. Scarce weed along drainages, as along Coolidge Canyon in the southeastern corner of the park, but not widely naturalizing as it is along the nearby Los Angeles River. *Cooper 614-70, 26 June 2014* (UCR).

MYRTACEAE

****Callistemon citrinus*** (Curtis) Stapf, bottlebrush. Tree. Infrequent along wet portions of the Los Angeles River, but not known as naturalized in the park. *R.E. Reifner, Jr. 07-100, 4 Mar 2007* (CDA).

NYCTAGINACEAE

**Mirabilis jalapa* L. var. *jalapa*, four o'clock. Perennial herb. Scarce, likely a waif along Coolidge Canyon, where a bright pink-flowered form occurs along the creek. *Cooper 614-72, 26 June 2014* (UCR).

ONAGRACEAE

Camissoniopsis cheiranthifolia (Spreng.) W.L. Wagner & Hoch subsp. *suffruticosa*, beach evening-primrose. Small shrub. Clearly a labeling error or from a cultivated source; this species is a coastal dune obligate rarely found away from beach sand and coastal bluff habitat. *M.R. Solomen s.n., Jul 1931* (RSA).

*?*Clarkia dudleyana* (Abrams) J.F. Macbr., Dudley's clarkia. Annual. Known from a single recent collection from a debris basin along Oak Canyon, this was found alongside another species also known from a single occurrence (*Layia platyglossa*), yet it is not known elsewhere in the Santa Monica Mountains; because both species are used for "wildflower" seed mix often spread following construction work in wildland habitat, their origin is suspect. *Cooper 510-47D, 10 May 2010* (UCR).

**Oenothera rosea* L'H-r., pink evening-primrose. Perennial herb. Recently collected (DSC) in ruderal site at mouth of Oak Canyon, growing with *Epilobium brachycarpum*; it is not clear if this species has successfully naturalized in the park, and is here treated as a waif. *Cooper 911-113, 27 Sep 2011* (UCR).

OXALIDACEAE

**Oxalis corniculata* L. creeping woodsorrel. Perennial herb. Presumably widespread as a lawn weed, it does not appear to be naturalized in the park at this time. *E. Purer 70, 11 Feb 1931* (SD).

PAPAVERACEAE

**Romneya trichocalyx* Eastw., bristly Matilija poppy. Perennial herb. Occurs in several areas at the urban edge of open space, where it is both intentionally planted and naturalized from ornamental plantings nearby, including Vermont Canyon and in Cahuenga Pass. *Cooper 315-25, 22 Mar 2015* (UCR).

PHRYMACEAE

Mimetanthe pilosa (Benth.) Greene [= *Mimulus pilosus* (Benth.) S. Watson], downy monkeyflower. Annual. The single known specimen appears to be a

better fit for *M. guttatus*. *M. Stassforth 152, 8 May 1992* (SAMO, “near west boundary of Griffith Park”).

POLEMONIACEAE

*?*Gilia tricolor* Benth., bird’s-eye gilia. Annual. A single early specimen labeled “Griffith Park” was subsequent annotated “aberrant, garden escape perhaps hybrid with *G. angelensis*”. This species has long been popular in wildflower seed mix, and a cultivar origin cannot be ruled out (Roberts 2008). It also has not been included in recent floras of the Santa Monica Mountains (e.g., Wishner 1997). *A. Eatherton s.n., May 1930* (RSA).

*?*Leptosiphon grandiflorus* Benth., large-flowered linanthus. Annual. Collected 80 years ago in Griffith Park by the same individual as the above species (*A. Eatherton*), this species would be clearly out of range Los Angeles County and was presumably from a garden. *A. Eatherton 16041, May 1930* (RSA).

POTAMOGETONACEAE

**Potamogeton crispus* (L.), cutleaf pondweed. Aquatic perennial herb. Single early collection apparently from Fern Dell, where possibly a waif (“Griffith Park, Western Ave. entrance”). *A. Davidson 3398, Aug 1920* (RSA).

RHAMNACEAE

Ceanothus crassifolius Torrey, thick-leaved ceanothus. Shrub. A 1995 collection appears to be of this species; however, the notes on the label indicate that it was found to be a “common tree...growing on a south-facing slope in chaparral”, adding “dominant associates include *Malosma laurina*, *Eriogonum fasciculatum*.” While this describes the landscape around the reservoir, no individuals have been encountered during recent visits, and given the species’ rarity in the eastern Santa Monica Mountains, until it is located in the field, I consider its occurrence in the park hypothetical, and likely based on a labeling error. *C.A. Mish 22, 9 Mar 1995* (RSA, “Hollywood Reservoir”).

Ceanothus cuneatus (Hook.) Nutt., buckbrush. Shrub. Two specimens are claimed from the park, but at least one (cited below) was examined (by DSC) and appears to be *C. megacarpus* based on leaf arrangement, with the leaves being mainly alternate. *H. Mullins s.n., 25 Feb 1931* (RSA).

**Ceanothus cyaneus* Eastw., Lakeside ceanothus. Shrub. Clearly out of range, material presumably from introduced individuals. *R.E. Hammond s.n., Apr 1929* (RSA).

- **Ceanothus thyrsiflorus* Eschsch., blueblossom. Shrub. Clearly out of range, material presumably from introduced individuals. *L.E. Hoffman s.n., 21 Apr 1934* (GH)

ROSACEAE

- *?*Fragaria vesca* L., woodland strawberry. Perennial herb. Three early specimens at RSA, two from “Fern Dell” and a third from “Mt. Hollywood”. Because this species is essentially unknown in a wild state in Los Angeles County, being restricted to higher mountains east of the L.A. Basin, and north into northern/central California, and because both Fern Dell and Mt. Hollywood were, and continue to be, popular locations for planting non-native plants, it seems prudent to consider this taxon hypothetical until additional individuals can be located in the park. An apparent cultivar of *Fragaria* was observed as a lawn weed at Roosevelt Golf Course in 2011, which awaits collection and identification. *E. Kline s.n., 1 Feb 1925* (RSA; “Mount Hollywood”, as “*Fragaria californica*”).
- **Poterium sanguisorba* L., garden burnet. Perennial herb. Apparently a waif; the lone undated specimen was noted as having been found at “Vermont Canyon, E(ast) of Greek Theater”. *E. McClintock 176, 27 Mar 1943* (LA).
- **Rubus pensilvanicus* Poir. Pennsylvania blackberry. Vine. Several *Rubus* collections made in the park recently have keyed to *R. ursinus*; however, this taxon might well persist. Since there is no way to determine from this record whether it was from an intentionally planted individual or if it was naturalized at the time (the location notes “Griffith Park off Bronson”, which is a heavily-landscaped area), I have kept it off the main list. *A. Mayers s.n., 14 Apr 1978* (UCR).

VERBENACEAE

- **Lantana montevidensis* (Spreng.) Briq., trailing lantana. Frequent invasive at edges of picnic areas, such as in lower Vermont Canyon and near Mineral Wells. *P.H. Raven 13820, 1 Mar 1959* (UCR).

ANGIOSPERMAE – MONOCOTYLEDONS

POACEAE

- **Echinochloa crus-galli* (L.) P. Beauv., barnyard grass. Annual. Probably present in certain seasonally wet areas such as debris basins, but has not been positively identified as occurring away from the Los Angeles River. *H. Stone s.n., 10 Apr 1936* (POM).

- *?*Eragrostis* sp. A single collection, unidentified to species, was made recently at the edge of the Los Angeles Zoo along Zoo Drive; however, until more is learned about the specific identity of this plant, if indeed it represents a population and not just a waif, it remains off the main list. *Cooper 813-43, 8 Aug 2013* (UCR).
- **Sorghum halepense* (L.) Pers., johnsongrass. Perennial herb. Like *Echinochloa crus-gallii*, it may persist in seasonally weedy spots such as debris basins, but until more is learned of its local status to confirm it is not a waif, it remains off the main list. *P.H. Raven 13817, 1 Mar 1959* (LA).
- **Triticum aestivum* L., common wheat. Annual. Single early collection, location unknown; possibly a waif. *E.A. Purser 2047, 8*

ERRATA TO VOLUME 40.2, Fall 2016

The author and contact were left off for the *Rumex stenophyllus* Noteworthy Collection on page 99. The author and contact should have been:

Fred M. Roberts, Research Associate, Rancho Santa Ana Botanic Garden, 1500 North College Ave., Claremont, California 91711. antshrike@cox.net.

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