ABIES BRACTEATA. SANTA LUCIA OR BRISTLECONE FIR. PINACEAE, THE PINE FAMILY. A slender tree (especially in the wild) with skirts of branches and long glossy green spine-tipped needles with white stomatal bands underneath. Unusual for its sharp needles and pointed buds. Pollen cones borne under the branches between needles; seed cones short with long bristly bracts extending beyond scales and loaded with pitch, the cones at the top of the tree and shattering when ripe. One of the world’s rarest and most unique firs, restricted to steep limestone slopes in the higher elevations of the Santa Lucia Mountains. Easiest access is from Cone Peak Road at the top of the first ridge back of the ocean and reached from Nacimiento Ferguson Road. Signature tree at the Garden, and much fuller and more attractive than in its native habitat.

ARBUTUS MENZIESII. MADRONE. ERICACEAE, THE HEATHER FAMILY. Large, evergreen often multitrunked tree with smooth orange-tan bark on younger limbs and checkered or scaly dark brown bark on older growth. Large elliptical dark green leaves, often paler underneath, and lined with tiny teeth. Clusters of fragrant, urn-shaped white puckered flowers in early to midspring followed by bright red-orange, warty and rather dry berries in fall. Not a choice edible but attractive to birds. Widespread in mixed-evergreen forests and the edge of redwood forests throughout the Coast Ranges and at middle elevations in the Sierra and other mountains. Beautiful wood that easily checkers and cracks.

ARISTOLOCHIA CALIFORNICA. CALIFORNIA PIPEVINE OR DUTCHMAN’S PIPE. ARISTOLOCHIACEAE, THE BIRTHWORT FAMILY. Climbing semiwoody deciduous vine with elongated heart-shaped fury leaves and clusters of hanging pipe-shape brown and dull purple ill-scented flowers in late winter, usually before the new leaves appear. Each pipe has three maroon red sepals at the pipe, the stamens and pistil hidden inside. The color and odor attract tiny midges and flies that become temporarily trapped inside until the flower opening expands, releasing them to visit other flowers. (Opening a flower usually results in releasing several of these tiny pollinators.) Six-sided fluted seed pods follow. The plants contain toxins, which are used by the caterpillars of the pipevine swallowtail butterfly as a defense mechanism, the leaves also serving as their exclusive food. California pipevine is widely scattered in the East Bay and South Bay, becoming common in the North Bay, mostly near streams in forests. Besides stands in Briones and Las Trampas, California pipevine can be seen in Samuel Taylor State Park in Marin County. It’s also found in the wooded foothills of the central and northern Sierra, where it is sometimes abundant incanyons.

BERBERIS SPP. BARBERRIES AND OREGON GRAPES. BERBERIDACEAE. THE BARBERRY FAMILY. A varied group of evergreen woody shrubs that colonize by spreading roots. All share a bright yellow inner bark used as a dye and medicinal, pinnately compound leaves with hollylike sharp-toothed leaflets; dense racemes of bright yellow flowers, each flower with several rows of colored perianth parts; and edible but often sour purple or red grapelike fruits. The different species are found in several sections of the Garden according to origin and habitat. Some, like long-leaf barberry (B. nervosa) grow in moist shade; others like Oregon grape (B. aquifolium) in dry shade; still others like Nevin’s barberry (B. nevinii) in full sun. Plants are slow to establish but eventually can co-opt large swaths of land.

CERCOCARPUS BETULOIDES. MOUNTAIN MAHOGANY ROSACEAE, THE ROSE FAMILY. A large winter-deciduous shrub to small tree with hard wood (but no relative of the real mahogany, a tropical tree) and small elliptical fuzzy leaves with coarse teeth and an indented feathery
pinnate vein pattern. (The leaves are often confused with *Holodiscus discolor*, whose leaves are fragrant, while mountain mahogany has spice-scented bark.) Clusters of small cream colored, petal-less flowers appear under the branches in spring, offering nectar to passing bees but not showy in themselves. Later the single-seeded fruits develop long, feathery white tails that are far more conspicuous and adapted for wind dispersal. These tough plants occur in open woodlands and chaparral throughout most of the foothills, also climbing into high desert mountains and being robust (var. *blanchiae*) on the Channel Islands. Pointed sticks were often used in starting fires and for arrow shafts.

**CHAMAECYPARIS LAWSON/ANA. PORT ORFORD CEDAR OR LAWSON CYPRESS.** CUPRESSACEAE, THE CYPRESS FAMILY. Very tall evergreen conifer with flattened, often partially drooping branchlets of many overlapping scales, the scales displaying white x's underneath. Bark in long fibrous brown strips; tiny marble-shaped woody seed cones. An excellent source of wood, much sought by the Japaense and endangered from logging and an invasive water mold in the genus *Phytophthora*. Highly variable leaf color, numerous cultivars available from dwarfs to variegated ones, highly popular in horticulture. Restricted to water courses and lake margins in both the Klamath Mountains and intermixed with coastal conifer forests north of Eureka, extending to southwestern Oregon. Can be propagated from cuttings. Most easily accessible place to find it: along the Sacramento River near Castle Crags State Park.

**COMAROSTAPHYLIS DIVERSIFOLIA. SUMMER-HOLLY. ERICACEAE, THE HEATHER FAMILY.** Large evergreen shrub to broad-crowned tree with peely brown bark, thick leathery broadly elliptical toothed leaves, and pendant racemes of white urn-shaped flowers in early to midspring followed by bright red warty berries similar to madrone fruits. Attractive to birds. Rare occurrences on the mainland of Southern California, and on the edge of forests on the Channel Islands. Deserves to be better known.

**ERIOGONUM SPP. WILD BUCKWHEATS. POLYGONACEAE, THE BUCKWHEAT FAMILY.** A very large and diverse group of plants in California containing tiny annuals, cushion-forming perennials, and small evergreen shrubs throughout most of the state, with many species in the deserts and mountains, usually on sandy or rocky soils. Despite the diversity, they all share simple untoothed leaves (most are spathulate shaped) often covered with woolly hairs underneath, complex clusters of tiny white, yellow, pink, or red flowers with 6-lobed perianths, the flowers clustered inside groups of bracts called involucres. The shape of the involucres, leaf details, bracts, flower colors, and flower arrangements are all important in making an identification. (The *Jepson Manual* recognizes four basic groups.) Most are easy to grow in loose, well-drained soils and full sun, and are relatively drought tolerant; most also bloom from late spring and summer into early fall, some with months of bloom. All are attractive to a wide range of pollinators including beetles, bees, and butterflies and all make good cut-flower arrangements, the flowers fading to beautiful shades of russet and red. Almost all parts of the Garden are represented by different species in the genus, and all are prominent for their summer flowers. Local species include *E. latifolium* on coastal dunes and cliffs, *E. nudum* (naked stem buckwheat) on rocky roadsides and trails, *E. wrightii* forming dense woolly mats on the Mines Road south of Livermore, and *E. umbellatum* the sulfur buckwheat with umbels of bright yellow flowers fading red near the top of Mt. Diablo.

**LYONOTHAMNUS FLORIBUNDUS AND VARIETIES. ISLAND IRONWOOD. ROSACEAE, THE ROSE FAMILY.** A fast-growing, suckering, evergreen tree that colonizes, with long peely brown
bark and flat-topped clusters of small white, roselike flowers in early summer. The main variety, *asplenifolius*, with coarsely divided bright green fernlike leaves. (*Asplenium* is a genus of ferns.) Seed pods last for several years on the trees after blooming. The fern-leaved variety restricted to the northern Channel Islands, usually in canyons and areas of a high water table, propagating vegetatively but seldom growing from seed. A relict that once grew on the mainland.

**PICEA BREWERIANA. BREWER’S OR WEEPING SPRUCE.** Slow-growing evergreen conifer with nearly vertical hanging side branches, a stiff leader, and prickly dull green needles attached to pegs as with Sitka spruce. Bark scaly; seed cones slender and cylinder shaped, with many papery scales, longer than most other spruces. A distinctive species for its silhouette and restricted to the Klamath and Siskiyou Mountains of northwestern California and southwestern Oregon. Easiest access is along the O’Brien Road north of Happy Camp.

**PINUS TORREYANA. TORREY PINE.** A very rare pine from the south coast, known only from Torrey Pines State Park north of San Diego and Santa Rosa Island. Fast-growing tall tree with exceptionally long gray-green needles in 5s and substantial fat seed cones, the seeds large, and the cone scales ending in a broad spine. Easy to grow and much taller in cultivation than in the wild.

**QUERCUS GARRYANA. GARRY OR OREGON WHITE OAK. FAGACEAE, THE OAK OR BEECH FAMILY.** Large deciduous tree with a rounded canopy, large pinnately lobed leaves, and plump rounded acorns in a warty acorn cup; male tassels in early spring as new growth resumes. Bark pale gray often developing a checkered pattern. Common on hillsides in the North Bay counties into Oregon and also in the Klamath Mountains and northern Sierra; widely scattered elsewhere. Resembles valley oak in many respects. Acorns served as food but not one of the preferred species.

**Q. TOMENTELLA. ISLAND OAK.** Large evergreen often narrow but sometimes broad tree with large, simple, toothed leaves, the upper surface with an impressed featherlike vein pattern, the lower surface covered with dense white hairs. Leaves reminiscent of the tanbark oak, *Notholithocarpus densiflorus*. Acorns borne in a warty cup, the cup sometimes dusted with a gold powder. Bark dark grey-brown. A relict species now restricted to canyons in the northern Channel Islands. Trees easily grown in cultivation.

**DUDLEYA SPP. CRASSULACEAE, THE STONECROP FAMILY.** Rosetted leaf succulens, the leaves basal and tightly spirally arranged atop a single or branched caudex. Small, vase-shaped to starlike yellow, creamy, white, or red flowers borne in cymes at various times of the year. Many often confusing species, most concentrated in rocky habitats, often near the coast, in Southern California. Prominent Bay Area species include the coastal *D. farinosa* with pale yellow flowers in summer and *D. cymosa* found on rocky outcrops inland with pale yellow to orange-red flowers depending on locale.

**ERYTHRONIUM SPP. FAWN-LILIES OR GLACIER-LILIES. LILIACEAE, THE LILY FAMILY.** Spring-flowering bulbs with pairs or triplets of tongue-shaped, sometimes mottled leaves and single stems with one to several showy nodding lilylike flowers of great beauty. Two prolific species at the Garden are *E. revolutum* with mottled leaves and pink flowers, and *E. multiscapoideum* with mottled leaves and white flowers with a yellow center. Fawn-lilies are nearly absent from the Bay Area but can be found on serpentine soils in the north Coast Ranges.
into Oregon and Washington, the higher elevation species not as often cultivated with solid green leaves and yellow or white, yellow-centered flowers that often fade purple.

*HEUCHERA* SPP. ALUMROOTS. SAXIFRAGACEAE, THE SAXIFRAGE FAMILY. Perennials from subwoody rootstocks and basal clusters of round, scalloped leaves and airy panicles of tiny white or pink nodding bell-shaped flowers in mid to late spring. Many cultivars available, often hybrids between species. Both *H. micrantha*, the local species on rocky banks in foothill woodlands and *H. maxima* from the Channel Island woodlands are featured in the Garden, the latter with bigger leaves and larger flowers. Both do well in dry shade with minimal maintenance, sometimes partially dying back at the end of the dry season but retaining leaves with summer water. *H. micrantha* can be found in Tilden Park and Huckleberry Preserve.

*LEPTOSYNE (COREOPSIS) GIGANTEA*. GIANT OR TREE COREOPSIS. ASTERACEAE, THE DAISY OR SUNFLOWER FAMILY. Fast-growing perennial featuring a stout somewhat succulent trunk to 6 feet high with a large mop of bright green fernlike leaves that are shed in summer and fall. Circles of large showy yellow daisies appear in early to midspring followed by large easy-to-grow seeds. Plants require a summer dormancy without water and can rot off when overwatered. They also need mild winters as their homeland, the southern California coast and Channel Islands experience mild nearly frost-free winters. Unique in their genus; other species don't form a true trunk, and in California, most others are annual.

*PETASITES FRIGIDUS PALMATUS*. WESTERN COLTSFOOT. ASTERACEAE, THE DAISY OR SUNFLOWER FAMILY. Vigorously rhizomatous summer/fall-dormant perennial growing on stream banks in moist forests, sending up stalks with clusters of white to pale pink flower heads in late winter followed by large, round, deeply palmately lobed leaves dull green on top and silvery underneath. Needs summer water. Occasional in the East Bay but common in the more coastal forests as at Pt. Reyes National Seashore northwards (also in the Santa Cruz and Santa Lucia Mountains).