MANZANTTA



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Easy-Pleasing Clarkias by Annie Hayes

ne fall a large pine tree fell over into my backyard, discouraging me from going out to weed and turn over my soil as I usually do at that time of year. The tree was finally removed in the spring, and when I went out into my garden again I was tickled to see clarkia seedlings carpeting almost half the garden.

I find it pretty surprising how rarely I see our native clarkias

growing in the Bay Area, even in native gardens. With their showy blooms over such a long season, easy-going temperament, and willingness to forego summer water, you'd think they'd be far more popular. And being deer resistant, tolerant of heat and seaside conditions-what more could you ask? Cut flowers? Clarkias are some of the prettiest and longestlasting cut flowers you can grow.

Maybe folks are put off by the sad, dwarfed version of our lovely farewell-to-spring (Clarkia amoena) you sometimes find at garden centers and box stores. Sold as godetia or Godetia grandiflora, bred to bloom at an unnatural height of six inches tall—the better to fit between delivery truck shelves-and almost always sprayed with growth regulators, this makes a poor represen-

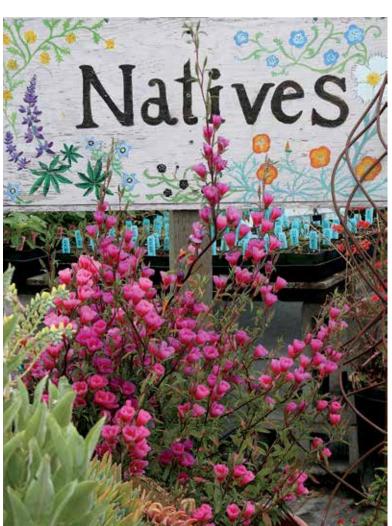
tative for the genus. Left alone, farewell-to-spring naturally grows to at least 30 inches tall. How sad to see the crowded cluster of blooms bunched awkwardly on top of stiff six-inch stems, with nowhere to go and nothing to do. Since the stems cannot grow upwards, these poor plants will soon deteriorate. But then again, maybe most gardeners don't even realize that these godetias are California natives; with their bizarre stunted form, they surely don't look like wildflowers.

Natural clarkias are highly rewarding in almost any garden. True to their common name of farewell-to-spring,

> clarkias deliver a mass of blooms just as most other spring-flowering native annuals are fading away. Because of this, they are valuable for filling in that flowering lull after the peak of spring bloom, and, in decent soil with some summer water, they'll continue blooming until fall. Super-easy to grow and a nice solution for adding excitement to new gardens with lots of bare earth, clarkias are one of those plants that make you feel ever so successful with very little effort. Plus, they attract bees and butterflies. Birds love the seeds, which freely self-sow for new showy patches next year.

About that volunteer overabundance? Not to worry, they are a cinch to remove if needed, sliding right out of the soil with the slightest tug. But crowded patches of seedlings are not a

bad thing in the case of clarkias—they don't seem to mind being crowded, and if you leave one of these spots of dense seedlings alone, they'll provide a wild patch of brilliant color without any thinning.



Shamini ruby chalice clarkia (Clarkia rubicunda 'Shamini'), an unusual cultivar

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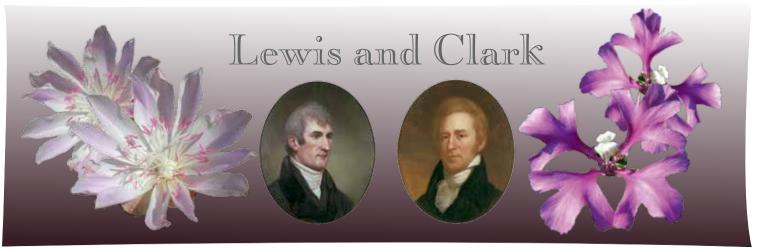
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FOR INFORMATION:

About the Friends and membership: 510-544-3169, info@nativeplants.org

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Portraits from life of Meriwether Lewis, 1807 (left), and William Clark, 1807-1808, by Charles Wilson Peale. Courtesy, Independence National Historical Park. Lewisia rediviva, left, photo by James Reveal. Clarkia pulchella, right, photo by Bob Case.

In his Voyage of Discovery journal entry for June 1, 1806 near Kamiah, Idaho, Captain Meriwether Lewis wrote: "I met with a singular plant today in blume of which I preserved a specemine; it grows on the steep sides of the fertile hills near this place...." Lewis goes on to describe the parts of the plant and flower in great detail using 465 words. At the end of the description, he adds "I regret very much that the seed of this plant are not yet ripe and it is proble will not be so during my residence in this neighbourhood."

This is the first notation and collection of a plant destined to become known to science as *Clarkia pulchella*, first spotted in the field by William Clark and reported by Lewis. How did the plant get this name? Let's follow the specimen to its christening and final resting place, a roundabout path that reveals much about both herbarium curation and the then-fledgling science of plant taxonomy.

The specimen became part of Lewis's baggage and was transported by Lewis on his homeward journey across the Continental Divide and up Montana's Marias River by horse, then down the Missouri by dugout canoe to St. Louis, arriving on September 23, 1806. Lewis took the pressed specimens to Thomas Jefferson for his amusement and observation. Both Lewis and Jefferson expected Lewis to produce a natural history account of the voyage, and they hoped that Benjamin Barton, Lewis's botany instructor and a textbook author, would collaborate; as time passed, however, Barton grew too ill, old, or unwilling to participate.

Through Barton, Lewis was put in contact with Frederick Pursh, a young German botanist living in Philadelphia. In 1807, Lewis employed Pursh to produce drawings of the plant specimens and assist in arranging the collection. Lewis turned over the entire collection to Pursh and left for St. Louis, never to see the specimens again.

After spending more than a year working on the collection, Pursh decamped to New York and turned over most of the specimens to Bernard McMahon, a Philadelphia seed merchant and gardener. By late 1809, Lewis was dead, and Pursh, who still retained some of the specimens, had given up his part in the publishing effort.

William Clark now reluctantly accepted the task of publishing the collected materials and journals. He located the specimens in McMahon's possession and gave them back to the aging Barton for study. He did not, however, recover the drawings Pursh had made for Lewis. Apparently, Pursh was dissatisfied with what he had been paid; it is not known if Clark paid him more or if the issue was ever resolved.

Eventually, a two-volume edition of the *Journals* of the Lewis and Clark Expedition was ghostwritten by banker Nicholas Biddle and published in 1812, but in the words of historian Stephen Ambrose, "Biddle did little" in treating the science of the expedition. A planned third "science" volume was never produced. At some time in 1818, Biddle, Jefferson, or Barton turned the journals and plant specimens over to the American Philosophical



Lewis and Clark Herbarium Specimen #43, Clarkia pulchella Pursh, traces the species' long history of collection and curation. Philadelphia Herbarium (PH) Specimen No. 01101189. Type Specimen. American Philosophical Society/Academy of Natural Sciences of Drexel University.

Society in Philadelphia; our subject specimen, *Clarkia pulchella*, was listed as "Specimen Sheet #43" in the Lewis and Clark collection.

Pursh, meanwhile, had traveled to England and by 1811 was under the employ of Alymer Lambert, a leading botanical collector. Pursh worked for several years producing his *Flora Americae Septentrionalis*, published in 1814 while the United States was at war with Great Britain. To help complete his flora, Pursh took some 50 Lewis and Clark specimens with him to England—never asking permission or making any effort to return the specimens, though he did give credit to Lewis and Clark for the material they collected. Pursh must have studied and described #43 in Philadelphia, as the sheet, according to historian Paul Cutright, remained with the Lewis and Clark collection in Philadelphia.

Specimen Sheet #43 was first given the binomial *Clarckia pulchella* in Pursh's *Flora*, but Pursh described many plants he had never seen except on herbarium sheets; his descriptions were short, making little note of measurement or habitat, and inferior to the notes in Lewis's journal. The *Flora*, in describing many of the plants collected by Lewis and Clark, failed to achieve what Lewis or Jefferson would have wanted or written.

Nevertheless, Pursh had assigned the plant an all-important scientific name, and the description was published and thus established. Although Lewis had been introduced to Linnaean classification, he did not have the botanical background to place the specimen in the proper taxonomic category or know if the specimen was new to science. In fact, Lewis had discovered a new genus as well as a species; no representative of the genus Clarkia had been seen or collected before. The specimen that Clark had discovered and Lewis collected is the type specimen for the genus Clarkia (corrected from Clarckia) and for the specific plant Clarkia pulchella—the epithet means "beautiful" in Latin, a very appropriate name if you have had the good fortune to see it in the field. (As it happens, C. pulchella is one of the few species of the genus that is not native to California.)

In 1896, botanist Thomas Meehan of the Academy of Natural Sciences (ANS) discovered the remaining botanical specimens and drawings of the expedition at the American Philosophical Society, where, in the words of historian Gary Moulton, they were "stored away, probably untouched for three quarters of a century, and somewhat decimated by beetles." The specimens were transferred

to the ANS, literally across the street. Specimen Sheet #43, *Clarkia pulchella*, is currently housed at the ANS, now affiliated with Philadelphia's Drexel University, as part of the Lewis and Clark Herbarium, which contains 227 of the 239 extant specimens now known to exist.

In the field, of course, *Clarkia pulchella* lives on. I have been able to grow *C. pulchella* from seed that I purchased at Jefferson's estate, Monticello, and they are still available online at \$2.95 a packet. It is a wonderful addition to my garden in Concord. The plant and its seeds are truly well traveled.

Bay Area native Bob Case taught biology in the Peralta Community College District for 25 years, is a retired Deputy Agricultural Commissioner for Contra Costa County, and sits on the Board of the Friends of the Regional Parks Botanic Garden. He has traveled most of the Lewis and Clark Voyage of Discovery Trail and is a member of the Lewis and Clark Trail Heritage Foundation.



Botanical illustration of Clarkia pulchella courtesy of Biodiversity Heritage Library.

Easy-Pleasing Clarkias

Continued from page 1

Got clay? Most clarkias thrive and reseed themselves in sandy, clayish, and infertile soils, happiest when there is some drainage. I've watched a patch of elegant clarkia (*C. unguiculata*) self-sow and return for years on someone's partly shady, untilled and untended clay hillside by their house in Kensington in the San Francisco Bay Area.

Here at the nursery we don't have a garden devoted to only native plants. Though clarkias are beautiful planted in groups or even singly, free to stretch out and reach their natural form and glory, I mix our most popular species into my cottage-y gardens with great success. They make perfect long-blooming fillers that keep pumping out blooms as other nearby plants go in and out of flower. (Cut-and-bloom tip: Clarkias bloom from the bottom upward along the stem; when cutting stems for cut flowers, always cut below the lowest bloom to encourage the plant to send up a new shoot and bloom again.)

Our demonstration gardens have rich, loamy soil and are watered frequently when it's not raining (whether I like it or not—the waterers do not listen to me). Clarkias are so adaptable they don't mind the luxurious soil and regular watering a bit, and they are probably more floriferous over a longer season for it. Almost all clarkias prefer a sunny position with at least six hours of full sun along the coast and coexist happily in mixed plantings, native or otherwise. In my experience, they are most glorious when not overshadowed by taller plants. They are quite wonderful and easy in containers too, as long as the pot is large enough. I love seeing them in meadow-y situations popping their blooms up above shorter grasses as they will continue to bloom even after the grass turns golden.

We begin sowing our clarkias in December and sow seeds every two weeks until April, but you can toss seeds out onto the ground in the fall along the coast. Successive sowings from winter through spring would give you the longest season of good-looking plants and plentiful bloom. In colder zones and at high elevations, you should wait until April or May for sowing the seeds.



Pismo clarkia (Clarkia speciosa ssp. immaculata)

There are forty species and many subspecies and varieties of clarkia, all but one native to the western United States; nearly every species is found somewhere in California. Though we've offered many in the past, we usually offer about eight varieties each year. Here are some of our most popular ones:

Pismo Clarkia

(Clarkia speciosa ssp. immaculata)

Absolutely stunning trailing over the edge of a raised bed. Rare, endangered, and endemic to California, Pismo clarkia is native to the sandy hills east of Pismo Beach south to Santa Maria. I often plant this eye-catching clarkia right near the entrance to the nursery to start visitors off with a thrill. Most folks have never seen it before and practically everyone asks, "What is that?" I usually plant it out in full sun from four-inch pots from February to April, grouped three together on twelve-inch centers, side dressing with an inch or less of compost after planting. By mid-May, I have a compact, bushy mound about fourteen inches tall and three feet across, almost covered in beautiful two-inch, sky-facing, silky magenta blooms held on short stems, each cup-shaped flower bearing a snowy white center. Full bloom lasts from mid-May through summer and you can extend the bloom until September by dead-heading. Since it's native to sandy soils and our beds are so rich, I always plant these on the edge of a bed to ensure extra drainage and add lava rock before planting, as well. It's also happy as a clam in a largish container, 15- to 20-gallon size, as the blooms spill beautifully over the edge and appreciate the drainage a container offers. Lovely with white California poppies and lupines Lupinus chamissonis and L. arborea.

Elegant Clarkia

(Clarkia unguiculata)

An excellent, garden-worthy clarkia endemic to California. It's easy, fast-growing, and tolerant of infertile and clayish soils. If you have hardpan clay, add a bit of organic material for drainage and better performance. Although it's available in colors from white to pink, salmon, and violet, we've been unable to source any colors other than salmon in the past few years. Spidery, pinwheel-shaped single blooms about two inches across are well displayed on upright branching wine-red stems from 30 inches to four feet tall. Beginning at the base, the flowers work their way up the stems, creating a mass of what looks like brightly colored orchids or butterflies that sway in the breeze. You can grow



Salmon Princess elegant clarkia (Clarkia unquiculata 'Salmon Princess')

it in front or mid-bed, massed or singly—all ways are highly effective. It's also a great choice for new gardeners as it fills in bare patches quickly, providing foliage, texture, and lots of color. Elegant clarkia is possibly the most tolerant of partial shade, and some gardeners tip-pinch them while young to promote a shorter, bushier plant where there is less light. Like all clarkias, it requires no summer water, but an occasional drink along with dead-heading certainly lengthens the bloom season. Easily grown in containers, 20-gallon size for best show, you can keep it coming at its peak with successive sowings. In native gardens the salmon-flowered selection 'Salmon Princess' makes a winning partner for Salvia clevelandii or Verbena lilacina 'De La Mina'. In our mixed gardens, I love it combined with equally long-blooming Dahlia 'Softie', Petunia integrifolia, and Verbena bonariensis. Like all clarkias, it's incredibly long lasting as a cut flower, up to three weeks. It's easy to find mixed color seeds, and, when sown all together, the plants make a lovely and cheery sight. Double forms are sometimes available from seed.

Farewell-to-Spring

(Clarkia amoena aka Godetia grandiflora)

Like the others, *C. amoena* makes a terrific cut flower; this is the species you often see in florists' bouquets. One-and-a-quarter-inch, cup-shaped, sometimes wavy blooms are held singly or in clusters of up to six inches across, depending on the variety. They are the latest to bloom in our



Memoria clarkia (Clarkia amoena 'Memoria')

gardens, beginning in late May to June here by the San Francisco Bay, and are usually considered the showiest of all clarkias with their vivid colors and prolific bloom. There are lots of selections in the nursery trade with flower colors ranging from pink, red, magenta, and salmon to white, many offering vivid contrasting patterns, edging, or blotches. Generally growing from thirty inches to three feet tall and wide, some of the varieties bred especially for cut flowers can look a little awkward in the garden, particularly in rich soil, with their large clusters atop long, upright, stiff stems (great for cutting). They look best when massed or mixed with other plants of the same height.

Container plants are nice for providing cut flowers, though I would probably tip-pinch the main stem while young to encourage side growth and keep them from bending over under the weight of their flower clusters. A cinch to grow in sandy to clayish or good compost-enhanced garden soil, farewell-to-spring is tolerant of part-day shade, but along the foggy coast I recommend you plant it in full sun, as it can get floppy. Shorter varieties growing to about eighteen inches tall can be obtained from

seed catalogs, but I have yet to try them with my aversion to dwarfed anything!

'Aurora', our most popular variety of *C. amoena*, bears large, gorgeous clusters of wavy peach blossoms edged in white, fantastic in flower arrangements. Up to three feet tall and multibranched, it can be one of those "stiff leggers" in the garden. The large terminal clusters may cause the branches to bend over, especially when grown in less than six hours of sun. Tip-pinch when young for better form. 'Memoria', another variety bred for large cut flowers, displays pure white, wavy blooms.

Ruby Chalice Clarkia (Clarkia rubicunda ssp. blasdalei)

For sheer exuberance of bloom and usefulness in the garden, I think this is currently my favorite clarkia. Primarily native to the Bay Area counties, with

smaller populations in San Luis Obispo, Monterey, and Humboldt counties, ruby chalice is another easy, beautiful, long-blooming showstopper for almost any garden. In our gardens, again with rich soil and summer water, much-



Ruby chalice clarkia (Clarkia rubicunda ssp. blasdalei)



Pink Ribbons (Clarkia concinna 'Pink Ribbons')

branched slender stems and linear leaves create an attractive bushy form thirty inches to three feet tall and thirty inches across. From May through fall it's quite a sight, brimming with countless two-inch lavender, cup-shaped, upright blooms ornamented with a central bright cherry-red blotch. I plant three or four seedlings about fifteen inches apart for a dazzling Mother's Day display four to five feet in diameter. Self-sown seedlings popping up the next season with little or no thinning produce the same effect. Adaptable to a wide range of soils and conditions including coastal salt spray, this is another clarkia that can tolerate a bit of shade, especially further away from the coast.

Pink Ribbons

(Clarkia concinna 'Pink Ribbons')

Pink Ribbons is a named cultivar of red ribbons, the common name for *C. concinna*. Billowing over the edge of a bed or container, the flowers of Pink Ribbons look like a mass of silky, brightest rose butterflies gathering over the bushy, slightly sprawling twelve-by-eighteen-inch mound of slender foliage and shiny red stems. Up close the one inch-and-a-quarter flowers resemble flaring pinwheels or fans, with each of the four widely spaced petals trilobed in shape. Endemic almost entirely to Northern California, this delightful clarkia is one of the earliest bloomers beginning in April and lasting through July. I like to plant it near the front of a bed where you can enjoy

the butterflies close up. Contrasting beautifully against dark foliage, as with *Heuchera* 'Melting Fire', the blooms add a bright and cheery highlight to 'Apricot Chiffon' California poppies and baby blue eyes (*Nemophila menziesii*). Tolerant of less than perfect soil, it will be showiest in loamy garden soil. I've used it in both part shade and full sun here in foggy Richmond, and it worked well in both situations with longer and more profuse bloom in full sun.

We have grown and offered quite a few more species that have been less popular with visitors, some with flowers too small to be loved and taken home, others, like the charming and deliciously fragrant *Clarkia breweri*, a bit too difficult for newer gardeners. I'm endlessly fascinated though and would love to access seed and grow so many more. The California Native Plant Society's Calscape website has a good list of clarkias with photos and distribution maps of each species listed. It's a handy tool for guiding you to many species currently found only in the wild. With all the rain we've had here in the Bay Area, this year the show should be outstanding!

Annie Hayes is the proprietor of Annie's Annuals & Perennials, a Richmond, California wholesale, retail, and mail order nursery specializing in unusual garden varieties, California native plants, and Mediterranean-climate varieties from around the world.

All photos by the author.



The author surrounded by farewell-to-spring (Clarkia amoena) at Blake Garden, Kensington

Clarkia, a Beautiful Genus for California Gardens by Glenn Keator, PhD

Clarkias are important elements in California gardens, lending vivid beauty to native meadows, large containers, open woods, and as fillers between shrubs and woody perennials. Currently the forty-one species—one from South America—mainly reside in California with several also in other parts of the West.



Brewer's clarkia, or fairy fans (Clarkia breweri)



Slender clarkia (Clarkia gracilis)

Traits

Although clarkias are a typical member of the evening-primrose family Onagraceae, they are easily recognized, standing out by a mixture of mostly easy-to-see traits: All are annuals, most living in the foothills but not in wetlands or deserts. The flowers are typically some shade of pink, purple, or occasionally white. The four sepals are turned down (reflexed) and often partially cling together.

The four-lobed stigmas feel dry to the touch and are lined with bumps (papillae), easily seen with a hand lens.

Single Genus?

Clarkia has not always been a single genus. Originally there were godetias (genus Godetia) with cupshaped flowers, the petals not lobed or clawed (claws form a narrow base that expands at the tip into a "limb"), and clarkias (ge-

nus *Clarkia*), with flowers with fanlike flattened petals, the petals sometimes lobed and usually clawed.

After people got used to this division, studies indicated many similarities between the two genera, and the two groups were lumped together. The older genus name was retained, allowing us to continue honoring Captain Clark of the Lewis and Clark expedition.

Features

Keying clarkias is not always easy, but some of the prominent features used in *The Jepson Manual* are discussed below.

Stamens Only Four, the Petals Three Lobed at the Tips

Only two beautiful species have four stamens and three-lobed petals: red ribbons (*C. concinna*) and Brewer's clarkia, or fairy fans (*C. breweri*). Red ribbons is named for its narrow, ribbon-shaped red sepals (not the showy, deeply lobed petals) and is common in foothill woodlands. Brewer's clarkia, rare and unique for its sweet fragrance, is restricted to rock scree in the Mt. Hamilton area and in the inner South Coast Ranges.

Stamens Eight, Petals Not Strongly Lobed

The majority of clarkia species have eight stamens, and their petals are not strongly lobed.

The Flowering Stem and Flower Buds Drooping

Species with both gracefully drooping stem tips and buds can be subdivided into those with clawed petals (the petals often two lobed) and those without clawed petals. Two often-encountered species with clawed petals are two-lobed clarkia (*C. biloba*, very short claw), widespread in the central and northern Sierra foothills, and diamond clarkia (*C. rhomboidea*), common at middle elevations in the mountains with small flowers, the petals speckled at the base.

Species without clawed petals in this group include several godetia types, such as slender clarkia (*C. gracilis*) and its subspecies not only in the Sierra foothills but also in the northern Bay Area. *C. gracilis* ssp. *tracyi* with its red-based pink petals is common around Bear Valley east of Clear Lake. Two other widespread species include speckled fairy fan (*C. cylindrica*) from the southern Sierra foothills and South Coast Ranges and Dudley's clarkia (*C. dudleyana*) from the Sierra foothills.

The Flowering Stem Upright at the Tip (but Not the Buds)

In the group with reflexed flower buds, punchbowl godetia (*C. bottae*) is a variably colored species from Southern California; elegant clarkia



Speckled fairy fan (Clarkia cylindrica)

(*C. unguiculata*) has fan-shaped and clawed petals and is abundant in woodlands throughout the foothills; and gunsight clarkia (*C. xantiana*) sports clawed and two-lobed petals and occurs in the southern Sierra and Tehachapi Mountains.

The Flower Buds Drooping Even If the Stem Tip Is Erect

All species are of the godetia type and include many familiar kinds, such as farewell-to-spring (*C. amoena*) from the North Coast Ranges, each petal with a red spot. (The subspecies, *whitneyi*, has given rise to the "garden" godetias.) Similar-looking species include Presidio clarkia (*C. franciscana*), a



Gunsight clarkia (Clarkia xantiana)

rare species from San Francisco and the East Bay, and ruby chalice clarkia (*C. rubicunda*), with a deep ruby blotch at the base of the petals, common in the central Coast Ranges and Bay Area. One more species in this group deserves special mention—winecup clarkia (*C. purpurea*), with its subspecies typical and widespread in foothills throughout the California Floristic Province, its flowers generally smaller than the others and often with wine-colored spots or petals. An honorable mention needs to go to the easy-to-grow but rare Vine Hill clarkia (*C. imbricata*), a plant restricted to the Vine Hill region north of Sebastopol.

The Petals with a Distinct Claw

Clawed petals are narrow at the base and expanded at the middle and tips. Species with this

feature fall under two or more of the features listed above. Prominent species include the widespread elegant clarkia (*C. unguiculata*), the mountain species diamond clarkia (*C. rhomboidea*), and the southern trending gunsight clarkia (*C. xantiana*).

This short essay only partially hints at the many species of clarkia within



Presidio clarkia (Clarkia franciscana)

our borders. A few are highly restricted and rare, others are relatively widespread. Many deserve trials in gardens, and many merit hybridizing and selection for that purpose. Enjoy exploring the diversity of our lovely clarkias.

Glenn Keator is chairman of the Friends Advisory Council. He is a popular instructor of botany and field trip leader in the Bay Area, and he teaches the docent training course at the Regional Parks Botanic Garden. He is the author of a number of books on native plants. All photos by Bob Case.

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by Bart O'Brien (Photos by the author except as noted.)

Vine Hill Clarkia

Clarkia imbricata

Perhaps the most important annual species in our long-term conservation collection, Vine Hill clarkia has been growing here since James Roof first brought the species into cultivation in the 1960s. This distinctive endemic to acidic inland sands of Vine Hill in Sonoma County has always been extremely rare. Essentially, there is a single wild population and a nearby successful introduced population at the California Native Plant Society (CNPS) preserve at Vine Hill. This is typically the latest of the clarkias to reach full bloom at the Botanic Garden. The epithet imbricata refers to the shinglelike, flattened, overlapping nature of the leaves. Our current plants date back to a 1983 collection near Pitkin Marsh and can be seen at the Botanic Garden near the gardeners' nursery.





Brewer's Clarkia

Clarkia breweri

Found growing in partial shade in rocky talus from Alameda County south to Monterey and Fresno counties, Brewer's clarkia has several unique features for the genus: It has baseball-bat-shaped filaments, and the flowers are fragrant (like carnations). Plants are always small—rarely growing over four inches tall—but the showy pink flowers are huge: nearly two inches across. Often considered difficult or impossible to grow in an open garden, Brewer's clarkia can be successfully grown in containers. A few can be seen most years at the Botanic Garden in the lower bulb bed by the glasshouse.



Clarkia cylindrica ssp. clavicarpa

No Common Name

This subspecies is typically found in the foothills of the southern Sierra and the Tehachapis, but our collection is from the Western Transverse Ranges. Flowers may be either densely speckled or blotched with deep rosy-purple, so each plant's flowers should be inspected and enjoyed. Our plants have been in the upper bulb bed near the glasshouse and have displayed remarkable variation.

Clarkia concis

Raiche's Red Ribbons Clarkia concinna ssp. raichei

The flowers of Raiche's red ribbons are more richly colored, but smaller, than the typical species and are self-pollinating. Only known from its type locality south of Tomales in Sonoma County, this subspecies was first described in 1990. We have been growing Raiche's red ribbons in the upper bulb bed near the glasshouse for several years. Last year it bloomed especially prolifically in the Botanic Garden.



Red Ribbons

Clarkia concinna ssp. concinna

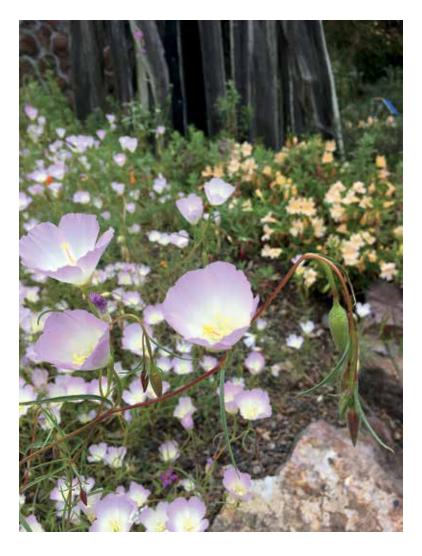
Red ribbons really should be called pink ribbons though in truth the flowers tend to be more rosy-magenta in color. Always welcome and popular, red ribbons is easily grown and readily reseeds in partial shade, and it is particularly at home growing on slopes. It is usually most abundant in the Valley-Foothill section of the Botanic Garden.



Clarkia arcuata

No Common Name

Our collection of *Clarkia arcuata* is perhaps the most beautiful but rarely seen form of the species. Although most wild populations have rich pink flowers, ours have creamywhite petals with pale pink margins. For those who may be looking for a well-behaved annual with the flower shape and color of the Mexican evening primrose (*Oenothera speciosa*, an aggressive exotic perennial), our form of *Clarkia arcuata* is an outstanding choice. It is planted at the southeast corner of the Juniper Lodge.





Clarkia prostrata

No Common Name

Unusual for its arching to horizontal growth habit and small pink flowers with darker markings toward the base of each petal, *Clarkia prostrata* may be found growing along the central California coast. The least showy of all the clarkia species I've chosen to write about, these plants can be found in both the upper and lower bulb beds near the glasshouse.

Fort Miller Clarkia

Clarkia williamsonii

Commonly found growing in full sun in the central Sierra foothills, the Fort Miller clarkia is noted for its showy displays in the Sierran section of the Botanic Garden in July. The tall willowy plants are especially effective when planted in masses. Like many clarkias, this species is easy to grow. In the Botanic Garden, look for this plant along the south portion of the west lawn and to the northeast of the Juniper Lodge.

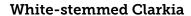




Dudley's Clarkia

Clarkia dudleyana

The foothills and mountains of the southern parts of California are home to this beautiful pale-pink-flowered species. Our form is especially robust and vigorous, with a single plant capable of putting on a show for well over one month. Our plants are located in the rock garden at the edge of the blue oak in the Sierran section.



Clarkia gracilis ssp. albicaulis

White-stemmed clarkia, a particularly colorful rare species, is declining in the wild due to loss of habitat and from competition with exotic species.









CALLING ALL AMATEUR AND PROFESSIONAL CALIFORNIA NATIVE WILDFLOWER PHOTOGRAPHERS!

Spring 2017 has been a banner season for our California wildflowers!

We would like to invite you to submit for possible publication in the Fall 2017 issue of the Manzanita no more than 5 photos you have taken this spring. Be sure that your photos are 3-5 MB and that each photo caption indicates subject matter, location, and date.

Please send your submissions by July 30, 2017 to Pattie Litton, Editor, plitton@earthlink.net. Thank you,

The Manzanita-

Regional Parks Botanic Garden Classes, June to September 2017

The Bay Area's Dazzling Dragonflies, Saturday, June 17, 9:30 a.m. - 2:00 p.m., Instructors: Kathy and Dave Biggs, Location: Visitor Center and gardens

Lewis and Clark, Voyage of the Corps of Discovery (morning), Botanical Legacy (afternoon), Saturday, June 24, 9:30 – 12:30 and 1:30 p.m. – 4:00 p.m. Instructor: Bob Case, Location: Visitor Center and gardens

Serpentine Endemism in the California Floristic Province, Sunday, July 16, 10:00 a.m. - 2:00 p.m. Instructor: Dick O'Donnell, Location: Visitor Center

Botanical Art Miniatures in Watercolor, Saturday and Sunday, July 29 and 30, 9:00 a.m. - 4:00 p.m. Instructor: Linda Ann Vorobik, Location: Visitor Center

Demystifying the Composites, Saturdays, August 19, 26, September 9, 10:00 a.m. - 2:00 p.m. Instructor: Glenn Keator, Location: Visitor Center and field trip

Insects of the World and in the Garden, Sunday, August 20, 9:30 a.m. – 3:30 p.m.

Instructor: Bob Case, Location: Visitor Center

Designing a Native Garden, Thursdays, September 7, 14, 21, 9:30 a.m. – 12:00 p.m. Instructor: Katherine Greenberg, Location: Visitor Center

For complete class and workshop listings through November 2017, please visit www.nativeplants.org.