ERIOGONUM SOCIETY NEWSLETTER

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First Annual Meeting Set for Reno, Nevada
June 10-13, 2010

The date and location have been set. Now it's time to put these dates on your calendar and plan to be there. The meeting will consist of a one and one-half day seminar given by Dr. Jim Reveal on how to identify Eriogonum species - principally those that bloom in the spring and early summer in the southwest. Then, we will test our new found knowledge on two days of field trips in the Reno area.

The agenda hasn't been finalized completely as yet but the seminar will start after a "get acquainted" social on Thursday evening and continue all day on Friday. Saturday and Sunday will be our field trip days. The preliminary schedule is as follows:

Schedule:

10 Jun - Thursday evening:	An introduction to *Eriogonum* including history of its discovery, distribution, ecological settings, habit, duration, and morphological characteristics. The session will last about an hour.
11 Jun - Friday morning:	Joint keying out and identifying of select species of *Eriogonum*. This session is designed to introduce structures and terminology used in keys and descriptions.
11 Jun - Friday afternoon:	Identification of fresh *Eriogonum* specimens by the participants. We will provide a large number of different species for which distribution will be provided but not names. The point of this

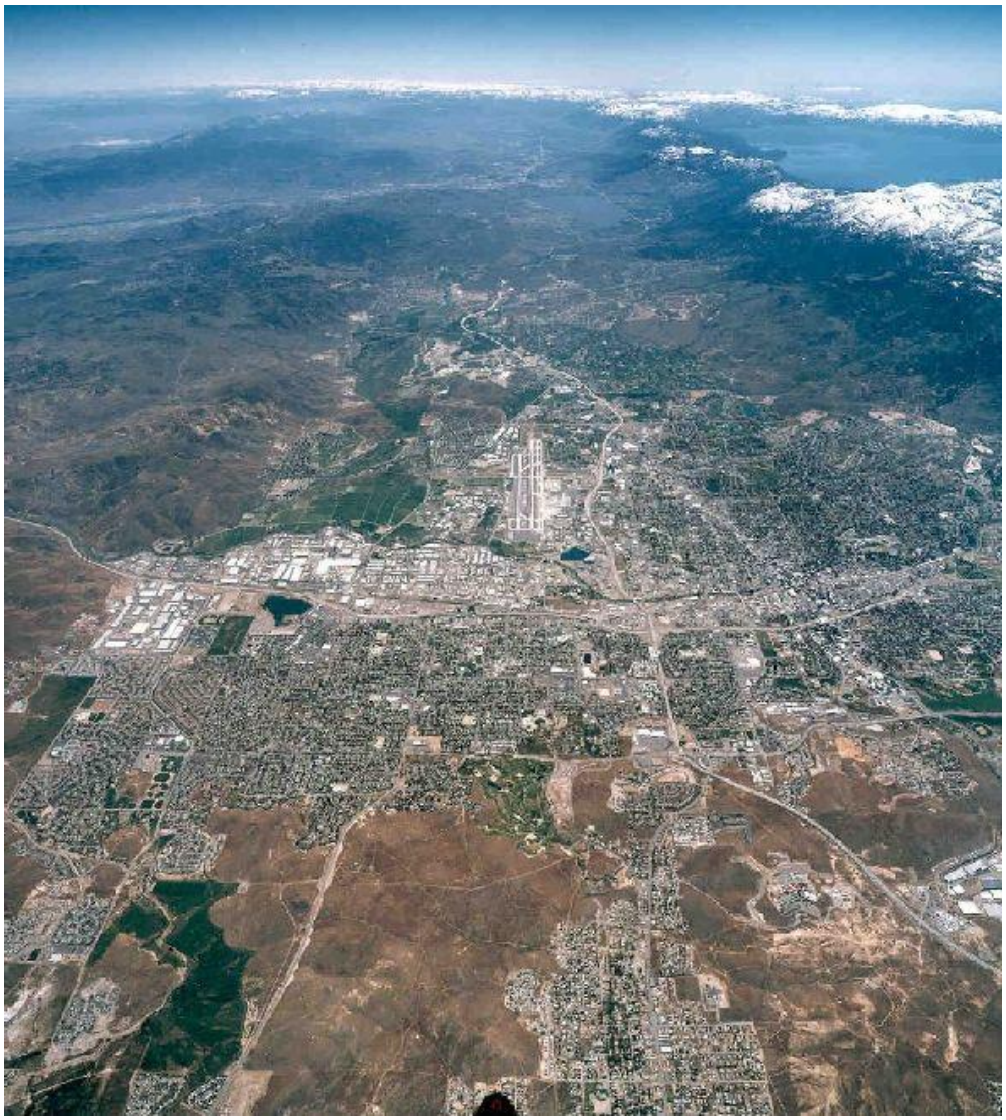
exercise is to allow participants to become familiar with keys and descriptions, and to introduce several different species, some of potential horticultural importance.

12/13 Jun - Saturday/Sunday: Organized fields trip around the Reno area.

Facilities and costs haven't yet been determined but we plan to have a fairly low key meeting and keep the costs as low as possible. Participants will be responsible for arranging their own lodging and most of their meals. We will plan to carpool on the field trips. Hugh MacMillan will be the Registrar for the meeting. Please contact either him or Bob McFarlane for further information. Final details will be provided in the next newsletter.

For those of you that may be planning to attend the APS meeting in northwest Colorado, it will be held the prior weekend, June 4-7. This would give you 2 1/2 days to travel from one meeting to the other.

Make sure you talk it up with your friends and others in plant groups. Let's make this meeting a great one and one that attracts more members to our group.



Reno, looking south from 20,000' with Lake Tahoe in distance.

Eriogonum kennedyi in White Mountains, California. Photo by Ginny Maffitt.

Eriogonum Kennedyi - Gorgeous in Cultivation

Ginny Maffitt, Zone 8a, Sherwood, Oregon

Eriogonum kennedyi is one of my favorite species of the large genus of buckwheats. Since I grow many alpines, its tiny stature is very appealing and grows well in my troughs. The silvery, needle-like leaves are handsome year-around. The white to rose-pink flowers seem to extend through the summer, ending in pretty, powder-puff seed heads. Living in the maritime Northwest, I value it enough to cover the troughs in winter with clear plexiglass. This also protects my out-of-area penstemon collection while dormant, from rain and high humidity. I haven't taken the gamble of growing the *E. kennedyi* in my open rock garden beds as I have so few

Eriogonum kennedyi. Photo by Ginny Maffitt

The larger-leaved variety in my collection, I am assuming, is variety *austromontanum* (Munz & I.M. Johnston). It didn't come with this label, but its 6-10 mm (1/4-1/3") leaves fit the description as the largest of the five varieties listed in The Jepson Manual. This variety comes from the Western Transverse Ranges and San Bernardino mountains. It is listed as rare, but found in cultivation. Its branched flower stems float 3-5" above the 2" cushions of leaves (see photo). The flowers are white with darker pink edges. The oldest plant is likely five years old. Another plant that died last season was in a small, narrow trough and, I suspect, ran out of root-room.

Eriogonum kennedyi, variety austromontanum. Photo by Ginny Maffitt.

Even more stunning is the miniature *E. kennedyi variety alpigenum* from the San Gabriel and San Bernardino mountains of southern California. I purchased it in June, 2005 from Rebecca Lance (www.granitegardensrareplants.com), memorably at the annual American Penstemon Society meeting in Bishop, CA. It's leaves are 2-4 mm (3/8") long with rounded tips and also very silvery and tomentose (densely short fuzz) and rolled under. The cushion of leaves is about ¾" deep and lovely throughout the year. The white to rose flowers have 2" or less stems. This blooms reliably most of July and August. Jepson records it's elevation at 1200-3600 m (3000-9000') occurring in dry gravel in the Sierra Nevada mountains, east Sierras of Mono and Owens Valleys, Transverse Range and northwest Desert Mountains.

I've grown *Eriogonum kennedyi* from seed, although few germinated. The surviving plants were easy to grow in my usual pumice and gravel mix, leavened with a small amount of homemade compost. They get mostly morning sun and twice-weekly watering with no fertilizer.

Eriogonum kennedyi, variety alpigenum. Photo by Ginny Maffit

Notes on *Eriogonum*. IV.

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Previously in these *Notes* the general morphological features were discussed that defines the subg. *Eriogonoideae*, as traditionally circumscribed, and the habit, duration, leaves and involucres. This time features of the **perianth** will be discussed. Individual terms are defined in the glossary.

Beginning students in botany are often taught that dicotyledonous plants have their floral parts in fours and fives while monocotyledonous plants have their floral parts in three. *Polygonaceae*, and especially *Eriogonoideae*, are therefore a bit odd in that their floral parts are in threes: Six tepals in two whorls of three, three to nine stamens also arranged in two whorls, and an ovary with three styles. Today, use of the terms “monocots” and “dicots” is obsolete as, from an evolutionary point-of-view, the flowering plants are not subdivided into two groups but rather into twelve with the monocots tucked in the midst of the dicots.

For many, the tiny flowers of *Eriogonum* are a major frustration in working with this genus. Floral characters are confusing enough without requiring magnification to see them. In working with this and related genera, a 10X hand lens is a minimal requirement, and a 14X is better. Always carry a 15 cm long ruler segmented into millimeters, and be prepared to decided measure a structure to within half a millimeter.

Eriogonum and its near relatives make up for their tiny flowers by producing many of them, often over a long period of time. A single individual plant can have several thousand flowers during a single growing season with most producing a viable fruit. What is more remarkable is that *Chorizanthe* and its relatives have few flowers per plant and often only a single flower per involucre. This may help explain why *Eriogonum* has been so much more successful than *Chorizanthe* in producing new species.

In the following discussion, most of it revolves around *Eriogonum* but it is often applicable to other members of *Eriogoneae* as well.

The flowers of *Eriogonum* are composed of two whorls of three segments termed **tepals**. This expression is used when outwardly it is impossible to distinguish the outer, sterile whorls of a flower into green **sepals** and colored **petals**. In the case of the eriogonoids, their tepals appear to be sepals as there is an obsolete whorl of **vascular bundles** between the tepals and the stamens that do not enter into another structure. Their tepals are often considered to be **petaloid** inasmuch as the tepals are highly colored and have the texture of normal petals. Only in *Lastarraea* might the tepals be termed **sepaloid** although they are never green.

The two whorls of tepals are basally fused and form a short floral tube. The depth to which the tepals are free is usually expressed as a fraction, with most tepals of *Eriogonum* basally fused about a quarter of the length of the perianth (or 1/4 the distance). In some species of *Chorizanthe*, the tepals may be fused about half their length so that is this case a **floral tube** is well defined.

The outer whorl of tepals essentially may be identical with those of the inner whorl in terms of shape, length and width. When this occurs the tepals are said to be **monomorphic**. If there is a distinct difference in these features between the tepals of the two whorls they are considered to be **dimorphic**. Sometimes the difference is merely the **apex** of the tepals, especially in *Chorizanthe* where the apex of one whorl may be **entire** and those of the other **erose**. Likewise, in *Eriogonum*, it is not unusual to find the outer whorls augmented by **saccate** or **auriculate** bases, features that are never found on inner tepals. Also, the outer tepals may be inflated or decidedly enlarged whereas the inner tepals are not. Again, the term dimorphic is used to call attention to the marked differences in the shapes of the inner and outer tepals. These terms do not apply to differences in color or **vestiture**.

Hairs, glands, and even the colors of the tepals are often critical in identifying species. Perianth colors vary from **white** to **red** and pale to bright **yellow**. Various shades of red (e.g., **pink** or **maroon**) may be observed as flowers enter into **senescence**. Maroon is found mainly in species of subg. *Pterogonum*. Flowers are never blue or any shade of blue in *Eriogoneae*. Some flowers in fruit may have perianths that are shades of **orange** or even a **reddish brown**. Although we will review **vestiture** in another of these *Notes*, it may be mentioned here that the tepals may be variously hairy, glandular or glabrous. The distribution of these structures on the tepals is often critical in distinguishing among species. Likewise, the amount of hair can be important and in some cases (e.g., *Eriogonum harvardii*) may even obscure the color of the tepals. Glands of the **abaxial** or outer surface of the tepals can be significant for identification purposes, but as far as the plant is concerned the presence of small, often microscopic glands on the **adaxial** or inner surface is probably critical in attracting pollinators.

Most hairs and glands are concentrated abaxially on the **midvein** of the tepal; they can also be more abundant on the floral tube itself. It is doubtful that these structures augment the visual attractiveness of the flower to pollinators because of the positioning of the tepals during pollination. However, the combination of a slight shift in

color pigmentation in the area of the midvein (which is always more intense on the abaxial surface), coupled with the minute glands on the adaxial (but exposed) surface of the tepals when the flower is open, may contribute to the visual aspect of the flower for pollinators. As will be noted when pollination is reviewed, the combination of abaxial and adaxial surface displays may well play a role in attracting a pollinator to the plant, while the display presented on the adaxial surface directs the pollinator to the vicinity of nectar, pollen and stigmas.

Eriogonum Seed Exchange

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To know them is to love them—and want to grow more. With the variety in the wild and everyone's gardens, it is sure fun to exchange seed. For instance, the rather rare *E. siskiyouense* just now is popping open in my garden for first blooming after five It'll be at least 8 weeks before seed is ready, but I'll sure collect it for you. Flowers are a clear, bright yellow.The NARGS exchange never has all that I'm looking for.

I'm willing to be the 'Keeper of the Seeds', if you'd like to exchange them. It seems like $.50 per package would cover packaging and mailing, with 1st 5 free if you send in 5 packets to exchange. I think it would be okay to send the seeds still in the little coverings. Then you could plant them as is, or do the tedious cleaning required....but not much bulk would occur in the packing and mailing.

Let's follow the APS and NARGS time schedule, to have them in by Dec. 1 at the address above. I'll get a list out and take orders beginning Jan. 1, unless I get really efficient. If you have pertinent comments or better ideas, please let me know ASAP, so we can modify this first-time exchange if necessary.

Membership

Our membership is currently at 51 and still growing, but slower than before. Please help recruit new members to join us. Invite a friend to visit our website or print a copy of the newsletter and pass it on. Talk it over with your gardening and wildflower enthusiast acquaintances. Perhaps take a copy of the newsletter and post it in your local nursery. We are excited about having a society to study and learn more about these fabulous plants.

MEMBERSHIP APPLICATION FORM

Name_____

Address_____

E-mail Address_____

Phone_____

Please send annual dues (January 1 thru December 31) of $10. to Bob McFarlane at 5609 S. Locust St., Greenwood Village, CO 80111.