Colorado Native Plant Society

"DEDICATED TO THE APPRECIATION AND CONSERVATION

OF THE COLORADO NATIVE FLORA"

NEWSLETTER

Volume II No. 5

September-October

CORRESPONDENCE

All correspondence and inquiries regarding activities of the Society should be addressed to Charles Olmsted, Box 1195, Boulder, CO 80306.

MEMBERSHIP RENEWALS AND INFORMATION

Sue Martin, USDA Crops Research Lab, Colorado State University, Ft. Collins, CO 80523.

SCHEDULE OF MEMBERSHIP FEES

Life	$250.00
Supporting	50.00
Society	25.00
Family	12.00
Individual	8.00
Student & Retired	4.00

The CONPS Newsletter is sent to all other Native Plant Societies in exchange for theirs. Nonmembers may subscribe to the Newsletter for $4.00.

NEWSLETTER

EDITOR: Dieter H. Wilken, Dept. of Botany & Plant Pathology, Colorado State University, Ft. Collins, CO 80523.

The editor seeks articles of interest to all aspects of Society activities. Such articles should not generally exceed 4 typewritten, double-spaced pages, although consideration will be given to longer articles if space permits.

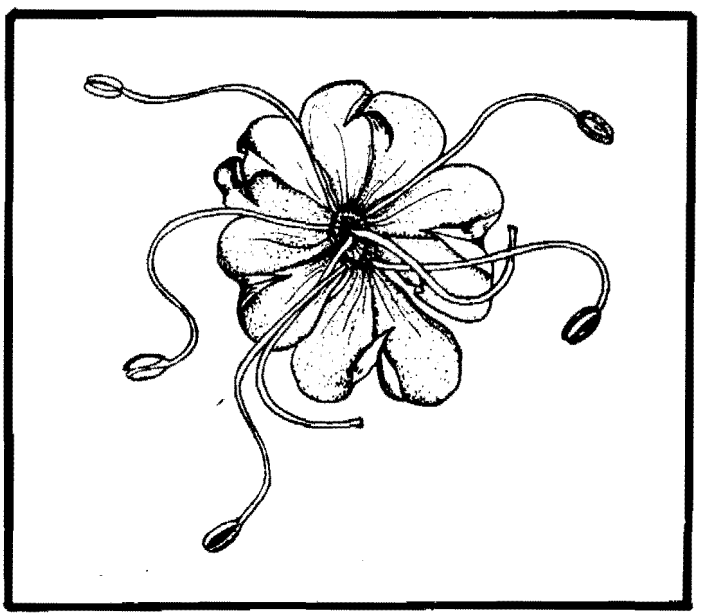
Deadlines for the 6 bimonthly newsletters are the last day of January, March, May, July, September, and November.

ANNUAL MEETING

The annual meeting of the Society, held Saturday, October 21 at the Denver Botanical Gardens, was well attended by 78 persons. The agenda included reports of the Society's several committees, an informative, illustrated lecture on "Vegetational Change in Colorado" by Dave Buckner and an illustrated commentary on "Problems of Establishing a Native Plant Nursery" by Gail Evans. The Society conferred 2 honorary life memberships, these to C. William Penland and George Kelly. Dr. Penland, now retired in Colorado Springs, spent several decades at Colorado College as a professor of botany and as a student of the Colorado flora. Dr. Penland's specialty was the genus Penstemon and he described or discovered several new species within that genus. The rare mustard, Eutrema penlandii, known only from near Hoosier Pass, honors his contributions to the botanical community. George Kelly may be described as THE spokesman for preservation of Colorado's native flora through horticulture. He has written 2 well known books, A Guide to the Woody Plants of Colorado and Rocky Mountain Horticulture and has received numerous honors with respect to his contribution to horticulture. Honorary life memberships have been given in the past to William Weber, Harold Harrington and Ruth Ashton Nelson.

An election was held among the members present to replace 5 expiring directorships. New Board members so elected are Miriam Denham, Virginia Dionigi, Hugo Ferchau, Mark Phillips and J. Scott Peterson. The new officers of the Society elected at the Board meeting are Bill Harmon (President), Tom Eaman (Vice President), Charles Olmsted (Secretary) and Kimery Vories (Treasurer).

Members of the Board serving a 1977-1979 term are Libby Goodwin, Bill Harmon, Karen Hollweg, Jim Ratzloff and Kimery Vories. David Buckner and Gail Evans serve on the Board as representatives of the Boulder and Ft. Collins chapters respectively.

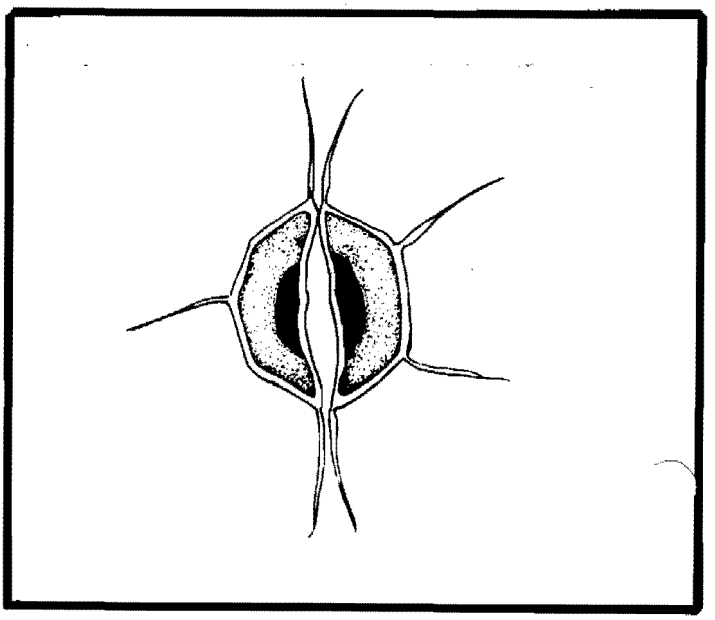


BOARD OF DIRECTOR's MEETING

The next meeting of the Board of Directors will take place on Thursday, November 16 at the home of Virginia Dionigi in Hygiene, Colorado. Please contact Virginia for further details.

FORT COLLINS CHAPTER MEETING

The next meeting of the Fort Collins Chapter will take place on Saturday, December 9 at 7:00 PM at the home of Sue Martin and Myrna Steinkamp, 4700 Venturi Lane, Fort Collins. Each member attending has been asked to bring their favorite 2 x 2 color slides of native plants.



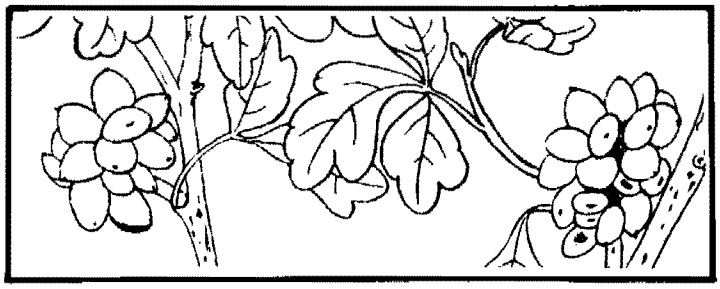
LANDSCAPING WITH FIELD-COLLECTED NATIVE PLANTS

On the south edge of Colorado Springs there is a large area being developed for homes. This land has been grazed in the past but much native vegetation remains. Much of it is short grass prairie and some comprises foothill shrub vegetation. My job has been to revegetate and maintain an 18 hole golf course there. During the past 6 years an effort has been made to preserve a few small areas in their natural condition and to collect and use native plant materials for planting. The task has been a challenge and has posed many problems.

The goal of the landscaping has been to develop areas that fit into the surrounding landscape, composed of prairie and foothills dominated by Scrub Oak, Skunkbrush, Mountain Mahogany and an occasional Ponderosa Pine. The common method of sprinkler irrigation did not work efficientl but watering was obviously necessary during tne stages of establishment. It also was necessary to replant widely scattered plants in denser clumps for desirable landscaping effect. In addition, several cultural problems were encountered with certain species.

Very little information was available on methods of transplantation, culture or care. In general, however, most native species may be transplanted with ease if one follows good horticultural practices.

e are:
1. Select small, healthy but dormant plants.
2. Soil should be moist and not too rocky.
3. A ball of earth surrounding the roots must be taken with most plants.
4. Plants must be handled carefully and kept moist.
5. Plants must be transferred to the new site as soon as possible and watered immediately.
6. Fertilizer should not be used unless in long-lasting or slow release, tablet form.



Most new plants must be watered every 10 days during the growing season in the absence of rain. Plants should be watered during the dormant season, but not as often. Most of my losses have occurred during the months of June and July. This is particularly true of Scrub Oak, which is most difficult species to transplant during its first year of culture. For the last 3 years we have successfully used drip irrigation. We use Rainbird Emitters under 20 lbs pressure to supply 2 gallons of water per hour. This system is more efficient and less costly than tank trucks, open hoses and other conventional methods of irrigation. Although it may be cheaper to purchase nursery plants than to collect the same species in its native habitat, most native species are not readily available in the nursery trade. The biggest problem that we experience, other than watering, are weeds. Canadian Thistle, for example, invades and ruins the landscaping effect. Although the non-selective, contact herbicide ROUNDUP can be used, it also eliminates all herbs. Selective herbicides, such as 2-4-D or DICAMBA, can be used in grassy areas but not in the vicinity of any dicots. Selective mowing, although reducing the unsightly appearance of weed infestations, does not eliminate weeds. Another method involves mulching. My experience indicates that plastic ground coverings should not be used beneath a mulch, since weeds will still grow in the mulching material.

It has been estimated that it may take at least years to establish short grass prairie under librium conditions. I can't possibly hope to do that, but if I can develop a contrasting and effective landscape that requires a minimum of maintenance, my efforts will have been worthwhile. The following includes native species of Colorado plants which have been successfully transplanted from native habitats.

Amorpha fruticosa - LEAD PLANT
Antennaria rosea - PUSSYTOES
Atriplex canescens - FOUR-WINGED SALTBUSH
Castilleja sessiliflora - PLAINS PAINTBRUSH
Ceanothus ovatus (= C. herbaceus) - NEW JERSEY TEA
Ceratoides lanata (= Eurotia lanata) - WINTERFAT
Cercocarpus montanus - MOUNTAIN MAHOGANY
Chrysothamnus nauseosus - RABBITBRUSH
Clematis ligusticifolia - VIRGIN'S BOWER
Crataegus erythropoda - HAWTHORN
Delphinium geyeri - LARKSPUR
Erigeron pumilus - LOW DAISY
Eriogonum jamesii - FALSE BUCKWHEAT
Fraxinus pennsylvanica - GREEN ASH
Gutierrezia sarothrae - SNAKEWEED
Hymenoxys acaulis - HYMENOXYS
Iris missouriensis - WILD IRIS
Liatris punctata - BLAZING STAR

Mertensia lanceolata - NARROW-LEAVED MERTENSIA
Oenothera caespitosa - WHITE STEMLESS EVENING PRIMROSE
Oligoneuron rigidum (= Solidago rigida) - STIFF GOLDENROD
Penstemon alpinus - ALPINE PENSTEMON
Prunus virginiana - CHOKECHERRY
Prunus americana - WILD PLUM
Pulsatilla patens - PASQUEFLOWER
Quercus gambelii - GAMBEL OAK
Ratibida columnifera - PRAIRIE CONEFLOWER
Rhus trilobata - SKUNKBRUSH
Ribes aureum, cereum and inerme - CURRANT
Robinia neo-mexicana - LOCUST
Rosa woodsii - ROSE
Rubus deliciosus - BOULDER RASPBERRY
Salix irrorata - BLUESTEM WILLOW
Symphoricarpos occidentalis - SNOWBERRY
Townsendia hookeri - EASTER DAISY
Yucca glauca - SPANISH BAYONET

--Stan Metsker

USA-USSR BOTANICAL EXCHANGE PROGRAM
1978 EXPEDITION TO THE ALTAI, SOUTHERN SIBERIA

This expedition, which included Dr. W. A. Weber, University of Colorado Museum, Dr. T. Elias, Cary Arboretum-New York Botanical Garden, and Dr. S. Tomb, Kansas State University, was the most successful one undertaken so far during the 10-year proposed program. In addition to tours of botanical gardens and institutes in Moscow and Novosibirsk, we had the unique privilege of making a full-scale, plant collecting expedition in the Altai region near the Mongolian-Chinese border. Our expedition included a group of from 9 - 12 Soviet botanists. The trip was conducted with great flexibility, enabling us to see a great number of habitats and floristic regions. Over 1050 numbers of flowering plant specimens, 2 large crates of lichens and mosses and about 150 collections of seeds from as many species of woody plants were collected for propagation at the Cary Arboretum. Eventually the living plant materials will be available to botanical gardens throughout the world.

In the Altai we were led by Dr. Ivan M. Krasnoborov, a specialist in the Altai flora, who provided instant identifications for our collections. Dr. Nina Borodina, from the Main Botanical Garden in Moscow, helped with translation although none of the Soviets had an adequate command of English. Nina Borodina helped immeasurably with details of communication, including the posting of letters, health matters and simple human relationships. Two young ladies from the Novosibirsk Botanical Gardens did the cooking, 4 young men helped with plant pressing and drying and the preparation of camp. There also were 2 drivers of the van and truck at our disposal. Three botanists from the Botanical Garden at Alma-Ata, Kazakhstan S. S. R. accompanied us for the major portion of the trip although they had to return early because of the great traveling distance.

Of course, the main interest in the Altai from our viewpoint was the similarity of its flora with that of the Rocky Mountains and emphasis was placed on seeing in the field those species which are common to the two regions. With respect to the latter, we were highly successful and we got first-hand knowledge of the subtle similarities and differences between steppe, montane and alpine floras, topography and climates of the region. We actually were the first American botanists to visit the Altai, this visit being about 100 years after the celebrated trip of Sir Joseph D. Hooker and Asa Gray to the Rocky Mountains, during which Hooker was impressed with the similarity between the Altai and Rocky Mountain floras.

We hope in future years to bring Altai botanists to the Rocky Mountains in continuation of this exchange and the specimens which we bring back will do much to clarify and verify Hooker's classical observations. Many unforeseen benefits have accrued from this opportunity, including the making of new friends and colleague promising communication in the future, the exchange of books and scientific papers, and the most important opportunity of having on-the-spot observations and discussions by specialists in our respective areas.

Last but not least, we were extremely fortunate to have, as a completely unexpected event on the program, a view of the launch of the manned Soyuz 31 satellite. We were having a late dinner under the stars near Kokorya, a village near the Mongolian border in an area of desert steppe, when this spectacle burst upon us from the western horizon and filled a quadrant of the sky with a bright arc of illumination. We could clearly see the space-craft as a bright star at the apex of the light. When it reached the zenith we could see the small ship leave the bright tail behind and all of us were quite awestruck by this powerful display. The launch site, of course, was at a good distance (about 1500 kilometers) to the west, somewhere in northeastern Kazakhstan.

Our collections are being packed and prepared for shipment at Novosibirsk and should reach our respective institutions within 2 or 3 months.

---W. A. Weber

BEWARE OF NATIVE PLANTS!

During my travels and communication with fellow botanists this summer, I experienced 3 situations in which putatively native plants had been used for revegetation or horticultural planting. These situations raise a question regarding the use of native plants in such practices, namely "Are we really planting natives when plants or seeds merely possess the name of a native species?".

The first example was brought to my attention by Paula Nicholas. The specimens Paula brought to me were representative of established plants grown from seed several years ago on a mined lands revegetation site near Hayden. The plants were easily identified as Festuca ovina or F. brachyphylla, alternate names for the common SHEEP or ALPINE FESCUE. The latter name may be appropriately used only for North American plants. Nevertheless, the plants from near Hayden were quite different from that of native specimens, the former having more open inflorescences with spreading branches. In the Flora of Europe and in The Intermountain Flora, these unusual specimens were easily identified as F. ovina var. ovina, the European race of SHEEP FESCUE! In addition, these unusual specimens could easily be discerned in the field from the native race, with which they were successfully growing.

A second example came to my attention at a roadside rest area along Interstate 70 west of Vail. The parking area had been landscaped with plants of the SHRUBBY CINQUEFOIL (Potentilla fruticosa or Pentaphylloides floribunda). These plants differed conspicuously from the native plants so widely distributed in Colorado. The cultivated plants possessed very light, lemon-yellow corollas and relatively large, silvery leaves. Since I have seen numerous horticultural strains of this species I was not too surprised. Nevertheless, the landscaper had made an obvious attempt at planting natives, for among the CINQUEFOILS were planted specimens of Fallugia paradoxa (APACHE PLUME) and several plants of Juniperus communis (COMMON JUNIPER). An ecologist would recognize this as an unnatural assemblage, which was exaggerated by the obvious misuse of either a horticultural strain or an exotic race of CINQUEFOIL.

The third situation is more subtle but also exemplifies the problem. A member of the Society, who shall go unnamed, brought me a collection of wildflowers grown in her garden from seed distributed (by an out-of-state seed company) as "native" to the Rocky Mountains. The seed packets were labeled as Gaillardia aristata (BLANKET-FLOWER), Gilia aggregata (SCARLET GILIA), Epilobium angustifolium (FIRE WEED) and Oenothera strigosa (EVENING PRIMROSE). With the exception of the last name, all specimens matched the names on the respective packets. The EVENING PRIMROSE, however, possessed relatively broad, nearly hairless (glabrous) leaves and relatively short, glabrous fruits. The living specimens clearly were not Oenothera strigosa but were easily identified as the close, eastern North American relative, O. biennis. Although some taxonomists have emphasized the similarities between the two races by including them within 1 species, these same taxonomists have been obliged to use the earlier more correct name O. biennis. The labeling of the commercial seed packet was clearly an error, both with respect to identity and region of origin.

I suspect that these 3 examples share a common thread. In each case, plants and seeds may have been distributed under names of native species without cognizance given to the place of origin. We must not ignore the many examples in our native flora that have a distribution throughout other parts of the world, particularly the northern hemisphere. In such places, particularly Europe, strains of these wide-ranging species may have been cultivated for quite some time and are now serving as the sources for many seed distributions. These seeds, however, quite often may carry the genetic information of races clearly not native to the Rocky Mountains. In other cases, such plants may represent horticultural strains not necessarily selected for their hardiness under natural conditions. In any event, they represent the improper and ineffectual application of a worthwhile endeavor, revegetation with native plants.

---D. H. Wilken