

## NEXT MEETING

Wednesday, March 26 at 6:30 p.m. at the Baptist Church Social Hall, Wall Street and Highway 395, Independence. It will begin with a potluck dinner. Tea and coffee will be furnished. Bring table service and your favorite culinary production. Mark Bagley will give an informative presentation on Rare Plants. Do come for a pleasant social hour, good food and an enlightening program.

## FLOWER PROSPECTS.

Precipitation in most of the region has already exceeded the annual average since January 1. Prior to that there were well spaced fall rains necessary for germination of desert plants. A most outstanding flower year is on its way! The Death Valley area, however, did not fare so well. The early rains did not come there, so this year will not bring showy displays. It is hoped that higher elevations in the Monument will do better.

The early birds are finding blooms considerably ahead of the usual schedule. On a walk in the Alabama Hills, Betty Gilchrist and Jack Ronnau found Scarlet Loco (*Astragalus coccineus*) and Mojave Parsley (*Lomatium mohavense*) blooming February 10. Doris Fredendall reported Yellow Throats (*Phacelia fremontii*) and Yellow Peppergrass (*Lepidium flavum*) on the Westgard Road the first week in March. Jack and Pat Crowther find that Pigmy Muilla (*Muilla coronata*) is blooming at the site just above 5000 feet on the Lake Sabrina Road. Sue Ustin and her team from Davis found it also, along with Three-hearts (*Tridardia watsonii*), and Scale Bud (*Anisocoma acaulis*). The alluvial slopes in Owens Valley have not been so green in years.

## THE INDEPENDENCE BURN.

Dr. Ustin will be heading a project to study recovery on the Independence burn. Bristlecone Chapter members will be assisting the team from Davis in establishing permanent plots and will help monitor them periodically. Members have cooperated with BLM by taking photos in the area since last summer. The burn occurred July 6 and 7, 1985, and destroyed approximately 8000 acres of vegetation on BLM and Forest Service lands. Several violent winds have changed the black surfaces to a pale moonscape. It is hoped that this wet year will produce a lot of green on it.



## ADDITIONS TO THE FLORA OF THE WHITE MOUNTAINS III

contributed by  
James D. Morefield, Dean Wm. Taylor, Mary DeDecker, and Ann Pinzl

This list represents the third in a series of attempts at keeping the Flora of the White Mountains (R.M. Lloyd and R.S. Mitchell, 1973, U. of Calif. Press) up to date. For previous lists see Bristlecone Newsletter 1(4):3-5 (1982) and 2(6):4-6 (1983). The reduced format of this list was necessitated by its unusual length; we hope it will not unduly inconvenience readers. As before, corresponding page numbers in the original Flora are given for ease of annotation. A few prominent name changes for White Mountain plants are included, as are a couple of corrections to previous lists. Otherwise, 114 species, subspecies and varieties are here reported for the first time, and this includes 35 new genera and 5 new families.

By this time, the several of us who have been contributing notes to these lists hoped to have assembled a comprehensive list of additions for more formal publication in a refereed journal. This became clearly impossible after the past two years of field work proved how incomplete our knowledge remained. A fourth or even fifth list of additions may accrue before a full summary can be attempted. The idea of a completely new manual to White Mountain plants may now be worth consideration. Nearly all of our reports thus far are documented by herbarium specimens, and it will be upon these that any final summary will be based.

Though our floristic knowledge of the White Mountains remains far from complete, an interim summary of the numerical changes since 1973 may be of interest. Not all of Lloyd & Mitchell's reports were firmly documented from the White Mountains; a few reports in the present list were included in the original Flora, but only on the basis of specimens from outside the reasonable bounds of the range, or of undocumented observations. A careful count of the original Flora and of subsequent additions produces the following table:

	FAMI- LIES	COMP. & GRASS TRIBES	GENERA	SPECIES	ADD'L SSPP. & VAR.	TOTAL = TAXA
LLOYD & MITCHELL (1973):						
Original count (p. 22)	76	—	298	—	811	811
Documented in text	72	15	290	736	+ 60	= 796
SUBSEQUENT ADDITIONS:	9	2	52	179	+ 13	= 192
PRESENT KNOWN FLORA:	81	17	342	915	+ 73	= 988
% increase since 1973:	12.5	13.3	17.9	24.3	21.7	24.1

These numbers are subject to substantial revision when plant names are brought finally up to date, when the inevitable few misidentifications are found, and of course by further additions. Unless otherwise noted, the following reports are based upon Morefield collections.

- EQUISETUM X FERRISSII Clute. Hybrid Scouring-rush. In Mono Co. near the mouth of McAfee Creek. 5310 ft., 18 July 1984. (p. 54)
- BOTRYCHUM LUNARIA (Linnaeus) Swartz. Moonwort. Mono Co. in meadows along Crooked and Cottonwood Creeks. 9400-10,000 ft., July 1984. Some White Mtn. material has been referred to B. crenulatum Wagner (W.H. Wagner, personal communication to Ann Pinzl, 2 Feb. 1984), which is here considered a sibling species of B. lunaria. (p. 55)
- POLYPODIUM HESPERIUM Maxon. Western Polypody. In Mono Co. along Tres Plumas Creek. 9770 ft., 4 July 1984. (p. 55)
- DRYOPTERIS FILIX-MAS (Linnaeus) Schott. Male Fern. Mono Co. in deep granite crevices near Cottonwood Creek. 9850 to 10,080 ft., July-Aug. 1984. (P. 56)
- RANUNCULUS AQUATILIS Linnaeus var. CAPILLACEUS (Thuillier) DeCandolle. Water Buttercup. Esmeralda Co. near the mouth of Leidv Creek. 6100 ft., 18 July 1984. (p. 59)
- MOLLUGO CERVIANA (Linnaeus) Seringe. Indian Chickweed. Inyo Co. about Crystal Peak in Deep Springs Valley. 5200 ft., 7 Aug. 1984. (p. 63)
- ARENARIA RUBELLA (Wahlenberg) J.E. Smith. Red Sandwort. Mono Co. on dolomite barrens near Sheep Mtn. 11630 ft., 8 July 1984. Possibly mistaken for A. nuttallii by Lloyd & Mitchell. (p. 64)
- STELLARIA UMBELLATA Turczaninow. Umbellate Chickweed. Mono Co. in meadow just ESE of Barcroft Lab. 12,280 ft., 28 July 1984. (p. 65)
- CALYPTRIDIVM PARRYI A. Gray var. NEVADENSE J.T. Howell. Nevada Sanddress. Inyo Co. in a side canyon of Beer Creek above Deep Springs Valley. 5570 ft., 28 May 1984. (p. 65)
- ATRIPLEX PARRYI S. Watson. Parry Saltbush. Esmeralda Co. near Sand Spring. 5650 ft., May-Aug. 1984. (p. 68)
- ATRIPLEX PHYLLOSTEGIA (Torrey) S. Watson. Arrowscale. With A. parryi above. 5500 ft., 7 Aug. 1984. (p. 68)
- ATRIPLEX ROSEA Linnaeus. Redscale. Inyo Co. at spring 1 mi. S of Silver Canyon mouth. 4250 ft., 25 Aug. 1985. (p. 68)
- ATRIPLEX SERENANA A. Nelson. Stinking Atriplex. with A. rosea above. (p. 68)
- BASSIA HYSSOPIFOLIA (Pallas) Kuntze. Bassia. Disturbed places throughout the range, late summer. This replaces the report of Kochia scoparia in Additions II, which was in error (see below). (p. 68)
- HALOGETON GLOMERATUS (Stephan ex Bieberstein) C.A. Meyer. Halogeton. Mono Co. in Milner Canyon, also seen in Deep Spgs. Valley and above Fishlake Valley, becoming well established from Nevada. 6750(-5200) ft., June 1984. (p. 70)
- KOCHIA SCOPARIA (Linnaeus) Schrader. Summer Cypress. Mono Co. at the mouth of McAfee Creek. 5300 ft., 10 Aug. 1985. First genuine report, earlier based upon misidentified Bassia hyssopifolia (above). (p. 70)
- SARCOBATUS BAILEYI Coville. Bailey Greasewood. Esmeralda Co., locally abundant on coarse alluvial fans in the Sand Spring area. Seems specifically distinct locally. 5300-6000 ft., May-June 1984. (p. 70)
- AMARANTHUS ALBUS Linnaeus. Tumble Pigweed. Inyo Co. in Silver Canyon. 4950 ft., 25 July 1984. (p. 70)
- AMARANTHUS POWELLII S. Watson. Powell Amaranth. Inyo Co. at Antelope Springs. 5570 ft., 22 Aug. 1985. (p. 70)
- ERIOGONUM AMPULLACEUM J.T. Howell. Flask Buckwheat. Esmeralda Co. around Sand Spring. 5500 ft., 7 Aug. 1984. (p. 74)
- ERIOGONUM BAILEYI S. Watson var. BAILEYI. Bailey Buckwheat. Inyo Co. on sandy banks of Wyman Creek. 6030 ft., 11 Aug. 1984. See note under next entry. (p. 74)
- ERIOGONUM PALMERIANUM Reveal. Palmer Buckwheat. Inyo Co. in canyon 1.5 mi. N 20° E of Poleta Mine. 5950 ft., 16 June 1984. Reports of this and E. baileyi above were previously based upon observations only. (p. 77)
- POLYGONUM PERSICARIA Linnaeus. Lady's Thumb. Desert Springs such as Sand and Antelope. 5510-5550 ft., July-Aug. 1984. (p. 80)
- RUNEX FUEGINUS Philippi. Golden Dock. Esmeralda Co., rare in marsh of Sand Spring. 5510 ft., 7 Aug. 1984. (p. 80)
- SPHAERALCEA AMBIGUA A. Gray ssp. ROSACEA (Munz & Johnston) Kearney. Lavender Wand Mallow. Mono Co. about the mouth of McAfee Creek. 5300 Ft., 10 Aug. 1985. (p. 81)

- MENTZELIA OREOPHILA J. Darlington. Inyo Blazing-star. Inyo and Mono Cos. on loose dolomitic soils in canyons (Sam's Springs and McAfee). 5450-6400 ft., 5 June 1984 and 11 Aug. 1985. (p. 82)
- SALIX MELANOPSIS Nuttall. Valley Willow. Mono Co. along McAfee Creek. 6450 ft., 6 Aug. 1984. (p. 84)
- CLEOMELLA PLOCASPERMA S. Watson. Alkali Stinkweed. Esmeralda Co. about Sand Spring. 5500 ft., 7 Aug. 1984. (p. 84)
- ARABIS SPARSIFLORA Nuttall var. SUBVILLOSA (S. Watson) Rollins. Elegant Rockcress. Inyo Co. in canyon 1.8 mi. N 15° E of Antelope Springs. 6050 ft., 25 May 1984. (p. 88)
- BRASSICA NIGRA (Linnaeus) W. Koch. Black Mustard. Inyo Co. in Silver Canyon. 4940 ft., 30 June 1984. (p. 88)
- CARDARIA PUBESCENS (C.A. Meyer) Jarmolenko. Hairy Whitetop. Silver Canyon. 5500 ft., 30 June 1984. (p. 89)
- CAULANTHUS LASIOPHYLLUS (Hooker & Arnott) Payson var. UTAHENSIS (Rydberg) Payson. Utah Mustard. Inyo Co., abundant around the mouth of Black Canyon. 4600 ft., 21 Mar. 1985. (p. 89)
- DESCURAINIA PINNATA (Walter) Britton ssp. HALICTORUM (Cockerell) Detling. Tansy Mustard. Inyo Co. in canyon 2.6 mi. N 40° W of Antelope Springs. 7300 ft., 5 June 1984. (p. 90)
- LEPIDIUM PERFOLIATUM Linnaeus. Shieldcress. Mono Co. along Crooked Creek. 9720 ft., 29 July 1984. (p. 93)
- MALCOLMIA AFRICANA (Linnaeus) R. Brown. Malcolmia. Inyo Co. along old mining road 1.8 mi. due North of Antelope Springs. 6450 ft., 25 May 1984. (p. 93)
- JANESIA AMERICANA Torrey & Gray var. CALIFORNICA (Small) Jepson. Cliffbush. Mono Co. along Tres Plumas Creek. 9770 ft., 4 July 1984. (p. 96)
- POTENTILLA CONCINNA Richardson var. DIVISA Rydberg. Cinquefoil. Mono Co. on ridge NE of Tres Plumas Meadow. 10,400 ft., 3 July 1984. (p. 101)
- DALEA SEARLSIAE (A. Gray) Barneby. Basin Prairie Clover. Inyo Co. in Birch Creek Canyon. 6650 ft., 3 June 1984. (p. 107)
- LOTUS PURSHIANUS (Benth) F. & E. Clements. Spanish Clover. Esmeralda Co. at Sand Spg. 5510 ft., 7 Aug. 1984. (p. 107)
- LUPINUS TEGETICULATUS Eastwood var. TEGETICULATUS. Silver Moss Lupine. This is the correct name for what was called *L. breweri* var. *bryoides* in the *Flora*. (p. 108)
- CAMISSONIA BOOTHII (Douglas in Hooker) Raven ssp. ALYSSOIDES (Munz) Raven. Bottlebrush Primrose. Inyo Co. near Westgard Pass summit. 7150 ft., 12 June 1981. (p. 111)
- CORNUS STOLONIFERA Michaux. American Dogwood. Mono Co. along McAfee Creek. 5710 ft., 6 Aug. 1984. This is the first documented record, Lloyd & Mitchell's specimen having been lost before determination. (p. 114)
- EUPHORBIA MICROMERA Boissier ex Engelmann. Sonoran Sandmat. Locally abundant throughout the range after summer rains, as at Crystal Peak and Busher Creek. ca. 5200 ft., Aug. 1984. (p. 115)
- EUPHORBIA SERPYLLIFOLIA Persoon. Thyme-leaved Spurge. Sporadically abundant throughout the range, often after summer rains, as near Wyman and Busher Creeks. 5200-6600 ft., August 1984. (p. 115)
- LINUM LEWISII Pursh var. ALPICOLA Jepson. Alpine Blue Flax. Mono Co. on dolomite barrens NE of Sheep Mountain. 11,630 ft., 8 July 1984. (p. 116)
- FOENICULUM VULGARE P. Miller. Sweet Fennel. Mono Co. in first canyon S of Piute Creek. 5070 ft., 30 June 1984. (p. 117)
- CENTAURIUM EXALTATUM (Grisebach) W. Wight ex Piper. Great Basin Centaury. Inyo Co. (and probably throughout) in desert riparian areas such as Wyman and Silver Canyons. 4250-6070 ft., June-Aug. 1984-1985. (p. 119)
- ASCLEPIAS EROSA Torrey. Desert Milkweed. Mono Co. at McAfee Creek mouth on eroding dolomite. 5500 ft., 11 Aug. 1985. (p. 120)
- GILIA SALTICOLA Eastwood. Gilia. Esmeralda Co., Pinyon Hill area in sandy washes. 6200-6980 ft., June-Aug. (p. 124)
- LINANTHUS BIGELOVII (A. Gray) Greene. Bigelow Linanthus. Inyo Co. at Black Canyon mouth. 4600 ft., 21 Mar. 1985. (p. 126)
- PHACELIA ROTUNDIFOLIA Torrey ex S. Watson. Roundleaf Phacelia. Inyo Co., in rock crevices of the canyons above Deep Springs Valley. 5500-6000 ft., May-June 1984. Possibly called *P. peirsoniana* by Lloyd & Mitchell. (p. 131)
- PECTOCARYA HETEROCARPA (Johnston) Johnston. Mixed Combseed. Inyo Co. at Black Canyon mouth; common on the lower west margin of the range. 4600 ft., 21 Mar. 1985. (p. 136)
- MENTHA SPICATA Linnaeus. Spearmint. Mono Co. at spring 1 mi. S of Piute Creek. 5050 ft., 26 Aug. 1985. (p. 137)
- PLANTAGO LANCEOLATA Linnaeus. English Plantain. Occasional in moist disturbed places above Owens Valley, as at the spring 1 mi. south of Silver Canyon mouth. 4230 ft., 18 June 1984. (p. 138)
- CORDYLANTHUS RAMOSUS Nuttall ex Benth. Intermountain Birdsbeak. With *Mentha spicata* above, 5120 ft. (p. 141)
- MIMETANTHE PILOSA (Benth) Greene. Clammy Mimulus. Inyo Co. in Sam's Spring Canyon just NNW of Antelope Springs. 5800 ft., 5 June 1984. (p. 141)
- MIMULUS FLORIBUNDUS Douglas ex Lindley. Spring Monkeyflower. With *Mimethanthe pilosa* above. (p. 142)
- MIMULUS PARISHII Greene. Parish Monkeyflower. Inyo Co., occasional in Sam's Spring Canyon above Antelope Springs. 6020(-6600) ft., 4 June 1984. (p. 142)
- BIDENS FRONDOSA Linnaeus. Sticktight. Inyo Co. at spring 1 mi. S of Silver Canyon. 4250 ft., 25 Aug. 1985. (p. 152)
- ENCELIOPSIS NUDICAULIS (A. Gray) A. Nelson var. NUDICAULIS. Nevada Sunray. Mono Co. in Busher Creek canyon just inside the state line, also seen in McAfee Creek canyon. 6200(-5500) ft., Aug. 1984. (p. 152)
- BAILEYA PLENIRADIATA Harvey & Gray. Woolly Marigold. Inyo Co., frequent along margin of the range in Deep Springs Valley. 5100-5400 ft., May 1984. (p. 153)
- PECTIS PAPPOSA Harvey & Gray var. PAPPOSA. Cinchweed. Esmeralda Co. at the mouth of Busher Creek, also seen in Deep Springs Valley (Inyo Co.), locally abundant after summer rains. 5250 ft., 12 Aug. 1984. (p. 155)
- CHRYSOTHAMNUS X BOLANDERI (A. Gray) Greene. Hybrid Macronema. Mono Co. in upper Cottonwood Basin. 10,200 ft., 20 Aug. 1985. A putative hybrid between *C. nauseosus* ssp. *albicaulis* and *Haplopappus macronema*, both present. (p. 156)
- CHRYSOTHAMNUS GREENEI (A. Gray) Greene. Greene Rabbitbrush. Mineral & Esmeralda Cos., locally common on open sandy flats with *C. viscidiflorus* ssp. *puberulus* (which it resembles). 6040-6480 ft., 12 Aug. 1985. (p. 156)
- CHRYSOTHAMNUS NAUSEOSUS (Pallas) Britton ssp. ALBICAULIS (Nuttall) Hall & Clements. Gray Rabbitbrush. Mono Co. in upper Cottonwood Basin. 10,200 ft., 20 Aug. 1985. (p. 157)
- CHRYSOTHAMNUS NAUSEOSUS (Pallas) Britton ssp. MOHAVENSIS (Greene) Hall & Clements. Mojave Rabbitbrush. Inyo Co. near White Mountain Road above Sierra View. 9370 ft., 17 Aug. 1983. (p. 157)
- CHRYSOTHAMNUS PARRYI (A. Gray) Greene var. ASPER (Greene) Munz. Desert Mountain Rabbitbrush. Inyo Co. in upper reach of Sam's Spring canyon NW of Antelope Springs. 6900 ft., 16 July 1984. (p. 157)
- CHRYSOTHAMNUS PARRYI (A. Gray) Greene var. MONOCEPHALUS (Nelson & Kennedy) Jepson. Mountain Rabbitbrush. Mono Co. in upper Cottonwood Basin just E of Eva Belle Mine. 10,250-10,400 ft., August 1984-1985. (p. 157)
- CONYZA COULTERI A. Gray. Coulter Horseweed. Inyo Co. in Silver Canyon. 4640 ft., 25 July 1984. (p. 158)
- HAPLOPAPPUS EXIMIUS H.M. Hall ssp. PEIRSONII Keck. Peirson Gold. Mono Co. 3.4 miles east of the Barcroft Lab on divide between Cottonwood and Toler Creeks. 11,050 ft., 19 Aug. 1985. (p. 161)
- HAPLOPAPPUS NANUS (Nuttall) D.C. Eaton. Rubber Goldenbush. Mono and Esmeralda Cos., frequent in rocky areas. 5900-6480 ft., August 1984-1985. (p. 161)
- HAPLOPAPPUS RACEMOSUS (Nuttall) Torrey ssp. SESSILIFLORUS (Greene) Hall. Wand Aster. Esmeralda Co. at Sand Spring. 5510 ft., 7 Aug. 1984. (p. 161)
- MACHAERANTHERA LEUCANTHEMIFOLIA (Greene) Greene. Sand Aster. Inyo and Mono Cos., common spring-flowering biennial along margins of the range. 5200-5500 ft. Close to and perhaps intergrading with *M. canescens*. (p. 162)
- SOLIDAGO OCCIDENTALIS (Nuttall) Torrey & Gray. Western Goldenrod. Inyo Co., desert springs. 4250-5570 ft., Aug. 1985. (p. 162)

- ARTEMISIA TRIDENTATA Nuttall ssp. VASEYANA (Rydberg) Beetle. Mountain Sagebrush. This is the common mountain form, ssp. *tridentata* being restricted to low and/or moist areas in the range. (p. 165)
- SPHAEROMERIA CANA (D.C. Eaton) Heller. Mountain Tansy. Mono Co., locally frequent in granite crevices of the upper Cottonwood Basin. 9800-10500 ft., July-Aug. 1984. (p. 165)
- SENECIO SPARTIOIDES Torrey & Gray var. GRANULARIS Maguire & Holmgren ex Cronquist in Ferris. Mono Broom Groundsel. Mono Co. near Crooked Creek, 9800 ft., 17 Aug. 1983. Type Locality "head of Crooked Creek, White Mountains, Mono Co., CA" (Abrams & Ferris, Illustrated Flora of the Pacific States 4:434), not reported by Lloyd & Mitchell. (p. 168)
- STILOCLINE PSILOCARPHOIDES Peck. Peck Neststraw. Inyo Co. at Black Canyon mouth. 4600 ft., 21 Mar. 1985. (p. 169)
- BRICKELLIA MICROPHYLLA (Nuttall) A. Gray var. MICROPHYLLA. Sweet Brickellbush. Common in rocky canyons throughout the range. 4500-7000 ft., Aug.-Sept., Morefield and DeDecker. (p. 169)
- CIRSIUM EATONII (A. Gray) B.L. Robinson. Subalpine Thistle. Mono Co., scattered on granite in upper Cottonwood Creek basin, perhaps referred to *C. nidulum* by Lloyd & Mitchell. 10,360 ft., 1 Aug. 1984. (p. 170)
- CIRSIUM VULGARE (Savi) Tenore. Bull Thistle. Occasional in moist disturbed places throughout the range, such as Antelope Springs; also seen in McAfee Canyon. 5550(-6000) ft., 4 August 1984. (p. 170)
- HIERACIUM HORRIDUM E. Fries. Shaggy Hawkweed. Mono Co. in upper Cottonwood Basin. 10,360 ft., 1 Aug. 1984. (p. 172)
- MALACOTHRIX COULTERI Harvey & Gray. Snake's Head. Inyo Co. at Black Canyon mouth. 4600 ft., 21 Mar. 1985. (p. 172)
- SONCHUS OLERACEUS Linnaeus. Annual Sow Thistle. Inyo Co. at Spring S of Silver Cyn. 4230 ft., 18 June 1984. (p. 172)
- TRAGOPOGON PORRIFOLIUS Linnaeus. Goatsbeard. Mono Co., Piute Creek at pipeline intake on disturbed site. 6400 ft., 23 Aug. 1984, Dean Wm. Taylor. (p. 173)
- POTAMOGETON FOLIOSUS Rafinesque. Pondweed. Esmeralda Co. in aqueduct intake pond in Trail Canyon. 8150 ft., 16 Aug. 1985. (p. 173)
- ZANNICHELLIA PALUSTRIS Linnaeus. Horned Pondweed. Inyo & Esmeralda Cos., Silver & Trail Canyons. 4640-8150 ft., July-Aug. 1984-1985.
- JUNCUS LONGISTYLIS Torrey. Rush. Inyo Co. along stream 2.6 mi. N40°W of Antelope Spgs. 7300 ft., 5 June 1984. (p. 174)
- CAREX OCCIDENTALIS L.H. Bailey. Western Sedge. Mono Co. scattered among granite boulders in upper Cottonwood Creek drainage. 10,070 ft., 2 Aug. 1984. (p. 177)
- CYPERUS ARISTATUS Rottboell. Annual Cyperus. Esmeralda Co. at Sand Spring. 5500 ft., 7 Aug. 1984. (p. 178)
- CYPERUS NIGER Ruiz & Pavon var. CAPITATUS (Britton) O'Neill. Umbrella Sedge. Inyo Co. along stream in Silver Canyon. 4510 ft., 30 June 1984. (p. 178)
- SCIRPUS PUNGENS Vahl var. LONGISPICATUS (Britton) Cronquist. Common Threesquare. Inyo Co. at Antelope Springs. 5570 ft., 11 June 1984. (p. 178)
- DACTYLIS GLOMERATA Linnaeus. Orchard Grass. Inyo Co., Wyman Creek at Roberts Ranch. 8100 ft., 25 June 1984. (p. 181)
- ERAGROSTIS ORCUTTIANA Vasey. Orcutt Lovegrass. Inyo Co. at spg. near Silver Cyn. mouth. 4250 ft., 25 Aug. 1985. (p. 181)
- FESTUCA ARUNDINACEA Schreber. Reed Fescue. Inyo Co. at seep 1.3 mi. N35°W Poleta Mine. 4930 ft., 16 June 1984. (p. 181)
- AGROPYRON CRISTATUM (Linnaeus) Gaertner. Crested Wheatgrass. Esmeralda Co. along old aqueduct clearing in Trail Canyon. 7950 ft., 14 Aug. 1985. (p. 184)
- X AGROSITANION SAUNDERSII (Vasey) Bowden. Squirreltail Wheatgrass. Mono Co. 3.4 miles due east of the Barcroft Lab at head of Toler Creek. 10,900 ft., 19 Aug. 1985. (p. 185)
- X ELYSITANION ARISTATUM (Merrill) Bowden. Hybrid Wildrye. Mono Co. at border of springs on south-facing slope of Piute Canyon. 8700 ft., 23 Aug. 1984, Dean Wm. Taylor. (p. 185)
- HORDEUM X CAESPITOSUM Scribner ex Pammel, pro species. Bobtail Barley. Inyo Co. at Antelope Springs. 5570 ft., 11 June 1984. (p. 185)
- DESCHAMPSIA DANTHONIOIDES (Trinius) Munro ex Benth. Annual Hairgrass. Esmeralda Co. at Sand Spring. 5500 ft., 31 May 1984. (p. 186)
- SPHENOPHOLIS OBTUSATA (Michaux) Scribner. Prairie Wedgescale. Inyo Co., desert springs. 4240-5950 ft., Aug. (p. 186)
- AGROSTIS IDAHOENSIS Nash. Idaho Redtop. Mono Co. in Tres Plumas Meadow. 10,200 ft., 3 July 1984. (p. 187)
- ALOPECURUS PRATENSIS Linnaeus. Meadow Foxtail. Inyo Co., Wyman Creek at Roberts Ranch. 8100 ft., 25 June 1984. (p. 187)
- ARISTIDA PURPUREA Nuttall var. GLAUGA (Nees) A. & N. Holmgren. Desert Three-awn. (includes *A. wrightii* Nash) Frequent on calcareous rocks throughout the range. 5000-6500 ft., June-Aug. (p. 187)
- MUHLENBERGIA PORTERI Scribner ex Beal. Bush Muhly. Inyo Co. above Deep Spgs. Valley. 5300-5600 ft., Aug. 1984. (p. 188)
- POLYPOGON INTERRUPTUS H.B.K. Ditch Polypogon. Inyo Co. in Sam's Spring Canyon. 6100 ft., 4 June 1984. (p. 189)
- SPOROBOLUS AIROIDES (Torrey) Torrey. Alkali Sacaton. Inyo Co. at Antelope Springs, and seen near Silver Canyon. 5600 (-4250) ft., July 1984. Reported from "moist alkaline flat, 4500 ft. near Shealy, Inyo Co." by Lloyd & Mitchell, which is presumably outside the White Mountains proper. (p. 189)
- SPOROBOLUS FLEXUOSUS (Thurber) Rydberg. Mesa Dropseed. On alluvium at base of range east and NE of Antelope Springs, Inyo Co. 5250-5600 ft., May-Aug. 1984-1985. (p. 189)
- BOUTELOUA BARBATA Lagasca. Six-weeks Grama. Throughout the range margins after rains. 5250-5500 ft., Aug. (p. 190)
- CYNODON DACTYLON (Linnaeus) Persoon. Bermuda Grass. Inyo Co., spring near Silver Canyon. 4250 ft., 25 Aug. 1985. (p. 190)
- DICHANTHELIUM LANUGINOSUM (Elliot) Gould var. FASCICULATUM (Torrey) Spellenberg. Peat Grass. Inyo Co. in Marble Canyon of Black Canyon. 6100 ft., 13 June 1984. (p. 190)
- ECHINOCHLOA CRUSGALLII (Linnaeus) Beauvois. Barnyard Grass. Esmeralda Co. at Sand Spring. 5510 ft., 7 Aug. 1984. (p. 190)
- PASPALUM DISTICHUM Linnaeus. Knotgrass. Inyo Co. at spring 1 mi. S of Silver Canyon. 4230 ft., 18 June 1984. (p. 190)
- TYPHA LATIFOLIA Linnaeus. Common Cattail. Wet places throughout range, as Antelope Spgs. 5550 ft., 15 July 1984. (p. 190)
- CORALLORHIZA MACULATA Rafinesque. Spotted Coralroot. Inyo Co. in Silver Canyon under birches along stream. ca. 6500 ft., 15 June 1985, Mary DeDecker. First reported in Bristlecone Newsletter 4(4):1, July 1985 (misnumbered 4(3)). (p. 193)
- HABENARIA HYPERBOREA (Linnaeus) R. Brown. Northern Green Habenaria. Frequent in wet places and high meadows throughout the range. 5000-10,000 ft., June-Aug. Probably called *H. sparsiflora* by Lloyd & Mitchell. (p. 193).

CORRECTION: the plant reported as *Hymenoxys* cf. *lemmonii* in our second list of additions was tentatively determined as *H. cooperi* var. *canescens* by Arthur Cronquist in New York, and does not represent anything previously unknown to the White Mountains.

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## FIELD TRIPS

Please refer to the January issue for details of the field trips through May. Briefly, they will be:

April 19-20. East side of Argus Range, west side of Panamint Valley. Leaders Mary Ann and Ronald Henry.

May 10-11. Bullfrog Hills and Titus Canyon, Death Valley National Monument. Leaders: Mary and Paul DeDecker.

May 31. Fish Slough, Owens Valley. Leaders: Mary and Paul DeDecker.

Later field trips will be announced in the May issue. Some details have yet to be firmed up. One pending trip, to be led by Dean Taylor, will be the 1st or 2nd week end in August. Dr. Taylor has had extensive experience in studying the Sierra flora.

Field Trip Chairman Mark Bagley has moved to Bishop. He may be reached at P.O. Box 1431, Bishop 93514. Phone: (619) 873-5326.

## FIELD TRIP REPORT

The January Field Trip was most informative, indoors and out. It began with a session in the Bishop City Hall. David Groeneveld, Plant Ecologist for Inyo County, an assistant, Paula Hubbard, Bill Hutchison, Inyo Water Department Hydrologist, and Patti Novak, a Los Angeles DWP employee, gave a preliminary briefing with the use of maps, charts and visual aids. Then the group adjourned to the field to see two actual study sites. Appreciation is expressed to all who gave time to conduct the excellent presentation. Gregg James, Director of the Inyo County Water Department, was present also, as was Ray Gray, the new appointee to the Inyo County Water Commission. No other county officials attended.

\* \* \* \* \*

## NEW MEMBERS

New members are warmly welcomed and urged to join in Bristlecone Chapter activities. Cheers to those who have changed status from subscriber to member.

Susan Battersby  
1342 Versailles Ave.  
Alameda, CA 94501

Hermi D. Hiatt  
8180 Placid Street  
Las Vegas, NV 89123

Dave Galewitz  
2686 Rio Bravo Circle  
Sacramento, CA 95826

Richard James  
2130 Vista del Mar Ave., Apt. 12  
Los Angeles, CA 90068

John A. Gilchrist  
320 Dolores Street  
Santa Cruz, CA 95062

Beverly F. Steveson  
418 Brookhaven Drive  
Bakersfield, CA 93304

\* \* \* \* \*

## IN REMEMBRANCE

*Our Chapter lost a fine friend with the passing of Allen Gilchrist on January 24 in Ojai. He was a gentle man, in tune with the environment. His love of the outdoors was reflected in his interest in the natural sciences and his understanding of environmental issues. This influenced their move to*

the Alabama Hills upon retirement. His friendly support will be missed by the neighborhood children. He leaves his friends with fond memories of his warm hospitality. His wife, Betty, has been one of our most active members. We extend appreciation to her, and our deepest sympathy.

\* \* \* \* \*

#### WHY CONSERVE PLANT SPECIES

"Wildflowers' displays have inspired poets and lovers for centuries. The cactus' twisted shape and threatening spines and the Venus flytrap's hinged traps also charm us. Our appreciation for wild plants' beauty and variety impels us to protect them.

"The most important reason for conserving plants, however, is practical: to continue to obtain the many utilitarian benefits plants provide.

"Mankind's very existence depends on a healthy ecosystem in which plants play the dominant role.

- Only green plants can convert sunlight, atmospheric carbon dioxide, and water into food which can be used by animals.
- Wild plants directly provide fodder for our cattle and sheep.
- They provide shelter for birds that prey on agricultural pests and bees and other insects that pollinate our crops.

"So important are plants in the web of life that Dr. Peter Raven of the Missouri Botanical Garden estimates that each plant which becomes extinct causes the extinction of 10 to 30 dependent species of insects, higher animals, and other plants.

"Many species of wild plants have great proven or potential utilitarian value. A quarter of all medical prescriptions sold in the United States contain chemicals derived from higher plants. Vincristine and Vinblastine, both extracted from a tropical periwinkle, are standard treatments for various cancers, including Hodgkin's Disease, which strikes 5,000-6,000 Americans annually. An endangered wild corn from Mexico, *Zea diploperennis*, may make our major crop more resistant to fungal infections, such as that which destroyed 15% of U.S. production in 1971. Various plant products show promise for industrial use, such as oil from the seeds of the jojoba and rubber from gule, both native to the U.S. and Mexican deserts."

RARE, Inc.

#### EXTINCTION IS FOREVER

"What event likely to occur in the 1980s will our descendants most regret, even those a thousand years from now?... The one process ongoing in the 1980s that will take millions of years to correct is the loss of genetic and species diversity by the destruction of natural habitats. This is the folly our descendants are least likely to forgive us."

E. O. Wilson  
"Resolutions for the '90s"  
Harvard Magazine

*Earth, thou great footstool of our God, who reigns on high; thou fruitful source of all our rainment, life, and food; our house, our parent, and our nurse.*

Isaac Watts

## RARE PLANT CONFERENCE

## Call for Papers &amp; Announcement

The California Native Plant Society (CNPS), in conjunction with several government agencies, conservation groups, and private corporations, is sponsoring a conference on the conservation and management of rare and endangered plants.

The conference will be held at the CAPITAL PLAZA HOLIDAY INN, 300 J Street, Sacramento, California.

It is designed to be a forum for information exchange through concurrent sessions, poster session, and workshops. Proceedings will be published by CNPS.

While there are many people and organizations in California involved in rare and endangered plant monitoring, mitigation, and law, a statewide conference has never been organized until now. The time has come for such a conference.

Papers describing research on rare and endangered plants are requested. Taxonomic studies are of interest, although emphasis will be placed on management related topics including specialized field techniques, evaluating, monitoring, and mitigating adverse effects on rare and endangered plants. Experience from regions other than the western United States is encouraged.

QUESTIONS/COMMENTS? Contact: Dr. Thomas Elias, Program Chairman, Rancho Santa Ana Botanic Garden, 1500 North College Avenue, Claremont, California 91711. Phone: (714) 625-8767

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## DWP HAS 'PROBLEMS' WITH INYO'S ACTION

The above headline appeared in the INYO REGISTER of March 14. It is typical of the response by Los Angeles to any move by Inyo County to protect its rights or its environment. The article reads:

"A City of Los Angeles official said Thursday that he has "problems" with Inyo County's efforts to amend language in legislation which would free up withdrawn BLM lands in the Owens Valley.

"The Board of Supervisors wrote to Bureau of Land Management state director Ed Hastey this week, asking that language in the legislation be changed to require land withdrawals to protect not just DWP's water resources, but the local environment as well.

'This does cause us some concern,' said DWP Northern District Engineer Duane Buchholz. 'This is what we've been arguing about for the last 70 years, what protects our water supply and what protects the environment. So for the county to go and make that kind of request, yes, we do have some problems with that.'

"Inyo County Water Director Greg James said the County wrote to BLM to protect itself from possible efforts by Los Angeles to influence the language of the legislation in a way that would hurt the county. 'We want language protecting the environment and DWP is nervous about that. It was important that we get to Hastey first, so he knows what we expect from him if he starts getting pressure from L.A.,' James said."

## CALIFORNIA NATIVE PLANT SOCIETY - Membership Application

The California Native Plant Society is an organization of lay persons and professionals united by an interest in the plants of California. It is open to all. The Society, working through its local chapters, seeks to increase understanding of California's native flora and to preserve this rich resource for future generations. Varied interests are represented.

Name \_\_\_\_\_ P.O. or Street \_\_\_\_\_

City \_\_\_\_\_ State \_\_\_\_\_ Zip \_\_\_\_\_ Phone \_\_\_\_\_

### Membership Category:

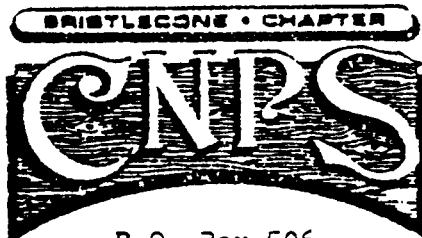
_____ Life, Couple	\$500	I wish to be affiliated with the
_____ Life, Individual	450	Bristlecone Chapter _____
_____ Supporting	50	Other _____
_____ Household	30	
_____ Individual or Library	18	Please make check payable to:
_____ Student or Retired	12	California Native Plant Society
_____ Retired Couple	15	Mail to: Bristlecone Chapter, CNPS

GIFT contribution: Where most  
needed \_\_\_\_\_ Conservation \_\_\_\_\_

P.O. Box 506  
Independence, CA 93526

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California Native Plant Society



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