

University of California Botanical Garden at Berkeley

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U.S.A.

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Seed Exchange List Number 32 2004-2005

The University of California Botanical Garden is one of the largest and oldest botanical gardens in the United States. The garden's well-documented collection occupies 13 hectares and includes more than 12,000 taxa representing 305 plant families. Specimens are arranged by continent of origin, with approximately four hectares devoted to California native plants. A primary purpose of the garden is to facilitate scientific research. In addition to circulating a biennial seed list, we welcome requests for research material at any time. See our web site, <http://botanicalgarden.berkeley.edu/> for a current list of taxa.

Note: Seeds will be supplied to institutions and bona fide researchers only.

Telephone 510-643-8040;

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SEED EXCHANGE LIST NUMBER 31

2004-2005

Please retain the catalog for collection data. Seed packets will be identified only by stock number and taxon name.

All seeds were collected in the wild from localities in California. Nomenclature for California taxa follows The Jepson Manual: Higher Plants of California, James Hickman, ed. Suggestions for germination treatments may be found in Seed Propagation of Native California Plants by Dara E. Emery, Santa Barbara Botanic Garden, 1988.

Requests will be filled in order received until **March 15, 2007**. Quantities are especially limited for some offerings.

If **importation** or **quarantine regulations** apply, please inform us of the requirements at the time of your request.

When seed is requested for **research**, a short note describing the project will be appreciated.

We thank all institutions that have supplied us with seed during 2004 to 2005.

Send orders by mail to:

Seed Exchange Program
University of California
Botanical Garden
200 Centennial Dr.
Berkeley, California 94720-5045
U.S.A.

or via e-mail to garden@berkeley.edu

(please include "Seed Exchange" in subject heading)

or via fax to 510-642-5045

University of California Botanical Garden at Berkeley

2004-2005 DESIDERATA

Circle desired items (limited to 30):

- | | | | | | | | | | |
|----|----|----|----|----|----|----|----|----|----|
| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 |
| 11 | 12 | 13 | 14 | 15 | 16 | 17 | 18 | 19 | 20 |
| 21 | 22 | 23 | 24 | 25 | 26 | 27 | 28 | 29 | 30 |
| 31 | 32 | 33 | 34 | 35 | 36 | 37 | 38 | 39 | 40 |
| 41 | 42 | 43 | 44 | 45 | 46 | 47 | 48 | 49 | 50 |
| 51 | 52 | 53 | 54 | 55 | 56 | 57 | 58 | 59 | 60 |
| 61 | 62 | 63 | 64 | 65 | 66 | 67 | 68 | 69 | 70 |
| 71 | 72 | 73 | 74 | 75 | 76 | 77 | 78 | 79 | 80 |
| 81 | 82 | 83 | 84 | 85 | 86 | 87 | 88 | | |

Your name and address please:

University of California Botanical Garden at Berkeley

SEED EXCHANGE LIST NUMBER 31
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Abbreviations

| | |
|-------|---|
| Ave. | Avenue |
| Co. | County |
| E | East |
| elev. | elevation |
| Hwy. | Highway |
| km. | kilometer |
| m. | meters |
| Mt. | Mount, Mountain |
| N | North |
| Rd. | Road |
| Rte. | Route |
| S | South |
| UC | University of California at Berkeley Herbarium |
| UCBG | University of California Botanical Garden at Berkeley |
| W | West |

Definition

serpentine/serpentinite: ultramafic rock (rich in ferro-magnesian silicates) with many associated endemic taxa in California

PTERIDOPHYTAE

PTERIDACEAE

1. *Adiantum aleuticum* (Rupr.) C.A. Paris
California, Humboldt Co.: 40° 51'59"N, 123° 43'46"W, Six Rivers National Forest, Horse Mt., USFS Rd. 6N38, Mine Shaft Creek, 1400 m. elev. Common with *Spiraea densiflora*, *Rhododendron occidentale*, *Chamaecyparis lawsoniana*.
Forbes, H. & N. Smith, 0544, 13-IX-2005

CONIFERINAE

CUPRESSACEAE

2. *Chamaecyparis lawsoniana* Parl.
California, Humboldt Co.: 40° 51'59"N, 123° 43'46"W, Six Rivers National Forest, Horse Mt., USFS Rd. 6N38, 1400 m. elev. *Chamaecyparis*/*Pinus jeffreyi* woodland.
Forbes, H. & N. Smith, 0542, 13-IX-2005
3. *Cupressus arizonicus* Greene ssp. *nevadensis* (Abrams) E. Murray
California, Kern Co.: Piute Mts., Bodfish Piute Cypress Botanical Area. N-facing slope with *Fremontodendron*, *Streptanthus cordatus* ssp. *piutensis*.
Smith, N. 04.18, 8-V-2004.
4. *Cupressus forbesii* Jeps.
California, San Diego Co.: Otay Mt., 3.2 km. N from Doghouse Junction. Growing with *Chamaebatia australis*, *Adenostoma fasciculatum*.
Smith, N. 02.16, 19-IV-2002.

PINACEAE

5. *Abies grandis* Lindl.
California, Humboldt Co.: 40° 50'20"N, 123° 43'15"W, Six Rivers National Forest, 3 km. S on Titlow Hill Rd. from its junction with USFS Rd. 6N38, 1466 m. elev. Common on W-facing slope with *Pseudotsuga menziesii*.
Forbes, H. & N. Smith, 0546, 13-IX-2005
6. *Pinus attenuata* Lemmon
California, Humboldt Co.: 40° 52'31"N, 123° 43'44"W, Six Rivers National Forest, Horse Mt., USFS Rd. 6N36, 8 km. from its junction with Titlow Hill Rd., 1470 m. elev. Locally common with *Pinus monticola*.
Forbes, H. & N. Smith, 0537, 13-IX-2005
7. *Pinus attenuata* Lemmon
California, Humboldt Co.: 40° 52'30"N, 123° 43'44", near Horse Mt. summit on USFS Rd. 6N36, 1463 m. elev.
Smith, N. & G. Von Knopka, 05.09, 20-VII-2005.

8. *Pinus jeffreyi* Murray
California, Humboldt Co.: 40° 52'31"N, 123° 43'44"W, Six Rivers National Forest, Horse Mt., USFS Rd. 6N36, 8 km. from its junction with Titlow Hill Rd., 1470 m. elev. Dominant on serpentinite in open woodland with *Calocedrus decurrens*, *Pseudotsuga menziesii*, *Quercus vaccinifolia*.
Forbes, H. & N. Smith, 0532, 12-IX-2005.
9. *Pinus lambertiana* Douglas
California, Calaveras Co.: Calaveras Big Trees State Park, vicinity of entrance kiosk. Trees massive and common in area, with *Pinus ponderosa*, *Abies concolor*.
Smith, N. & G. Von Knopka, 05.533, 4-X-2005
10. *Pinus lambertiana* Dougl.
California, Humboldt Co.: 40° 52'31"N, 123° 43'44"W, Six Rivers National Forest, Horse Mt., USFS Rd. 6N36, 8 km. from its junction with Titlow Hill Rd., 1470 m. elev. Scattered on slopes with *Calocedrus decurrens*, *Pinus jeffreyi*, *P. attenuata*.
Forbes, H. & N. Smith, 0539, 13-IX-2005
11. *Pinus monticola* Douglas ex D. Don
California, Humboldt Co.: 40° 52'31"N, 123° 43'44"W, Six Rivers National Forest, Horse Mt., USFS Rd. 6N36, 8 km. from its junction with Titlow Hill Rd., 1470 m. elev. Common with *Quercus vaccinifolia*, *Pinus lambertiana*, *Calocedrus decurrens*.
Forbes, H. & N. Smith, 0536, 13-IX-2005
12. *Pseudotsuga menziesii* (Mirb.) Franco
California, Humboldt Co.: 40° 50'20"N, 123° 43'15"W, Six Rivers National Forest, 3 km. S on Titlow Hill Rd. from its junction with USFS Rd. 6N38, 1466 m. elev. Abundant on ridge top and throughout area.
Forbes, H. & N. Smith, 0547, 13-IX-2005

TAXACEAE

13. *Taxus brevifolia* Nutt.
California, Calaveras Co.: Calaveras Big Trees State Park, North Grove Big Trees Trail in the vicinity of Big Tree Creek.
Smith, N. & G. Von Knopka, 05.515, 3-X-2005

ANGIOSPERMAE

ACERACEAE

14. *Acer circinatum* Pursh
California, Humboldt Co.: 40° 55'13"N, 123° 31'13"W, Six Rivers National Forest, N of Hawkins Bar, W of Happy Camp Mt., on road USFS Rd. 6N10. Locally common near creek with *Acer macrophyllum*, *Rubus parviflorus* in *Pseudotsuga menziesii* forest in sun.
Forbes, H. & N. Smith, 0576, 14-IX-2005.

15. *Acer macrophyllum* Pursh
California, Humboldt Co.: 61 km. E of Arcata on Hwy. 299 at East Camp. Abundant with, *Acer circinatum*, *Corylus cornuta*.
Forbes, H. & N. Smith, 0556, 14-IX-2005.

AMARYLLIDACEAE

16. *Allium campanulatum* S. Watson
California, Humboldt Co.: 40° 52'30"N, 123° 43'44", Horse Mt. near summit radio towers on USFS Rd. 6N36, 1465 m. elev. Mostly on serpentine with *Sedum oregonum*, *Iris*, *Achillea millefolium*, *Eriogonum umbellatum*.
Smith, N. & G. Von Knopka, 05.06, 20-VII-2005.
17. *Dichelostemma ida-maia* (A.W. Wood) Greene
California, Humboldt. Co.: 40° 55'56"N, 123° 31'54", near Zeigler Point, 937 m. elev. Nice population with *Eriophyllum lanatum* in grassy opening of *Pseudotsuga menziesii*, *Arbutus menziesii*, *Acer macrophyllum* forest.
Smith, N. & G. Von Knopka, 05.15, 20-VII-2005.

APIACEAE

18. *Angelica tomentosa* S. Watson
California, Humboldt Co.: 40° 51'59"N, 123° 43'46"W, Six Rivers National Forest, on USFS Rd. 6N38, 19 km. from intersection with Titlow Hill Rd., 1400 m. elev. Scattered along road near water-rich ditches in *Pseudotsuga menziesii* forest.
Forbes, H. & N. Smith, 0545, 13-IX-2005
19. *Lomatium macrocarpum* (Torr. & A. Gray) J.M. Coult. & Rose
California, Humboldt. Co.: 40° 46'33"N, 123° 36'44", vicinity of Hogback Ridge, USFS Rd. 6, 1029 m. elev. Open grassy area with *Festuca idahoensis*, *F. californica*, *Brodiaea elegans ssp. elegans*.
Smith, N. & G. Von Knopka, 05.23, 21-VII-2005.

ARALIACEAE

20. *Aralia californica* S. Watson
California, Humboldt Co.: 40° 55'11"N, 123° 30'10"W, Six Rivers National Forest, N of Hawkins Bar, W of Happy Camp Mt., on road USFS Rd. 6N10, 815 m. elev. Locally common near creek with *Acer macrophyllum*, *A. circinatum*, *Rubus parviflorus* in *Pseudotsuga menziesii* forest.
Forbes, H. & N. Smith, 0574, 14-IX-2005.

ASTERACEAE

21. *Adenocaulon bicolor* Hook.
California, Calaveras Co.: Calaveras Big Trees State Park, Big Trees Creek vicinity, South Grove. Growing in understory of *Pinus lambertiana*, *Sequoiadendron giganteum*, *Cornus nuttallii*.
Smith, N. & G. Von Knopka, 05.526, 4-X-2005

22. *Ambrosia chamissonis* (Less.) Greene
California, Humboldt Co.: 40° 28'N, 124° 21'W, King Range, 1 m. elev. Common along beach bluff with *Grindelia stricta*, *Distichlis spicata*.
Forbes, H. & N. Smith, 0583, 15-IX-2005.
23. *Cirsium occidentale* (Nutt.) Jeps. var. *venustum* (Greene) Jeps.
California, Humboldt Co.: 40° 48'26"N, 123° 36'37", vicinity of Hogback Ridge, USFS Rd. 6, 925 m. elev. Disturbed E-facing slope with *Phacelia*, *Eriogonum nudum*, *Eriophyllum*, *Gilia*.
Smith, N. & G. Von Knopka, 05.21, 21-VII-2005.
24. *Grindelia stricta* DC.
California, Humboldt Co.: 40°28'49"N, 124° 21'45"W, King Range, 275 m. elev. Locally common with *Chlorogalum pomeridianum*, *Wyethia angustifolia* on open ridge.
Forbes, H. & N. Smith, 0580, 15-IX-2005.
25. *Helenium bigelovii* A. Gray
California, Calaveras Co.: Calaveras Big Trees State Park, Beaver Creek vicinity.
Common in moist meadow.
Smith, N. & G. Von Knopka, 05.513, 3-X-2005
26. *Solidago canadensis* L. ssp. *elongata* (Nutt.) Keck
California, Calaveras Co.: Calaveras Big Trees State Park, Beaver Creek vicinity.
Smith, N. & G. Von Knopka, 05.509, 3-X-2005
27. *Wyethia angustifolia* (DC.) Nutt.
California, Humboldt Co.: 40° 28'49.5"N, 124° 21'44.7"W, King Range, 275 m. elev.
Locally common with *Chlorogalum pomeridianum*, *Grindelia stricta*.
Forbes, H. & N. Smith, 0582, 15-IX-2005.

BETULACEAE

28. *Alnus incana* (L.) Moench ssp. *tenuifolia* (Nutt.) Breitung
California, Humboldt Co.: 40° 55'00"N, 123° 28'59"W, Six Rivers National Forest, N of Hawkins Bar, W of Happy Camp Mt., on road USFS Rd. 6N10, 1438 m. elev. Common at lower end of meadow with *Rosa gymnocarpa*, *Salix*, *Whipplea modesta*, *Cornus sericea*, *Pseudotsuga menziesii*.
Forbes, H. & N. Smith, 0569, 14-IX-2005.

CAMPANULACEAE

29. *Campanula prenanthoides* Durand
California, Humboldt Co.: Six Rivers National Forest, 85 km. E of Arcata via Hwy. 299, South Fork Rd. toward Hennessy Ridge on USFS Rd. 6N31, 350 m. elev. Locally common in roadside seep on steep roadbank with *Salix*, *Pseudotsuga menziesii*, *Ribes sanguineum* ssp. *glutinosum*, *Acer macrophyllum*.
Forbes, H. & N. Smith, 0560, 14-IX-2005.

CAPRIFOLIACEAE

30. *Lonicera hispidula* Douglas var. *vacillans* A. Gray
California, Humboldt Co.: Six Rivers National Forest, 85 km. E of Arcata via Hwy. 299, South Fork Rd. toward Hennessy Ridge, 350 m. elev. Common along road with *Acer macrophyllum*, *Arbutus menziesii*, *Lithocarpus densiflora*, *Pseudotsuga menziesii*, *Baccharis pilularis* ssp. *consanguinea*.
Forbes, H. & N. Smith, 0557, 14-IX-2005.
31. *Sambucus mexicana* DC.
California, Humboldt Co.: 40° 50'20"N, 123° 43'15"W, Six Rivers National Forest, 5 km. S on Titlow Hill Rd. from its junction with USFS Rd. 6N38. Scattered along rd. with *Pseudotsuga menziesii*, *Calocedrus decurrens*, *Ribes sanguineum* var. *glutinatum*, *Pteridium*.
Forbes, H. & N. Smith, 0549, 13-IX-2005
32. *Symphoricarpos mollis* Nutt.
California, Humboldt Co.: 40° 55'00"N, 123° 28'59"W, Six Rivers National Forest, N of Hawkins Bar, W of Happy Camp Mt., on USFS Rd. 6N10, 1438 m. elev. Locally abundant with *Symphoricarpos*, *Rubus*, *Ceanothus velutinus*, *Whipplea modesta*.
Forbes, H. & N. Smith, 0566, 14-IX-2005.

CARYOPHYLLACEAE

33. *Silene verecunda* S. Watson
California, Humboldt Co.: 40° 50'20"N, 123° 43'15"W, Six Rivers National Forest, Titlow Hill Rd. 11 km. S of junction with USFS Rd. 6N38, 1450 m. elev. Uncommon on steep talus slope with *Holodiscus discolor*.
Forbes, H. & N. Smith, 0553, 13-IX-2005.

CORNACEAE

34. *Cornus nuttallii* Audubon
California, Humboldt Co.: 40° 50'20"N, 123° 43'15"W, Six Rivers National Forest, Grouse Mt., Titlow Hill Rd. 18 km. S of junction with USFS Rd. 6N38. Scattered on W-facing slope with *Acer macrophyllum*, *Pseudotsuga menziesii*, *Rubus parviflorus*, *Salix*.
Forbes, H. & N. Smith, 0554, 13-IX-2005.
35. *Cornus sericea* L. ssp. *sericea*
California, Humboldt Co.: 40° 55'00"N, 123° 28'59"W, Six Rivers National Forest, N of Hawkins Bar, W of Happy Camp Mt., on road USFS Rd. 6N10, 1438 m. elev. Common at lower end of meadow with *Rosa gymnocarpa*, *Whipplea modesta*, *Pseudotsuga menziesii*.
Forbes, H. & N. Smith, 0571, 14-IX-2005.
36. *Cornus sessilis* Durand
California, Humboldt Co.: 40° 54'11"N, 123° 42'14"W, Six Rivers National Forest, Hwy. 299 near E fork Willow Creek. In understory of *Pseudotsuga menziesii*, *Acer macrophyllum*, *Alnus rhombifolia*, *Aralia californica*.
Smith, N. & G. Von Knopka, 05.02, 19-VII-2005.

ERICACEAE

37. *Arctostaphylos canescens* Eastw.
California, Humboldt Co.: 40° 52'31"N, 123° 43'44"W, Six Rivers National Forest, Horse Mt., USFS Rd. 6N36, 8 km. from its junction with Titlow Hill Rd., 1470 m. elev. Dominant on S-facing slope with scattered *Pinus jeffreyi*. Exfoliating bark, no burl.
Forbes, H. & N. Smith, 0534, 12-IX-2005.
38. *Arctostaphylos nevadensis* A. Gray
California, Calaveras Co.: Calaveras Big Trees State Park, edge of dry wash adjacent to Skull Creek. *Calocedrus decurrens*/*Pinus lambertiana* woodland.
Smith, N. & G. Von Knopka, 05.529, 4-X-2005
39. *Arctostaphylos patula* Greene
California, Calaveras Co.: Calaveras Big Trees State Park, on S side of Beaver Creek. Common in more open areas of forest.
Smith, N. & G. Von Knopka, 05.519, 4-X-2005
40. *Arctostaphylos viscida* Parry
California, Calaveras Co.: Calaveras Big Trees State Park, on parkway road near Rocky Point on W-facing road cut. Occasional with *Pinus ponderosa*, *Chamaebatia australis*.
Smith, N. & G. Von Knopka, 05.531, 4-X-2005
41. *Arctostaphylos viscida* Parry ssp. *pulchella* (J.T. Howell) P.V. Wells
California, Humboldt Co.: 40° 52'30"N, 123° 43'44", near Horse Mt. summit on USFS Rd. 6N36, 1463 m. elev. Prostrate form in *Pinus ponderosa* forest with *Quercus vaccinifolia*, *Ceanothus cuneatus*.
Smith, N. & G. Von Knopka, 05.08, 20-VII-2005.
42. *Rhododendron occidentale* (Torr. & A. Gray) A. Gray
California, Calaveras Co.: Calaveras Big Trees State Park, Beaver Creek vicinity, South Grove.
Smith, N. & G. Von Knopka, 05.518, 4-X-2005
43. *Rhododendron macrophyllum* D. Don
California, Mendocino Co.: Cameron Rd. 3.2 km. from its junction with Philo-Greenwood Rd., 213 m. elev. Pygmy forest with *Pinus muricata*, *Chrysolepis chrysophylla*.
Smith, N. & G. Von Knopka, 04.29, 16-VIII-2004.

FABACEAE

44. *Cercis occidentalis* Torr. & A. Gray
California, Humboldt Co.: 40° 43'26"N, 123° 43'49"W, Sugarloaf Mt., 1332 m. elev. Growing with *Ceanothus cuneatus*, *Pinus sabiniana*, *Toxicodendron diversilobum*, *Arctostaphylos*.
Smith, N. & G. Von Knopka, 05.27, 21-VII-2005.

GARRYACEAE

45. *Garrya buxifolia* A. Gray
California, Humboldt Co.: 40° 52'31"N, 123° 43'44"W, Six Rivers National Forest, Horse Mt., USFS Rd. 6N36, 8 km. from its junction with Titlow Hill Rd., 1470 m. elev.
Serpentinite, scattered on slope with *Arctostaphylos canescens*.
Forbes, H. & N. Smith, 0535, 13-IX-2005

GROSSULARIACEAE

46. *Ribes marshallii* Greene
California, Humboldt Co.: 40° 55'00"N, 123° 28'59"W, Six Rivers National Forest, N of Hawkins Bar, W of Happy Camp Mt., on USFS Rd. 6N10, 1438 m. elev. Locally abundant with *Symphoricarpos*, *Rubus*, *Ceanothus velutinus*, *Whipplea modesta*.
Forbes, H. & N. Smith, 0563, 14-IX-2005.
47. *Penstemon roezlii* Regel
California, Humboldt Co.: 40° 44'20"N, 123° 36'21"W, Sugarloaf Mt., 1275 m. elev.
Disturbed soil in opening with *Ceanothus integerrimus*, *Pseudotsuga menziesii*, *Quercus wislizenii* forest.
Smith, N. & G. Von Knopka, 05.26, 21-VII-2005.

HYDRANGEACEAE

48. *Whipplea modesta* Torr.
California, Humboldt Co.: Six Rivers National Forest, 85 km. E of Arcata via Hwy. 299, South Fork Rd. toward Hennessy Ridge, 350 m. elev. Common understory in mixed evergreen forest with *Pseudotsuga menziesii* and *Polystichum munitum*.
Forbes, H. & N. Smith, 0559, 14-IX-2005.

LAMIACEAE

49. *Stachys ajugoides* Benth. var. *rigida* Jeps. & Hoover
California, Humboldt Co.: 40°50'37"N, 123°31'07"W, Six Rivers National Forest, E of Arcata via Hwy. 299, South Fork Rd. toward Hennessy Ridge on USFS Rd. 6N31, 865 m. elev. Locally scattered in roadside seep on steep roadbank with *Anaphalis margaritacea*, *Whipplea modesta*.
Forbes, H. & N. Smith, 0562, 14-IX-2005.

LILIACEAE

50. *Chlorogalum pomeridianum* (DC.) Kunth
California, Humboldt Co.: 40°28'49"N, 124° 21'45"W, King Range, 275 m. elev. Locally abundant with *Grindelia stricta*, *Wyethia angustifolia* on open ridge.
Forbes, H. & N. Smith, 0579, 15-IX-2005.
51. *Clintonia uniflora* (Menzies ex Schult. & Schult.f.) Knuth
California, Calaveras Co.: Calaveras Big Trees State Park, along South Grove Trail, 1 km. up from intersection with road, adjacent to Big Tree Creek, 1495 m. elev. Rich forest of massive *Pinus lambertiana*, *Sequoiadendron giganteum*, *Abies concolor*, *Cornus nuttallii*.
Smith, N. & G. Von Knopka, 05.527, 4-X-2005

52. *Lilium pardalinum* Kellogg
California, Calaveras Co.: Calaveras Big Trees State Park, Beaver Creek vicinity.
Upstream from vehicle bridge.
Smith, N. & G. Von Knopka, 05.505, 3-X-2005
53. *Lilium pardalinum* Kellogg
California, Humboldt Co.: 40° 51'59"N, 123° 43'46"W, Six Rivers National Forest, Horse Mt., USFS Rd. 6N38, 1400 m. elev. Locally common near water-filled gully along rd. with *Eleocharis*, *Cirsium*, *Scirpus*, in *Pinus jeffreyi*/*Chamaecyparis lawsoniana* woodland.
Forbes, H. & N. Smith, 0541, 13-IX-2005
54. *Lilium pardalinum* Kellogg
California, Humboldt Co.: 40° 55'00"N, 123° 28'59"W, Six Rivers National Forest, N of Hawkins Bar, W of Happy Camp Mt., on USFS Rd. 6N10, 1438 m. elev. Common at lower end of meadow with *Rosa gymnocarpa*, *Salix*, *Whipplea modesta*, *Cornus sericea*, *Pseudotsuga menziesii*.
Forbes, H. & N. Smith, 0570, 14-IX-2005.
55. *Smilacina racemosa* Desf.
California, Calaveras Co.: Calaveras Big Trees State Park, Beaver Creek vicinity.
Occasional in *Calocedrus decurrens*/*Pinus ponderosa* forest.
Smith, N. & G. Von Knopka, 05.506, 3-X-2005
56. *Veratrum insolitum* Jeps.
California, Humboldt Co.: 40° 52'31"N, 123° 43'15"W, Six Rivers National Forest, Horse Mt., USFS Rd. 6N36, 1330 m. elev. Occasional in woodland of *Pinus lambertiana*, *Chamaecyparis lawsoniana*, *Pseudotsuga menziesii*, *Arctostaphylos* spp., *Quercus vacciniifolia*.
Forbes, H. & N. Smith, 0540, 13-IX-2005

ONAGRACEAE

57. *Camissonia cheiranthifolia* (Hornem. ex Spreng.) Raim. ssp. *cheiranthifolia*
California, Humboldt Co.: 40° 28'N, 124° 21'W, King Range, 1 m. elev. Uncommon on sand dune with *Ambrosia chamissonis*.
Forbes, H. & N. Smith, 0584, 15-IX-2005.
58. *Epilobium angustifolium* L.
California, Humboldt Co.: 40° 55'11"N, 123° 30'10"W, Six Rivers National Forest, N of Hawkins Bar, W of Happy Camp Mt., on road USFS Rd. 6N10, 1130 m. elev. Locally abundant on N-facing slope in full sun with *Rubus*, *Ceanothus velutinus*, *Alnus*.
Forbes, H. & N. Smith, 0573, 14-IX-2005.

PAPAVERACEAE

59. *Dicentra formosa* (Haw.) Walp.
California, Humboldt Co.: 40° 31'28.9"N, 123° 30'23.8"W, near peak of South Fork Mt., 1680 m. elev. On rock outcrop with *Penstemon*, *Pteridium aquilinum*, *Ceanothus integerrimus*.
Smith, N. & G. Von Knopka, 05.29, 21-VII-2005.

POACEAE

60. *Festuca californica* Vasey
California, Trinity Co.: 40° 53'13"N, 123° 39'35", USFS Rd. between Trinity Village and Zeigler Point, 549 m. elev. W-facing roadcut in shade of *Pseudotsuga menziesii*, *Arbutus menziesii*.
Smith, N. & G. Von Knopka, 05.12, 20-VII-2005.
61. *Festuca idahoensis* Elmer
California, Humboldt Co.: 40° 52'30"N, 123° 44'09"W, Six Rivers National Forest, Horse Mt. near summit on USFS Rd. 6N36, 1465 m. elev. Open *Pinus ponderosa* forest with *Calocedrus decurrens*, *Quercus vaccinifolia*, *Antennaria suffrutescens*.
Smith, N. & G. Von Knopka, 05.04, 20-VII-2005.
62. *Festuca rubra* L.
California, Humboldt Co.: 40° 55'00"N, 123° 28'59"W, Six Rivers National Forest, N of Hawkins Bar, W of Happy Camp Mt., on USFS Rd. 6N10, 1438 m. elev. Abundant along roadside edge of meadow with *Leymus triticoides*.
Forbes, H. & N. Smith, 0567, 14-IX-2005.
63. *Leymus triticoides* (Buckley) Pilg.
California, Humboldt Co.: 40° 55'00"N, 123° 28'59"W, Six Rivers National Forest, N of Hawkins Bar, W of Happy Camp Mt., on USFS Rd. 6N10, 1438 m. elev. Common in open grassy area with *Madia*, *Ceanothus velutinus*, *Achillea millefolium*.
Forbes, H. & N. Smith, 0564, 14-IX-2005.

POLYGONACEAE

64. *Eriogonum fasciculatum* (Benth.) Torr. & A. Gray var. *polifolium* (Benth.) Torr. & A. Gray
California, Kern Co.: Hwy. 178 near intersection with Hwy. 14, 1200 m. elev. *Yucca brevifolia* woodland with *Artemisia*, *Salvia dorrii*, *Pinus monophylla*.
Smith, N. 04.14, 7-V-2004.

RANUNCULACEAE

65. *Actaea rubra* (Aiton) Willd.
California, Calaveras Co.: Calaveras Big Trees State Park, Beaver Creek vicinity, North Grove. Growing in understory of *Pinus ponderosa*, *Sequoiadendron giganteum*, with *Cornus nuttallii*, *Fragaria vesca*.
Smith, N. & G. Von Knopka, 05.514, 3-X-2005

66. *Aquilegia formosa* Fisch. ex DC.
California, Humboldt Co.: 40° 50'20"N, 123° 43'15"W, Six Rivers National Forest, 5 km. S on Titlow Hill Rd. from its junction with USFS Rd. 6N38, 1466 m. elev. Scattered along rd. with *Pseudotsuga menziesii*, *Calocedrus decurrens*, *Ribes sanguineum* var. *glutinosum*, *Pteridium*.
Forbes, H. & N. Smith, 0550, 13-IX-2005

RHAMNACEAE

67. *Ceanothus cordulatus* Kellogg
California, Humboldt Co.: 40° 50'20"N, 123° 43'15"W, Six Rivers National Forest, Titlow Hill Rd. 5 km. S of junction with USFS Rd. 6N38, 1466 m. elev. With *Ribes sanguineum* var. *glutinosum*, *Sambucus mexicana*, *Aquilegia formosa*.
Forbes, H. & N. Smith, 0551, 13-IX-2005.
68. *Ceanothus cuneatus* (Hook.) Nutt. var. *cuneatus*
California, Humboldt Co.: 40° 52'30"N, 123° 43'44", near Horse Mt. summit on USFS Rd. 6N36, 1463 m. elev. Prostrate form in *Pinus ponderosa* forest with *Quercus vaccinifolia*, *Arctostaphylos viscida* ssp. *pulchella*.
Smith, N. & G. Von Knopka, 05.07, 20-VII-2005.
69. *Ceanothus integerrimus* Hook. & Arn.
California, Humboldt Co.: 40° 55'56"N, 123° 31'54", near Zeigler Point, 937 m. elev. Nice population with *Eriophyllum lanatum*, *Lonicera*, *Iris* in grassy opening of *Pseudotsuga menziesii*, *Arbutus menziesii*, *Acer macrophyllum* forest.
Smith, N. & G. Von Knopka, 05.16, 20-VII-2005.
70. *Ceanothus integerrimus* Hook. & Arn. var. *macrothyrsus* (Torr.) G.T. Benson
California, Humboldt Co.: Six Rivers National Forest, 85 km. E of Arcata via Hwy. 299, South Fork Rd. toward Hennessy Ridge, 350 m. elev. Common along road with *Lonicera hispidula* var. *vacillans* and *Baccharis pilularis* var. *consanguinea*.
Forbes, H. & N. Smith, 0558, 14-IX-2005.
71. *Ceanothus velutinus* Douglas
California, Humboldt Co.: 40° 48'05"N, 123° 36'41", vicinity of Hogback Ridge, USFS Rd. 6, 962 m. elev. Margin of *Pseudotsuga menziesii*/*Arbutus menziesii* forest.
Smith, N. & G. Von Knopka, 05.22, 21-VII-2005.
72. *Rhamnus californica* Eschsch.
California, Calaveras Co.: Calaveras Big Trees State Park, Beaver Creek vicinity. Growing at edge of meadow with *Rhododendron occidentale*.
Smith, N. & G. Von Knopka, 05.516, 3-X-2005

ROSACEAE

73. *Antennaria suffrutescens* Greene
California, Humboldt Co.: 40° 52'31"N, 123° 43'44"W, Six Rivers National Forest, Horse Mt., USFS Rd. 6N36, 8 km. from its junction with Titlow Hill Rd., 1470 m. elev. Common on N-facing slope with *Arctostaphylos canescens*, *Calocedrus decurrens*, *Pseudotsuga menziesii*, *Quercus vaccinifolia*.
Forbes, H. & N. Smith, 0533, 12-IX-2005.
74. *Heteromeles arbutifolia* (Lindl.) M. Roem
California, Napa Co.: N of Calistoga, Old Lawly Rd. Abundant in mixed *Quercus kelloggii*/*Pinus sabiniana* woodland.
Smith, N. & G. Von Knopka, 05.534, 3-X-2005
75. *Holodiscus discolor* Maxim.
California, Humboldt Co.: 40° 53'12"N, 123° 46'03"W, Titlow Hill Rd. Scattered along rd. on E-facing roadbank with *Acer macrophyllum*, *Pseudotsuga menziesii*, *Polystichum munitum*.
Forbes, H. & N. Smith, 0531, 12-IX-2005.
76. *Potentilla glandulosa* Lindl.
California, Calaveras Co.: Calaveras Big Trees State Park, Beaver Creek vicinity. Common in moist meadow.
Smith, N. & G. Von Knopka, 05.512, 3-X-2005
77. *Potentilla gracilis* Douglas ex Hook. ssp. *fastigiata* (Nutt.) S. Watson
California, Calaveras Co.: Calaveras Big Trees State Park, along North Rim Road, on bank of Big Trees Creek at intersection of road, 1495 m. elev. Occasional in *Pinus ponderosa*/*Calocedrus decurrens* forest with *Thysanocarpus*, *Alnus*, *Ceanothus integerrimus*, *Keckiella breviflora*.
Smith, N. & G. Von Knopka, 05.525, 4-X-2005
78. *Rosa gymnocarpa* Nutt.
California, Humboldt Co.: Six Rivers National Forest, 85 km. E of Arcata via Hwy. 299, South Fork Rd. toward Hennessy Ridge on USFS Rd. 6N31, 350 m. elev. Locally common in roadside seep on steep roadbank with *Salix*, *Pseudotsuga menziesii*, *Ribes sanguineum* ssp. *glutinosum*, *Acer macrophyllum*.
Forbes, H. & N. Smith, 0561, 14-IX-2005.
79. *Sorbus scopulina* Greene var. *cascadensis* (G.N. Jones) C.L. Hitchc.
California, Humboldt Co.: 40° 55'00"N, 123° 28'59"W, Six Rivers National Forest, N of Hawkins Bar, W of Happy Camp Mt., on USFS Rd. 6N10, 1438 m. elev. Single individual on edge of meadow with *Salix*, *Ribes marshallii*, *Alnus*.
Forbes, H. & N. Smith, 0568, 14-IX-2005.

80. *Spiraea densiflora* Torrey & A. Gray
California, Humboldt Co.: 40° 51'59"N, 123° 43'46"W, Six Rivers National Forest, Horse Mt., USFS Rd. 6N38, Mine Shaft Creek, 1400 m. elev. Common with *Rhododendron occidentale*, *Chamaecyparis lawsoniana*.
Forbes, H. & N. Smith, 0543, 13-IX-2005

SAXIFRAGACEAE

81. *Heuchera micrantha* Douglas ex Lindl.
California, Humboldt Co.: 40° 55'18"N, 123° 31'08"W, Zeigler Point Rd., 879 m. elev. On steep W-facing slope in *Pseudotsuga menziesii*, *Arbutus menziesii*, *Acer macrophyllum* forest with *Rubus parviflorus*, *Polystichum munitum*.
Smith, N. & G. Von Knopka, 05.14, 20-VII-2005.
82. *Tellima grandiflora* R. Br.
California, Humboldt Co.: 40° 52'24"N, 123° 43'33"W, 3.2 km. E of junction with Titlow Hill Rd. and USFS Rd. 6N36, 1372 m. elev. N-facing slope in shade with *Corylus cornuta*, *Acer macrophyllum*, *Polystichum munitum*.
Smith, N. & G. Von Knopka, 05.10, 20-VII-2005.

SCROPHULARIACEAE

83. *Keckiella breviflora* (Lindl.) Straw
California, Calaveras Co.: Calaveras Big Trees State Park, along North Rim Road, on bank of Big Trees Creek at intersection of road, 1495 m. elev. Occasional in *Pinus ponderosa*/*Calocedrus decurrens* forest with *Thysanocarpus*, *Alnus*, *Ceanothus integerrimus*, *Potentilla gracilis*.
Smith, N. & G. Von Knopka, 05.527, 4-X-2005
84. *Penstemon* aff. *anguineus* Eastw.
California, Humboldt Co.: 40° 50'20"N, 123° 43'15"W, Six Rivers National Forest, Titlow Hill Rd. 8 km. S of junction with USFS Rd. 6N38, 1450 m. elev. Locally common in coniferous forest with *Pseudotsuga menziesii*, *Adenocaulon bicolor*, *Abies* spp., *Ribes* sp.
Forbes, H. & N. Smith, 0552, 13-IX-2005.
85. *Penstemon laetus* A. Gray
California, Calaveras Co.: Calaveras Big Trees State Park, Beaver Creek vicinity. Growing in rocky openings in *Pinus ponderosa* woodland with *Arctostaphylos patula*.
Smith, N. & G. Von Knopka, 05.501, 3-X-2005
86. *Penstemon newberryi* A. Gray ssp. *berryi* (Eastw.) Keck
California, Humboldt Co.: 40° 31'29"N, 123° 30'23.8"W, near peak of South Fork Mt., 1680 m. Growing with *Penstemon*, *Pteridium aquilinum*, *Ceanothus integerrimus*
Smith, N. & G. Von Knopka, 05.30, 21-VII-2005.

87. *Penstemon roezlii* Regel
California, Humboldt Co.: 40° 44'20"N, 123° 36'21"W, Sugarloaf Mt., 1275 m. elev.
Disturbed soil in opening with *Ceanothus integerrimus*, *Pseudotsuga menziesii*, *Quercus wislizenii* forest.
Smith, N. & G. Von Knopka, 05.26, 21-VII-2005.

VERBENACEAE

88. *Verbena lasiostachys* Link
California, Humboldt Co.: 40° 55'00"N, 123° 28'59"W, Six Rivers National Forest, N of Hawkins Bar, W of Happy Camp Mt., on USFS Rd. 6N10, 1438 m. elev. Scattered with *Leymus triticoides*, *Achillea millefolium* in open grassy area.
Forbes, H. & N. Smith, 0565, 14-IX-2005.