

the

11350 - 11517

3 IN. x 5 IN. 90 SHEETS

45-4292

an Mead Product

Mead Manufacturing Co., Dayton, Ohio 45402

\$ 10.00 REWARD

for return
to

Arthur Cronquist

New York Botanical Garden

Bronx, N.Y. 10458.

Scientific data, of
no commercial value.

11350 = 9 May, 1976

Grand Co., Utah

With juniper, sagebrush
and Atriplex on a
substrate of sandstone
and pebbly conglomerate.
Shortly east of Harley
Dam, in the first low
hills ~~on~~ west of the Colo-
rado state line. Twp.
19S, R. 26E

Bracts scarlet. Elev ca
1400-1450m.

Castilleja chromosa A. Nels.

det. Noel H. Holmgren

Castilleja (4) V601

11351 - 9 May, 1976

Grand Co. Utah

Same place as 11350,

Stems solitary or
occasionally paired.

Petals rather light
pink or pink-lavender
at first, soon turning
white.

Arabis pulchra M. E. Jones ex S. Wats.

var. *pallens* M. E. Jones ✓

Arabis pulchra var. (4)

11352 - 12 May, 1976.

Sevier Co., Utah. With
sagebrush, *Atriplex*, and
juniper in rocky clay
soil over shale sub-

strate, ~~Twp. 20S, R1E~~

in low foothills ca
5 km east of ~~Redmond~~ ^{Axtell}

Twp. 20S, R1E, Elev.

ca 1600 m. Flowers
pink.

Phlox longifolia Nutt. ✓

var. *longifolia* ✓

Phlox stuarti (10)

11353 12 May, 1976

Sevier Co., Utah.

Same place as 11352.

Bracts ranging from
vermillion-red through
scarlet to crimson.

Castilleja chromosa A. Nels.
det. Noel H. Holmgren

Castilleja aff. *chromosa* (10)

11354 12 May, 1976.

Sevier Co., Utah.

Around the edges of
barren, seleniferous
clay slopes, in foothills
ca. 5 km. east of ~~Redmond~~ ^{Axtell.}

~~Tr. Redmond~~, Trwp.
S. R. 1E, Elev. ca. 1600m.

Leaves blue-green, appear
glaucous. Peduncles
& prostrate. Wings of
the fruit white to
pinkish.

Sympterus coulteri

(M.E. Jones) Mathias

Sympterus (6)

11355 12 May, 1976

Sevier Co., Utah.

Same place as 11354.

Growing with #11354,

C. coulteri (M. E. Jones) Watkins,

but with brighter green,
more dissected leaves,

and more stiffly ascend-
ing peduncles. Stamens on
an old flowers yellow.

Cymopterus rosei

M. E. Jones

Cymopterus ①

11356 12 May, 1976;

7 June, 1976.

Senier Co., Utah. Along

a north-trending wash
at the east foot of the
mountains, ca. 19 km
south-southwest of Emery.
Twp. 23S., R. 5E, near corner
of S. 27, 28, 33, 34. Elev.
ca. 1950 m. Trees varying
from narrow-headed to
broad-headed. ^{Young} Leaves glutin-
ous and shiny green on
both sides, varying in
shape from as in *P. angustifolia*
to ~~as in~~ as in *P.*
fraxinifolia. (over)

11356 (cont'd).

Primary style branches
2, rarely 3.

Hybrid sensu:

Populus angustifolia James
X

P. fremontii S. Wats. ✓

Populus "acuminata" (5)

11357 - 12 May, 1976

Emery Co, Utah. Generally

gentle slopes in ~~open~~

open piñon-juniper

scrubland on the north

flank of the San Rafael

Swall, ca. 28 km.

southeast of Moore.

Temp. 22.5, R. 9E., S. 33.

Elev. ca. 2000 m.

Bracts brown, vermilion

red to scarlet

Castilleja scabrida Eastw. ✓

det. Noel H. Holmgren

Castilleja (10) 95.7

11355 - 13 May, 1936

Emergy Co. vital. Cloudy
evening temp, sandy
soil in the same

habitat desert ca 2

km. West of Little

Flat top, ca ~~600~~

~~km~~ ca 30 km.

airline northwest of

Hambouille. Twp. 26S,

Range 13E, S 14.

Flora ca. 1600m. Sclerophyllous

colonial ~~shrub~~ shrubs ca

4-5 m tall. ✓

Quercus gambelii Nutt. ✓

Quercus 18

1135 7/13 May, 1976

Wayne Co., Utah

In sandy soil of San Rafael
desert, ca. 70 km airline
south of Hatch, New Mexico

Temp. ²⁸ 7:5, ¹⁵ 1:5

~~alt. 29 S.S. 2~~
~~8~~

1700 m.

Stems numerous
clustered on a taproot
and branching caudex.
Flowers blue.

Lupinus argenteus Pursh

Lupinus (10)

11360 13 May, 1976

Wayne Co., Utah,

Same place as 11359.

Stems numerous and

loosely ascending from

a taproot and branched

under. Flowers

pink-purple.

Astragalus mollissimus ✓

Torrey

var. *thompsoniae* (S. Wats.) Barneby

det. R. C. Barneby

Astragalus mollissimus (10)

11361 - 13 May 13, 1976

Wayne Co., Utah, Lava

place no 11359, Flammery

light pink-lavender.

Pods ~~are~~ inflated,

largely red-brown.

Astragalus ceramicus
sheld.

var. *ceramicus*

det. R. C. Barneby

Astragalus root Phoca ①

11362 13 May 1976

Wayne Co., Utah.

Same place as 11359.

Flowers white.

Only one plant seen.

Dimorphocarpa wislizenii

(Engelm.) Rollins

Mustard ①

11363 - 14 May, 1976

Wayne Co., Utah

In sandy soil of open
juniper-juniper wood-
land ca 85 km. distance
south of the river.

Twp. 29S, R. 16E, ~~16E~~

S. 32. Elev. ca. 1900 m.

Rays on well developed
~~plant from~~ heads

from ca. 13 to ca. 21,

poorly developed, nearly
white above.

Townsendia incana Nutt.

Townsendia (3) (5)

11354 - 14 May, 1976

Wayne Co., Utah,

Same place as 11163.

Flowers white

Phlox hoodii Richardson

var. *canescens* (T. & G.) M. E. Peck

Phlox hoodii (4)

11365 - 14 May, 1972

Sheffield Co, W. Va.

In sandy soil between
massive sandstone
cliffs near the bottom
of Flint Cove, ca 100+
km. south of
Hazard River. Twp.

30 $\frac{1}{2}$ S, R. 16 E., S. ~~26~~ 35

Elev. ca 1900 m.

Pinguicula vulgaris com-
monly. Stems numer-
ous, loosely ascending
from an eventual top
root. Bonner lavender;
winged seed pod people.

1365 - could.

Astragalus nidularius
Barneby

det. R. C. Barneby



Astragalus



11366 - 14 MAY, 1976

Garfield Co., Utah.

In open piñon-juniper
scrubland on red sandstone
substrate near the bottom
of Flint Cove, ca 100 +
km. airline south of
Green River. Twp. 30 1/2
S., R. 16 E., S. 36. Elev.
ca. 1800m.

Flowers yellow.

Lesquerella rectipes Wooton
+ Standley ✓

Lesquerella (3)

11367 - 14 May, 1975

Wasatch Co., Utah

Same place as 11366.

Leaves glaucous.

Petals dull purple

Streptanthus cordatus Nutt.

Streptanthus (10)

11368 - 14 May 1976

Garfield Co., Utah

Sandy soil in piñon-juniper
woodland ca. 3 km north

of Tropic. Elevation 1007

km. Airline south of

Green River. Near

the ~~south~~ southwest

corner of S 36, T 30

30 $\frac{1}{2}$ S, R. 16 E. Elev.

ca. 1850 m. Plants

single-stemmed. Leaves

somewhat glaucous. Flowers

light yellow.

Caulanthus divaricatus Rollins

aff. *standleyi* (7)

11369 14 May, 1976

Carpenter Co., Utah

Same place as 11358.

Flowers purplish.

Pods firm-inflated,
strictly unilocular.

Astragalus preussii A. Gray

var. *preussii* ✓

det. R. C. Barneby

Astragalus (3)

11370 14 May 1976

Wasatch Co., Utah

Sandy clay soil

~~Phacelia~~

~~11370~~

Astragalus amphioxus

A. Gray

var. *amphioxus*



det. R.C. Barneby

Astragalus (D)

11371 - 14 May, 1976.

Wasatch Co. Utah.

Sandy clay pits in
collapsing zone just
west of Waterhole Flat,
ca 110 km airline south
of Green River. Twp 31S,
R. 16E, S. 28 ~~23~~. Elev.
ca 1600 m. Tepals white
with a yellow green
glare.

Zygadenus paniculatus S. Wats.

Zygadenus

④

11372 - 14 May, 1976

Garfield Co., Utah.

Juniper - Coleogyne zone
below sandstone cliffs
of Black Lodge, ca 110 km.
airline south of Green River

Trsp. 325, R. 16E, S. 8⁵.

Elev. ca 1600 m.

Flowers pale lavender

Allium macropetalum
✓ Rydb.

Allium complanatum (10)

11374 15 May 1972

Surf of C. stone

Same place as 11373

Flowers yellow

Physaria australis (Payson)

Rollins



Physaria (8)

11375 15 May, 1976

Garfield Co., Utah

Same place as 11373.

Petals pale chloro-

green, tinged with

light purple toward

the summit outside.

Stamens purple.

Asclepias cryptoceras

S. Wats.

var. *cryptoceras* ✓

Asclepias

(2) ✓

11376 - 19 May 1976

Garfield Co., Utah. Sandy
soil in

Pinus jeffreyi - *Collegium*

zone, ca 120 km. airline
south of Green River

Twp. 32 S., R. 15 E., S. 36.

Eleve ca 1600 m. Stems

numerous on a stout tap-
root and branching caudex.

Flowers pale, ochroleucous
except for the dark purple
tips of the lobes.

Aster praelongus Sheld.

var. *praelongus*

det. R. C. Barneby

Asplenium patersonii (5)

11377 15 May, 1976

~~Coleogy~~ ~~Godwin~~ ~~Utah~~

Coleogyne deserti under

weathered massive sand

stone cliffs, shortly

north of the Colorado

Plateau Canyon and ca

125 km. airline south of Green

Kincaid. Twp. 37½ S. R. 15 E.

Elev. ca 1400 m.

Plants annual. Flowers

blue-purple, the ~~both~~

banner with a central

white spot.

Lupinus pusillus Pursh

var. *rubens* (Rydb.)

(10)

11378-15 May, 1976.

Garfield Co., Utah.

Same place as 11377.

Gland-appendages white
or slightly pinkish,
sometimes 5 and sym-
metrically arranged, but
often one reduced or
absent, the fruit hang-
ing out through the gap.
Deep-rooted perennial.

Euphorbia fendleri T. & G.

Euphorbia

(44)

11379 15 May 1970

Wasfield Co. Utah
Same place as 11377.

Perennial with woody-
fibrous roots. Upper
petals white, the
flowers otherwise
blue-purple.

Delphinium scaposum

Greene

Leaves 1 (6)

11380 - 15 May, 1976.

Garfield Co., Utah,

Same place as 11377.

Corolla distinctly
funnel-form, rather
than salver-form,
white, with small,
pale yellow eyes.

Nutlets deeply rugose-reticu-
late on both dorsal and
ventral surfaces, with a
long, wide-open scar bordered
by a raised rim.

Cryptantha tenuis (Eastw.)

Payson

Cryptantha (5)

11381 15 May, 1976

Yrsfield Co, Utah

Sandy soil in Coleogyne
zone. Below pin massive
sandstone cliffs ~~shortly~~
shortly north of the
Colorado River Canyon
and ca. 125 km. airline

south of Green River. Twp. 32 $\frac{1}{2}$ S.

R. 15 E. N. Elevation 1400 m.

Heads yellow, rays

3-14, 1-1.5 cm. long.

Hymenoxys leptoclada

(A. Gray) ✓

Hymenoxys (10)

11382 - 15 May 1936

Garfield Co, Utah

Same place as 11381.

Banner lavender;
ovary and keel rich
~~pink~~ pink purple.

Astragalus

monumentalis Barnaby

det. R. C. Barnaby ✓

Astragalus 9

(10)

11383 - 15 May, 1976

Garfield Co., Utah

Sagebrush zone below
massive sandstone cliffs
shortly north of the
Colorado River Canyon,
ca 130 km airline south
of Grand River.

Trsp. 335, R14E, S.1.

Slav. ca. 1400 m.

Branching shrubs up to 5
or 6 dm tall. Rays (15)

18-22 (23), lavender, 13-20 mm ^{long}

Machaeranthera tortifolia (T. & G.) Cronq. ✓
tax

var. *umbellata* Cronq.

Machaeranthera tortifolia
no umbellata 10

11384 - 17 May, 1976
Emery Co., Utah

Low brush, shallow clay
wash in the desert ca.
16 ^{airline} mi. east of Castle
Lake. Twp. 19S., R. 10E.,
about S. 7 or 8.

Fls. ca. 1700 m.

Stems numerous, loosely
ascending, clustered
at top and branching
out. Flowers ochraceous.

~~Fruit~~ Faint coloration? ✓

Astragalus flavus Nutt.
var. *flavus*

det. R. C. Barneby
Astragalus (10)

11385 - 17 May, 1976

Duchesne Co. Utah

On shaly sandstone
slopes with sagebrush

and bunchgrass ^{in Frank's Canyon} ca 5 km

~~is by~~ ~~in~~ ~~the~~ ~~vicinity~~ ~~of~~ ~~the~~ ~~mouth~~ ~~of~~ ~~Nine~~ ~~Mile~~ ~~Canyon~~

and north of Nine Mile Can.

Yon, and ca 40 km airline

south of ~~the~~ ~~town~~ ~~of~~ ~~Mayton~~, ~~Trup.~~

115, R. 16E, S. 26

Elev. ca 1650 m.

215

Plants single-stemmed.

Herbage glaucous. Petals

very pale lavender blue
with a little more
colored.

Pads end to curved-
spreading

Thelypodopsis

wyomingensis (A. Nels.) Rydb. ✓

Archie (2)

Elyptis *Flavoculata* (A. Nels.)

Payson

11386 - 17 May, 1976

~~Utah~~ Duchesne Co. Utah

rocky, gravelly soil on
sandy sandstone substrate

in ~~sandy~~ bunch grass
(along sand wash)

35 km.

line southeast of Payson

Twp. 11 S., Range 17 E.,

about S. 15. Elev. ca.

200 m. Stems clustered

on a ~~rock~~ and branching

crude. Corolla salverform,

with a flat, white (in age

oblong) limb and an

evident yellow eye. Maturing

netlets evidently raised ~~in~~ ~~the~~ ~~margin~~ on
both sides; scar with an elevated margin

Elyptis *Flavoculata* Nels. at top

11387 - 17 May, 1976.

Duchesne Co., Utah

Along the bottom of a
sandy, gravelly dry wash
leading into Sand Wash, in
sagebrush-bunchgrass
country ca 35 km. aerial
southeast of Mayton. Twp.
11S. R. 17E., about S. 15.

Elev. ca. ~~1400~~ ¹⁷⁰⁰ m. Stems numerous,
curved-ascending from taproot and
branching caudex. Flowers
blue-purple, the lower
with a large central pale spot.
Lupinus wyethii S. Wats. ✓

Specimens (10)

11388 - 18 May, 1976

Becker Co., Utah, sandy
gravelly slopes ^{on} shaly
sandstone substrate in
sagebrush-bunchgrass
community along Sand
Wash, ca 35 km. inland
southeast of Heyton,
Twp. 11 S., Range 17 E.,
about S. 15, Elev. ca.
1700 m.

Flowers light pink

Phlox longifolia Nutt. ✓
var. *longifolia*

Phlox longifolia (b)

11389 - 18 May, 1976

Duchesne Co., Utah.

Same place as 11388.

Petals ~~white~~ obcordate,
white, withering
pink.

Oenothera caespitosa

Muhl.

var. *jonesii* Munz ✓

Oenothera sp. *caespitosa* (6)

11390 - 18 May 1976

Same place as 11388

except elev. ca.

1750 m. Bracts
vermillion - red to
scarlet.

Castilleja chromosa

A. Nels.

det. Noel H. Holmgren

Castilleja

(9)

(1)

11391-18 May, 1976 -

Same place as 11388.

Flowers rich pink-purple

Astragalus

chamaeleuce A. Gray

det. R. C. Barneby

Astragalus

~~4~~

(4)

11392. 18 May, 1976

Duchesne Co., Utah. In gravelly
soil over shaly sandstone
substrate in sagebrush-
-bunchgrass community,
along Sand Wash, ca. 35
km. southeast of Helper.
Twp. 11 S., R. 17 E., about S.
15 Elev. ca. 1700 m.

Plants spreading and becoming
colonial by long, slender,
horizontal roots. Herbage
glaucous. Flowers yellow.

Schoenocrambe *viridis* (Gray)

Greene

Schoenocrambe (12)

11593 - 18 May, 1976.

Duchesne Co., Utah.

Same place as 11392.

Stems clustered on a
taproot and branching
erect. Flowers white,
inconspicuously marked
with purple.

Oxytropis sericea Nutt.
det R.C. Barneby

Oxytropis (5) 218

11394-20 May 1976

Unifab Co. Calif.

with *Sarcobatus* on

sandy clay slopes

along a broad wash

ca 11 km southeast of

Jensen, Twp. 25, R.

24E, S. 50+7.

Elev. ca. 1550 m.

Rays white, on 7 heads

33, 46, 49, 71,

84, 83, 96 in number.

Erigeron engelmannii A. Nels.

var. *engelmannii* ✓

Erigeron engelmannii

(10)

11395 20 May 1976.
Montezuma Co., Utah.

Samuelson 11395
Petals white to deep
pink-lavender, with
a slim red crescent
near the top of the
yellow bract area.

Calochortus nuttallii
T. & G.

Calochortus

(5)

11396 - 20 May 1976

Uintah Co, Utah. Rocky
dry slopes, about where
Thomas's grassway to
triplex and ~~to~~ Sarcoc
patens low. ca 11 km
southeast of Jensen Trp.
T.S., R. 245, S. 5 or 7.
Elev. ca 1550m.

Flowers white

Allium textile Nutt.

Mexico ✓

Allium textile (6)

11397 - 70 May 1916

Montana Co, Idaho with
scattered junipers

in red clay knolls

25 ²⁵ ~~mi~~ ^{mi} north of
Laramie

Laramie

July 75, P. A. H. C. 1.

Clay ca 1600 m.

Penstemon fremontii Torr. & Gray

det. Noel Holmgren

Penstemon (7)

11398 20 May 1976

Montah Co. Utah

Same place as 11397.

Plants notably small,
and small-flowered.

Corolla white with
a yellow eye. Only one
or two mitlets maturing.

Mature mitlet evidently
longer to barely shorter
than the style, strongly
recurved basally dorsally,
more tuberculate ventrally.

Cryptantha humilis (A. Gray) Payson
var. *nana* (Eastw.) *humilis*

Cryptantha

11399 - 20 May, 1976

Uintah Co., Utah.

Same place as 11397.

Leaves blue-green, soft and brittle.

Flowers yellow.

Cymopterus duchesneensis

M. E. Jones

Cymopterus (6)

11400 - 20 May, 1976

Hintah Co., Utah

Same place as 11397.

Leaves green, not glaucous.

Flowers yellow.

Cymopterus purpureus

S. Wats.

John S. Wats. (5)

~~11401~~ 11401 - 20 May, 1976,

Uinta Co., Utah.

Same place as 11397.

Fl. Aging flowers white
or ochroleucous
with a purple-tipped
keel.

Astragalus purshii Dougl.

var. *purshii*

det R. C. Barneby

Astragalus (7)

1140 L 20 May, 1976.

Monte Co., Utah.

Sample # 1397.

Flowers yellow.

Physaria australis ✓
(Payson) Rollins

Physaria (10)

11403 - 20 May, 1936.

Uintah Co., Utah.

Same place as 11397.

Plants very densely
caespitose on a coarse,
woody taproot. Heads
yellow. Rays (6-) 8(-10).

Haplopappus armerioides
(Nutt.) A. Gray

Haplopappus armer (5)

11404 - 21 May, 1970
O Uintah Co., Utah,
along a shaly sandstone
ridge in sagebrush
country ca 7-8
km south of Cliff Ridge
and ca 40 km, airline
west of + 5 km, Twp.
15, R. 25E, ca. S. 19. Elev.
ca. 1600 m. Rays white,
15-34, often 21

Machaeranthera venusta ✓

(M. E. Jones) Cronq. & Keck

(8)

Machaeranthera venusta

11405 - 21 May, 1976

Hinckley Co., Utah

In sandy soil of shallow
draw in sagebrush

Country - - as in 11406

Flowers dark blue or
sometimes purple, the
upper petals somewhat
paler, heavily ribbed
on light background

Stem very delicately attached
to the cluster of short,
tuberous thickened roots.

Delphinium nuttallianum Pritzl

ex Walpers

Delphinium

10 ✓

11406 21 May, 1976

Wirtsh Co. Utah

Same place as 11404

Rays ca 12-22, light
pinkish, nearly white.

Townsendia incana Nutt.

/

✓

Townsendia

(D)

11407 - 21 May, 1976.

Same place as 11404.

Flowers pink-purple.

Astragalus chamaeleuce

A. Gray

det. R. C. Barneby

✓ ✓

Astragalus (5)

11458 21 May, 1976

Same place as 11404.

Flowers light yellow,
fading to ochraceous
in age.

Cynopterus fendleri

A. Gray



391

Cynopterus (4)

17409-23. May, 1976

Emery Co., Utah. Sandy,
gravelly soil in piñon-
-juniper woodland on the
San Rafael Swell south
of Eagle Canyon, ca 25 km.
airline southeast of
Throne. Twp. 22S., R. 9E., S. 33.

Elev. ca. 2100 m. Rays
on 12 heads 28, 32, 35, 38,
39, 39, 40, 40, 42, 55, 56,
60, blue-lavender or
nearly white.

Erigeron pumilus Nutt.

Suaeda concinoides Cronq.

van condensatus (P.C. Eati

Cronq.

(11)

Eragrostis pectinacea & *condensata*

11410 - 23 May, 1976

Emery Co., Utah.

Same place as 11409

Scapes solitary to
several or numerous.

Heads yellow. Rays
mostly ca 13, seldom
as few as 8.

Hymenoxys acaulis (Fursh)

K.T. Parker

var. *arizonica* (Greene)

K.T. Parker

Hymenoxys acaulis (10)

11411 - 23 May, 1976.

Erving Co., Utah

Same place as 114109.

Flowers white, with
a yellow eye stems
clustered, ascending.

Nutlets rugose-tuberculate
on both sides, the long,
open scar with a con-
striction below the
middle and bordered by a
raised rim.

Cryptantha flavoculata

(A. Nels.) Payson

Cryptantha

(10)

11412 - 23 May, 1976

Emery Co., Utah,
Same place as 11409.

Stems numerous, closely
clustered, short.

Flowers yellow,

Lesquerella alpina (Nutt.) ✓

S. Wats

var. *alpina*

small *Lesquerella*

10

11413 - 23 May, 1976

Emery Co, Utah
Stems few, rather
widely ascending.
Flowers yellow
Sample 11409

Lesquerella kingii S. Wats.
subsp. *latifolia* (A. Nels.) ✓

Rollins + Shaw

larger *Lesquerella* (7)

11414 - 23 May, 1976
Emery Co., Utah
Same place as 11409.
Ray white above,
pinkish beneath,
mostly ca 13, ranging
downward to a
minimum of 8.

Townsendia incana Nutt.

Townsendia

(4)

11415-23 May, 1976
Emery Co, Utah.

Same place as 11409.

Flowers pinkish.

Plants mostly not
flowering this year.

Chamaeneris

scaposa (Eastw.) Rydb.

✓

Chamaeneris (2)

11416 - 23 May, 1976,

Emery Co., Utah

Same place as 11409.

Flowers lavender,

the banner with a

central pale spot.

Pods thick walled, with

a small central cavity.

Astragalus cymboides

M. E. Jones

det R. C. Barneby ✓

Astragalus

(6)

11417. 24 May, 1976

Emery Co., Utah. In sandy

clay soil with scattered

shrubs along broad,

low ridge just northwest

of South Salt Wash,

ca. 20 km. airline

southeast of H. coal. Twp.

225 R. 5E, S. 24. 5 km.

ca. 1850 m. Corolla limb

white with a yellow eye,

relatively large, 12-15 mm.

wide. Subanther nectlets

smooth and shining,

tending to be slightly

separated at the

sharp margins.



Cryptantha johnstonii

Higgins

10
Cryptantha aff. jamesii

11418. 24 May, 1936.

Emery Co., Utah, Shale,
sandy clay gentle slopes
with *Atriplex*, *Artemisia*,
and *Ephedra* just north
east of Smooth Salt Wash
--- grows in 11417.

Leaves entire to
slightly pinnatifid.
Flowers white.

Gilia congesta Hook.

var. *congesta*, passing to

var. *frutescens* (Kydb.) Cronq.

Gilia (10)

11419 - 24 May, 1976

Emery Co., Utah

Same place as 11418

Astragalus mesiniensis

M. E. Jones

det. R. C. Barneby

Astragalus (2)

11420 - May, 1975.

Emery Co., Utah, on
barren shaly clay
slopes with scattered
Artemisia, *Atriplex*, and
Ephedra, just northwest of
South Salt Wash, ca 20
mi. airline southeast of
Moose Trap 225, R. 8E, S. 14.

Elev. ca 1800 m. Plants
slightly odorous. Corolla
~~to~~ pale lavender, the
erect filaments more
strongly lavender-purple.

Phacelia crenulata Torr., sens. lat.
(*P. rosariensis* Atwood)

Phacelia crenulata (10)

11421 - 24 May, 1976.

Emery Co., Utah. In shallow washes in barren clay hills with scattered Artemisia, Atriplex, and Ephedra --- as in 11420. Leaves blue-green blue glaucous, banner ochroleucous, the wings and keel lavender-purple.

Astragalus asclepiadoides

M. E. Jones

det. R. C. Barneby

Astragalus asclepiadoides

(10)

11422-24 May, 1976

Emery Co., Utah. Same

place as 11420. Stems

densely clustered on a

coarse, woody taproot

and branching caudex.

Leaves blue-green.

Blades 4, yellowish,

toothed across the other

wise truncate tip, the

2 marginal teeth the

largest.

Euphorbia paimeri Engelm.

Var. *subpubens* (Engelm.) L. C. Wheeler

Wheeler

Euphorbia

(5)

(10)

✓

11425 24 May, 1976.

Emery Co., Utah. Barren
clay slopes and flats
beneath Coal Cliffs,
ca 5 km. airline
southeast of Mason.

Traps 21 or 225, 12.

7 E. Elev. ca 1850 m.

Herbage somewhat
glaucous. Flowers
light yellow. Pals
erect to widely spreading

Caulanthus divaricatus Rollins

aff. *stans* (4) ✓

11426- 25 May, 1976

Grand Co., Utah.

Abundant in clayswale
between halves of

Interstate Highway 70,

in Grand Valley,

ca 88 km. by road east

of Green River, in striped

soil. Plants abundant at

this station, but not

seen outside the highway

right-of-way, Fremont

Twp. 20S, R. 74E. Elev. ca

1350 m. *Penstemon moffatii*

Eastw. var. *moffatii*

Penstemon

(10)

det Noel

H. Holmgren

1147, 25 May, 1944

Mesa Co., Colorado

Cay and *Atriplex* - Salt

valley desert just east

of West Salt Lake,

ca 15 km. airline north

west of Wash. Lake

~~Thompson~~ *Thompson*

Temp. 95., R. 104% ^{About 3:41.}

ca 1400m.

Flowers bright white.

Bracts dull pinkish or
whitish

Abronia elliptica A. Nels.

Abronia (11)

11428. 25 May, 1976.

Mesa Co., Colorado Along
a dry wash in Atriplex -
- Sarcobatus desert just
east of West Cold Creek,
ca. ¹³ ~~15~~ km. airline northwest
of Wash. Twp 9S, R 104W.
Elev. ca. 1400 m.

Openly branched spiny
shrub ca. 6 dm. tall.
Flowers yellow.

Tetradymia spinosa Hook. &
Arn.

Tetradymia. (3)

11429 - 25 May, 1976

Miss Co., Colo. Same

Place as 11428. Flowers

white with a yellow eye.

Petals narrow, sharply

marginated, strongly

rugose-reticulate on

the back, somewhat less

so ventrally, and with

an elongate, ventrally

closed scar.

Cryptantha elata (Eastw.)

Payson

Cryptantha (3)

11430 - 25 May, 1976

Mesa Co., Colorado

~~Atropis~~ Atropis

atopis in clay soil of hills just west of West Fork Creek, on the

in line north-west of Mack

Twp, 8 S, R. 104 W, Co.

S. 27.5 E, Co 1450 m.

Corolla limb white, like

throat yellow. β

Gilia inconspicua (Smith)

Sweet,
sens. lat.

Gilia

(10)

11431 25 May 1936.

Monte, Colorado.

Sample no. 11430.

Leaves green. Flowers
yellow.

Cymopterus fendleri A. Gray

✓

Cymopterus (10)

11432 - 25 May, 1971

Mesa Co., Colorado



Same place as 11435

Flowers white, wide
spread umbels.

Leaf solitary, somewhat
compressed, elliptical
in cross-section,
not channeled.

Allium nevadense S. Wats.

see nevadense ✓

Allium  

11433 - 25 May, 1976

Monte Co., Colorado

~~Some flowers 11433~~

Stems numerous on
a stout taproot.

Flowers ochraceous,
sometimes with a hint
of purple. Pods
loosely pendulous on
periculate pedicels.

Astragalus convallarius

Greene

var. *convallarius* ✓

det. R. C. Barneby

Astragalus

(15)

11434 - 25 May, 1976

Mesa Co., Colorado

Same place as 11430.

Stems clustered on a
stout taproot. Leaves
blue-glaucous. Wings
and keel rather deep
purple, the banner a
little paler.

Astragalus asclepiadoides

M. E. Jones

det. R. C. Barneby

Astragalus asclepiades,

(5)

11435 . 25 May, 1976

4 Mesa Co, Colorado

San Juan Basin 11435

Flowers white.

Chaenactis stevioides H. & A.

Chaenactis (3) (5)

11436 25 May, 1976.

Mesa Co., Colorado.

Same place as 11430.

Bracts scarlet.

Castilleja chromosa

A. Nels.

det. Noel H. Holmgren

Castilleja (10)

11437 - 25 May, 1976,
Mesa Co., Colorado

~~Sample # 11437~~

Rays ca 13, perianth

~~flowers, very~~

~~white above~~

Townsendia incana Nutt.

Townsendia (2)

11438 - 25 May, 1976

Mesa Co, Colorado

Same place as 11430.

Petioles inflated in
larger plants, but
not in smaller ones.

Flowers rather light
yellow. Involucres

4-lobed!

✓

Eriogonum inflatum

Torrey + Fremont

var. *fusiforme* (Small)

Reveal

Eriogonum inflatum (2)

11439-26 May, 1976

Mojo Co. Colorado. Rocky,

generally well-drained
south slopes, with
scattered *Atriplex*, just
west of West Salt Creek,
ca 16 km. airline north-
west of Mack. Temp. 85,
R. 104 W., ca. S. 27. Elev.

ca. 1450 m. Plants
single-stemmed from a
taproot, monoscarpic.
Corolla white; anthers and
style faintly lavender.
Cirsium neomexicanum A Gray ✓

Cirsium (5) 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, 89, 90, 91, 92, 93, 94, 95, 96, 97, 98, 99, 100

11440 - 26 May, 1976.

Mesa Co., Colo. With

scattered *Atriplex* and
Artemisia on open,
gravelly clay slopes
and swales just west
of West Salt Creek, ca.
16 km. airline north-
west of Meach. Twp. 8 S,
R. 104 W., ca. S. 27. Elev.
ca. 1450 m. Petals white
rich lavender-pink,
with a slim red crescent
near the top of the yellow
lower basal area. Style
semiculate, wider

than high.

✓
Calochortus nuttallii

T, G.

(-)

Calochortus (10)

11441 - 26 May, 1976
Mesa Co., Colorado.

With scattered *Atriplex*
and *Sarcobatus* on clay
benches just west of
West Salt Creek, ca 16 km
airline northwest of
Black Top. S. 85, R. 104 W, ca.
S. 27. Elev. ca. 1450 m.

Plants extensively creep-
ing below ground. Flowers
3-14, pink to rich pink-
purple, rarely white.

Lygodesmia grandiflora

(Nutt.) T. & G. ✓

Lygodesmia grand. (10)

11442 - 26 May, 1976.
Gunn Co., Colo. With
scattered triplets on
gravelly clay slopes just
west of West Salt Creek
ca. 16 km. Airline north-
west of Mack. Twp. 85,
R. 14W, ca. S. 27. Elev.
ca. 1750 m. Flowers
blue-purple.

Penstemon moffatii Eastw. ✓
var. *moffatii*
det. Noel Holmgren

Penstemon (41)

11443-26 May, 1976

Windsor, Colorado Open,

gravelly clay slopes
with scattered Atriplex,
just west of West Salt
Lake in 11443.

Plants forming small to
large clumps on a sandy
tapered. Heads yellow.
Rays ca. 8-13.

Bahia nudicaulis A. Gray

Bahia nudicaulis (7)

11444 - 26 May, 1976.

Niwa Co., Colorado.

With scattered *Atriplex*
on lower clay slopes
just west of West Salt
Creek - as in 11442.

Ray white to pale lavender,
34-54 (13 counts).

Erigeron pulcherrimus Heller
var. *wyomingia* (Rydb.) Cronq. ✓

Erigeron pulcherrimus (10)

11445 - 26 May, 1976.

Albion Co., Colorado.

Same place as 11444.

Flowers ochroleucous
to nearly white,
the keel with a
purple internal spot
on each side near the
tip.

Astragalus flavus Nutt.

var. *flavus*

det R. C. Barneby ✓

Astragalus flavus (6)

11445 - 26 May, 1976.

Mesa Co., Colorado.

With scattered *Atriplex*
in brown clay ridge
- tops just west of Mesa
Salt Creek. in view.

Petals ~~yellow~~, white.

Antepetalous glands
conspicuous, yellow

Arenaria eastwoodiae Rydb.

var. *eastwoodiae* ✓

Arenaria

(10)

11447 - 26 May, 1976

Mesa Co., Colorado. On
barren clay slopes in
atriplex zone just
west of West Salt
Creek - as in 11442;
flowers yellow.

Oenothera scapoidea

T. + G.

var. *scapoidea* ✓

Oenothera

(7)

11445 - 26 May, 1976
Mesa Co., Colorado. With
scattered *Atriplex* on
barren, gravelly clay
slopes just west of West
Salt Creek. as in ~~11442~~
11442. Perianth pinkish
to nearly white.

Eriogonum bicolor

M. E. Jones

Eriogonum (5)

11449-26 May, 1976.

Mesa Co, Colorado.

Barren gravelly clay
slopes with scattered
Atriplex, just west of
West Salt Creek.

near 11442.

Flowers pink-purple.

Astragalus amphioxus ✓

A. Gray

var. *vespertinus* (Sheld.)

M. E. Jones

det. R. C. Barneby

Astragalus (9)

11450-26 May, 1976

Rio Blanco Co., Colorado,

Juniper-*juniper* wood-
land on northeast-facing
sandstone slope overlook-
ing West Evacuation Creek,
ca 55 km. airline north
of Mech. Trps. U.S., R. 103
W., ca. S. 19. Elev. ca. 1900 m.
Flowers white

Androsace septentrionalis L.
sens. lat. ✓

Androsace (6)

11451-27 May, 1976

Rio Blanco Co., Colombia
On clay embankment
~~with~~ of West Evacu-
ation Creek, with
Artemisia, *Chrysothamnus*,
and *Larrea trichotoma*, ca. 55 km.
airline north of Mosch. Twp
45. R 103 W., $\frac{2}{3}$ ca. S 19.

Elev. ca. 1900 m. Herbage
glaucous. Flowers
blue-purple.

Penstemon osterhoutii Pennell
det. Noel H. Holmgren

Penstemon (1)

11452 27 May, 1976

Rio Blanco Co. Colorado.

Same place as 11450.

Corolla white with
a yellow eye. Nectars
strongly tuberculate-rugose-
reticulate on both sides;
scar open, with a strongly
raised border, slightly con-
stricted below the middle.

Cryptantha flavoculata

(A. Nels.) Payson

Cryptantha (7)

11453 - 27 May, 1976.

Rio Blanco Co., Colo.

Same place as 11450.

Plants forming loose mats from an eventual carpet. Leaves pungent. Corolla white to pink, often white with a small pink eye.

Phlox austromontana Coville

Phlox 10

11454 77 May, 1976.

Rio Blanco Co, Colorado.

Same place as 11450.

Rays mostly 10-16,
white or pinkish.

Townsendia mensana M.E. Jones

var. *mensana*



Townsendia (2)

11457 - 27 May, 1970

Rio Blanco Co, Colorado.

Same place as 11450.

Flowers lavender-purple.

Arabis crandallii B.L. Robinson

Arabis (10) 71^a

11450. 27 May, 1976

Blintah Co, Utah.

With scattered junipers
and sagebrush along an
open, shaly ridge
just east of Evascutin
Creek and just south
of Park Canyon, ca ^{2 1/2} ~~1~~ km
airline ^{southeast} south of Baranza

Twp. 11 S., R. 25 E., S. 28.

Elev. ca. 1700 m. Herbage

glaucous. Flowers blue

Penstemon osterhoutii

Pennell

det. Noel H. Holmgren

Penstemon

(5) (10)

11457 - 27 May, 1976.

Monte Nebo, Utah.

Same place as 11456.

Flowers yellow.



Lesquerella alpina (Nutt.)

S. Wats.

var. *alpina*

Lesquerella (3)

11458 - 27 May, 1976

Uintah Co., Utah

With sagebrush on a very
gentle slope just east of
Evacuation Creek and
just south of Park

Mountain, ca. $2\frac{3}{4}$ km. airline
southeast
south of Bonanza.

Twp. 11 S., R. 25 E., S. 28.
Elev. ca. 1650 m.

Rays 11-16, white to
pinkish.

Townsendia incana Nutt.

Townsendia

(10)

11437 - 27 May, 1976. Uintah
Co. Utah - Open, stony flats
in sagebrush zone, ca

3 km east of ^{VAR J} ~~the~~ ~~location~~
Creek and 2 km north
of Park Canyon about 20
km ^{southeast} ~~south~~ of

Lawrence. Twp 11S., R. 25E.

15-16. Elev ca. 1800m.

Herb yellow. Rays 8-15,
most often 8 or 13. ✓

Hypochaeris glabra (Tursh)

K.T. Parker

var. *caespitosa* (A. Nels.)

K.T. Parker

Hypochaeris (7)

11160 27 May, 1976
Uintah Co, Utah
Same place as 11157
Flowers lavender.

Astragalus pubentissimus,
Tit G.

det. R. C. Barneby

Astragalus ①

11461-27 May, 1976. Uintah

Co., Utah, same place

11459. Flowers white,

leaves shallowly stem

channeled or nearly

flat above, rounded

beneath.

Allium textile Nels.

↳ Macbr.

Allium textile (2)

11462 - 27 May, 1976.

Wirta Co., Utah.

Shaly slopes and scree
with sagebrush,

ca. 15 km. airline

^{south-east}

south of Bannock.

Temp. 10.5, R. 75%,

S. 23-33, Elev. just under

13000 ft. Flowers lavender.

Penstemon comarrhenus A. Gray

det. Noel H. Holmgren

Penstemon (10)

11463-27 May, 1976

Monte Co., Utah

Same place as 11462

Astragalus chamaeleuce

A. Gray

det. R. C. Barneby ✓

Astragalus (1)

11464 - 27 May, 1976

Uintah Co, Utah.

Barren, shaly knolls in
sagebrush zone ca. 13

km. airline southeast of
Bonneville, Twp. 10S, R. 5E,
S. 29. Elev. ca. 1750 m.

Plants mostly single stem
and sometimes branching
at the base. Corolla white
with yellow spots. From
the limb are very spreading
flat

Cryptantha rollinsii I.M. Johnston.

Cryptantha

(4)

11465 - 27 May, 1976

Uintah Co., Utah, same

place as 11464. Deep-rooted,
colonial perennial,
presumably creeping
below ground. Perianth
rich pink to pale
pink-lavender. Plants
succulent. Leaves
glaucous.

Hermidium alipes S. Wats.

var. *pallidum* C. L. Porter

Hymenophyllum (4)

11466 - 28 May, 1976.

Mintah Co., Utah.

On open, shaly slopes,
with sagebrush, ca 2 km
north of Bannock

Twp 9S, R. 24E, S. 14.

Elev. just under 1600
m. Flowers blue to
blue-purple.

Penstemon fremontii Torr. & Gray ✓
det. Noel H. Holmgren

Penstemon (8)

11467 - 28 May 1976.

Glenn Co., Calif.

Same place as 11466.

Flowers pink-purple.

Astragalus mollissimus

Torr.

var. *thompsoniae* (S. Wats.)

Barneby

det. R.C. Barneby ✓

Astragalus (S)

11468 - 28 May 1976,

Wintch Co. Idaho

Same place as 11466.

Plants monocarpic,
but perhaps living 3
years. The sterile ro-
settes of 2 sizes. Corolla
white ~~with~~ with a
yellow throat. Plants
only slightly amphitetic.

Gilia stenothyrsa A. Gray

✓

✓

Gilia arg. white (10)

11469 - 28 May, 1976

with scattered junipers
and sagebrush on barren
clay knolls just north
of Deadman Bench
Divide, ca. 20 km.

~~on~~ a line northeast
of Benzonia. Temp. 75,
R. 25 E. S. 22. Elev.

ca. 1700 m. Leaves

conspicuously bluish-
-argentous. Corolla
white with a yellow
eye. Nutlets muciculate on both sides.

Cryptantha breviflora (Osterh.)

Cryptantha (10) Payson

11470 - 28 May, 1976

Wintah Co., Wash.

Samuelson #469.

Flowers white with
a yellow eye.

Nutlets strongly

rugose-reticulate on both

sides; scar with an elevated

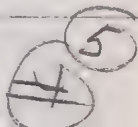
border, slightly constricted

below the middle.

Cryptantha flavoculata ✓

(A. Nels.) Payson

Green *Cryptantha*



11471-25 May, 1976.

Montah Co. Utah.

Same place as 11469.

Flowers white.

Plants somewhat mesophytic.

Gilia congesta Hook. ✓

var. *congesta*

Gilia

(10)

11472 - 28 May, 1936

Hinton Co., W. Va.

Same place as 11459

Flowers purple

Astragalus spatulatus

Sheld.

var. *spatulatus*

det. R. C. Barneby



Astragalus (3)

821

11473-29 May, 1976

Wintah Co., Wash

Barren red clay slopes

along the ~~southern~~ side

~~of the~~ Antelope Draw,

~~of the~~ ~~Wintah~~, ca 25 km

airline west of Bancroft,

Twp. 8 S., R. 27 E., S. 15.

Elev. ca. ¹⁴⁵⁰ ~~1400~~ m. Flowers

trimerous, dull yellow

flowers

Eriogonum salsuginosum (Nutt.)

Hook.

Polygonaceae (13)

11474 - 29 May, 1976

Blintz Co, Utah

same place as 11473

Corolla pink

blue-lavender, the

throat light yellow

Phacelia demissa A. Gray



Phacelia (3)

11475 - 29 May, 1976.

Alameda Co., U.S.A.
Same place as 11473.
Flowers yellow.

Oenothera scapoidea T. & G.
var. *scapoidea*

Oenothera (6)

11476 29 May, 1976

Uintah Co, Utah

Same place as 11473.

Allium textile Herb.?

Moobr. ✓

Allium textile (3)

11477 - 29 May, 1976

Utah Co., Utah

Sandy clay benches, with ^(Glen Bench)

~~Sarcobatus~~ ^{Grayia}, ~~Grayia~~, ~~triplex~~,
Tetradymia, etc., ~~shortly~~

~~south of Coyle Wash,~~

~~and ca. 2.4 km. airline~~

west of Bonanza Trap 85,

R 22E., S. ¹⁵ ~~14~~. E. ¹⁵⁰⁰ ~~1400~~ m.

Flowers white, the marginal ones slightly enlarged.

Chaenactis adenoides ✓

Chaenactis (10)

1275 29 May
1976 Uintah Co, Utah
Sample no 11477.

Flowers white.
Maturing nutlets all
alive, longer than the
style, with scattered
small tubercles dorsally,
less so ventrally.

Cryptantha ambigua (A. Gray)
Greene ✓

Cryptantha (10)

11479. 29 May, 1976
Kane Co., Utah
Sandy clay benches ^(Glen Beach) with
Sarcobatus, Grayia,
Atriplex, etc. -- as in
11472. Openly branched
shrubs to ca. 6 dm tall.
Flowers bright yellow.

Tetradymia spinosa Hook. &
Arn.

Tetradymia (4)

11450 - 29 May, 1976,
Glenade Co., Utah. In
the sandier parts of
early clay benches (Glen
Benches)
~~just~~ ~~shortly~~ south
~~1/2~~ ~~mi.~~ west and ca.
24 ^{northwest}
25 mi. ~~west~~ ^{northwest} of
Bonneville, with *Sarco-*
latrus, *Gravilla*, *Tetradymia*,
etc., 7 up 8 S., R. 22 E.,
S. 14 ¹⁵ ~~14~~ ¹⁵⁰⁰ ~~1450~~ m.
Flowers yellow. Pappus
wholly deciduous. ✓
Malacothrix sonchoides (Nutt.)

Malacothrix (2)

T. 26

11481-29 May 1974

Monte L. San, Utah Barren

rocky clay knolls ca. 17

km. airline west of Bonanza.

Tray. 9 S, R. 22 E, S. 24

Elev. ca. 1500 m. Plants

Colonial by more or less
deep-seated creeping roots.

Heads yellow. Rays

6-15, often 13.

Bahia nudicaulis A. Gray

Bahia nudicaulis (6)

11482 - 29 May, 1936

Same place as 11481,
Rays white to pink,
8-17, after 13.

Townsendia strigosa Nutt ✓

Townsendia

10

11483 - 29 May, 1976

Uintah Co., Utah - Boreen

clay hills ca 15 km.

airline west of Boreen

Twp. 9S, R. 23E, S. 30.

Elev. ca 1500 m. Rays

25-44 white to pale

lavender.

Erigeron pulcherrimus Heller

var. *wyomingia* (Rydb.) Fernald

Erigeron pulcherrimus

9

11484 - 30 May, 1936.

Uintah Co., Utah. Around
the borders of a small,
alkaline, somewhat alkaline,
drowned pond in the
desert ca 11 km. airline
west of Bonanza, Twp.
7S, R. 23E, S. 22, Elev.
ca 1500 m.

Eleocharis palustris L.

Eleocharis (10)

11485-30 May, 1976

Uintah Co., Utah.

Same place as 11484. Rhizomes
producing very hard tubers.
Stem sharply trigonous.

The same species growing
much robustly (6 dm tall
and more) in highly al-
kaline seep below the town.

Scirpus maritimus L.

var. *paludosus*

(A. Nels.) Kuekenthal

Scirpus (10)

11456 - 30 May, 1976.

Wintch Co., Utah. Gravelly

clay slopes in pine-juni-
er woodland ^{along Mine's Draw,} shortly

south of Cliff Ridge

and ca. 40 km. or more

east-southeast of Vernal.

Elev. ca. 1800 m.

Stems solitary. Herbage

strongly glaucous. Petals

atropurpureous, with

pale margins

Twp. 55. R 25E., S. 33.

Caulanthus crassicaulis (Torrey)
S. Wats.

Caulanthus (10) ✓

11487 30 May, 1976

Glendale Co., Utah.

Same place as 11486.

Stems solitary. Flowers yellow. Fruits mostly suberect, owing to sometimes more or less widely spreading.

Erysimum asperum Nutt., ✓

sens. lat.

Erysimum capitatum (10)

11488 - 30 May, 1976

Uintah Co., Utah

Same place as 11486.

Plants pulvinate
- cespitose. Flowers
white, the banner
with lavender guide-
lines.

Astragalus spatulatus
Sheld.

var. *spatulatus* ✓
det. R. C. Barneby

Astragalus (8)

11489 - 30 May, 1976

Uintah Co, Utah

Same place as 11486.

Flowers yellow

Physaria australis

(Payson) Rollins ✓

Physaria (8)

950

11490 - ~~30~~ May, 1976

Uintah Co., Utah

Pinon-juniper wood-
above Miner's Draw,
land near the base of

Cliff Ridge, ca. 40 km.

airline east-southeast

of Vernal. Elev. ca. ~~1800~~ 1900

m. Twp 5 S., R. 25 E.,

S. 27.

Plants mesophytic, mostly

biennial, sometimes

blooming twice.

Corolla scarlet.

Gilia aggregata (Pursh) ~~Spreng~~

Spreng.

Gilia aggregata (10)

11491 - 31 May, 1976

Uintah Co, Utah.

Rocky gravelly slopes
Miner's Draw, in pinon-juniper zone

~~along a draw~~ shortly
south of Cliff ~~Trips~~
Ridge and ca. 40 km.

airline east-southeast

of Vernal. Twp 5 S, R. 25 E,

S. 27. Elev. ca. 1850 m.

Stems clustered and taproot
and branching caudex.

Heads yellow, with ~~bracts~~ ~~bracts~~

10-14 rays.

Hymenoxys richardsonii (Hook.)
Cockerell

var. *richardsonii*

Hymenoxys ⑧

11492 31st May 1926

Wentz Co., Utah.

Large rock openings in
pinon-juniper wood-
land along ~~the~~ ^{Miner's Draw,}

shortly south of Cliff
Ridge and ca. 40 km.

airline east-southeast

ofernal. Temp. 55-80 F.

S. 27, Elev. ca. 18-50 m.

Very yellow.



Crepis occidentalis Nutt.

var. *occidentalis*

Crepis (3)

11493 31 May, 1976
Uintah Co., Utah. On
barren gray clay slope
in piñon-juniper zone
along ^{Millers Draw} ~~draw~~ shortly
south of Cliff Ridge and
ca 40 km. airline
east-southeast of
Vernal, Twp. 55., R. 25E., S. 27.
Elev. ca. 1850 m. Plants
colonial, with long, slender,
subterranean creepers.
Flowers lavender

Vicia americana Muhl. ex Willd.

Vicia

(10)

~~May~~ MAY 31 May 1976

Uintah Co., Utah.

Pinon-juniper woodland
along the base of Cliff
Ridge, ca. 40 km. east-
southeast of Vernal.

Twp. 55., R. 25 E., S. 27.

Elev. ca. 1900m. Rays

8-14, often 11 or 13, pinkish
beneath, nearly white
above.

Townsendia incana Nutt.

Townsendia (4)

11495 31 May, 1976

Glitch Canyon, Rocky

sagebrush openings in
pinon-juniper woodland
shortly south of Cliff
Ridge and ca. 40 km.

Aerline east-southeast
of ~~Mount~~ Verud.

Rays mostly 18-24,
white.

Twp. 55. R. 25 E S. 22.

Elev. ca. 1850 m.

Machaeranthera venusta ✓

(M. E. Jones) Cronq. + Keck

Machaeranthera (3)

11496 - 31 May, 1976

Mintah Co., Utah.

Pinyon-juniper woodland
along Miner's Draw,

shrubly south of Cliff
Ridge and ca. 40 km.

east-southeast of Pined.

Twp. 5 S., R. 25 E., S. 33.

Elev. ca. 1800 m.

Stems few, widely
ascending. Flowers
yellow.

Lesquerella rectipes Wootton ✓

+ Standley

Lesquerella (10)

11497 - 31 May, 1976.

Uintah Co., Utah.

Same place as 11496.

Herbage strongly
glaucous. Flowers
blue to lavender-purple.

Penstemon osterhoutii

Pennell

det. Noel H. Holmgren

Penstemon (4.) 1202

19495 31 May, 1976.

Wasatch Co., Utah. Around
the base of barren clay
~~slopes~~ slopes in pinyon-
juniper woodland just
south of Cliff Ridge and
ca 40 km. airline east-
-southeast of Hatch.

Twp 5 S., R. 25 E., S. 33.

Elev. ca. 1800 m.

Flowers blue.

Lupinus brevicaulis S. Wats.

Annual lupine

(10)

11499 - 31 May, 1976.

Uintah Co., Utah.

Barren clay slopes
and small pool south
of Cliff Ridge and ca. 40
km. airline east-southeast
of Vernal, Twp. 5 S., R. 25 E.,
S. 33. Elev. ca. 1800 m.

Thermopsis juniperifolia

Plants extensively colonial,
spreading freely below
ground. Flowers yellow, now
all past maturity.

Thermopsis rhombifolia Nutt.

Thermopsis? (10)

11500 31 May, 1976.

Uintah Co., Utah.

Scattered in pinjun-
sagebrush woodland
along Miner's Draw,
shortly south of Cliff
Ridge and ca 40 km,
airline east-southeast
of Karnak. Twp 5S, R25E,
S. 33. Elev ca. 1800 m.
Petals glaucous. Filaments
purplish.

Streptanthus cordatus Nutt.

Streptanthus (3)

11501-3, May, 1976.

Uintah Co., Utah. On

barren clay slopes of a
knoll in piñon juniper
zone just south of Cliff
Ridge and ca. 40 km.

distance east-southeast of
Kronk. Twp. 55, R 25E,

S. 33. Elev. ca. 1800 m.

Petals white. Antepetalous
glands conspicuous,
yellow.

Arenaria eastwoodiae Rydb.
var. *eastwoodiae*

Arenaria (7)

11507 - 1 June, 1976

Uintah Co., Utah.

(Miner's Wash).

In dry wash in piñon

- juniper woodland

shortly south of Cliff

Ridge and ca 40 km,

airline east-southeast

of Arvada, Twp. 55. N. 25E.

S. 33. Elev. ca 1800 m.

Woods-ranched shrub ca

2 dm tall. Corolla dull

white, inconspicuously

marked with anthocyanin

Leptodactylon pungens (Torr.)

Nutt.

Leptodactylon p. (2)

11503 - 1 June, 1976

Uintah Co., Utah.

In open piñon-juniper
along Miner's Wash,
near the mouth

of Cliff Lodge and ca 40
km. airline east-southwest
of Vernal. Twp 5.5, R 25E,
S. 33. Elevation 1800m.

Flowers white,
withering pink.

Oenothera trichocalyx Nutt.
ex T. & G.

Oenothera 3 (7)

11504 - 1 June, 1976

Hintah Co., Utah, in
~~pinon~~ juniper woodland
on a broad low ridge
shortly south of the east
end of Cliff Ridge, ca 45
km. airline east-southeast
of ^{less than} 1 km. west
of the Colorado state line,
Elev. ca. 2000 m.

Twp. 5 S., R. 25 E., S. 25.

Plants forming loose, ~~mat~~
rooted mats ~~on~~ on the ground.

Flowers blue. *Pentstemon caespitosus*
Nutt. ex A. Gray

var. *caespitosus*

det. Noel Holmgren
Pentstemon

(9)

11505 1 June 1976

Hinton Co., Utah. Same
place as 11504. Flowers
yellow. Corolla lobes
erose and crisped-twisted.

Lithospermum incisum Lehm.

Lithospermum (10)

11506 / June 1976

Uintah Co. Utah

Open sagebrush mesa

Toward the head of

Stuntz Draw, on the

Yampa Plateau,

~~ca. 1 km.~~ less than 1 km.

from the Colorado

state line Twp. 4 S.,

R. 25 E., S. 25. Elev. ca.

2300 m. Flower 5-25;

tepals white with a

purplish midvein

Allium brandegei S. Wats. ✓

Allium brandegei (10)

11507 1 June, 1976

~~Same~~ Same place
as 11506. Herbage
slightly glaucous.
Flowers white.

Thlaspi (1)

11508 1 June, 1976.

Same place as 11506

Flowers deep blue,
the upper petals paler,
with blue veins.

Delphinium nuttallianum

Pritzl ex Walpers

Larkspur (5)

11509 1 June 1976.

Uintah Co., Utah.

Same place as 11506.

~~Flowers blue~~

Corolla blue,

glabrous within

Mertensia oblongifolia

(Nutt.) G. Don

Mertensia

(19)

11510 | June 1976

Mintak Co., Utah

Sample no. 11506.

Corolla white with a
light yellow eye.

Gymnosteris parvula Heller ✓

Gymnosteris parvula (10)

11511-1 June 1976
Mintak Co., Utah.
Same place as 11506.

Ranunculus glaberrimus Hook.
var. ellipticus Greene

Ranunc. glaber. (4)

11512 - 1 June 1976

Clinton Co. N.Y.

With scattered *ponderosa*
pines atop Cliff Ridge,
ca. 40 km. airline east-
southwest of Karnes.

Temp. 55. R. 25 F., 5.21.

Alt. ca. 2400 m.

Colonial ~~low~~ ~~shrub~~

Shrubs, forming dense

clumps 3-6 dm tall.

Leaves bright green.

Flowers pink.

Arctostaphylos patula Sweet ✓

Arctostaphylos (10) ¹¹¹⁰

11513 - 2 June, 1976.

Mintah Co., Utah.

Sagebrush table-land
shortly northeast of
Cliff Ridge, and ca. 40+
km. east-northeast of ✓

Vernal, Twp. 5 S., R. 25 E.,
~~ca. S. 10 or 15.~~ S. 10 or 15.

elev. ca. 2300 m.

Petals white; anthers
yellow. Developing
fruits ribbed all around.

Lomatium nevadense (S. Wats.)

Coult. + Rose

Mexican?

(4)

11514 - 2 June 1976

Uintah Co., Utah.

Same place as 11513.

Flowers whitish, with
a trace of anthocyanin

Trifolium gymnocarpon Nutt.

var. *gymnocarpon*

Trifolium

(10)

11515 - 2 June, 1976

Uintah Co., Utah.

Sagebrush table land of Blue
Mountain Plateau, ca 5 km
north of the more easterly
part of Cliff Ridge, and
ca. 45 km. airline

east-southeast of Vernal
5, 10, 11, or 15.

Trps 55 R. 25E. ca 5-15

Elev. ca 2300 m.

Corolla rich pink-purple;
filaments tube yellow;
anthers atropurpureous

Dodecatheon pauciflorum

(Durand) Greene

Dodecatheon (10)

11516 2 June, 1976

Uintah Co, Utah

Same place as 11515.

Petals 8-10, pure white.

Stigmas 5-7.

Lewisia pygmaea (A. Gray)

B. L. Robinson

Lewisia (4)

11517 2 June, 1976

Graffett Co., Colorado.

Crevices in sandstone
outcrops on a roughly
table land shortly north
west of ~~Stuntz~~ Stuntz
Reservoir, ~~Yampa~~ Yampa
Plateau, scarcely $\frac{1}{2}$ hr.
from the Utah ~~border~~ border.
Twp. 6 N. R. 12 W. S. 35.
Elev. ca 2300 m. Petals
light yellow. Stamens (5)

Ivesia gordonii (Hook.)

T. & G.

Ivesia (18)

1146

T. N. S., R 17 E. S. 22
at gate 48000

My turn is 35, 2 W., S. 25

Some kind of grass, but
above ~~the~~ ~~cliff~~ Coal
cliffs is a dwarfed,
shrubby *Artemisia*
with very open, somewhat
glabrous leaves, those
of the sterile shoot cupped
or sometimes pinnately
5-fid, those of the fl. stems
definitely pinnatifid. Quid?
A. pinnatifida?

59³¹
 34
 35
 39
 40
 41

5137

Bunamy is 9S, R. 24E, S23

Cliff Ridge Camp

5S, 25E, S. 33, NE 1/4
 NE 1/4. . 1974. BLM.

801-374-1211

et. 2582

BYC

June 14-15

98	58	78	88	98	18
5e	7e	ce	8e	6e	8e
7e	8e	ce	1e	2e	6i
8i	7i	6i	9i	1i	9i
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Handwritten scribbles

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