CONSERVATION STATUS OF *CAREX PARRYANA* SSP. *IDAHOA* IN MONTANA

Prepared by:

Peter Lesica
Montana Natural Heritage Program
State Library
1515 East Sixth Avenue
Helena, Montana 59620-1800

Prepared for:

U.S. Bureau of Land Management
Montana State Office
P.O. Box 36800
Billings, Montana 59107-6800

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I. SPECIES INFORMATION

A. CLASSIFICATION

1. SCIENTIFIC NAME: *Carex parryana* Dewey ssp. *idahoa* (Bailey) Murray

2. SYNONYMS: *Carex idahoa* Bailey

3. COMMON NAME: Idaho sedge

4. BIBLIOGRAPHIC CITATION: First described as *Carex idahoa*; Bailey, L. H. 1896. Notes on *Carex*. XVIII. Botanical Gazette 21: 5. Described as *Carex parryana* ssp. *idahoa*; Murray, D. F. 1969. Taxonomy of *Carex* Sect. Atratae (Cyperaceae) in the Southern Rocky Mountains. Brittonia 21: 55-76.

5. TYPE SPECIMEN: United States, Idaho, Clark County, Beaver Canyon, P. A. Rydberg 2339 (Holotype US)

6. FAMILY: Cyperaceae

7. GENUS: *Carex* is a cosmopolitan genus with 1500-2000 species worldwide (Hickey and King 1988) and ca. 600 species in North America (Hermann 1970).

8. SPECIES: According to Murray's (1969) treatment *Carex parryana* has three subspecies: *parryana, hallii* and *idahoa*. All have been considered separate species by other authors (e.g. Hermann 1970). Subspecies *idahoa* was first described as *Carex idahoa* by Bailey (1989). Subsequently Murray (1969) stated that the boundaries between the three taxa were blurred but they have "geographic importance." He thus treated them as subspecies and formally named *Carex parryana* ssp. *idahoa*. Booth (1950), Davis (1952) and Hermann (1970) all recognized *Carex idahoa* at the species level. However, Cronquist (Hitchcock et al. 1969) did not recognize the taxon at any level and referred to it as "a form with relatively long, narrow, acute pistillate scales." Anton Reznicek (University of Michigan, pers. comm.) prefers to follow Murray's (1969) monographic treatment.

   In Montana both ssp. *parryana* and ssp. *idahoa* often occur together without intermediates. Subspecies *parryana* seems to be more tolerant of salty conditions than *idahoa*. In habitats with

Puccinellia and *Distichlis* ssp. *parryana* occurs alone.

B. PRESENT LEGAL OR FORMAL STATUS

1. FEDERAL STATUS

a. U. S. Fish and Wildlife Service: 3C; *Carex parryana* ssp. *idahoa* is no longer considered a candidate for listing; a taxon proven to be more abundant or widespread than previously believed and/or not subject to any identifiable threat.

b. U. S. Forest Service: Sensitive; the Regional Forester has determined there is a concern for population viability of *Carex parryana* ssp. *idahoa* within the state as evidenced by a significant current or predicted downward trend in population or habitat.

c. U. S. Bureau of Land Management: Sensitive; *Carex parryana* ssp. *idahoa* is documented to occur on public land administered by BLM and proven to be imperiled in at least part of its range.

2. STATE STATUS

a. Montana: *Carex parryana* ssp. *idahoa* is listed as imperiled globally and in Montana (G4T2-S2) because of rarity and/or because other factors make it very vulnerable to extinction (Heidel 1997). This state listing does not provide any direct legal protection. Lesica and Shelly (1991) list *Carex parryana* ssp. *idahoa* as sensitive, known from a limited number of populations or occurring principally in restricted habitats considered vulnerable to man-caused disturbances.

b. Idaho: *Carex parryana* ssp. *idahoa* has never been listed or tracked as a rare plant in Idaho (Steele et al. 1981, Moseley and Groves 1990). This is likely due to Cronquist's (Hitchcock et al. 1969) failure to recognize this taxon at any level.

C. DESCRIPTION

1. GENERAL NONTECHNICAL DESCRIPTION: Idaho sedge forms small clumps that arise from short rhizomes. The stems are 20-35 cm (8-14 in) high with most leaves crowded near the base. Leaves are flat and 2-4 mm wide. Flowers are clustered in 3 (usually) oblong-cylindrical spikes, 1-3 cm (0.5-1 in) long, with the uppermost larger than the others. Male flowers are absent or scattered among the female flowers (perigynia) on the largest spike. Spikes form a narrow, interrupted head, subtended by small leaf-like bracts, at the top of the stems. The narrowly oval scales subtending each perigynia taper to the tip and are 2-3 times longer than the perigynia. These scales are brown with membranous margins and a distinct pale center. Glabrous, egg-shaped perigynia are yellow-green and ca. 3 mm long with a short beak. There are 3 stigmas and the seed is 3-sided. Photographs of *C. parryana* ssp. *parryana* and ssp. *idahoa* are provided in Appendix A.

2. TECHNICAL DESCRIPTION: loosely cespitose from prolonged, scaly, horizontal rootstocks; culms 2-3.5 dm high, much exceeding the leaves, somewhat fibrillose and reddish-brown tinged at the base, the dried leaves of the previous year conspicuous; leaves 5-10, clustered near the base, the thin blades flat but with more-or-less revolute margins, 2-4 mm wide, long-attenuate, the ventrally very thin hyaline sheaths concave at the mouth, the ligule about as wide as long; spikes usually 3, often all pistillate, linear oblong to cylindric, erect on short, stiff and scabrous peduncles, approximate, forming a narrow head 3.5-5 cm long,the terminal spike 2-3 cm long, 6-8 mm wide, the lateral 1-2 cm long, 4-6 mm wide, the numerous perigynia appressed-ascending; bracts sheathless, usually not over 1 cm long and much shorter than the spikes; pistillate scales ovate to ovate lanceolate, long-acute to acuminate, brown with a conspicuous lighter center and very narrow hyaline margins, wider and 2-3 times as long as the perigynia; perigynia obovoid, obtusely trigonous, somewhat flattened on one side, 3 mm long, 1.5 mm wide, glabrous, puncticulate, two-ribbed but otherwise nerveless or essentially so, substipitate, yellowish-green, rounded and abruptly short-beaked at the apex, the beak brownish-red, 0.5 mm long, emarginate or shallowly bidentate; achenes obovoid, 2 X 1.25 mm, trigonous

with concave sides, sessile, granular, abruptly apiculate (Hermann 1970).

Always dioecious; culms 1.5-4.0 dm high, stiff, erect, longer than the leaves; spikes 1-4, terminal spike much larger than cylindric lateral spikes; pistillate scales much longer than the perigynia (Murray 1969). Photographs of *C. parryana* ssp. *parryana* and ssp. *idahoa* are provided in Appendix A.

3. SIMILAR SPECIES AND FIELD CHARACTERS: The large, oblong terminal spike and the long, female scales that are at least twice as long as the perigynia, giving the spikes a ragged appearance, are distinctive and separate this plant from the other varieties of *C. parryana*. Subspecies *parryana* has a cylindrical terminal spike, lateral spikes nearly as long as the terminal, and pistillate scales ca. as long as the perigynia. Subspecies *hallii* has pistillate scales as long or only slightly longer than the perigynia.

Carex norvegica (*sensu lato*) has smaller (6-14 mm long) terminal spikes. *Carex buxbaumii* has broader lateral spikes (6-10 mm wide) and occurs in organic soils.

D. GEOGRAPHIC DISTRIBUTION

1. RANGE: *Carex parryana* ssp. *idahoa* occurs in the high valleys of southwest Montana and adjacent southeast Idaho. It has been collected in Beaverhead, Gallatin, Madison, Powell and Silver Bow counties, Montana and Bannock, Clark and Lemhi counties, Idaho (Lesica and Shelly 1991, Murray 1969). The locations of known Montana populations are shown on the map in Appendix C.

Carex parryana as a whole occurs from British Columbia east to Manitoba, south to Utah, Colorado and Nebraska. Subspecies *hallii* occurs from Manitoba south to Colorado and Nebraska. Subspecies *parryana* occurs from British Columbia to Manitoba south to Utah and Colorado (Murray 1969).

2. RECENTLY VERIFIED SITES

a. Idaho: There are four recently verified locations for *Carex parryana* ssp. *idahoa* in Idaho: two in Clark County near the type

locality and two near the headwaters of Birch Creek in Lemhi County. All four populations appear to be small according to 1997 survey information. Little survey work has been conducted and the distribution of the plant is largely unknown (R. Moseley, Idaho Conservation Data Center, pers. comm.).

b. Montana: There are 33 recently verified *Carex parryana* ssp. *idahoa* populations in Montana. During the past ten years extensive field studies have been conducted on public lands in Beaverhead and Silver Bow counties by botanists working for the Montana Natural Heritage Program. These include studies of the Highland Mountains, Tobacco Root Mountains, upper Madison Valley, the Ruby Range, the Tendoy Range and southern Beaverhead County including the Centennial Valley. Lesica conducted field surveys for this species in 1997, visiting public lands in the southern Gravelly Range, the Ruby Range, the southern Pioneer Range, the Highland Range, the Centennial Valley and the Beaverhead Range. Known sites and their relative size are listed below (BLM sites in bold):

Beaverhead Co.

Basin Creek small (100-200 stems)
Box Spring large (>1,000 stems)
Brundage Creek small
Cabin Creek large
Clover Divide small (ca. 200 stems)
Coyote Creek small (100-300 stems)
Harkness Lakes large (200-2,000 stems)
Hildreth medium (ca. 600 stems)
Kate Creek small
Lima Reservoir N probably large
Lima Reservoir SW small (ca. 200 stems)
Lower Poison Lake small
Meadow Creek medium
Monida small
Morrison Lake small
Mud Lake large (>1000 stems)
Muddy Creek medium (100-500 stems)
Porcupine Canyon large (>10,000 stems)
Sand Creek large (>10,000 stems)
Simpson Creek large (>10,000 stems)
Sourdough Creek small (100-200 stems)
Taylor Creek small (ca. 100 stems)
Upper Blacktail small
Upper Deadman probably medium

Wolverine Creek small

Madison County

Grassy Lake small (<10 stems seen)

Silver Bow County

Blacktail Creek unknown

Coyote Hill small (50-100 stems)

Highland City small (ca. 50 stems)

Maclean Creek unknown

Moose Creek small (100-200 stems)

Moosetown S small (ca. 100 stems)

S Fork Tucker Ck small (50-100 stems)

Further descriptions of these sites are given in Appendix E.

3. HISTORICAL SITES

a. Idaho: There is a collection from Caribou National Forest in Bannock County (Murray 1969).

b. Montana: There are 5 collections from 40 or more years ago. The populations vouchered by these specimens have not been relocated, due mostly to imprecise location data:

Beaverhead County

Big Hole River (1955)

Centennial Valley (1955)

Grasshopper Ck Basin (1958)

Gallatin County

Forks of Madison (1897)

Powell County

Deer Lodge (ca. 1897)

Further descriptions of these sites are given in Appendix E.

4. AREAS SEARCHED UNSUCCESSFULLY: *Carex parryana* ssp. *idahoa* was not found in presumed appropriate habitat in the Ruby Range by Lesica in 1997. He also searched the upper Big Hole River Valley unsuccessfully in 1994 and 1997, and Dyce Creek, Bannack, and Upper Ruby River areas in 1997.

5. AREAS YET TO BE SEARCHED: Populations of *Carex parryana* ssp. *idahoa* should be sought in the Hebgen Lake area, the French Creek area south of Anaconda, and the upper Big Hole Valley as these are areas where historic collections have been taken.

Most survey work for *Carex parryana* ssp. *idahoa* has been conducted on public lands. Numerous

populations undoubtedly occur on private land, especially in the Centennial Valley and upper Big Sheep Creek Valley.

E. HABITAT

1. ASSOCIATED VEGETATION: *Carex parryana* ssp. *idahoa* most often occurs in an ecotonal area at the border of wet meadow vegetation and sagebrush steppe. Thus, plant species from both of these habitats can be found associated with this sedge. Wet meadows are usually dominated by *Juncus balticus, Carex nebrascensis, C. aquatilis, Deschampsia cespitosa*, and *Potentilla fruitcosa*. While steppe vegetation is dominated by *Artemisia tridentata* and/or *A. tripartita, Festuca idahoensis* and *Agropyron smithii*. Vascular plant species most commonly associated with *Carex parryana* ssp. *idahoa* in order of importance are *Juncus balticus, Carex praegracilis, Muhlenbergia richardsonis, Aster occidentalis, Poa pratensis, Taraxacum officinale, Potentilla gracilis* and *Antennaria microphylla*. Graminoid cover is high (60-100%), while forb cover is usually low to moderate (5-50%) except in overgrazed areas. Bare ground was usually uncommon (mean=8%) as was lichen and bryophyte cover (mean=14%). Photographs of typical habitat are provided in Appendix B.

2. TOPOGRAPHY: *Carex parryana* ssp. *idahoa* appears to be restricted to nearly level sites in the high valleys of southwest Montana. It is most commonly found on terraces associated with headwaters streams at elevations greater than 6,000 ft. Small populations may occur lower or along larger streams.

3. SOILS AND GEOLOGICAL RELATIONSHIPS: The wetland-riparian habitat of *Carex parryana* ssp. *idahoa*. most likely has silty soils with ample organic matter and little or no coarse fragments. Most known Montana populations occur in areas of calcareous parent material (e.g. Madison limestone or Beaverhead conglomerate); however, the few populations occurring in non-calcareous regions suggest that this is not an obligate relationship. In wetlands where part of the habitat was saline (as indicated by the presence of *Distichlis* and *Puccinellia*) *Carex parryana* ssp. *idahoa* occurred only in the non-saline areas, although *C. parryana*

ssp. *parryana* was often found on salt-encrusted soils.

Carex parryana ssp. *idahoa* was always found in subirrigated soils associated with low-gradient streams or springs and seeps. These soils are wet early in the growing season but are only moist later in the summer.

4. REGIONAL CLIMATE: Lima (6,275 ft) along the Red Rock River in southern Beaverhead County is the meteorological recording station most similar to the majority of *Carex parryana* ssp. *idahoa* populations. Mean January and July temperatures at Lima were 16.6° and 62.6° F respectively, and mean annual precipitation was 10.7 in (NOAA 1982). Most *Carex parryana* ssp. *idahoa* sites are higher and therefore probably colder and wetter.

5. DYNAMIC ABIOTIC FACTORS: Disturbances from flooding are probably uncommon at *Carex parryana* ssp. *idahoa* sites because they are generally in headwaters locations where snow accumulation and gradients are low.

   Although fire was common in high-elevation steppe vegetation in southwest Montana prior to European settlement (Arno and Gruell 1983), it probably did not play an important role in the dynamics of the herbaceous wetland vegetation associated with riparian areas.

F. POPULATION BIOLOGY

1. PHENOLOGY: *Carex parryana* ssp. *idahoa* generally occurs at 6,000-8,000 ft, and phenology will depend on elevation and annual depth of snow pack. In general this sedge flowers in June through early July with mature fruit from mid-July through August.

2. POPULATION SIZE AND CONDITION

   a. Idaho: The four recently verified populations in Idaho appeared small. Only one small colony could be located at the Kaufman site in Lemhi County in 1997. The other three sites were heavily grazed in 1997.

   b. Tendoy-Beaverhead Mtns., Montana: Twelve verified populations occur in the Big Sheep

Creek and Medicine Lodge creek drainages. Many populations are large and many large undocumented populations probably occur on private land. The plant is common in the riparian wetlands of the valleys.

i. **Cabin Creek**- heavily grazed in 1997 so accurate population estimates were not possible; ca. 5 acres; based on the size and quality of habitat, this is probably a large population; probably more plants on private land.
ii. **Coyote Creek**- two small subpopulations at high elevation; along stream and around seep, <1 acre; regularly grazed by livestock.
iii. Harkness Lakes- at least two medium-size subpopulations occurring along creek and margins of small lakes; 200-2,000 stems observed in 1985; subject to grazing.
iv. **Hildreth**- medium-size population in two subpopulations on ca. 1 acre associated with spring and spring creek; ca 700 stems estimated in 1997; light to moderate livestock grazing.
v. **Kate Creek**- small population in <1 acre along stream; 8 stems observed in 1997; moderate livestock grazing.
vi. **Lower Poison Lake**- small population in <1 acre around spring-fed pond; little or no livestock grazing in 1984.
vii. **Meadow Creek**- at least four subpopulations distributed along small stream; livestock grazing, at least 300-600 stems observed in 1993, 94, 97; probably a medium or large population based on the amount of habitat; probably more plants on private land.
viii Morrison Lake- small population in <1 acre around small pond; 50-100 stems observed in 1990; livestock grazing.
ix. **Muddy Creek**- medium-size population on creek terrace, ca. 1 acre; moderate to light livestock use in 1993.
x. **Porcupine Canyon**- large population in ca. 2 acre; >20,000 stems estimated in 1997; little or no livestock grazing in 1997.
xi. **Simpson Creek**- large population on 4+ acres along small stream; >10,000 stems estimated in 1997; light to moderate livestock grazing; probably more plants on private land.

xii. **Sourdough Creek**- two small subpopulations in <2 acres along creek; 100-200 stems observed in 1994; light to moderate livestock grazing in 1994.

c. Centennial Valley, Montana: Nine verified populations occur in the Centennial Valley area. Some populations are large and undocumented populations probably occur on private land. The plant is locally common in the wetlands of this valley.

i. **Brundage Creek**- small population in ,1 acre roadside meadow; heavily grazed in 1997.

ii. **Clover Divide**- small population along stream and seep areas over ca. 20 acres; ca. 200 stems observed in 1997; moderate livestock grazing.

iii. **Lima Reservoir North**- probably a large population over ca. 100 acres of seeps at the base of hills; heavily grazed in 1997.

iv. **Lima Reservoir Southwest**- small population in <1 acre along small stream; ca. 200 stems in 1997; moderate to heavy livestock grazing.

v. Monida- small population in ca. 5 acres wet meadow along stream; 100-1000 stems estimated in 1985, <20 stems observed in 1997; not grazed regularly.

vi. **Mud Lake**- large population in ca. 40 acres along stream and around lake; >1,000 stems estimated in 1997; not grazed regularly.

vii. **Sand Creek**- large population over ca. 2 acres of seeps at the base of hills; >10,000 stems estimated in 1997; not grazed in 1997.

viii **Upper Deadman Creek**- probably a medium-size population in ca. 2 acres of wet meadow along stream; moderate to heavy grazing in 1997.

ix. **Wolverine Creek**- small population on <1 acre along creek; ca. 20 stems observed in 1994; moderate livestock grazing in 1994.

d. Highland Mountains, Montana: seven small populations are known in the Butte Highlands. *Carex parryana* ssp. *idahoa* is local and uncommon in this area.

i. **Blacktail Creek**- probably a small population in ca. 1 acre along stream

ii. **Coyote Hill**- small population along stream; 50-100 stems observed in 1992; livestock grazing.
iii. **Highland City**- small population along stream; 20-30 stems in 1982, ca. 50 stems in 1992; moderate livestock grazing and road disturbance.
iv. **Maclean Creek**- population occurs along stream; no population size estimates.
v. **Moose Creek**- small population in ca. 1 acre meadow along stream; ca. 160 stems observed in 1997; light to moderate grazing in 1997.
vi. **Moosetown South**- small population in <1 acre along stream; ca. 100 stems observed in 1997; light grazing in 1997, some dredging of creek, adjacent road disturbance.
vii. **South Fork Tucker Creek**- small population in ca. 1 acre along stream; 50-100 stems observed in 1992; moderate to heavy livestock grazing in 1992.

e. Blacktail Mountains, Montana: Habitat is limited in this area, and most populations are small. Many of the small habitat islands in this area (springs) are on private land and are unsurveyed.
i. **Basin Creek**- small population on ca. 1 acre associated with spring; 100-200 stems observed in 1995; heavily grazed in 1997.
ii. **Box Spring**- 2 subpopulations, 1 large on ca. 1 acre associated with spring creek and seep; 1,000+ stems estimated in 1995; livestock grazing heavy in places.
iii. **Upper Blacktail Deer Creek**- small population on <1 acre along creek; heavily grazed in 1997.

f. Pioneer Mtns., Montana: Only one small, recently verified site is known. Other small populations may occur on private land, but many sites searched did not harbor populations.
i. **Taylor Creek**- small population on <1 acre along stream; ca. 100 stems estimated in 1997; moderate livestock grazing.

g. Gravelly Range, Montana: Only one small site is known from wetlands on the north end of the Range.
i. **Grassy Lake**- small population; <10 stems seen in small (<1 acre) wetland in 1997;

adjacent to a road; moderate livestock grazing.

3. REPRODUCTIVE BIOLOGY

a. Type of reproduction: *Carex parryana* is described as having short, creeping rhizomes (Hitchcock et al 1969), and *C. parryana* ssp. *idahoa* is described as having "prolonged, scaly rootstocks" (Hermann 1970). These rootstocks or rhizomes are a means of vegetative reproduction. The rhizomatous growth form make recognition of genetic individuals in the field difficult or impossible.

Carex parryana ssp. *idahoa* also produces seed, as a means of sexual reproduction. Murray (1969) states that the plant is dioecious (male and female flowers on separate plants); however, Hermann (1970) states that spikes are "often all pistillate," suggesting that spikes may sometimes have both male and female flowers. Murray (1969) comments that he has not seen any staminate plants although Bailey (1896) describes them. Taken together, these observations indicate that plants with male flowers are rare in *Carex parryana* ssp. *idahoa*, thus most seed is probably produced by asexual (agamospermous) means, although sexual reproduction is also possible.

b. Pollination biology: Pollination, when it occurs, is presumably by wind (Faegri and van der Pijl 1971, Hickey and King 1988).

c. Seed dispersal and biology: *Carex* plants lack any special adaptations for dispersal. Nonetheless, there is evidence that dispersal may occur by birds, either externally in mud on feathers and feet or in the gut following ingestion. Dispersal may also occur by water in the case where perigynia float (van der Pijl 1982). Otherwise, short-distance dispersal by gravity and wind may also occur.

d. Seedling biology: Nothing is known.

4. DEMOGRAPHY: Most rhizomatous graminoids follow a similar demographic pattern. Genets (genetically unique individuals) are composed of rhizomes

(horizontal underground stems). Ramets (branches forming tufts of leaves at the soil surface) arise from the rhizome. Each ramet persists for 1-3+ years, produces a flower stem and then perishes. Each year, new ramets are produced, some old ramets persist in a vegetative state and some ramets flower and perish. If ramets flower their third year on average, then ca. 33% of all ramets will be in flower on an average year.

In 1997 only a small proportion (ca. 10%) of the *Carex parryana* ssp. *idahoa* ramets observed had a flowering stem. This distribution of vegetative and fertile ramets suggests that ramets may remain vegetative for 5-10 years before flowering, assuming that 1997 was an average year.

Carex parryana ssp. *idahoa* often occurs in discrete colonies covering ca. 1-5 m^2. Such colonies may be a single genet.

G. ECOLOGY

1. BIOLOGICAL INTERACTIONS

a. Competition and facilitation: *Carex idahoa* ssp. *parryana* occurs in dense turf of wetland meadows. At 14 sites canopy cover of graminoids was always high (60-100%), while canopy cover of forbs varied from low to moderate (5-50%) (Appendix D). There was no correlation between the average height of the vegetation and the abundance of *C. parryana* ssp. *idahoa* at these sites (Appendix D). These observations suggest that *C. parryana* ssp. *idahoa* is a late successional species capable of persisting in a strongly competitive environment.

There were strong negative associations between *Carex parryana* ssp. *idahoa* and *Poa pratensis, Antennaria microphylla* and *Aster occidentalis* (Appendix D). These correlations may indicate competitive interactions, or they may be a response to differential grazing histories among the sites (see below) or both. The two forbs that increased as *C. parryana* ssp. *idahoa* decreased are smaller in stature and not likely to cause competitive exclusion of the rhizomatous sedge without herbivore pressure. *Poa pratensis* is an aggressive, exotic,

rhizomatous species that might be able to outcompete *Carex* spp. in a meadow turf environment.

b. Herbivory: I observed no evidence of insect herbivory on *Carex parryana* ssp. *idahoa* during field surveys in 1997, and saw no evidence of insect damage on ca. 15 herbarium specimens housed at the University of Montana (MONTU).

Cattle grazing occurs at nearly all of the known sites for *Carex parryana* ssp. *idahoa* in Montana and Idaho. In 1997 grazing intensity varied from ungrazed to ca. 100% utilization at the sites surveyed. Experimentation is the only robust way to determine the effects of livestock grazing on this sedge, and these studies have not been done.

In 1997 Lesica estimated canopy cover of dominant plant species and abundance of flowering stems of *Carex parryana* ssp. *idahoa* at fourteen sites in Montana (Appendix D). Graminoid cover was high at all sites. There was a strong positive relationship between *C. parryana* ssp. *idahoa* and graminoid cover and strong negative relationship between the sedge and a number of species that are thought to increase with livestock grazing, *Poa pratensis, Antennaria microphylla* and *Aster occidentalis*. These observations suggest that *Carex parryana* ssp. *idahoa* behaves like a typical palatable graminoid, persist with moderate ungulate grazing pressure, decreasing as grazing becomes strong enough to cause an increase in forbs and *Poa pratensis*. Indeed Hermann (1970) reports that *C. parryana* ssp. *idahoa* provides excellent forage for cattle and horses but is too rare to be of more than local importance.

c. Other biotic interactions: Much of the habitat that could support populations of *Carex parryana* ssp. *idahoa* on private land is mowed for hay. The effects of annual mowing on this plant are not known.

2. HYBRIDIZATION: Subspecies *parryana* and ssp. *idahoa* occur together at ca. six of the sites surveyed in 1997. Subspecies *parryana* was often in slightly drier and often more saline habitats

than ssp. *parryana*. The two subspecies differ in a number of characters: ssp. *parryana* has narrower spikes with little differentiation in size between the terminal and lateral and much smaller pistillate scales compared to ssp. *idahoa*. Intermediates between the two subspecies were never observed in sites where both occurred. Subspecies *hallii* occurs further east than ssp. *idahoa*. It has spikes like ssp. *idahoa* but scales like ssp. *parryana* and may be a of hybrid origin.

H. LAND OWNERSHIP

1. BUREAU OF LAND MANAGEMENT: Twenty-four of the recently verified populations of *Carex parryana* ssp. *idahoa* occur on lands administered by BLM. These include Basin Creek, Box Spring, Brundage Creek, Cabin Creek, Clover Divide, Coyote Creek, Grassy Lake, Hildreth, Lima Reservoir N, Lima Reservoir SW, Meadow Creek, Mud Lake, Muddy Creek, Porcupine Canyon, Sand Creek, Simpson Creek, Sourdough Creek, Taylor Creek, Upper Blacktail, Upper Deadman, Wolverine Creek, Maclean Creek, Moose Creek, Moosetown S. Some of these are large, and many are contiguous with private land. Additional populations may occur on BLM land in the Centennial Valley and the headwaters of Big Sheep Creek.

2. U.S. FOREST SERVICE: There are four recently verified sites for *Carex parryana* ssp. *idahoa* on land administered by USFS: Harkness Lakes, Morrison Lake, Coyote Hill and Highland City. Additional populations probably occur on USFS lands in the Beaverhead Range and perhaps in the southern Gravelly Range.

3. STATE OF MONTANA: The Lower Poison Lake and South Fork of Tucker Creek sites are on state land.

4. PRIVATE: The Kate Creek, Monida and Blacktail Creek sites are on private land. All of these are small populations. *Carex parryana* ssp. *idahoa* often occurs in habitats amenable to hay production or adjacent to permanent water sources. These habitats, because of their economic value, are often on private property. Many large population likely occur on private land in the headwaters of Big Sheep Creek and the Centennial Valley. Small populations associated with springs and small streams on private land are likely to be found in the Blacktail Mountains.

II. ASSESSMENT AND MANAGEMENT RECOMMENDATIONS

A. THREATS TO KNOWN POPULATIONS

1. LIVESTOCK GRAZING: Graminoid plants such as sedges are adapted to grazing and are usually able to persist with light to moderate grazing pressure (Dyer et al. 1993, McNaughton 1979). Evidence suggests that *Carex parryana* ssp. *idahoa* responds to grazing like a typical palatable graminoid (see I.G.1.b. and Appendix D.), capable of persisting under light to moderate grazing, but declining with chronic heavy grazing. It should be remembered that this assessment is based on correlational data and studies of other, anatomically similar species. Experiments and monitoring studies to determine the actual response of *C. parryana* ssp. *idahoa* to grazing have not been conducted. Nonetheless, it is reasonable to assume that *C. parryana* ssp. *idahoa* will decline with heavy grazing.

   Almost all known populations of *Carex parryana* ssp. *idahoa* on public lands are subject to livestock grazing. Much of the habitat for *C. parryana* ssp. *idahoa* on private land is also subject to cattle grazing. The mesic habitat supporting populations of this sedge provides high quality, green forage for livestock throughout the summer and is a magnet for cattle which often overgraze. Many small populations of *C. parryana* ssp. *idahoa* occur in islands of mesic habitat (springs, seeps or small streams) in semi-arid steppe. Vegetation of these areas often receive ca. 100% utilization annually. Populations occupying larger areas of habitat may not face such severe grazing pressure. However, it is likely that some populations are declining due to livestock grazing.

   Severe livestock grazing can result in streambank destabilization followed by lowering of the water table and a reduction in the extent of hydrophytic vegetation (Platts and Nelson 1989). Overgrazing could reduce the extent of *Carex parryana* ssp. *idahoa* habitat associated with riparian areas.

2. MOWING FOR HAY: Large areas of likely *Carex parryana* ssp. *idahoa* habitat on private land in southern Beaverhead county are mowed for hay. These sites have not been surveyed, so only conjecture is possible at this time. Many of

these hay meadows have been sown to exotic species with or without concomitant plowing. In other areas native vegetation is cut. Some sites are probably irrigated. Plowing and seeding almost certainly has adverse effects on native species including *C. parryana* ssp. *idahoa*, and may even result in local extirpation. It is not known how annual mowing or irrigation affects *C. parryana* ssp. *idahoa*. Some species of *Carex* persist with annual mowing and irrigation in the Big Hole Valley of Beaverhead County. Further study is needed to determine whether conservation of this rare sedge and haying are compatible.

3. MINING: A portion of Moose Creek associated with the Moosetown South *Carex parryana* ssp. *idahoa* population has been dredged, presumably for mineral extraction. Dredging likely reduced the extent and altered the nature of riparian vegetation and possibly reduced the amount of habitat available to *C. parryana* ssp. *idahoa*. Most populations of *C. parryana* ssp. *idahoa* do not occur in areas prone to mining activity.

4. ROADS: Roads are often constructed along or adjacent to riparian areas. Road construction has impacted wetland habitat at three known *Carex parryana* ssp. *idahoa* sites: Brundage Creek, Highwood City and Moosetown South. A fourth site (Blacktail Creek) is threatened by road improvement construction. Road development can impact populations of *C. parryana* ssp. *idahoa* by reducing the amount of habitat available and by degrading the remaining habitat through increased runoff, pollution, and disturbance from maintenance.

5. EXOTIC PLANTS: *Poa pratensis* was the only exotic plant occurring with significant frequency in *Carex parryana* ssp. *idahoa* habitat. It is a rhizomatous grass similar in stature to *C. parryana* ssp. *idahoa* and may compete with it, especially in the presence of grazing and trampling by livestock. *Taraxacum officinale* and *Trifolium repens* occur at some sites, but these small-stature species will increase only in situations where heavy grazing is removing the canopy of larger graminoids. By themselves they do not pose a threat to *C. parryana* ssp. *idahoa*.

B. MANAGEMENT PRACTICES AND RESPONSES

1. CATTLE GRAZING: It is reasonable to assume that light to moderate livestock grazing is compatible with the conservation of *Carex parryana* ssp. *idahoa*, but that the species will decline with heavy grazing (see above). The habitat of this plant is favored by cattle, and overgrazing of its mesic wetland habitat on public and private land is common. Populations of *C. parryana* ssp. *idahoa* are probably subjected to many different grazing regimes throughout its range. It is not known how the plant responds to these different treatments. It is reasonable to assume that grazing regimes permitting 50% or less utilization annually and allowing seed production and dispersal at regular intervals will be most likely to be compatible with the persistence of *C. parryana* ssp. *idahoa*.

2. MOWING FOR HAY: Conversion of *Carex parryana* ssp. *idahoa* habitat for hay production occurs only on private land in Montana. Plowing and seeding undoubtedly has adverse effects on the viability of *C. parryana* ssp. *idahoa* populations. The effects of mowing on native vegetation are unknown.

3. ROADS: Road construction has occurred in *Carex parryana* ssp. *idahoa* populations, probably resulting in a loss of habitat. Use of these roads by ranchers and recreationists probably has little impact on *C. parryana* ssp. *idahoa* populations; however, maintenance or widening may result in additional habitat loss.

C. RECOMMENDATIONS FOR MAINTAINING VIABLE POPULATIONS

1. MANAGEMENT RECOMMENDATIONS: It is unlikely that private landowners will be willing to alter management practices in order to conserve populations of *Carex parryana* ssp. *idahoa*. Consequently, conservation of this rare sedge will depend on public lands. The only significant threat to *C. parryana* ssp. *idahoa* on public lands is overgrazing.

   The 1997 guidelines for livestock grazing management on BLM's Butte District call for maintaining and improving riparian vegetative cover (Guideline #1) and stocking rates and duration of use should be implemented to ensure that riparian areas are in proper functioning condition (Guideline #4), including "high vigor" for riparian plants (Standard #2). Management of

wetlands supporting *Carex parryana* ssp. *idahoa* should adhere to the published standards and guidelines. Livestock grazing on these mesic sites should be light to moderate; full utilization of graminoid vegetation by livestock should be avoided.

The 1997 guidelines for livestock grazing management for the Butte District call for monitoring of wetland and riparian area conditions. Monitoring the abundance of *Carex parryana* ssp. *idahoa* in those pastures in which it occurs as a common component of the vegetation could prove advantageous. The needed information on grazing response for this rare plant can be obtained in this way, and the response of *C. parryana* ssp. *idahoa* should mirror the meadow vegetation as a whole since it is considered a highly palatable species with a growth form similar to the sod-forming community dominants.

2. RESEARCH NEEDS: Surveys for populations of *Carex parryana* ssp. *idahoa* populations on private land should be made to determine their size and extent. The effects of livestock grazing and haying on populations of *C. parryana* ssp. *idahoa* should be determined. The optimum grazing regimes for conservation of *C. parryana* ssp. *idahoa* should be determined.

3. STATUS RECOMMENDATIONS

   a. U.S. Fish and Wildlife Service: *Carex parryana* ssp. *idahoa* is known only from a small area of southwest Montana and southeast Idaho. The plant is common in the headwaters of Big Sheep Creek, locally common in the Centennial Valley and rare elsewhere in Montana. *Carex parryana* ssp. *idahoa* is known from 32 sites in Montana, and many others probably occur on private land. It occurs in drier ecotonal zones around subirrigated wet meadows associated with springs and low gradient streams in high-elevation valleys, a habitat that is uncommon throughout most of the plant's range. *Carex parryana* ssp. *idahoa* is palatable and subject to livestock grazing throughout its range; its habitat is usually preferred by cattle. Much of the habitat on private land is mowed for hay. It is reasonable to assume that *Carex parryana*

ssp. *idahoa* is compatible with light to moderate livestock grazing.

In summary, *Carex parryana* ssp. *idahoa* has a small geographic range and occurs in a narrowly defined habitat that is threatened by livestock overgrazing throughout this range. However, *C. parryana* ssp. *idahoa* is common in the center of its range and is likely compatible with moderate livestock grazing. Thus, *Carex parryana* ssp. *idahoa* should not be considered for listing as a threatened or endangered species at this time and should remain as 3C until it can be shown to be declining or that significant portions of its habitat are being overgrazed. A final recommendation awaits findings in the Idaho portion of its range.

b. U.S. Bureau of Land Management: *Carex parryana* ssp. *idahoa* occurs on public land administered by BLM. It has a narrow geographic range and occurs in a habitat that is sensitive to current land management practices (livestock grazing). There is evidence that heavy grazing is detrimental to the plant, and some BLM sites (e.g., Basin Creek) experience intense grazing pressure. *Carex parryana* ssp. *idahoa* should remain on the BLM sensitive list until it can be shown that all or most populations are experiencing only light to moderate livestock grazing and that monitored populations are stable.

c. U.S. Forest Service: *Carex parryana* ssp. *idahoa* occurs on land administered by the U.S. Forest Service. It has a narrow geographic range and occurs in a habitat that is sensitive to current land management practices (livestock grazing), and there is evidence that heavy grazing is detrimental to the plant. *Carex parryana* ssp. *idahoa* should continue to have sensitive status.

d. State of Montana: There are 32 recently verified sites for *Carex parryana* ssp. *idahoa* in Montana, and it is likely that many more occur on private land. However, many populations are small, and the habitat is threatened throughout its range. Thus the status of S2 is still warranted.

4. MONITORING: The density of vegetative and fertile ramets of *Carex parryana* ssp. *idahoa* should be monitored using permanent plots on sites with different grazing regimes to help determine the plant's response to grazing and the optimum management strategy for its conservation.

D. SUMMARY: *Carex parryana* ssp. *idahoa* occurs in the high semi-arid valleys of southwest Montana and adjacent southeast Idaho. There are 32 recently verified populations in Montana, and others probably occur on unsurveyed private land. In Idaho where surveys have not been conducted, there are only four recently verified populations. Most known Montana populations of *Carex parryana* ssp. *idahoa* occur on land administered by BLM; however, this is partly an artifact of survey intensity. Some additional populations probably occur on U.S. Forest Service land and many are likely to occur on private land. *Carex parryana* ssp. *parryana* also occurs in southwest Montana and is found at some of the same sites as ssp. *idahoa*, but the two subspecies are distinct, and intermediate plants have not been observed.

The majority of *Carex parryana* ssp. *idahoa* populations are small and occupy diminutive habitat islands. The plant occurs in moist meadows, often ecotonal between sagebrush steppe and wet meadows dominated by sedges and rushes. This mesic habitat is preferred by cattle for grazing. Observations suggest that *Carex parryana* ssp. *idahoa* responds to grazing like other palatable graminoids- light to moderate grazing has minimal negative impact, while heavy grazing causes decline. Overgrazing was observed at a minority of *C. parryana* ssp. *idahoa* sites. It is also likely that populations on private land have been negatively impacted by agricultural development (hay production) and may continue to be impacted by haying.

Carex parryana ssp. *idahoa* is common to locally common in the center of its range in extreme southwest Montana. Although it is probably sensitive to heavy grazing pressure, there is no evidence that majority of populations are experiencing chronic overgrazing. The number, size and conservation status of *C. parryana* ssp. *idahoa* in Idaho is nearly unknown. *Carex parryana* ssp. *idahoa* is currently listed as 3C by USFWS. This designation appears appropriate at this time pending new information from the Idaho portion of the plant's range. *Carex parryana* ssp. *idahoa* is probably impacted negatively by heavy grazing, and nearly all populations on public land are subject to livestock grazing. Thus,

this rare sedge should continue to be considered sensitive by the BLM and USFS in Montana. Retention of sensitive status by federal agencies will help ensure that *Carex parryana* ssp. *idahoa* does not require listing under the Federal Endangered Species Act in the future.

III. INFORMATION SOURCES

A. HERBARIUM SPECIMENS: Specimens vouchering recently verified as well as historical populations are deposited at the herbaria of the University of Montana (MONTU, ca. 15) and Montana State University (MONT, ca. 4).

B. FIELD WORK: Lesica conducted general floristic field surveys in southwest Montana in 1985 (Big Sheep Creek), 1992 (Highland Mtns.), 1993 (Tendoy Mtns.), 1994 (southern Beaverhead Co.), 1995 (Blacktail Mountains). In 1997 he surveyed for *Carex parryana* ssp. *idahoa* in Madison, Beaverhead and Silver Bow counties. Field forms and photographs are deposited with the Montana Natural Heritage Program in Helena.

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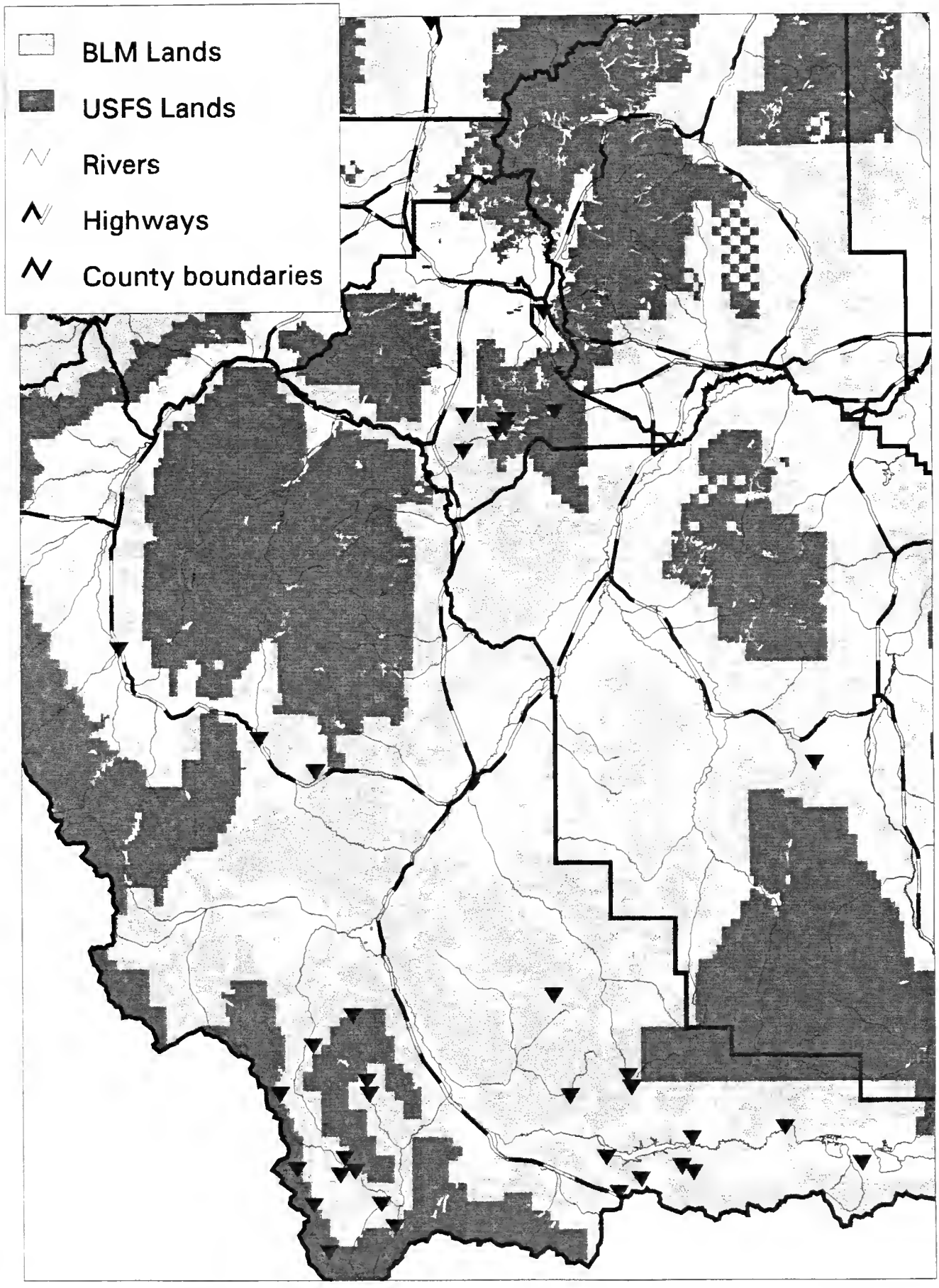
Appendix A. Photographs of *Carex parryana* ssp. *parryana* (upper left) and ssp. idahoa (all others).

Appendix B. Photographs of *Carex parryana* ssp. *idahoa* habitat at Taylor Creek (upper left), Porcupine Canyon (upper right), Hildreth (lower left) and Lima Reservoir (lower right).

Appendix C. Location of Carex parryana ssp idahoa sites



Montana Natural Heritage Program, February 2, 1998

Appendix D.

Habitat and Grazing Response of *Carex parryana* ssp. *idahoa* in Montana

Peter Lesica
929 Locust
Missoula, Montana 59802
November 1997

Introduction

Carex parryana ssp. *idahoa* is a sedge found in moist subirrigated meadows of southwest Montana and adjacent Idaho. The plant is considered rare due to its limited habitat and geographic range (Hermann 1970, Lesica and Shelly 1991). The habitat of *Carex parryana* ssp. *idahoa* is used for either hay production or livestock grazing; however, neither the effect of grazing nor haying on the sedge is known. The purpose of this study is to describe the vegetation associated with *Carex parryana* ssp. *idahoa* and use this data to help determine the effects of grazing on this rare species.

Methods

Carex parryana ssp. *idahoa* is known to occur in Beaverhead, Madison, Silver Bow, Powell and Gallatin counties, Montana and Clark, Lemhi and Bannock counties, Idaho (Lesica and Shelly 1991, Murray 1969). It is a rhizomatous sedge occurring along the drier margins of subirrigated meadows associated with gentle stream terraces as well as springs and seeps, in Montana usually at 6,000-8,500 ft. Hermann (1970) reported that *Carex parryana* ssp. *idahoa* has excellent forage value.

I located more than 20 populations and subpopulations of *Carex parryana* ssp. *idahoa* in Beaverhead County, Montana in early August, 1997. Fourteen of these sites showed little or no indication of grazing and were chosen for my study. At each site I estimated canopy cover of all common vascular plant species, total graminoid species and total forb species to the nearest 5% in a 0.01 ha circular plot subjectively chosen to represent the site where *Carex parryana* ssp. *idahoa* occurred. I counted the number of flowering stems of *Carex parryana* ssp. *idahoa* in a 100 m^2 (50 X 2m) belt transect through the center of each population. Number of stems is not the same as number of individuals but was used here as a relative measure of abundance.

Results

Meadow communities supporting populations of *Carex parryana* ssp. *idahoa* were dominated by the graminoids, *Carex praegracilis*, *Juncus balticus* and *Muhlenbergia richardsonis* (Table 1). Common forbs included *Antennaria microphylla, Aster occidentalis, Potentilla gracilis* and *Taraxacum officinale*. Shrubs (*Potentilla fruticosa*) were common at only two sites (Table 1).

Density of *Carex parryana* ssp. *idahoa* flowering stems was strongly positively correlated with total graminoid cover and negatively correlated with total forb cover (Table 2). *Muhlenbergia richardsonis* was positively correlated with density of *Carex parryana* ssp. *idahoa*. Species most strongly negatively correlated with *Carex parryana* ssp. *idahoa* stems were of *Poa pratensis, Antennaria microphylla* and *Aster occidentalis* (Table 2).

Density of *Carex parryana* ssp. *idahoa* flowering stems varied from 4 to 310 stems/100 m^2 with a mean of 67 stems/100 m^2. Total forb cover varied from 5 to 75% with a mean of 42%, and total graminoid cover varied from 60 to 100% with a mean of 86%. Log-transformation of the dependent variable increased the negative relationship with forb cover ($r=0.68$, $P=0.007$) and the positive relationship with graminoid cover ($r=0.38$, $P=0.182$).

Discussion

Flowering by rhizomatous species may be affected by the degree of stress experienced by the clone. Some species flower sparsely when in a dense sward. This does not appear to be the case with *Carex parryana* ssp. *idahoa* as there was a positive relationship between canopy cover of graminoid plants and the density of *C. parryana* stems.

All of the study sites appeared to have been subjected to livestock grazing in the recent past and were most likely subjected to livestock or bison grazing in the more distant past. Nonetheless, *Carex parryana* ssp. *idahoa* has persisted at these sites and was abundant at some of them, suggesting that it can tolerate at least light to moderate grazing.

Although *Carex parryana* ssp. *idahoa* has persisted at many sites subjected to grazing, results of the study suggest that it does decrease under grazing pressure strong enough to cause significant increases in unpalatable forb cover. Cattle preferentially graze graminoids rather than most forbs, so that among similar habitats those with higher forb cover have usually experienced stronger grazing pressure (Ross and Hunter 1976, Hansen et al. 1995). *Poa pratensis* also increases with livestock grazing (Hansen et al 1995). Across the 14 study sites there was a negative correlation between the canopy cover of forbs and Poa

pratensis and the abundance of *Carex parryana* ssp. *idahoa* (Table 1). Four of the five sites where *Carex parryana* ssp. *idahoa* was most abundant had forb cover less than 20%, although mean forb cover for all 14 sites was 42%. These results indicate that grazing is likely having a negative impact on the sedge.

Taken together my observations suggest that *Carex parryana* ssp. *idahoa* responds to grazing like many palatable graminoids. It can persist with ungulate grazing pressure, but as grazing becomes strong enough to cause an increase in forbs and Poa pratensis, there will be a decrease in this rare sedge.

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Table 1. Percent canopy cover of common species in Carex parryana ssp. idahoa habitat at Taylor Ck (TC), Kate Ck (KC), Hildreth (H1, H2), Monida, Lima Res (LR), Mud Lake (ML), Sand Ck (SC), Clover Divide (CD), Moosetown (MT), Lower Moose (LM), Coyote Ck (CC), Simpson Ck (SI, and Porcupine Canyon (PC).

	TC	KC	H1	H2	MO	LR	ML	SC	CD	MT	LM	CC	SI	PC
Agropyron smithii	5	--	--	--	10	--	--	--	--	--	--	--	--	1
Agropyron trachycaulum	5	--	--	--	--	--	20	30	5	--	--	1	1	--
Carex aquatilis	--	--	--	--	--	--	--	--	--	--	--	10	--	--
Carex microptera	--	--	--	--	--	--	--	--	15	15	--	5	--	--
Carex nebrascensis	1	10	--	--	--	--	--	--	--	--	--	5	--	--
Carex parryana idahoa	--	--	1	1	--	--	5	30	--	--	--	1	15	20
Carex praegracilis	5	--	20	40	40	50	40	50	10	40	1	15	10	20
Deschampsia cespitosa	--	--	--	25	--	10	--	--	5	10	--	--	--	1
Eleocharis pauciflora	--	--	--	--	--	--	--	--	--	--	--	--	30	--
Juncus balticus	10	50	40	30	30	30	20	10	60	10	40	30	30	40
Muhlenbergia richardsonis	--	--	20	5	25	5	20	--	--	10	15	1	10	40
Poa pratensis	65	30	20	--	--	--	--	--	--	5	5	--	--	--
Antennaria microphylla	1	5	--	20	--	5	--	--	--	1	10	1	5	--
Aster occidentalis	--	10	35	5	25	35	--	--	--	15	--	10	--	5
Astragalus leptaleus	--	--	--	--	30	--	--	--	--	--	--	--	--	--
Crepis runcinata	--	--	--	15	--	--	5	--	--	--	--	--	--	--
Fragaria virginiana	--	--	--	--	--	--	--	--	5	20	10	--	--	--
Haplopappus integrifolius	1	--	--	--	--	--	1	1	--	--	--	--	--	--
Iris missouriensis	--	--	--	1	--	5	5	--	5	--	--	--	--	5
Potentilla anserina	--	--	--	--	--	--	--	--	10	--	--	--	--	--
Potentilla fruticosa	--	--	--	--	--	--	--	--	--	40	1	15	--	--
Potentilla gracilis	--	--	10	5	5	20	--	--	20	--	20	--	5	10
Taraxacum officinale	40	5	25	--	--	15	5	5	--	--	--	5	5	10

Table 2. Percent canopy cover (minimum, maximum, mean) of dominant vascular plant species, average vegetation height, and correlation (Pearson's r) with density of *Carex parryana* ssp. *idahoa* at 14 ungrazed site.

	min-max	Mean	r
Carex praegracilis	0-50	24	+0.14
Juncus balticus	10-60	31	-0.14
Muhlenbergia richardsonis	0-40	11	+0.36
Poa pratensis	0-65	9	-0.30
Total graminoids	60-100	86	+0.30
Antennaria microphylla	0-20	3	-0.30
Aster occidentalis	0-35	10	-0.29
Potentilla gracilis	0-20	7	-0.18
Taraxacum officinale	0-40	8	-0.05
Total forbs	5-75	42	-0.45
Height of vegetation	6-12 in	8.7 in	0.09

Appendix E. Element occurrence records for *Carex parryana* ssp. *idahoa* in Montana.

Scientific Name: CAREX PARRYANA SSP IDAHOA
Common Name: IDAHO SEDGE

Global rank: G4T2 Forest Service status: SENSITIVE
State rank: S2 Federal Status:

Element occurrence code: PMCYP036E0.001
Element occurrence type:
Survey site name: HIGHLAND CITY
EO rank:
EO rank comments:

County: SILVER BOW

USGS quadrangle: MOUNT HUMBUG

Township:	Range:	Section:	TRS comments:
001N	008W	35	SW4

Precision: S
Survey date:
First observation: 1981-07-22
Last observation: 1992-07-11
Elevation: 6860 -
Slope/aspect: 5% / WEST
Size (acres): 1

Location:
FROM BUTTE, TAKE STATE HWY 2 TOWARD PIPESTONE PASS; CA. 1.5 MILES BEFORE PASS, GO SOUTHWEST ON FS RD 84 (HIGHLAND ROAD) 10.25 MILES TO 0.1 MILE EAST OF TURNOFF TO MOOSE TOWN. SITE IS BETWEEN ROAD AND CREEK.

Element occurrence data:
1992: CA. 50 INDIVIDUALS, WITH IMMATURE FRUIT PRESENT. 1981: 20-30 PLANTS, GROWING RIGHT ALONG THE ROAD.

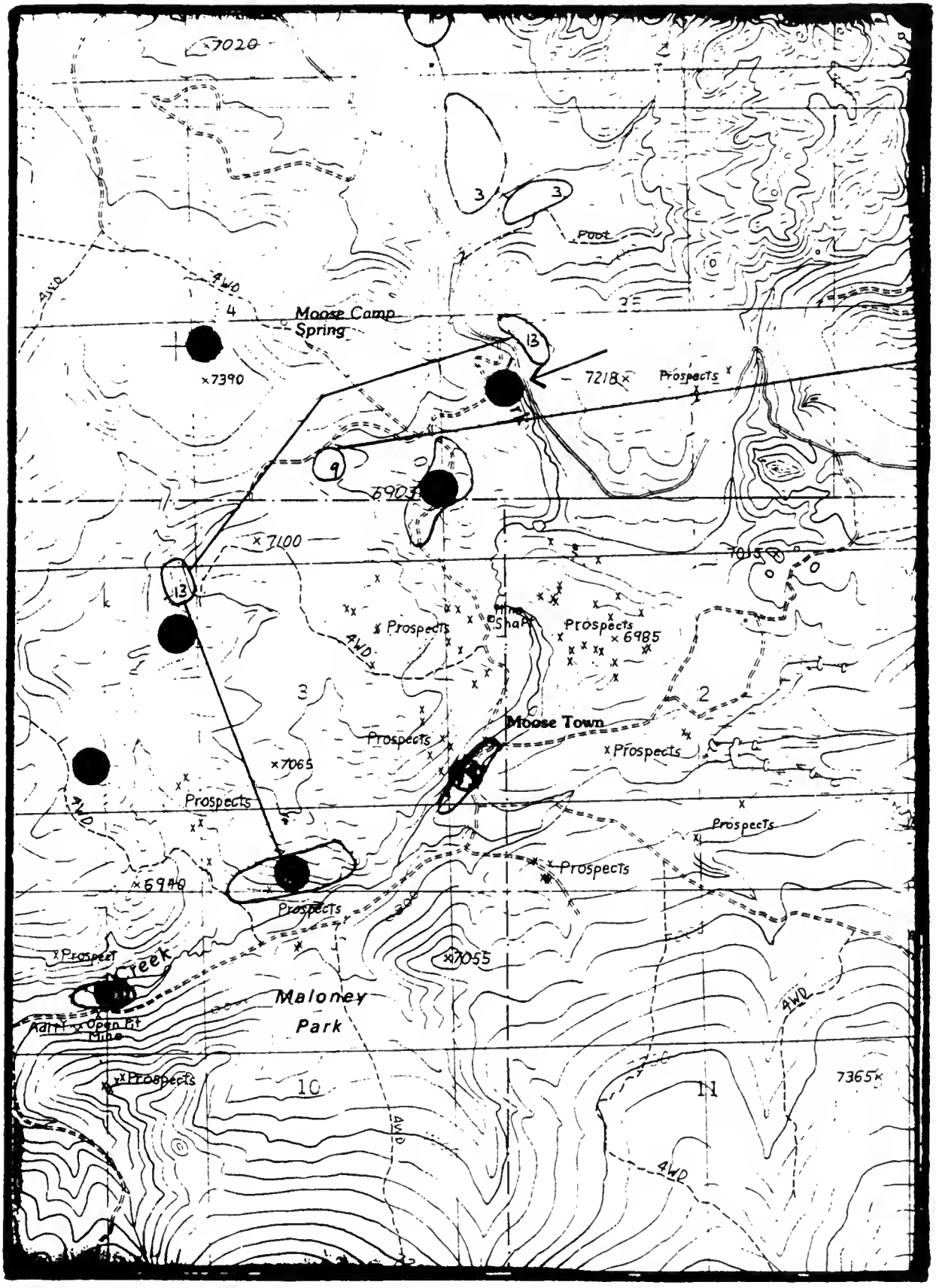
General site description:
1992: OPEN EXPOSURE ON STRAIGHT SLOPE; MOIST BOTTOM IN NARROW VALLEY FLOODPLAIN. SILTY SOIL OF ALLUVIAL OR CALCAREOUS PARENT MATERIAL. ASSOCIATED DOMINANT SPECIES: POTENTILLA FRUTICOSA, DESCHAMPSIA CESPITOSA, JUNCUS BALTICUS. ADDITIONAL ASSOCIATED PLANT SPECIES: POA PRATENSIS, CAREX PETASATA, FRAGARIA VIRGINIANA, POTENTILLA GRACILIS. 1981: CALCAREOUS WET-MOIST MEADOW SURROUNDED BY WILLOWS AND BOG BIRCH; WITH CAREX SCOPULORUM, PEDICULARIS GROENLANDICA, THALICTRUM SPARSIFLORUM, POTENTILLA FRUTICOSA.

Land owner/manager:
BEAVERHEAD-DEERLODGE NATIONAL FORESTS, BUTTE RANGER DISTRICT

Comments:
ECODATA PLOT #92PL114. EVIDENCE OF LIVESTOCK DISTURBANCE.

Information source: LESICA, PETER. DIVISION OF BIOLOGICAL SCIENCES, UNIVERSITY OF MONTANA, MISSOULA, MT 59812.

Specimens: LACKSCHEWITZ, K. (9728). 1981. MONTU.


7020
Moose Camp Spring
7390
7218
Prospects
6905
7100
7015
Prospects
Shaft
Prospects
6985
Moose Town
Prospects
Prospects
7065
Prospects
Prospects
6940
Prospects
Prospect
Creek
7055
Maloney Park
Adit
Open Pit Mine
Prospects
7365
4WD
Foot

Scientific Name: CAREX PARRYANA SSP IDAHOA
Common Name: IDAHO SEDGE

Global rank: G4T2 Forest Service status: SENSITIVE
State rank: S2 Federal Status:

Element occurrence code: PMCYP036E0.002
Element occurrence type:
Survey site name: MONIDA
EO rank: A
EO rank comments: AREA RELATIVELY UNDISTURBED, GOOD POPULATION.

County: BEAVERHEAD

USGS quadrangle: MONIDA

Township:	Range:	Section:	TRS comments:
015S	006W	03	NE4
014S	006W	34	SE4

Precision: S
Survey date: 1985-07-19 Elevation: 6770 -
First observation: 1985 Slope/aspect:
Last observation: 1986-06-27 Size (acres): 40

Location:
0.1-0.4 AIR MI. NW. OF MONIDA, N. OF OLD HIGHWAY ACROSS RR TRACKS.

Element occurrence data:
101-1000 INDIVIDUALS (RHIZOMATOUS); PLANTS FRUITING; MEADOW IS FAIRLY UNDISTURBED AND NOT HEAVILY GRAZED; AREA IS SELDOM VISITED.

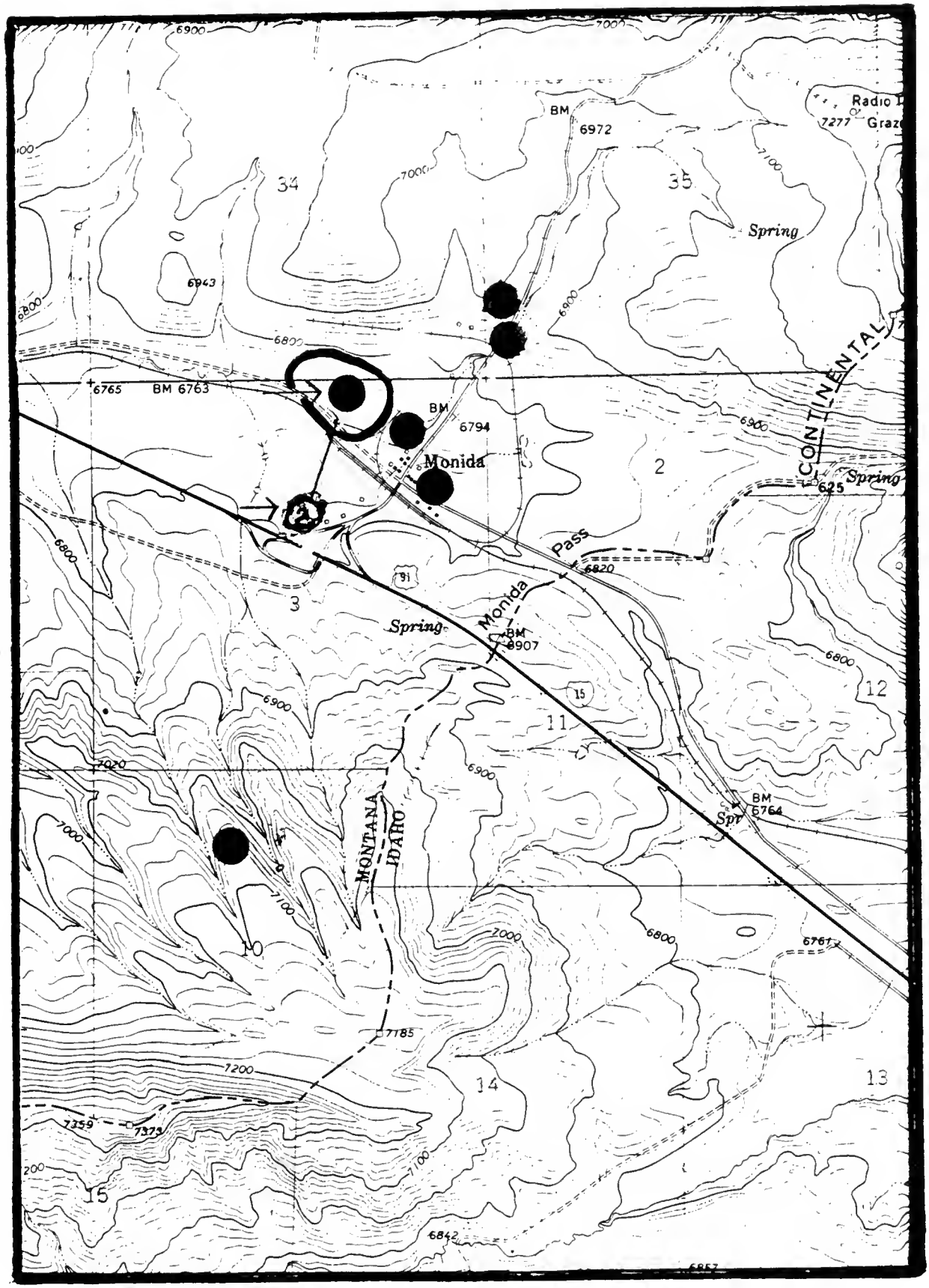
General site description:
WET ALKALINE MEADOW, ON VERY GENTLE SLOPE; MEADOW DOMINATED BY GRAMINOIDS, WITH PHLOX KELSEYI, JUNCUS BALTICUS, CAREX SPP., IN DENSE TURF.

Land owner/manager:
PRIVATELY OWNED LAND (INDIVIDUAL OR CORPORATE)

Comments:
AREA REMOTE & NOT VERY CLOSE TO HIGHWAY; SEE EF FOR SPECIAL PLANT SURVEY FORM.

Information source: LESICA, PETER. DIVISION OF BIOLOGICAL SCIENCES, UNIVERSITY OF MONTANA, MISSOULA, MT 59812.

Specimens: LESICA, P. (3551). 1985. MONTU.


BM 6972
34
35
Spring
6943
6900
6800
6765
BM 6763
BM 6794
Monida
2
CONTINENTAL
Spring
625
Pass
6820
91
3
Monida
BM 6907
Spring
6800
12
15
11
6900
7020
7000
BM 6764
Spr
MONTANA
IDAHO
7100
10
7000
6800
6761
7185
7200
14
13
7359
7375
7100
15
6842

Scientific Name: CAREX PARRYANA SSP IDAHOA
Common Name: IDAHO SEDGE

Global rank: G4T2 Forest Service status: SENSITIVE
State rank: S2 Federal Status:

Element occurrence code: PMCYP036E0.003
Element occurrence type:
Survey site name: LOWER POISON LAKE
EO rank:
EO rank comments:

County: BEAVERHEAD

USGS quadrangle: DEER CANYON

Township:	Range:	Section:	TRS comments:
011S	011W	26	SW4

Precision: S
Survey date: 1984-08-26 Elevation: 8200 -
First observation: 1984 Slope/aspect:
Last observation: 1984-08-26 Size (acres): 0

Location:
TENDOY MOUNTAINS, WEST END OF LOWER POISON LAKE, CA. 10 MILES SOUTH OF CLARK CANYON RESERVOIR.

Element occurrence data:
COMMON.

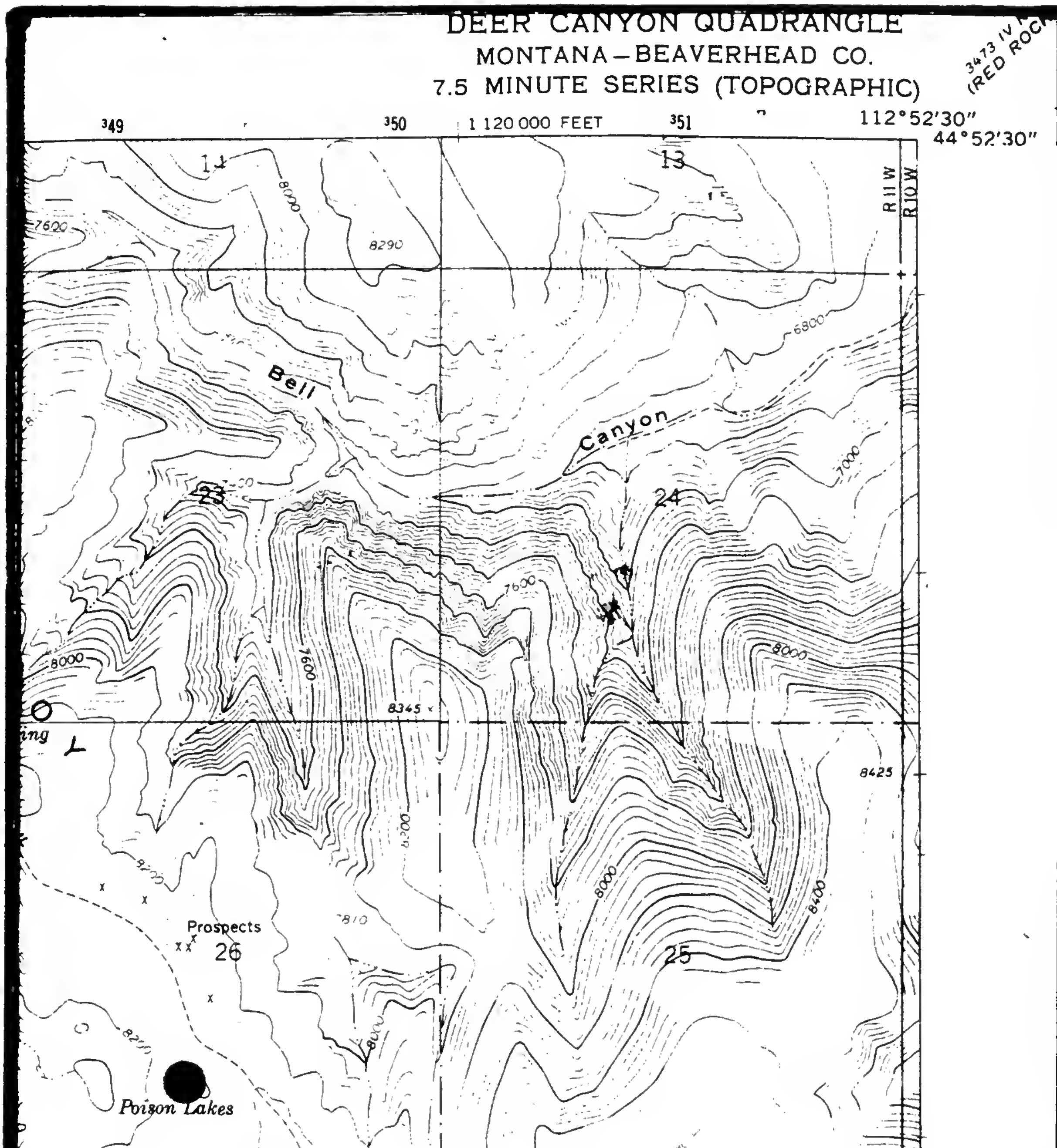
General site description:
FEN, WITH CAREX AQUATILIS AND C. SIMULATA.

Land owner/manager:
STATE LAND - UNDESIGNATED

Comments:

Information source: LESICA, PETER. DIVISION OF BIOLOGICAL SCIENCES, UNIVERSITY OF MONTANA, MISSOULA, MT 59812.

Specimens: LESICA, P. (3288). 1984. SPECIMEN #89087. MONTU.


DEER CANYON QUADRANGLE
MONTANA–BEAVERHEAD CO.
7.5 MINUTE SERIES (TOPOGRAPHIC)
3473 IV
(RED ROC
349
350
1 120 000 FEET
351
112°52'30"
44°52'30"
14
13
R 11 W
R 10 W
7620
8000
8290
6800
Bell
Canyon
7000
23
24
7600
8000
8345
8425
Prospects
26
25
8400
810
Poison Lakes
125
x Prospects
9055
M
O
U
N
35

Scientific Name: CAREX PARRYANA SSP IDAHOA
Common Name: IDAHO SEDGE

Global rank: G4T2 Forest Service status: SENSITIVE
State rank: S2 Federal Status:

Element occurrence code: PMCYP036E0.005
Element occurrence type:
Survey site name: MORRISON LAKE WETLANDS
EO rank: B
EO rank comments: PROBABLY A FAIRLY LARGE POPULATION.

County: BEAVERHEAD

USGS quadrangle: MORRISON LAKE

Township:	Range:	Section:	TRS comments:
014S	012W	23	NE4SW4

Precision: S
Survey date: 1990-07-30 Elevation: 8200 -
First observation: 1990 Slope/aspect: 0-3% / LEVEL
Last observation: 1990-07-30 Size (acres): 1

Location:
TAKE DELL EXIT OFF I-15 SOUTH OF DILLON. PROCEED SOUTH ON FRONTAGE ROAD TO BIG SHEEP CREEK ROAD (#257), AND FOLLOW THIS ROAD CA. 30 MILES TO MORRISON LAKE ROAD. PROCEED TO HEAD OF INDIAN CREEK; WETLANDS ARE SOUTHEAST OF LAKE.

Element occurrence data:
51-100 PLANTS IN FRUIT; MAY BE MORE COMMON THAN SURVEY INDICATED.

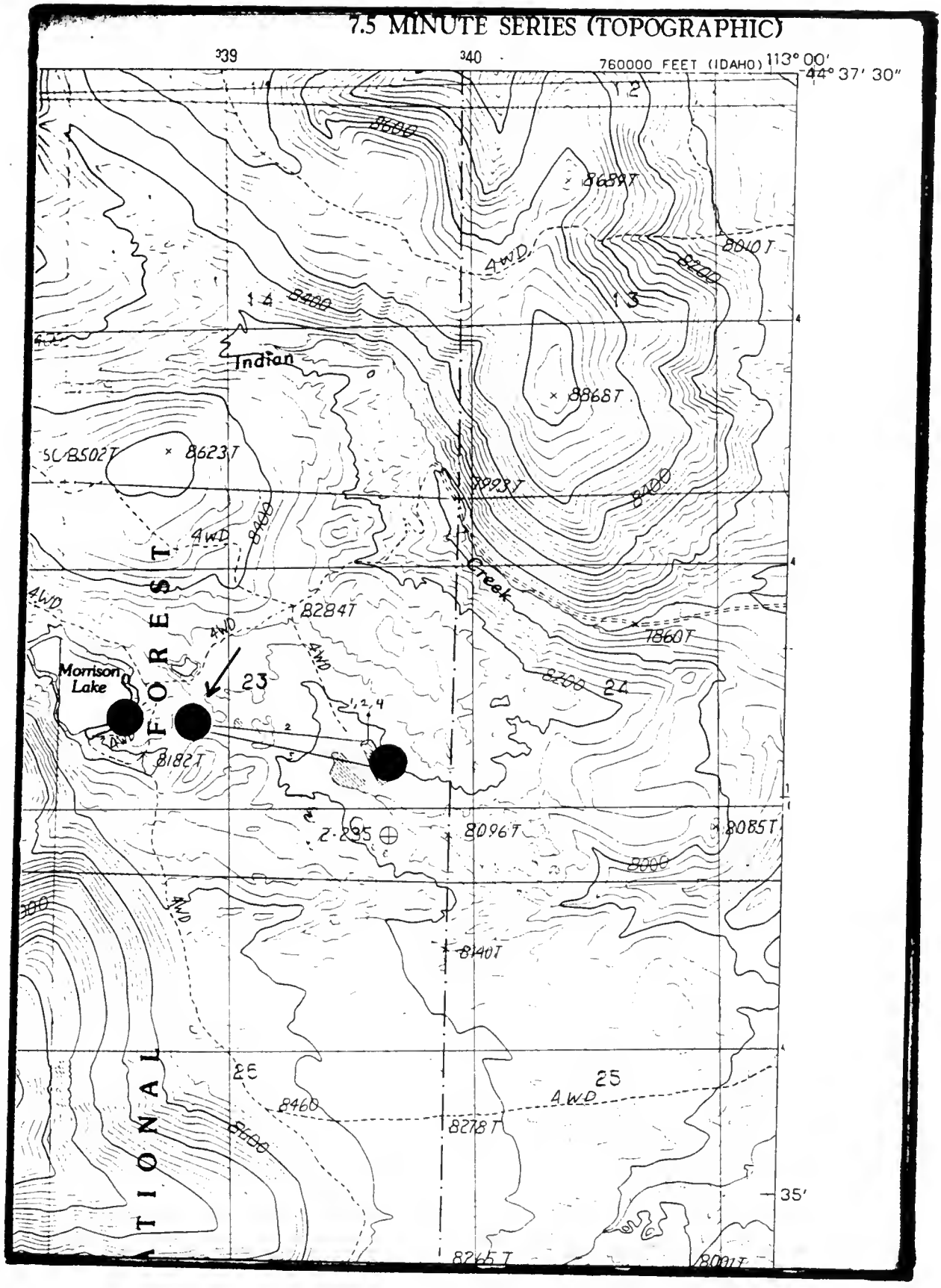
General site description:
POTENTILLA FRUTICOSA/JUNCUS BALTICUS COMMUNITY. ASSOCIATED SPECIES: ASTER OCCIDENTALIS, THALICTRUM ALPINUM, MUHLENBERGIA RICHARDSONIS, SENECIO FOETIDUS, CAREX SCIRPOIDEA, C. PRAEGRACILIS.

Land owner/manager:
BEAVERHEAD-DEERLODGE NATIONAL FORESTS, DILLON RANGER DISTRICT

Comments:
ROADS AND GRAZING IN AREA. COMPLETE PLANT SPECIES LIST AND MANAGEMENT RECOMMENDATIONS CONTAINED IN A REPORT BY P. LESICA TO THE BEAVERHEAD NATIONAL FOREST (1990), ON FILE AT MTNHP.

Information source: LESICA, PETER. DIVISION OF BIOLOGICAL SCIENCES, UNIVERSITY OF MONTANA, MISSOULA, MT 59812.

Specimens: LESICA, P. (4979). 1990. MONTU.


7.5 MINUTE SERIES (TOPOGRAPHIC)
339
340
760000 FEET (IDAHO)
113° 00'
44° 37' 30"
8600
8689T
8040T
8200
4WD
14
8400
13
Indian
8868T
SC 8502T
8623T
8093T
8400
4WD
8400
Creek
4WD
8284T
7860T
4WD
4WD
Morrison Lake
23
8200
24
8182T
2.295
8096T
8085T
8000
8140T
8460
8600
25
4WD
8278T
35'
8265T
8001T
FOREST
TIONAL

Scientific Name: CAREX PARRYANA SSP IDAHOA
Common Name: IDAHO SEDGE

Global rank: G4T2 Forest Service status: SENSITIVE
State rank: S2 Federal Status:

Element occurrence code: PMCYP036E0.006
Element occurrence type:
Survey site name: HARKNESS LAKES
EO rank: B
EO rank comments: LIVESTOCK GRAZING; LOTS OF DANDELIONS AND INCREASERS.

County: BEAVERHEAD

USGS quadrangle: EIGHTEENMILE PEAK

Township:	Range:	Section:	TRS comments:
016S	011W	05	NW4SE4

Precision: S
Survey date: 1990-07-31 Elevation: 8150 - 8200
First observation: 1985 07-20 Slope/aspect: 0-3% - LEVEL
Last observation: 1990-07-31 Size (acres): 40

Location:
BEAVERHEAD RANGE, CA. 24 MILES SOUTHWEST OF LIMA, ALONG COTTONWOOD CREEK.

Element occurrence data:
101-1000 PLANTS, IN IMMATURE FRUIT 31 July 1990.

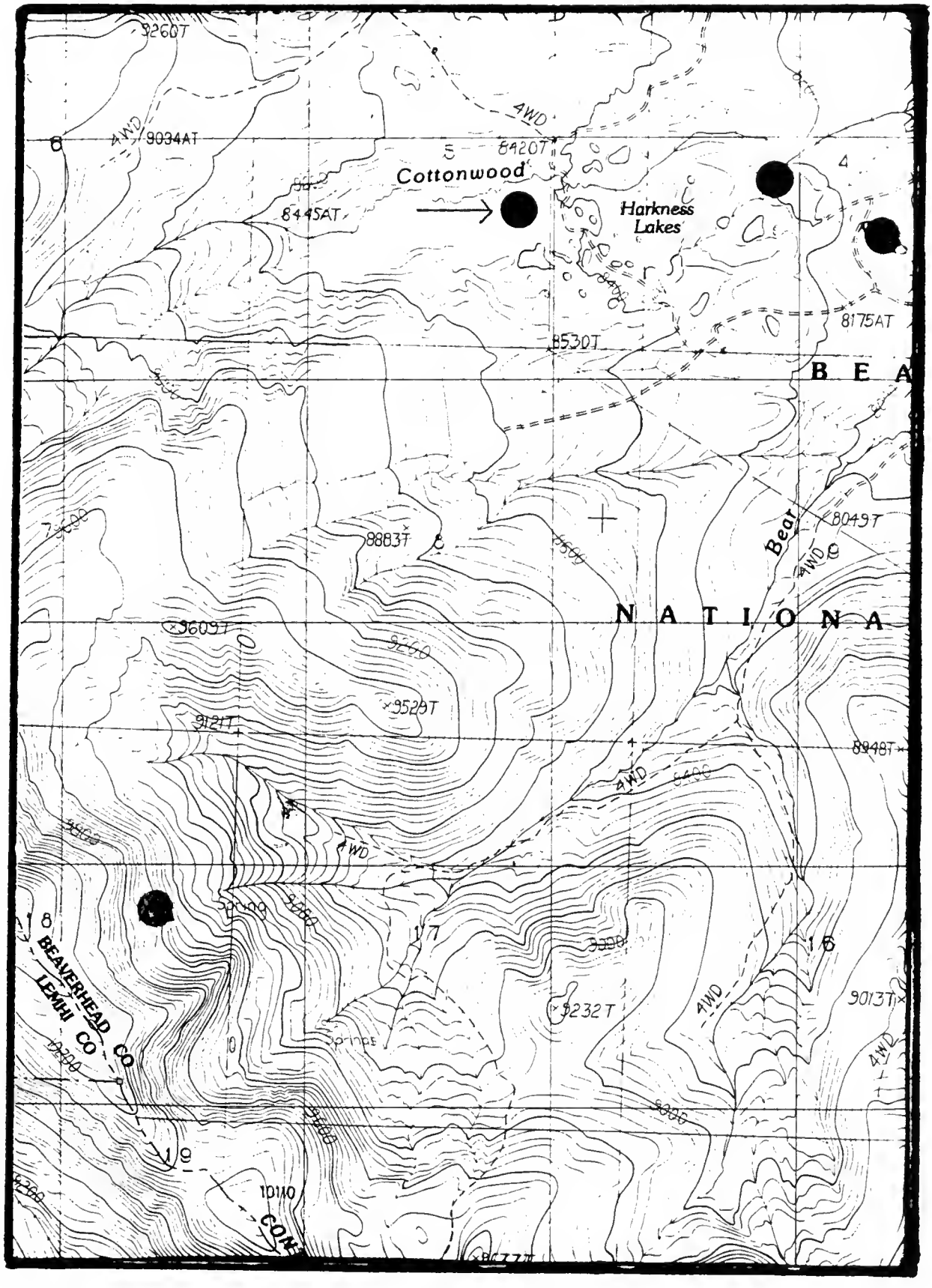
General site description:
BELOW POA NEVADENSIS MEADOW, AT NARROW, MOIST, PEATY JUNCUS BALTICUS ECOTONES ALONG THE MARGINS OF SMALL LAKES. ASSOCIATED SPECIES: TRIFOLIUM LONGIPES, ASTER OCCIDENTALIS, CAREX PRAEGRACILIS.

Land owner/manager:
BEAVERHEAD-DEERLODGE NATIONAL FORESTS, DILLON RANGER DISTRICT

Comments:
COMPLETE PLANT SPECIES LIST AND MANAGEMENT RECOMMENDATIONS CONTAINED IN A REPORT BY P. LESICA TO THE BEAVERHEAD NATIONAL FOREST (1990), ON FILE AT MTNHP.

Information source: LESICA, PETER. DIVISION OF BIOLOGICAL SCIENCES, UNIVERSITY OF MONTANA, MISSOULA, MT 59812.

Specimens: LESICA, P. (3556). 1985. MONTU.
LESICA, P. (5208). 1990. MONTU.


9260T
4WD
9034AT
5
8420T
Cottonwood
Harkness
Lakes
4
8445AT
8530T
8175AT
B E A
8049T
Bear
8883T
N A T I O N A
9609T
9529T
9121T
8948T
4WD
8
BEAVERHEAD CO
LEMHI CO
17
16
9232T
9013T
10
19
10110
CONE

Scientific Name: CAREX PARRYANA SSP IDAHOA
Common Name: IDAHO SEDGE

Global rank: G4T2 Forest Service status: SENSITIVE
State rank: S2 Federal Status:

Element occurrence code: PMCYP036E0.007
Element occurrence type:
Survey site name: COYOTE HILL
EO rank:
EO rank comments:

County: SILVER BOW

USGS quadrangle: PIPESTONE PASS

Township:	Range:	Section:	TRS comments:
001N	007W	27	SE4SW4

Precision: S
Survey date:
First observation: 1992-06-29
Last observation: 1992-06-29
Elevation: 6960 -
Slope/aspect: 2% / SOUTHWEST
Size (acres): 1

Location:
HIGHLAND MOUNTAINS, SOUTH OF BUTTE. FROM FISH CREEK ROAD (FS RD 668), GO NORTH ON LIME KILN MOUNTAIN ROAD (FS RD 8492) CA. 100 YARDS. SITE IS ALONG SMALL SPRING CREEK.

Element occurrence data:
50-100 RAMETS, IMMATURE FRUIT PRESENT.

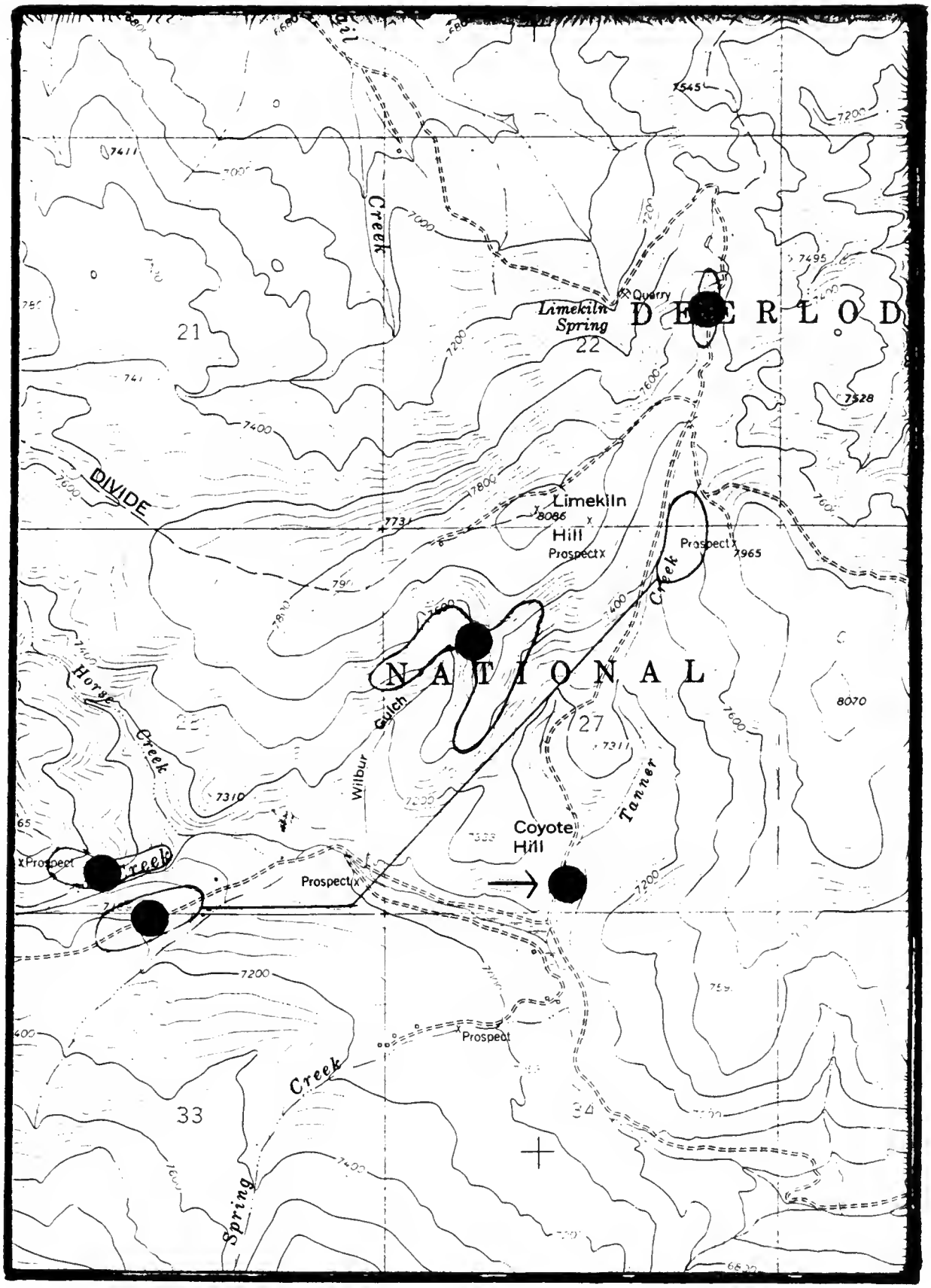
General site description:
OPEN EXPOSURE ON STRAIGHT SLOPE; MOIST AREA IN BOTTOM ON ALLUVIAL FLOODPLAIN. SILTY SOIL OF ALLUVIAL OR CALCAREOUS PARENT MATERIAL. ASSOCIATED DOMINANT SPECIES: POTENTILLA FRUTICOSA, JUNCUS BALTICUS, DESCHAMPSIA CESPITOSA. ADDITIONAL ASSOCIATED SPECIES: POA PRATENSIS, TARAXACUM OFFICINALE, TRIFOLIUM LONGIPES.

Land owner/manager:
BEAVERHEAD-DEERLODGE NATIONAL FORESTS, JEFFERSON RANGER DISTRICT

Comments:
ECODATA PLOT #92PL109. EVIDENCE OF LIVESTOCK GRAZING.

Information source: LESICA, PETER. DIVISION OF BIOLOGICAL SCIENCES, UNIVERSITY OF MONTANA, MISSOULA, MT 59812.

Specimens: LESICA, P. (5746). 1992. MONTU.


Creek
Quarry
Limekiln Spring
DEERLOD
21
22
7545
7411
7495
7528
7400
7600
7800
DIVIDE
Limekiln Hill
8086
Prospect
7965
7731
Creek
NATIONAL
8070
Horse Creek
Wilbur Gulch
27
7311
Tanner
7310
65
Prospect
Creek
Coyote Hill
Prospect
7200
Prospect
Creek
33
34
Spring

Scientific Name: CAREX PARRYANA SSP IDAHOA
Common Name: IDAHO SEDGE

Global rank: G4T2 Forest Service status: SENSITIVE
State rank: S2 Federal Status:

Element occurrence code: PMCYP036E0.008
Element occurrence type:
Survey site name: SOUTH FORK TUCKER CREEK
EO rank:
EO rank comments:

County: SILVER BOW

USGS quadrangle: TUCKER CREEK

Township:	Range:	Section:	TRS comments:
001N	009W	36	NE4

Precision: S
Survey date:
First observation: 1992-06-27
Last observation: 1992-06-27
Elevation: 6180 -
Slope/aspect:
Size (acres): 1

Location:
FROM DIVIDE (TOWN), GO NORTH ON FRONTAGE ROAD CA. 5 MILES. GO EAST UNDER I-15 CA. 1.5 MILES TO RANCH. TAKE ROAD TO RESERVOIR CA. 1 MILE. INSTEAD OF CONTINUING UPHILL, GO DOWN TO CREEK. SITE IS CA. 0.4 MILE UPSTREAM.

Element occurrence data:
50-100 INDIVIDUALS; IMMATURE FRUIT PRESENT.

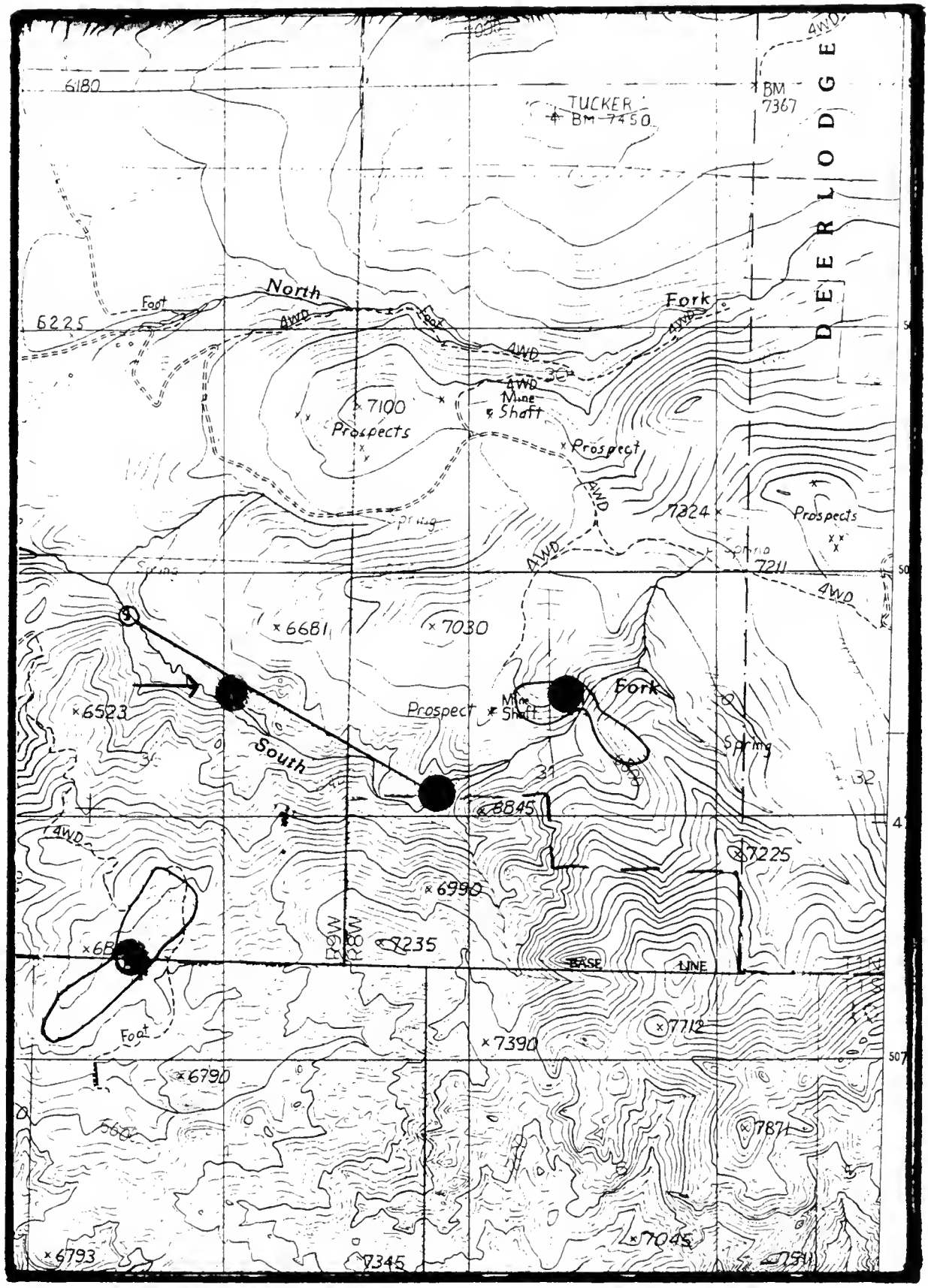
General site description:
OPEN EXPOSURE ON STRAIGHT SLOPE; MOIST AREA IN BOTTOM ON FLOODPLAIN TERRACE. SILTY SOIL OF ALLUVIAL PARENT MATERIAL. ECOTONE BETWEEN CAREX NEBRASCENSIS WET MEADOW AND ARTEMISIA TRIDENTATA-FESTUCA IDAHOENSIS STEPPE, WITH POA PRATENSIS AND JUNCUS BALTICUS.

Land owner/manager:
STATE LAND - UNDESIGNATED

Comments:
LIVESTOCK DISTURBANCE EVIDENT.

Information source: LESICA, PETER. DIVISION OF BIOLOGICAL SCIENCES, UNIVERSITY OF MONTANA, MISSOULA, MT 59812.

Specimens: LESICA, P. (5730). 1992. SPECIMEN #71771. MONTU.


DERLODGE
TUCKER
BM 7450
BM 7367
6180
6225
North
Fork
Foot
4WD
7100
Prospects
Mine Shaft
Prospect
7324
Prospects
Spring
7211
6681
7030
6523
South
Fork
Prospect
Mine Shaft
Spring
31
32
8845
7225
6990
R8W
R8W
7235
BASE
LINE
7712
7390
6790
7871
6793
7345
7045

Scientific Name: CAREX PARRYANA SSP IDAHOA
Common Name: IDAHO SEDGE

Global rank: G4T2 Forest Service status: SENSITIVE
State rank: S2 Federal Status:

Element occurrence code: PMCYP036E0.009
Element occurrence type:
Survey site name: MEADOW CREEK
EO rank: C
EO rank comments: WESTERN SUBPOPULATION IS SMALL AND HEAVILY-GRAZED; EASTERN SUBPOPULATION IS RELATIVELY LARGE WITH SOME GRAZING; NORTHERN SUBPOPULATION IS SMALL AND GRAZED.

County: BEAVERHEAD

USGS quadrangle: CABOOSE CANYON

Township:	Range:	Section:	TRS comments:
015S	010W	08	NW4; 9 W2

Precision: S
Survey date: 1994-08-16 Elevation: 6840 - 6880
First observation: 1993-07-10 Slope/aspect: 0-3% / NORTH
Last observation: 1994-08-16 Size (acres): 12

Location:
FROM DELL, TAKE BIG SHEEP CREEK ROAD TO MEADOW CREEK ROAD, THEN TAKE MEADOW CREEK ROAD 1 MILE WEST (WESTERN SUBPOPULATION). EASTERN SUBPOPULATION IS LOCATED NEAR CROSSING OF DEADMAN ROAD AND NICHOLIA CREEK.

Element occurrence data:
SUBPOPULATIONS. WESTERN: 50 PLANTS, IMMATURE FRUIT. EASTERN: 200-500 PLANTS, IMMATURE FRUIT. NORTHERN: 20-50 PLANTS, MATURE FRUIT (1994).

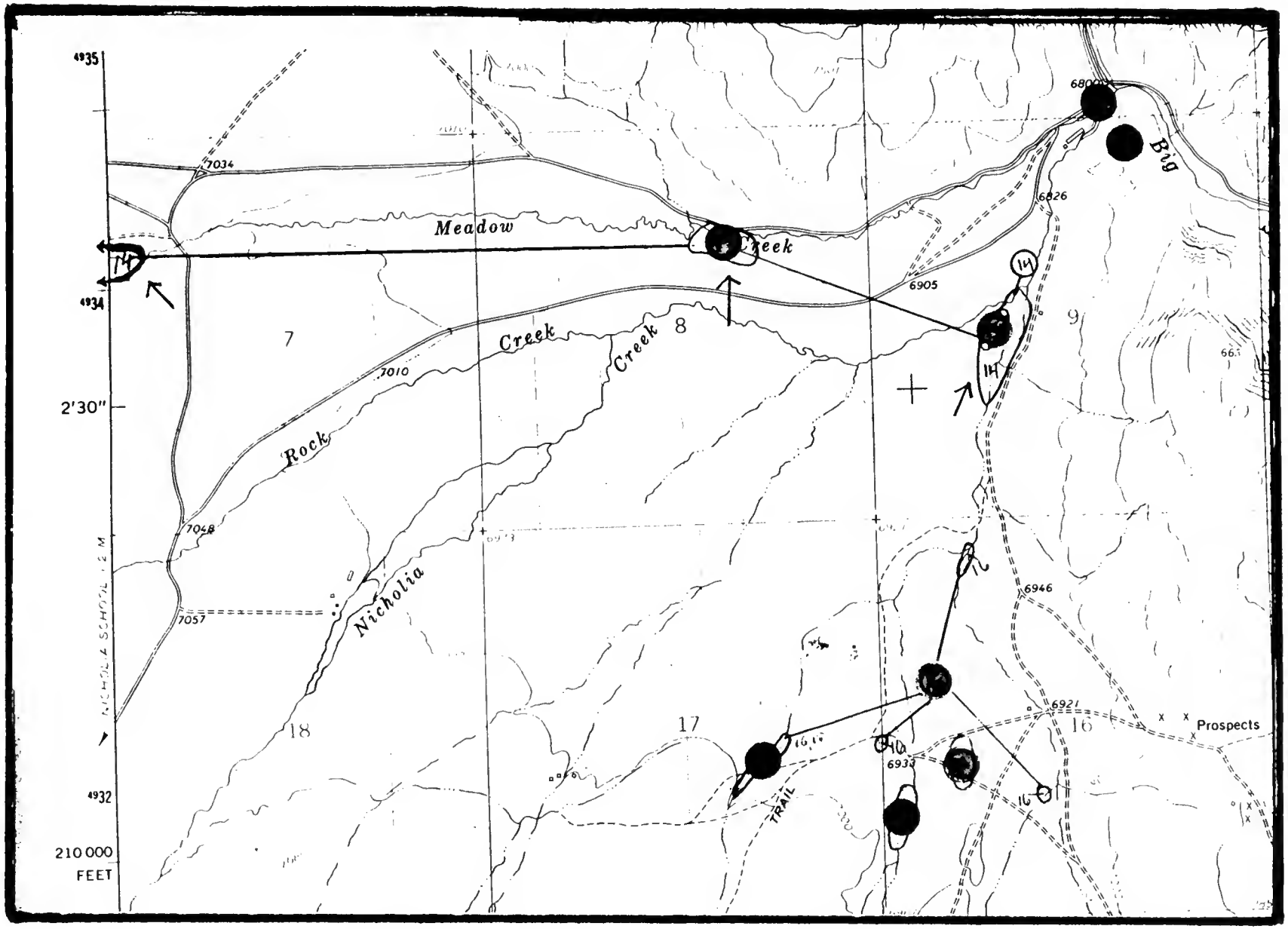
General site description:
OPEN, MOIST FLOODPLAIN BOTTOM, CALCAREOUS PARENT MATERIAL, SILTY SOIL. ASSOCIATED SPECIES: JUNCUS BALTICUS, CAREX PRAEGRACILIS, DESCHAMPSIA CESPITOSA, ASTER OCCIDENTALIS, POTENTILLA GRACILIS, CREPIS RUNCINATA, MUHLENBERGIA RICHARDSONII, ASTRAGALUS LEPTALEUS.

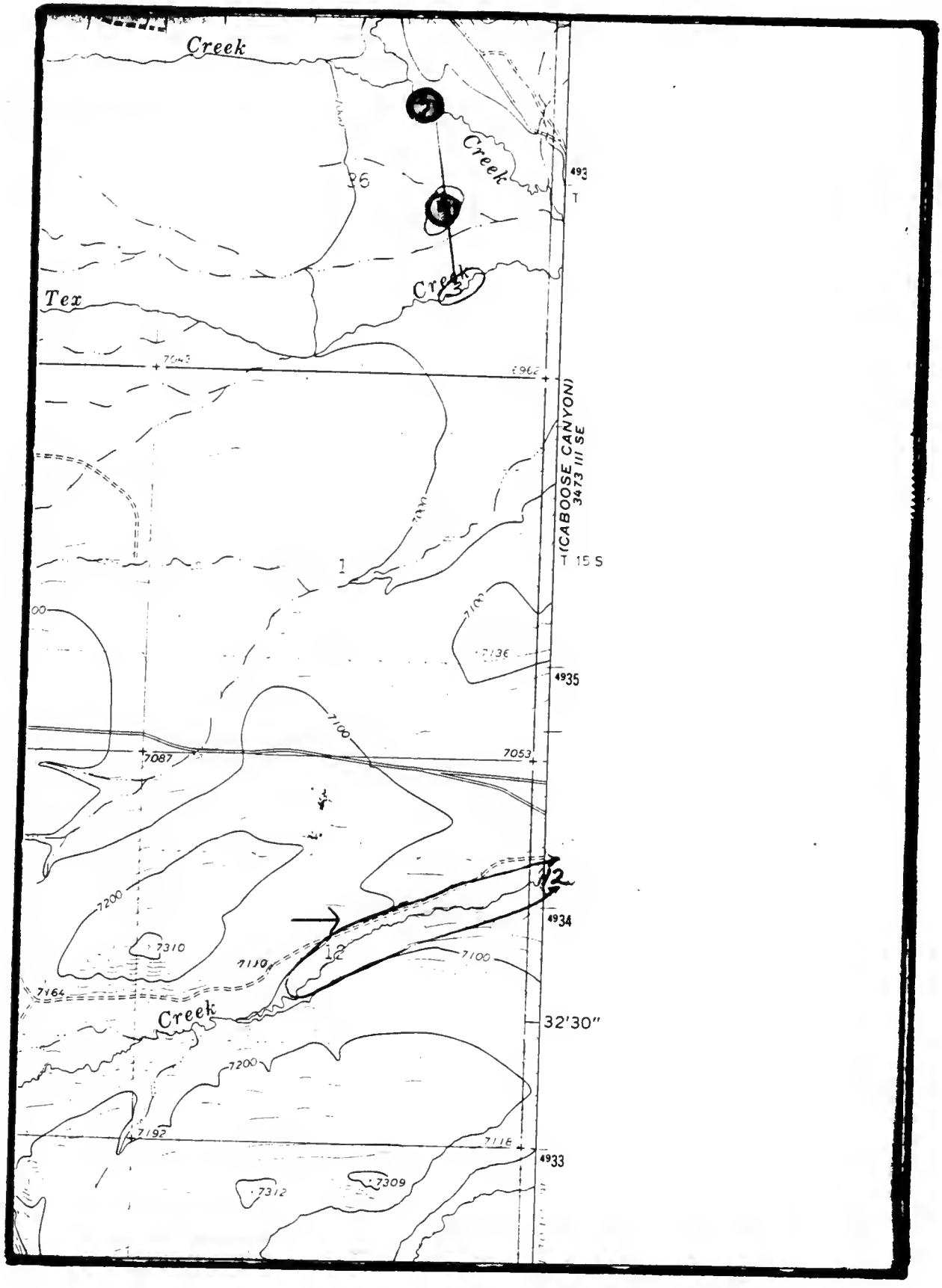
Land owner/manager:
PRIVATELY OWNED LAND (INDIVIDUAL OR CORPORATE)
BLM: BUTTE DISTRICT, DILLON RESOURCE AREA

Comments:
ECODATA PLOT# 94SC105.

Information source: LESICA, PETER. DIVISION OF BIOLOGICAL SCIENCES, UNIVERSITY OF MONTANA, MISSOULA, MT 59812.

Specimens: LESICA, P. (6088). 1993. MONTU.


Meadow
Creek
Rock
Creek
Creek
Nicholia
Big
7034
7010
7048
7057
6826
6905
6946
6921
6933
6800
Prospects
TRAIL
4935
4934
4932
2'30"
210 000
FEET
7
8
9
16
17
18


Creek
Creek
Creek
Tex
36
1
12
12
7043
7053
7087
7100
7136
7200
7310
7110
7164
7100
7200
7192
7116
7309
7312
4935
4934
4933
T 15 S
(CABOOSE CANYON)
3473 III SE
32'30"

Scientific Name: CAREX PARRYANA SSP IDAHOA
Common Name: IDAHO SEDGE

Global rank: G4T2 Forest Service status: SENSITIVE
State rank: S2 Federal Status:

Element occurrence code: PMCYP036E0.010
Element occurrence type:
Survey site name: MUDDY CREEK
EO rank:
EO rank comments:

County: BEAVERHEAD

USGS quadrangle: DIXON MOUNTAIN

Township:	Range:	Section:	TRS comments:
013S	010W	07	NW4

Precision: S
Survey date:
First observation: 1993-07-09
Last observation: 1993-07-09
Elevation: 6960 -
Slope/aspect: LEVEL
Size (acres): 1

Location:
FROM DELL, TAKE BIG SHEEP CREEK ROAD TO MUDDY CREEK, AND CONTINUE ON MUDDY CREEK ROAD TO WILSON CREEK ROAD. CONTINUE CA. 3 MILES ON WILSON CREEK ROAD.

Element occurrence data:
100-500 PLANTS, IMMATURE FRUIT.

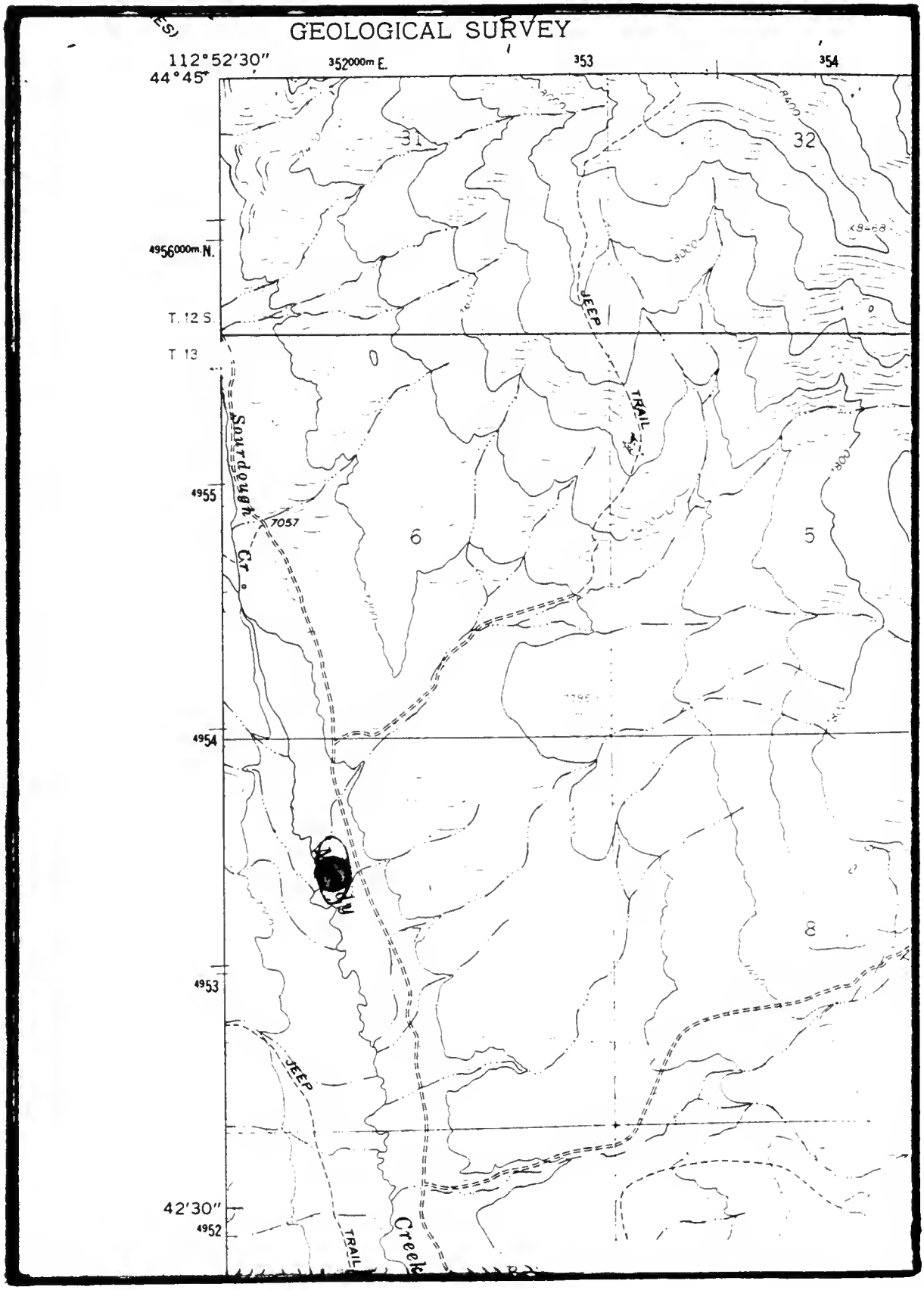
General site description:
MOIST, OPEN FLOODPLAIN BOTTOM. SHALE PARENT MATERIAL, SILTY SOIL. ASSOCIATED SPECIES: JUNCUS BALTICUS, DESCHAMPSIA CESPITOSA, CAREX PRAEGRACILIS, CREPIS RUNCINATA, VALERIANA EDULE, POTENTILLA ANSERINA.

Land owner/manager:
PRIVATELY OWNED LAND (INDIVIDUAL OR CORPORATE)
BLM: BUTTE DISTRICT, DILLON RESOURCE AREA

Comments:
SOME DISTURBANCE FROM CATTLE.

Information source: LESICA, PETER. DIVISION OF BIOLOGICAL SCIENCES, UNIVERSITY OF MONTANA, MISSOULA, MT 59812.

Specimens:


GEOLOGICAL SURVEY
112°52'30"
44°45'
352000m E.
353
354
31
32
4956000m N.
T. 12 S.
T. 13
JEEP
TRAIL
Sourdough Cr.
7057
6
5
4955
4954
8
4953
JEEP
42'30"
4952
TRAIL
Creek

Scientific Name: CAREX PARRYANA SSP IDAHOA
Common Name: IDAHO SEDGE

Global rank: G4T2 Forest Service status: SENSITIVE
State rank: S2 Federal Status:

Element occurrence code: PMCYP036E0.011
Element occurrence type:
Survey site name: SOURDOUGH CREEK
EO rank:
EO rank comments:

County: BEAVERHEAD

USGS quadrangle: GRAPHITE MOUNTAIN

Township:	Range:	Section:	TRS comments:
012S	010W	31	SW4SW4

Precision: S
Survey date:
First observation: 1993-07-09
Last observation: 1993-07-09
Elevation: 7160 -
Slope/aspect: LEVEL
Size (acres): 1

Location:
FROM DELL, TAKE BIG SHEEP CREEK ROAD TO MUDDY CREEK AND GO NORTH TO WILSON CREEK ROAD. CONTINUE ON MAIN ROAD 0.5 MILE.

Element occurrence data:
CA. 100 PLANTS, IN YOUNG FRUIT.

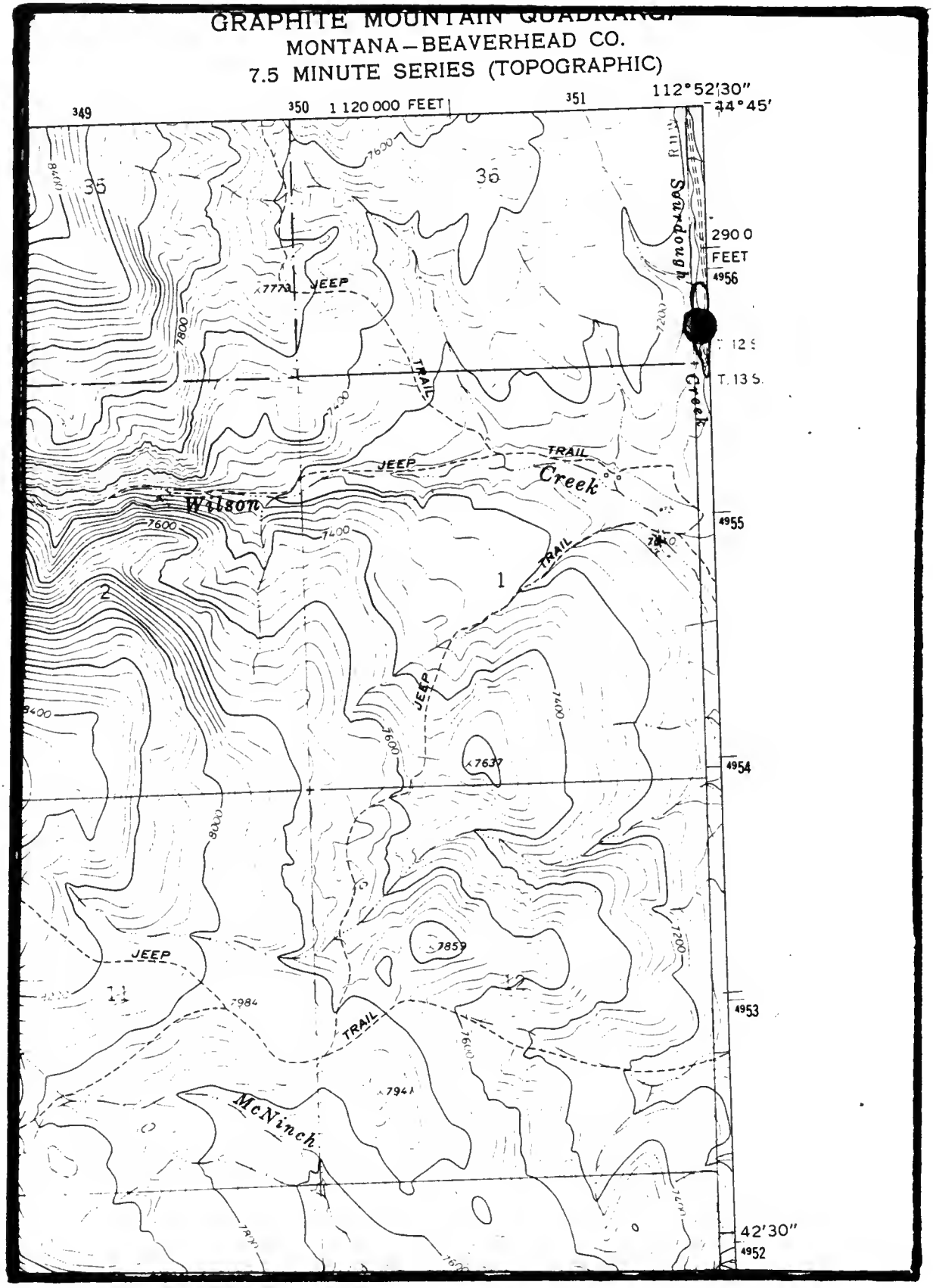
General site description:
MOIST, OPEN FLOODPLAIN BOTTOM, SHALE PARENT MATERIAL, SILTY SOIL. ASSOCIATED SPECIES: POTENTILLA FRUTICOSA, JUNCUS BALTICUS, DESCHAMPSIA CESPITOSA, ANTENNARIA MICROPHYLLA, AGROPYRON CANINUM, CREPIS RUNCINATA.

Land owner/manager:
BLM: BUTTE DISTRICT, DILLON RESOURCE AREA

Comments:
SOME CATTLE DISTURBANCE.

Information source: LESICA, PETER. DIVISION OF BIOLOGICAL SCIENCES, UNIVERSITY OF MONTANA, MISSOULA, MT 59812.

Specimens: LESICA, P. (6066). 1993. MONTU.


GRAPHITE MOUNTAIN QUADRANGLE
MONTANA—BEAVERHEAD CO.
7.5 MINUTE SERIES (TOPOGRAPHIC)
112°52'30"
44°45'
349
350
1 120 000 FEET
351
36
36
2
1
1
2900 FEET
4956
4955
4954
4953
4952
42'30"
T. 13 S.
JEEP
TRAIL
Wilson
Creek
McNinch
Snowdrift
7600
7400
7800
8000
7200
7637
7859
7984
7941

Scientific Name: CAREX PARRYANA SSP IDAHOA
Common Name: IDAHO SEDGE

Global rank: G4T2 Forest Service status: SENSITIVE
State rank: S2 Federal Status:

Element occurrence code: PMCYP036E0.012
Element occurrence type:
Survey site name: MUD LAKE
EO rank: C
EO rank comments: SMALL POPULATION WITH GOOD HEAVY GRAMINOID COVER.

County: BEAVERHEAD

USGS quadrangle: CORRAL CREEK

Township:	Range:	Section:	TRS comments:
014S	005W	23	NE4NW4

Precision: S
Survey date: 1994-08-18 Elevation: 6625 -
First observation: 1994-08-18 Slope/aspect: LEVEL
Last observation: 1994-08-18 Size (acres): 65

Location:
CENTENNIAL VALLEY; SHORE OF MUD LAKE, NEAR SOUTHEAST INLET.

Element occurrence data:
CA. 20 PLANTS OBSERVED WITH MATURE FRUIT.

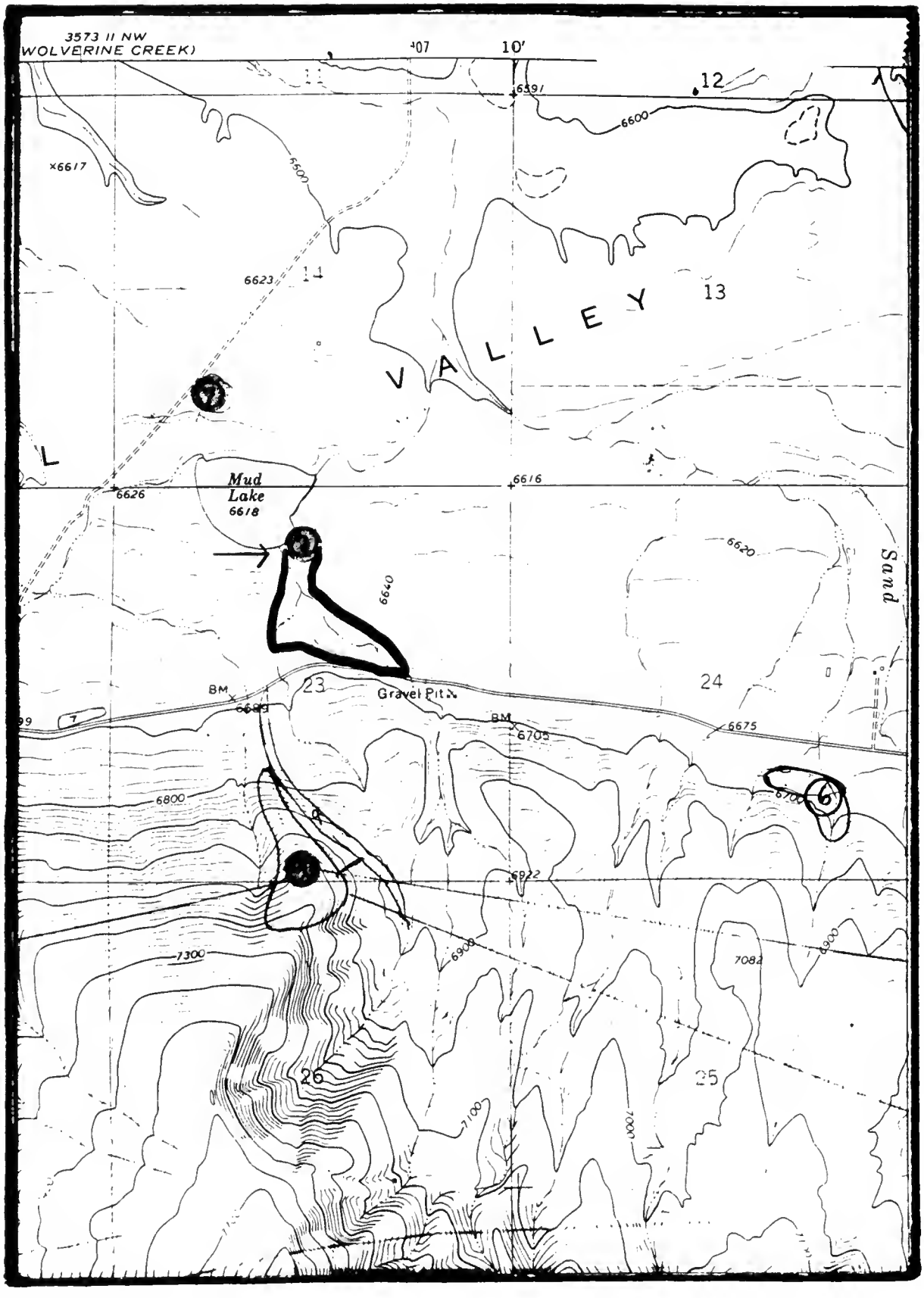
General site description:
MOIST, OPEN WIDE VALLEY TERRACE BOTTOM. ALLUVIAL PARENT MATERIAL, SILTY SOIL. ASSOCIATED SPECIES: CAREX PRAEGRACILIS, MUHLENBERGIA RICHARDSONIS, JUNCUS BALTICUS, HAPLOPAPPUS UNIFLORUS.

Land owner/manager:
BLM: BUTTE DISTRICT, DILLON RESOURCE AREA

Comments:
OBSERVED BY P. LESICA AND S. COOPER. LIGHT CATTLE GRAZING. SITE NOT FULLY SURVEYED. ECODATA PLOT# 94SC116.

Information source: LESICA, PETER. DIVISION OF BIOLOGICAL SCIENCES, UNIVERSITY OF MONTANA, MISSOULA, MT 59812.

Specimens: LESICA, P. (6530). 1994. MONTU.


3573 II NW
WOLVERINE CREEK)
10'
6591
12
6600
×6617
6500
6623
14
13
VALLEY
Mud
Lake
6618
6626
6616
6620
Sand
6640
23
24
Gravel Pit
BM
6699
BM
6705
6675
6800
6822
7300
6900
7082
26
25
7100
7000

Scientific Name: CAREX PARRYANA SSP IDAHOA
Common Name: IDAHO SEDGE

Global rank: G4T2 Forest Service status: SENSITIVE
State rank: S2 Federal Status:

Element occurrence code: PMCYP036E0.013
Element occurrence type:
Survey site name: WOLVERINE CREEK
EO rank: C
EO rank comments: APPARENTLY SMALL POPULATION WITH HEAVY GRAZING.

County: BEAVERHEAD

USGS quadrangle: WOLVERINE CREEK

Township:	Range:	Section:	TRS comments:
014S	005W	1	NW4NE4

Precision: S
Survey date: 1994-08-18 Elevation: 6610 -
First observation: 1994-08-18 Slope/aspect: LEVEL
Last observation: 1994-08-18 Size (acres): 1

Location:
CENTENNIAL VALLEY; ON EAST SIDE OF WOLVERINE CREEK CA. 0.6 MILE FROM CONFLUENCE WITH RED ROCK RIVER.

Element occurrence data:
CA. 10-20 PLANTS OBSERVED, IN FRUIT.

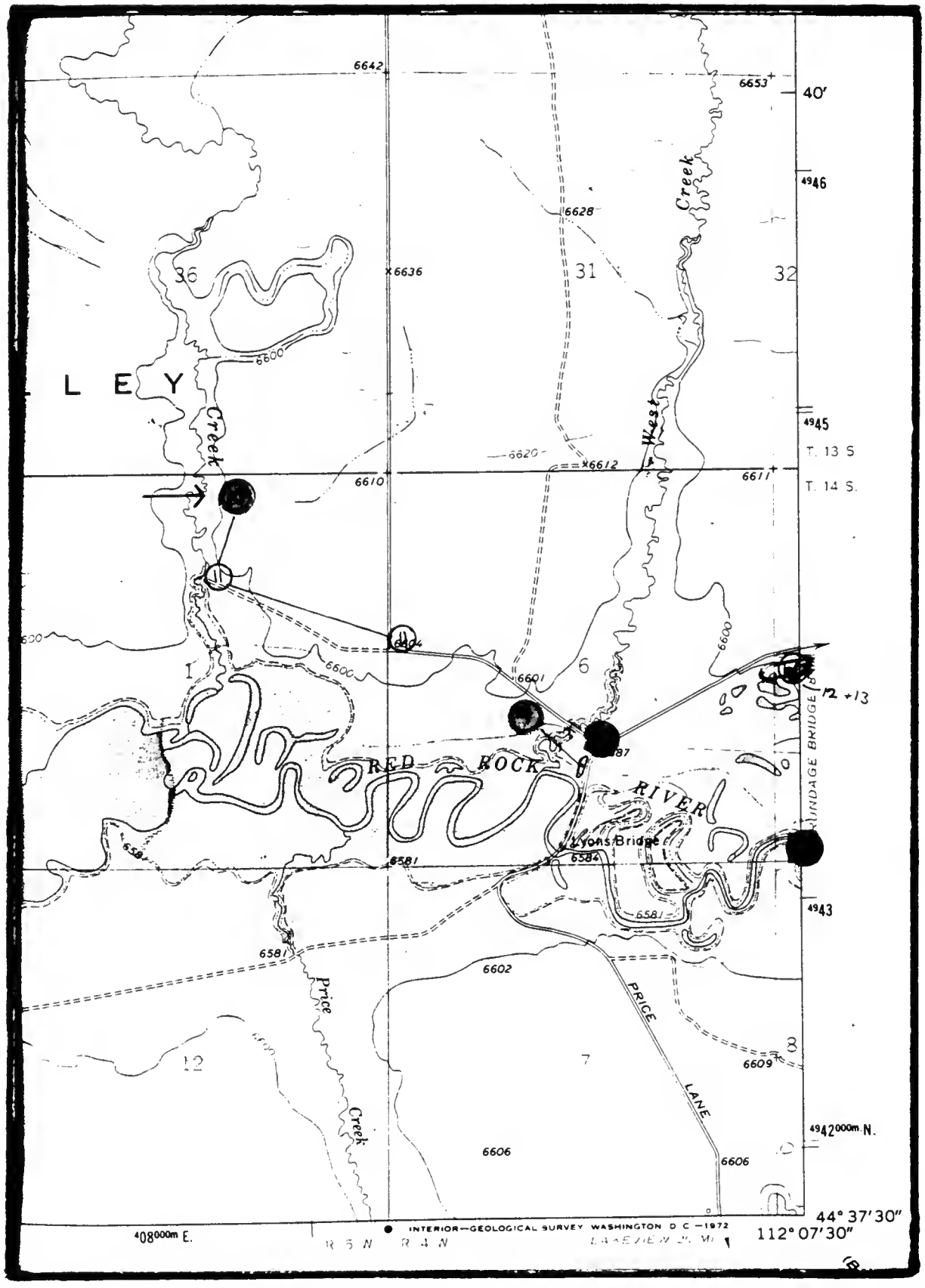
General site description:
MOIST, OPEN WIDE VALLEY TERRACE BOTTOM. ALLUVIAL PARENT MATERIAL, SILTY SOIL. ASSOCIATED SPECIES: POA JUNCIFOLIA, MUHLENBERGIA RICHARDSONIS, JUNCUS BALTICUS, HAPLOPAPPUS UNIFLORUS.

Land owner/manager:
BLM: BUTTE DISTRICT, DILLON RESOURCE AREA

Comments:
OBSERVED BY P. LESICA AND S. COOPER. MODERATE CATTLE GRAZING. AREA NOT THOROUGHLY SURVEYED. ECODATA PLOT# 94SC123.

Information source: LESICA, PETER. DIVISION OF BIOLOGICAL SCIENCES, UNIVERSITY OF MONTANA, MISSOULA, MT 59812.

Specimens:


6642
6653
40'
4946
6628
Creek
36
31
32
6636
6600
L E Y
Creek
West
4945
T. 13 S
6620
6612
6610
6611
T. 14 S.
6600
6600
1
6601
6
6600
12 +13
RED ROCK
RIVER
LINDAGE BRIDGE
Lyons Bridge
6584
6581
4943
6581
6581
6602
PRICE
Price
Creek
LANE
12
7
8
6609
4942000m.N.
6606
6606
44° 37' 30"
112° 07' 30"
408000m E.
INTERIOR—GEOLOGICAL SURVEY WASHINGTON D C —1972
R 5 N
R 4 N

Scientific Name: CAREX PARRYANA SSP IDAHOA
Common Name: IDAHO SEDGE

Global rank: G4T2 Forest Service status: SENSITIVE
State rank: S2 Federal Status:

Element occurrence code: PMCYP036E0.015
Element occurrence type:
Survey site name: MACLEAN CREEK
EO rank:
EO rank comments:

County: SILVER BOW

USGS quadrangle: MELROSE

Township:	Range:	Section:	TRS comments:
001S	009W	24	

Precision: M
Survey date:
First observation: 1979-06-11
Last observation: 1979-06-11
Elevation: 6100 -
Slope/aspect:
Size (acres):

Location:
CA. 0.5 MILES SOUTHEAST OF MOOSE CREEK PARKING AREA ON MACLEAN CREEK ROAD.

Element occurrence data:
IMMATURE.

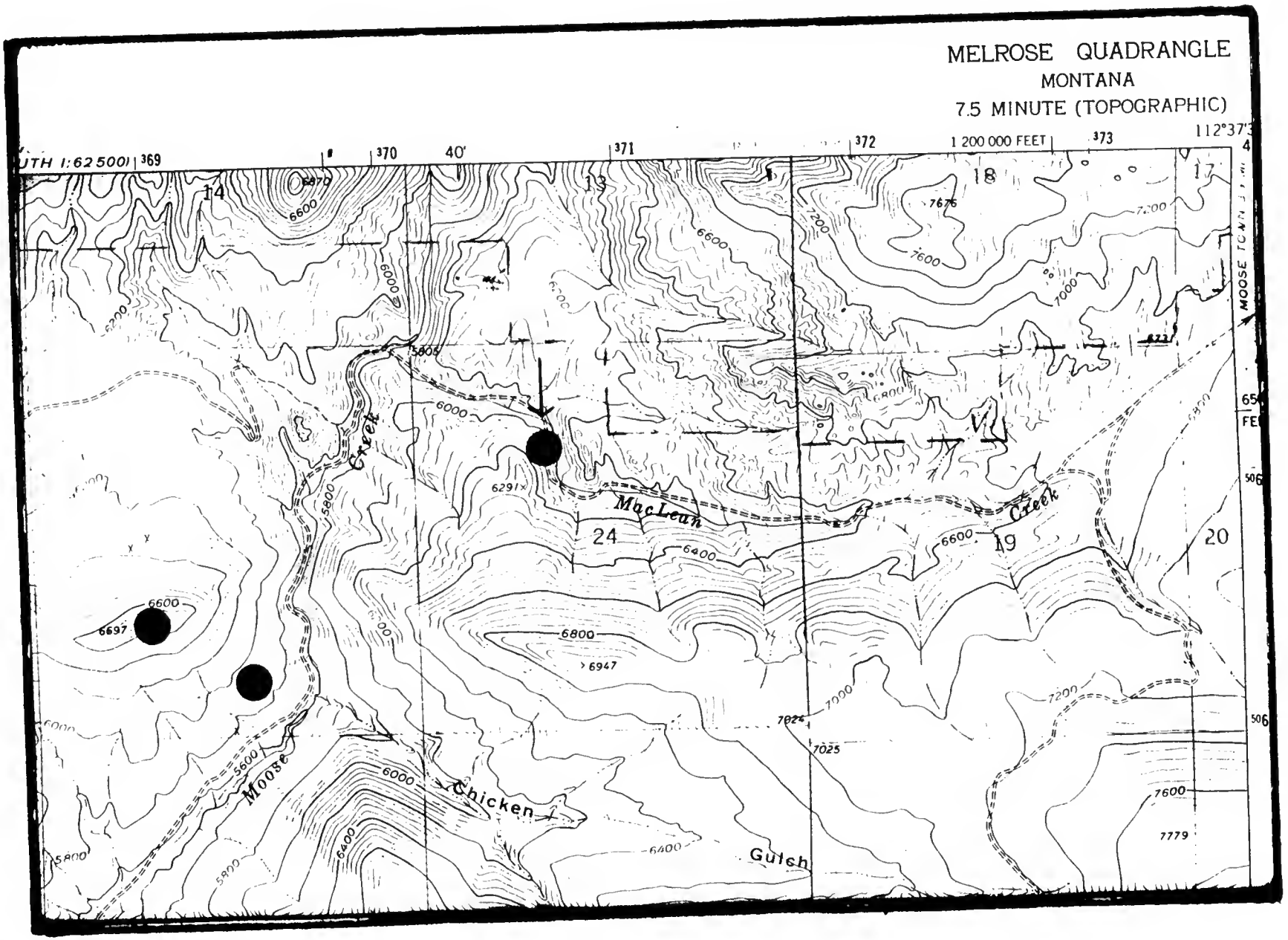
General site description:
MOIST MEADOW.

Land owner/manager:
BLM: BUTTE DISTRICT, HEADWATERS RESOURCE AREA
HUMBUG SPIRES PRIMITIVE AREA

Comments:

Information source: BOTANIST, MONTANA NATURAL HERITAGE PROGRAM, 1515 EAST SIXTH AVENUE, HELENA, MT 59620-1800.

Specimens: LOWRY II, P. P. (1958). 1979. SPECIMEN #68181. MONT.


MELROSE QUADRANGLE
MONTANA
7.5 MINUTE (TOPOGRAPHIC)
1 200 000 FEET
112°37'
40'
369
370
371
372
373
14
13
18
17
24
19
20
MacLean
Creek
Moose
Chicken
Gulch
MOOSE TOWN
6600
6800
7000
7200
7600
6947
7025
7779
6697
6291
5800
6000
6400
5600

Scientific Name: CAREX PARRYANA SSP IDAHOA
Common Name: IDAHO SEDGE

Global rank: G4T2 Forest Service status: SENSITIVE
State rank: S2 Federal Status:

Element occurrence code: PMCYP036E0.016
Element occurrence type:
Survey site name: GRASSHOPPER CREEK BASIN
EO rank:
EO rank comments:

County: BEAVERHEAD

USGS quadrangle: POLARIS

Township:	Range:	Section:	TRS comments:
006S	012W	30	

Precision: G
Survey date:
First observation: 1958-08-19
Last observation: 1958-08-19
Elevation: 6100 -
Slope/aspect:
Size (acres):

Location:
GRASSHOPPER CREEK BASIN, NEAR JACKSON ROAD TURNOFF.

Element occurrence data:

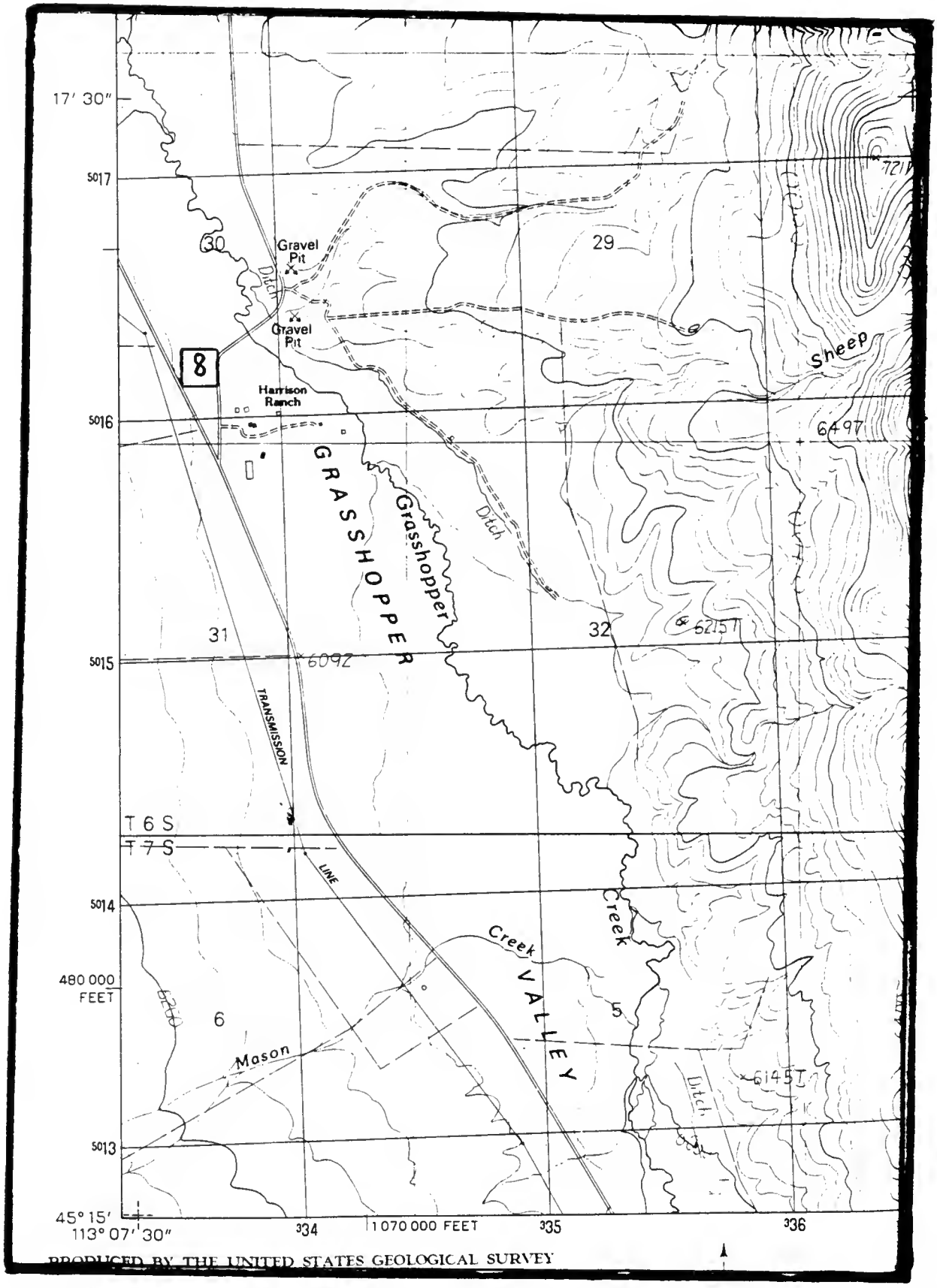
General site description:
HAY MEADOW, MOIST CLAY LOAM, PROBABLY WET EARLIER IN SEASON.

Land owner/manager:
PRIVATELY OWNED LAND (INDIVIDUAL OR CORPORATE)
BLM: BUTTE DISTRICT, DILLON RESOURCE AREA
STATE LAND - UNDESIGNATED
BEAVERHEAD-DEERLODGE NATIONAL FORESTS, DILLON RANGER DISTRICT

Comments:
SPECIMEN LABEL GIVES ELEVATION AS 6200 FT; MAPPED AT 6100 FT.

Information source: BOTANIST, MONTANA NATURAL HERITAGE PROGRAM, 1515 EAST SIXTH AVENUE, HELENA, MT 59620-1800.

Specimens: PAYNE, G. F. (S.N.). 1958. SPECIMEN #56264. MONT. !F.J. HERMANN.



PRODUCED BY THE UNITED STATES GEOLOGICAL SURVEY

Scientific Name: CAREX PARRYANA SSP IDAHOA
Common Name: IDAHO SEDGE

Global rank: G4T2 Forest Service status: SENSITIVE
State rank: S2 Federal Status:

Element occurrence code: PMCYP036E0.017
Element occurrence type:
Survey site name: BIG HOLE RIVER
EO rank:
EO rank comments:

County: BEAVERHEAD

USGS quadrangle: FOX GULCH

Township:	Range:	Section:	TRS comments:
005S	015W	3	

Precision: G
Survey date: Elevation: 6340 -
First observation: 1955-09-08 Slope/aspect:
Last observation: 1955-09-08 Size (acres):

Location:
4 MILES NORTH OF JACKSON.

Element occurrence data:

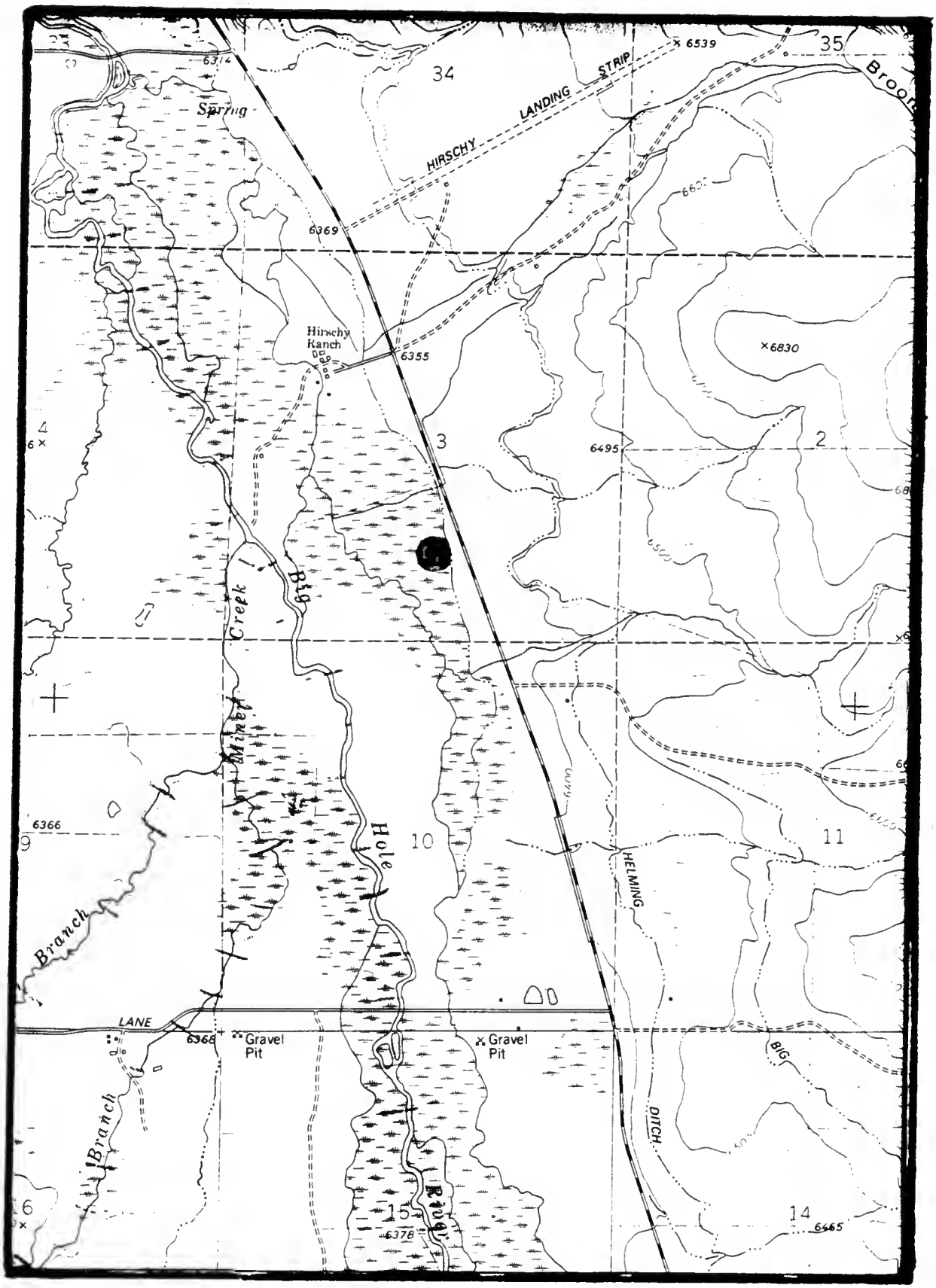
General site description:
LOW SEDGY MEADOW.

Land owner/manager:
PRIVATELY OWNED LAND (INDIVIDUAL OR CORPORATE)
STATE LAND - UNDESIGNATED
BEAVERHEAD-DEERLODGE NATIONAL FORESTS, DILLON RANGER DISTRICT
BEAVERHEAD-DEERLODGE NATIONAL FORESTS, WISDOM RANGER DISTRICT

Comments:

Information source: BOTANIST, MONTANA NATURAL HERITAGE PROGRAM, 1515 EAST SIXTH AVENUE, HELENA, MT 59620-1800.

Specimens: HERMANN, F. J. (12485). 1955. SPECIMEN #50031. MONT.


Spring
HIRSCHY
LANDING
STRIP
Broom
6539
35
34
6369
Hirschy
Ranch
6355
×6830
6495
2
3
4
Big
Creek
Miner
6366
9
10
11
Hole
HELMING
Branch
LANE
6368
Gravel
Pit
Gravel
Pit
BIG
DITCH
Branch
Ridge
6
15
6378
14
6465

Scientific Name: CAREX PARRYANA SSP IDAHOA
Common Name: IDAHO SEDGE

Global rank: G4T2 Forest Service status: SENSITIVE
State rank: S2 Federal Status:

Element occurrence code: PMCYP036E0.018
Element occurrence type:
Survey site name: CENTENNIAL VALLEY
EO rank:
EO rank comments:

County: BEAVERHEAD

USGS quadrangle: SLIDE MOUNTAIN

Township:	Range:	Section:	TRS comments:
014S	001W	18	

Precision: G
Survey date:
First observation: 1955-09-10
Last observation: 1955-09-10
Elevation: 6640 -
Slope/aspect:
Size (acres):

Location:
WEST OF UPPER RED ROCK LAKE.

Element occurrence data:

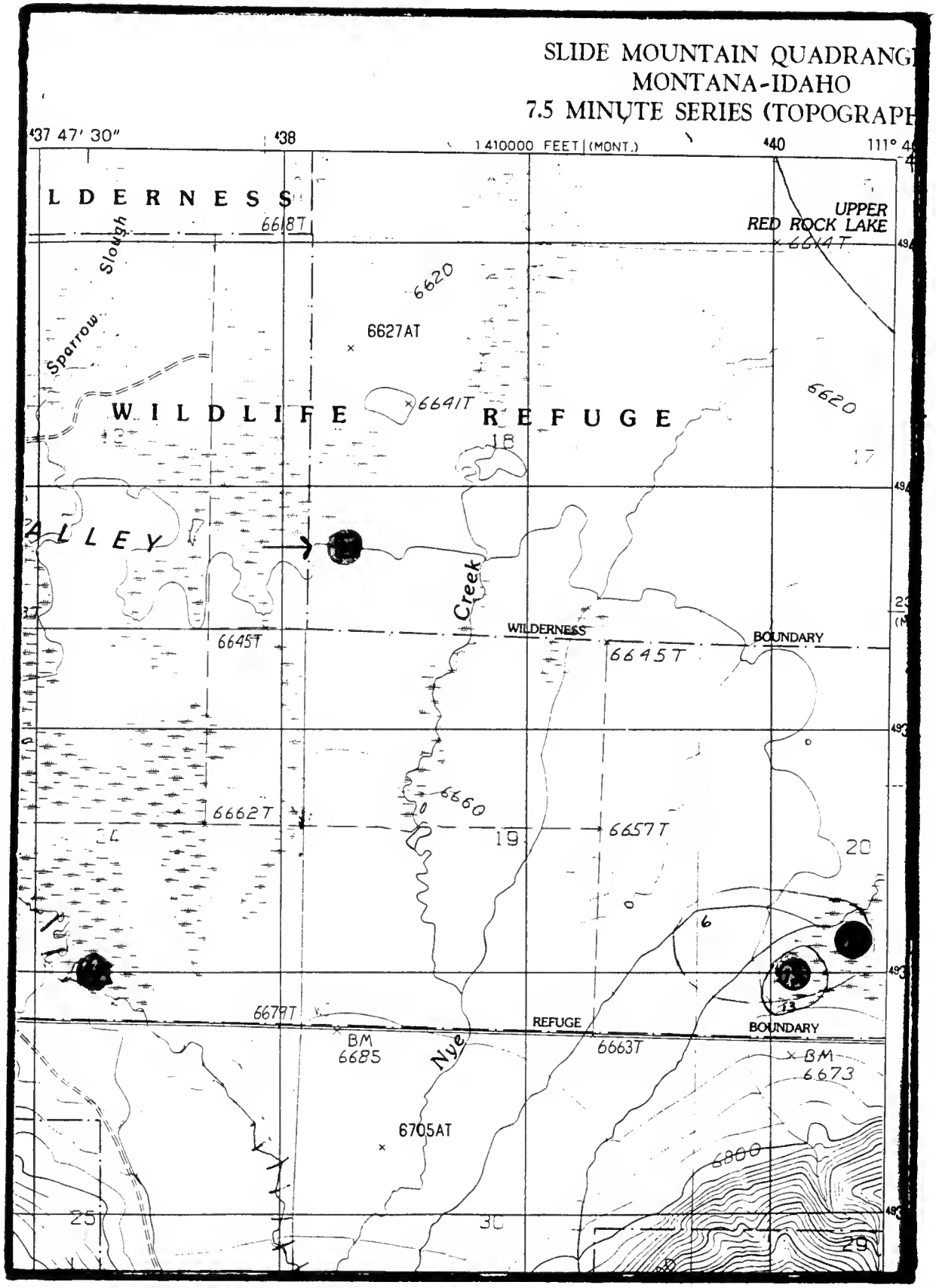
General site description:
SEDGE MEADOW WITH CAREX PRAEGRACILIS, C. NEBRASCENSIS, JUNCUS BALTICUS, AGROSTIS EXARATA, A. ALBA.

Land owner/manager:
RED ROCK LAKES WILDERNESS
RED ROCK LAKES NATIONAL WILDLIFE REFUGE
STATE LAND - UNDESIGNATED
PRIVATELY OWNED LAND (INDIVIDUAL OR CORPORATE)
CENTENNIAL MOUNTAINS PRIMITIVE AREA

Comments:

Information source: BOTANIST, MONTANA NATURAL HERITAGE PROGRAM, 1515 EAST SIXTH AVENUE, HELENA, MT 59620-1800.

Specimens: HERMANN, F. J. (12490). 1955. SPECIMEN #50035. MONT.


SLIDE MOUNTAIN QUADRANGL
MONTANA-IDAHO
7.5 MINUTE SERIES (TOPOGRAPH
37 47' 30"
38
1410000 FEET (MONT.)
40
111° 4
L D E R N E S S
6618T
Slough
Sparrow
6620
6627AT
UPPER
RED ROCK LAKE
6614T
W I L D L I F E
6641T
R E F U G E
6620
18
17
A L L E Y
Creek
WILDERNESS
BOUNDARY
6645T
6645T
6660
6662T
19
6657T
20
6679T
REFUGE
BOUNDARY
BM
6685
Nye
6663T
BM
6673
6705AT
6800
25
30
29

Scientific Name: CAREX PARRYANA SSP IDAHOA
Common Name: IDAHO SEDGE

Global rank: G4T2 Forest Service status: SENSITIVE
State rank: S2 Federal Status:

Element occurrence code: PMCYP036E0.019
Element occurrence type:
Survey site name: BASIN CREEK
EO rank:
EO rank comments:

County: BEAVERHEAD

USGS quadrangle: HENRY GULCH

Township:	Range:	Section:	TRS comments:
013S	007W	11	W2

Precision: S
Survey date: 1995-06-29 Elevation: 6720 - 6800
First observation: 1995-06-29 Slope/aspect: LEVEL
Last observation: 1995-06-29 Size (acres): 1

Location:
TAKE RED ROCK RIVER ROAD EAST FROM LIMA AND CROSS RIVER. TAKE ROAD NORTH TO BASIN CREEK AND THEN EAST TO SPRING.

Element occurrence data:
100-200 STEMS, FLOWERING AND EARLY FRUIT.

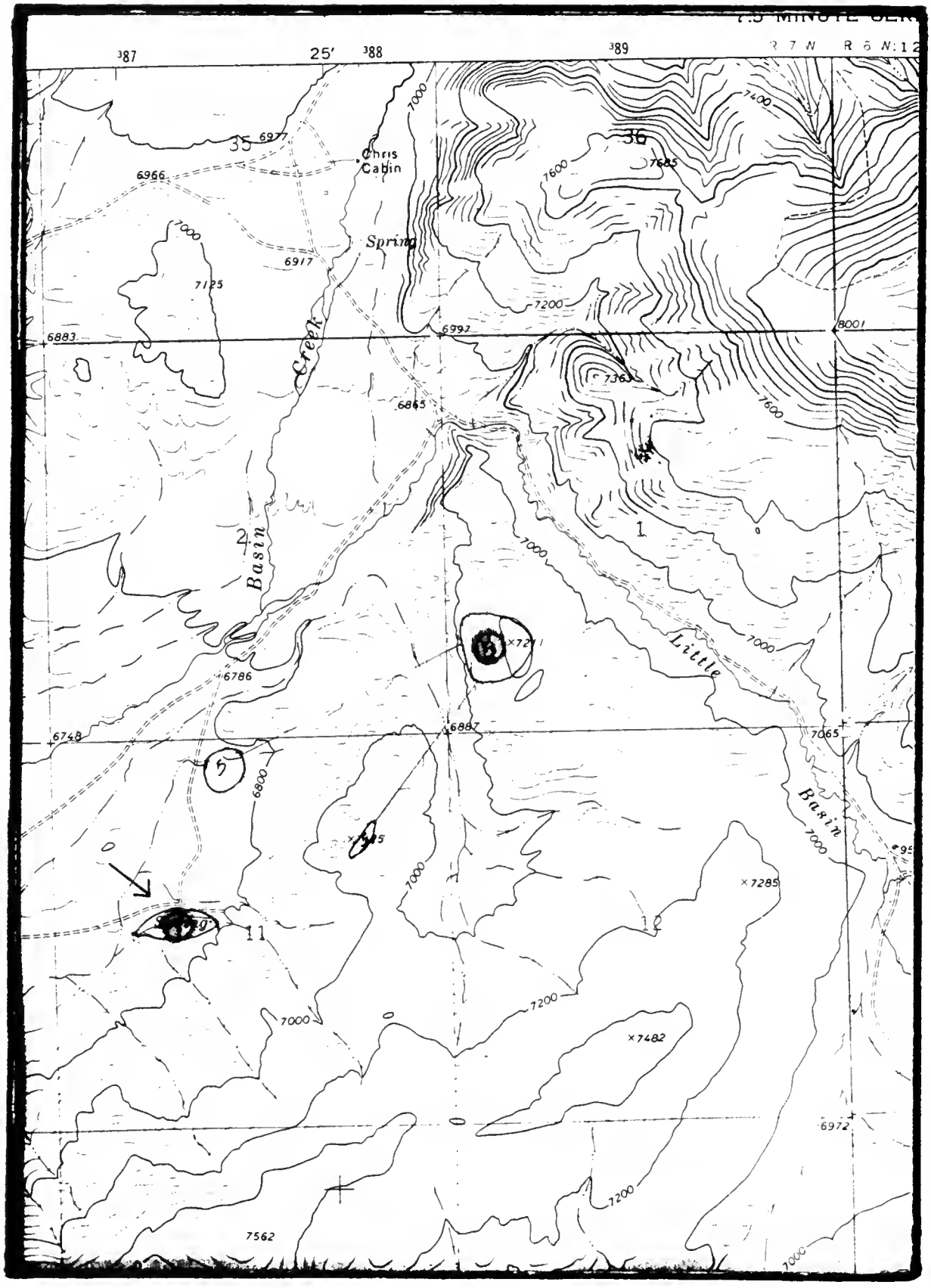
General site description:
OPEN, MOIST, BROAD VALLEY ALLUVIAL PLAIN. LIMESTONE PARENT MATERIAL, SILTY SOIL. ASSOCIATED SPECIES: JUNCUS BALTICUS, POA PRATENSIS, CAREX PRAEGRACILIS, IRIS MISSOURIENSIS, POTENTILLA GRACILIS, TRIFOLIUM LONGIPES.

Land owner/manager:
BLM: BUTTE DISTRICT, DILLON RESOURCE AREA

Comments:
OBSERVED BY P. LESICA. DISTURBANCE BY EXOTICS, HIGH FORB COVER, AND TRAMPLING.

Information source: LESICA, PETER. DIVISION OF BIOLOGICAL SCIENCES, UNIVERSITY OF MONTANA, MISSOULA, MT 59812.

Specimens: LESICA, P. (6792). 1995. MONTU.


7.5 MINUTE SER
387
25'
388
389
R 7 W
R 6 N
35
36
1
2
11
12
Chris Cabin
Spring
Basin Creek
Little Basin
6977
6966
6917
7125
6883
6997
6865
6786
6748
6887
7065
6800
7285
7482
6972
7562
7000
7200
7400
7600
8001

Scientific Name: CAREX PARRYANA SSP IDAHOA
Common Name: IDAHO SEDGE

Global rank: G4T2 Forest Service status: SENSITIVE
State rank: S2 Federal Status:

Element occurrence code: PMCYP036E0.020
Element occurrence type:
Survey site name: BOX SPRING
EO rank: B
EO rank comments: SPECIES DOES NOT OCCUPY ALL MAPPED WETLANDS, ONLY ECOTONAL AREAS.

County: BEAVERHEAD

USGS quadrangle: PRICE CREEK
VINEGAR HILL

Township:	Range:	Section:	TRS comments:
011S	007W	16	E2; 21 NW4

Precision: S
Survey date: 1995-06-20 Elevation: 7360 - 7920
First observation: 1995-06-20 Slope/aspect: 10% / SOUTH
Last observation: 1995-06-20 Size (acres): 1

Location:
FROM SAGE CREEK ROAD, TAKE ROAD NORTH PAST BOX SPRING CA. 0.6 MILE. MAIN POPULATION IS ALONG CREEK BELOW UNNAMED SPRINGS. SUBPOPULATION IS CA. 0.9 MILE WEST OF BOX SPRINGS ALONG ROAD.

Element occurrence data:
1000+ STEMS IN 2 SUBPOPULATIONS, FLOWERING.

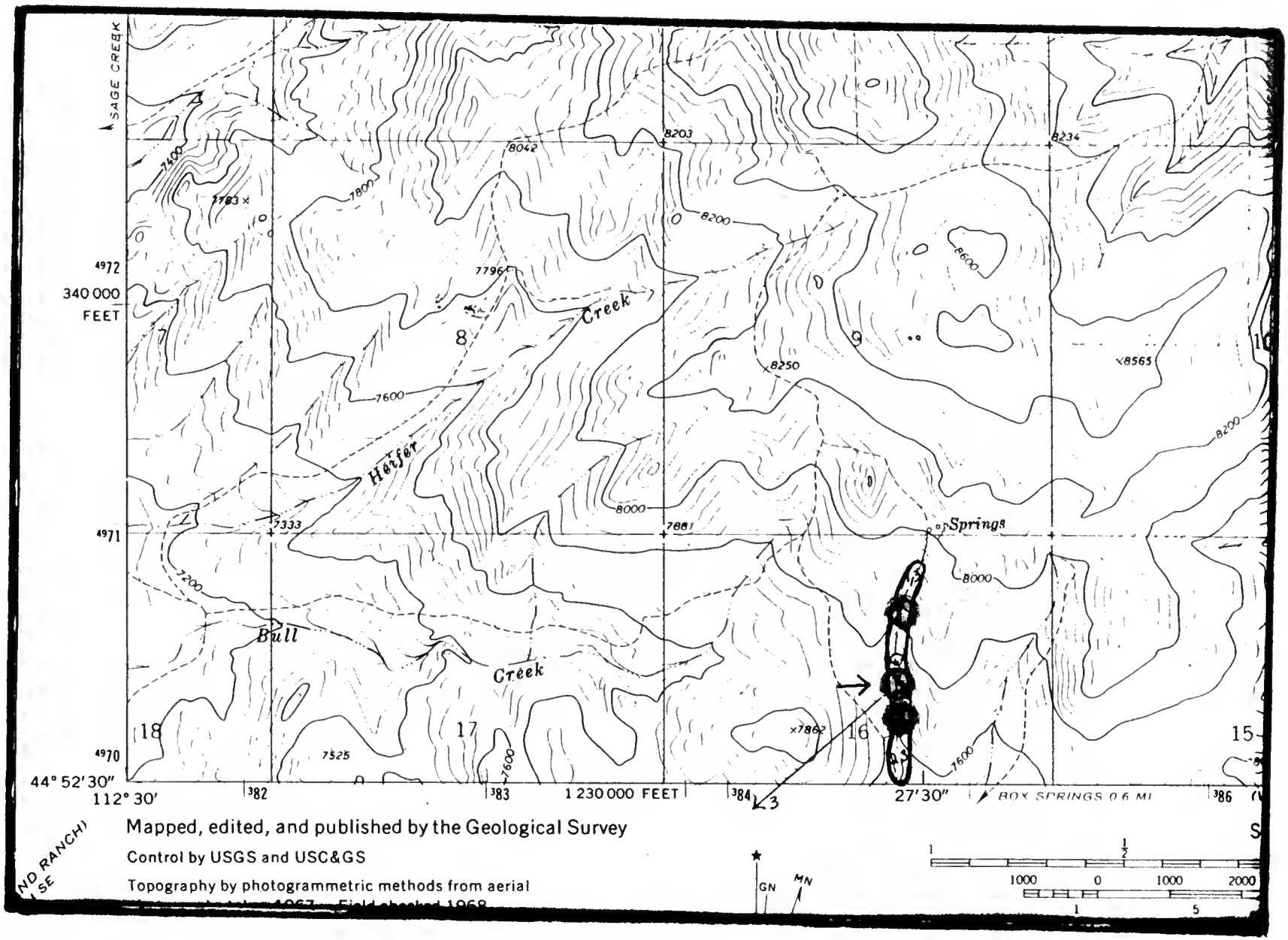
General site description:
OPEN, MOIST RESIDUAL MOUNTAIN VALLEY. ALLUVIUM PARENT MATERIAL, SILTY SOIL. ASSOCIATED SPECIES: JUNCUS BALTICUS, CAREX PRAEGRACILIS, AGROPYRON CANINUM, POTENTILLA GRACILIS, TRIFOLIUM LONGIPES.

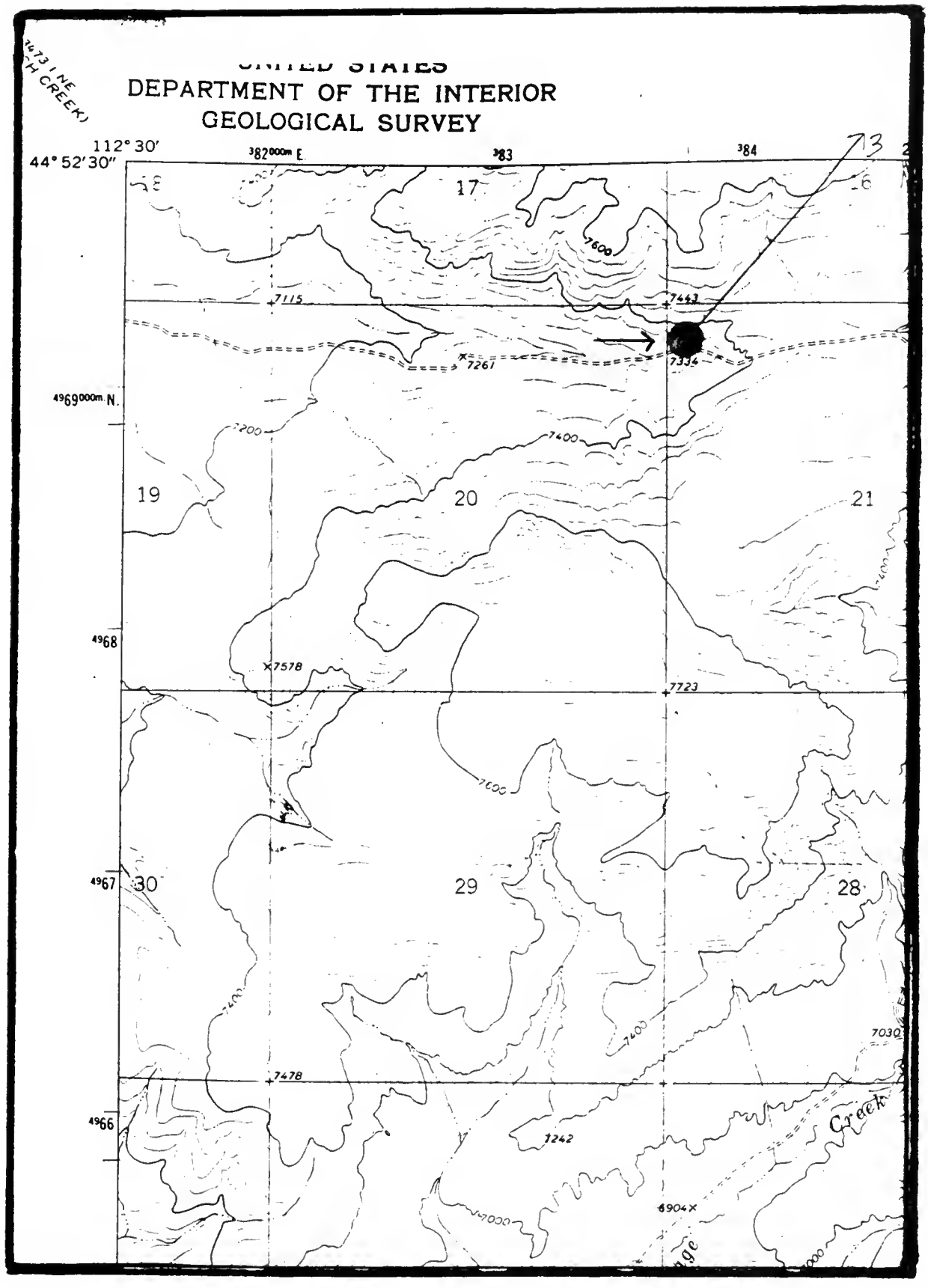
Land owner/manager:
BLM: BUTTE DISTRICT, DILLON RESOURCE AREA
PRIVATELY OWNED LAND (INDIVIDUAL OR CORPORATE)

Comments:
OBSERVED BY P. LESICA. DISTURBANCE BY ROADS, CATTLE, EXOTICS, AND HIGH FORB COVER.

Information source: LESICA, PETER. DIVISION OF BIOLOGICAL SCIENCES, UNIVERSITY OF MONTANA, MISSOULA, MT 59812.

Specimens: LESICA, P. (6762). 1995. MONTU.


SAGE CREEK
4972
340 000
FEET
Creek
Hofer
Bull
Creek
Springs
4971
4970
44° 52' 30"
112° 30'
382
383
1 230 000 FEET
384
27' 30"
BOX SPRINGS 0.6 MI
386
8203
8234
8042
7400
7800
7783
8200
8600
7796
8250
8565
7600
8200
8000
7881
7333
7200
8000
7862
7525
7600
7600
18
17
16
15
8
9
Mapped, edited, and published by the Geological Survey
Control by USGS and USC&GS
Topography by photogrammetric methods from aerial
GN
MN
1000
0
1000
2000


DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY
112° 30'
44° 52' 30"
382000m E.
383
384
4969000m N.
4968
4967
4966
17
19
20
21
30
29
28
7115
7443
7334
7261
7578
7723
7478
7030
7242
6904
7600
7400
7200
7000
7600
7400
7400
7000
Creek

Scientific Name: CAREX PARRYANA SSP IDAHOA
Common Name: IDAHO SEDGE

Global rank: G4T2 Forest Service status: SENSITIVE
State rank: S2 Federal Status:

Element occurrence code: PMCYP036E0.021
Element occurrence type:
Survey site name: BLACKTAIL CREEK
EO rank:
EO rank comments:

County: SILVER BOW

USGS quadrangle: HOMESTAKE

Township:	Range:	Section:	TRS comments:
002N	007W	4	NE4NW4

Precision: S
Survey date:
First observation: 1996-09-20
Last observation: 1996-09-20
Elevation: 5500 -
Slope/aspect:
Size (acres): 1

Location:
FROM BUTTE GO SOUTH ON I-90 TO EXIT 278. GO WEST ON 4 MILE VUE ROAD CA. 0.37 MILES (JUST BEFORE BLACKTAIL CREEK CROSSING).

Element occurrence data:
9 SUBPOPULATIONS, IN FLOWER.

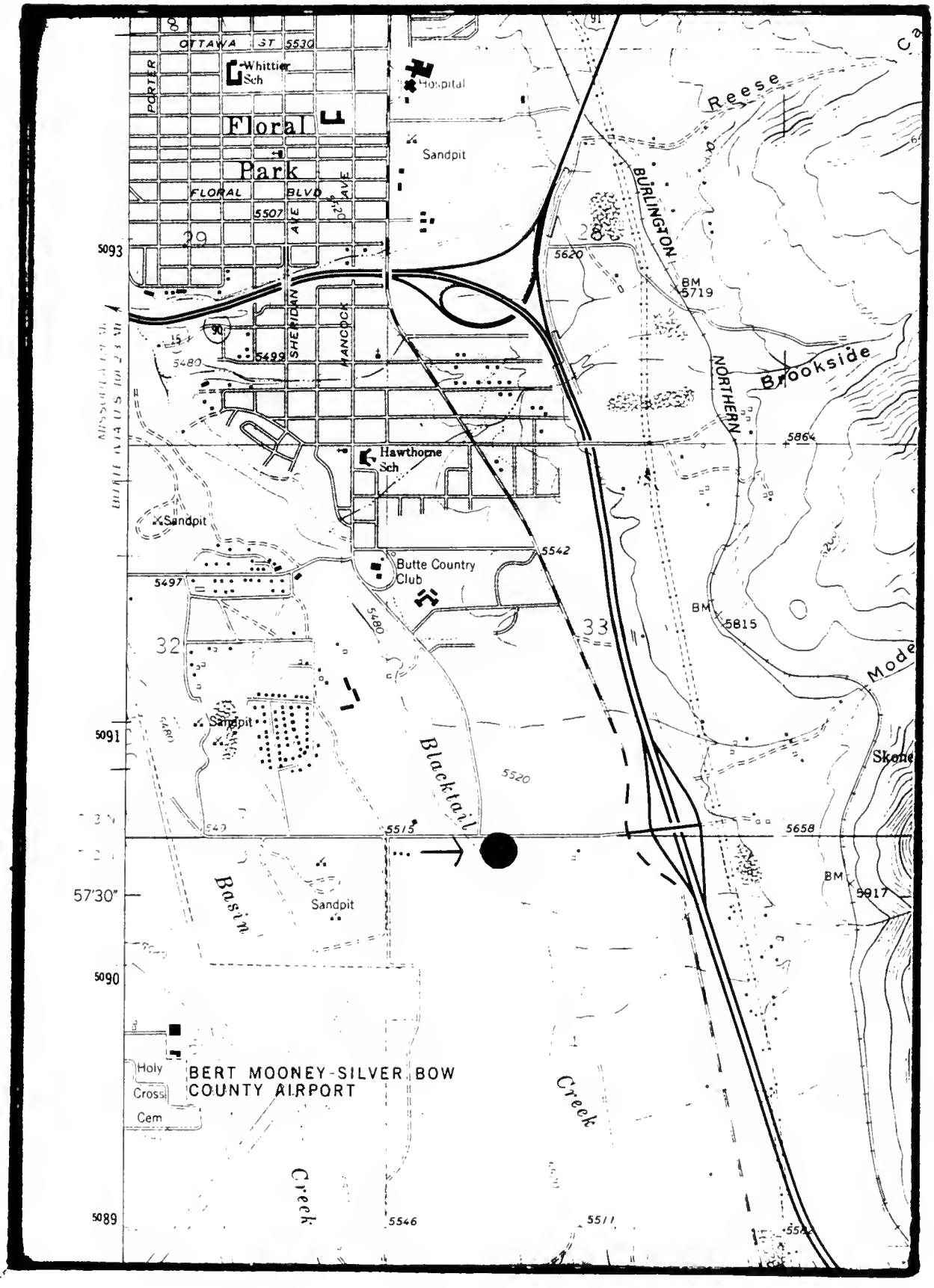
General site description:
OPEN BOTTOM WITH SATURATED SOILS ON MICACEOUS, ALLUVIAL FLOODPLAIN. PLANT COMMUNITY DOMINATED BY CAREX SPP, ASTER JUNCIFORMIS, POTENTILLA ANSERINA AND JUNCUS BALTICUS. ASSOCIATED PLANT SPECIES INCLUDE CAREX NEBRASCENSIS, POA PRATENSIS AND GENTIAN SPP.

Land owner/manager:
PRIVATELY OWNED LAND (INDIVIDUAL OR CORPORATE)

Comments:
OBSERVED/COLLECTED BY P. HACKLEY, L. FAIRMAN, AND P. JOHNSON. IDENTIFICATION CONFIRMED BY P. LESICA. LAND IS GRAZED SEASONALLY.

Information source: BOTANIST, MONTANA NATURAL HERITAGE PROGRAM, 1515 EAST SIXTH AVENUE, HELENA, MT 59620-1800.

Specimens: HACKLEY, P. 1996. OEA RESEARCH.


OTTAWA ST 5530
Whittier Sch
Hospital
Floral Park
FLORAL BLVD
PORTER
5507
29
5093
Sandpit
BURLINGTON
5620
BM 5719
Reese
Brookside
NORTHERN
5864
SHERIDAN
HANCOCK
5499
5480
Hawthorne Sch
Sandpit
Butte Country Club
5542
5497
32
33
BM 5815
Mode
5091
Sandpit
Blacktail
5520
Skone
5515
5658
57'30"
Basin
Sandpit
BM 5917
5090
Holy Cross Cem
BERT MOONEY-SILVER BOW COUNTY AIRPORT
Creek
Creek
5089
5546
5511

Scientific Name: CAREX PARRYANA SSP IDAHOA
Common Name: IDAHO SEDGE

Global rank: G4T2 Forest Service status: SENSITIVE
State rank: S2 Federal Status:

Element occurrence code: PMCYP036E0.022
Element occurrence type:
Survey site name: MOOSE CREEK
EO rank:
EO rank comments:

County: SILVER BOW

USGS quadrangle: MOUNT HUMBUG

Township:	Range:	Section:	TRS comments:
001S	008W	10	NW4
001S	008W	9	NE4

Precision: S
Survey date: 1997-08-03 Elevation: 6650 -
First observation: 1997-08-03 Slope/aspect: LEVEL
Last observation: 1997-08-03 Size (acres): 1

Location:
FROM HIGHLAND ROAD, TAKE MOOSE CREEK ROAD TO MALONEY PARK AREA. SITE IS JUST NORTH OF ROAD ON THE BORDER BETWEEN SECTIONS 9 AND 10.

Element occurrence data:
4 STEMS IN 50 SQUARE METERS; CA. 160 STEMS TOTAL; MATURE FRUIT.

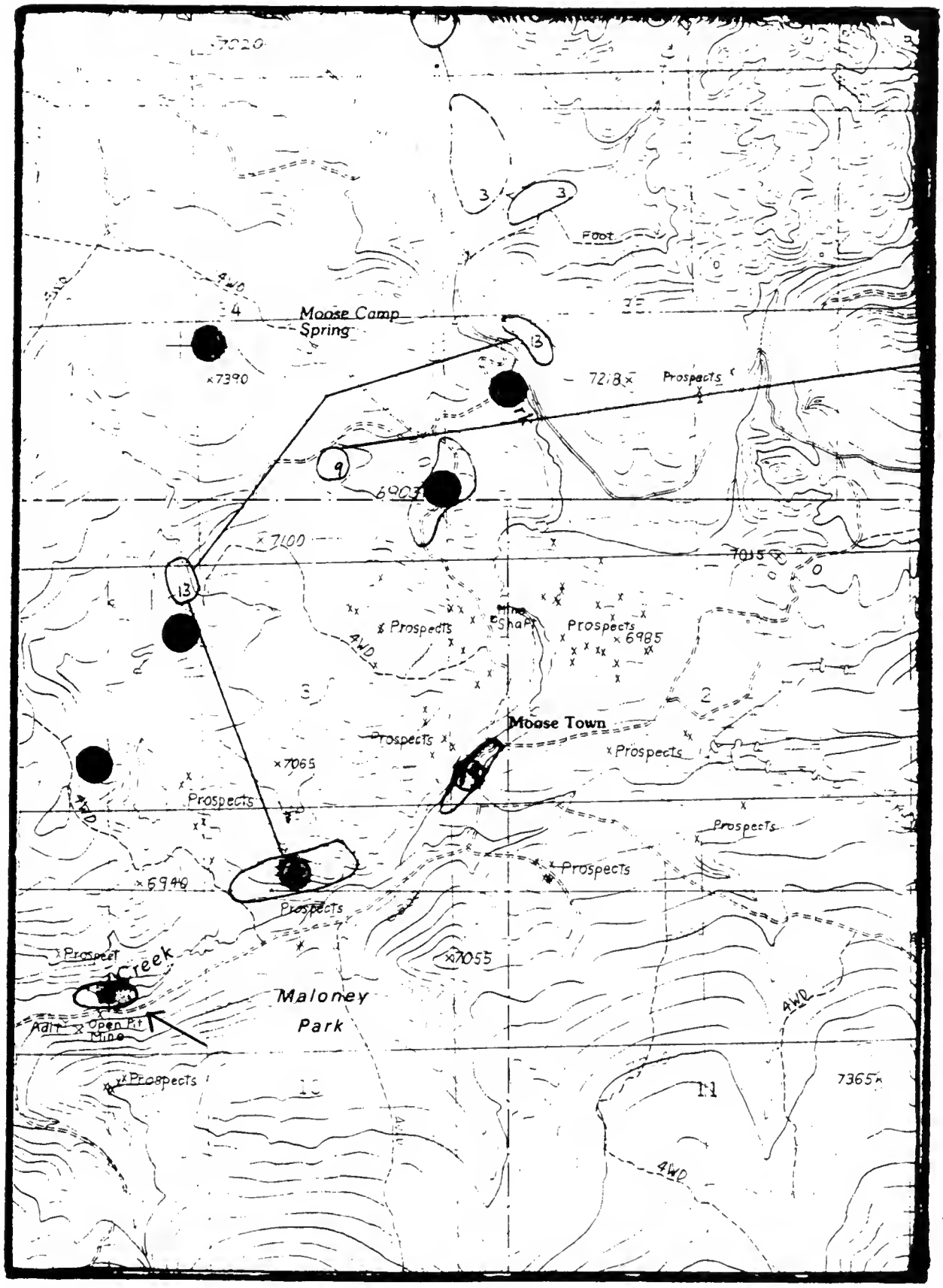
General site description:
UPPER MARGIN OF RIPARIAN WET MEADOW DOMINATED BY JUNCUS BALTICUS AND POTENTILLA GRACILIS, WITH MUHLENBERGIA RICHARDSONIS, POA PRATENSIS, FRAGARIA VIRGINIANA, ANTENNARIA MICROPHYLLA, AND ACHILLEA MILLEFOLIUM. PARENT MATERIAL IS CALCAREOUS.

Land owner/manager:
BLM: BUTTE DISTRICT, DILLON RESOURCE AREA

Comments:
EVIDENCE OF CATTLE TRAILS IN THE AREA.

Information source: LESICA, PETER. DIVISION OF BIOLOGICAL SCIENCES, UNIVERSITY OF MONTANA, MISSOULA, MT 59812.

Specimens:


7020
Foot
4WD
Moose Camp
Spring
×7390
7218×
Prospects
6905
×7100
7015×
13
Prospects
Mine Shaft
Prospects
×6985
4WD
Moose Town
Prospects
Prospects
×7065
Prospects
4WD
Prospects
Prospects
×6940
Prospects
Prospect
Creek
×7055
Maloney
Park
4WD
Adit
Open Pit
Mine
Prospects
7365×
4WD

Scientific Name: CAREX PARRYANA SSP IDAHOA
Common Name: IDAHO SEDGE

Global rank: G4T2 Forest Service status: SENSITIVE
State rank: S2 Federal Status:

Element occurrence code: PMCYP036E0.023
Element occurrence type:
Survey site name: MOOSE TOWN SOUTH
EO rank:
EO rank comments:

County: SILVER BOW

USGS quadrangle: MOUNT HUMBUG

Township:	Range:	Section:	TRS comments:
001S	008W	3	SE4

Precision: S
Survey date:
First observation: 1997-08-03
Last observation: 1997-08-03
Elevation: 6780 -
Slope/aspect: LEVEL
Size (acres): 1

Location:
FROM HIGHLAND ROAD, TAKE MOOSE CREEK ROAD UNTIL IT CROSSES CREEK.

Element occurrence data:
14 STEMS/100 SQUARE METERS. CA. 100 STEMS TOTAL. MATURE FRUIT.

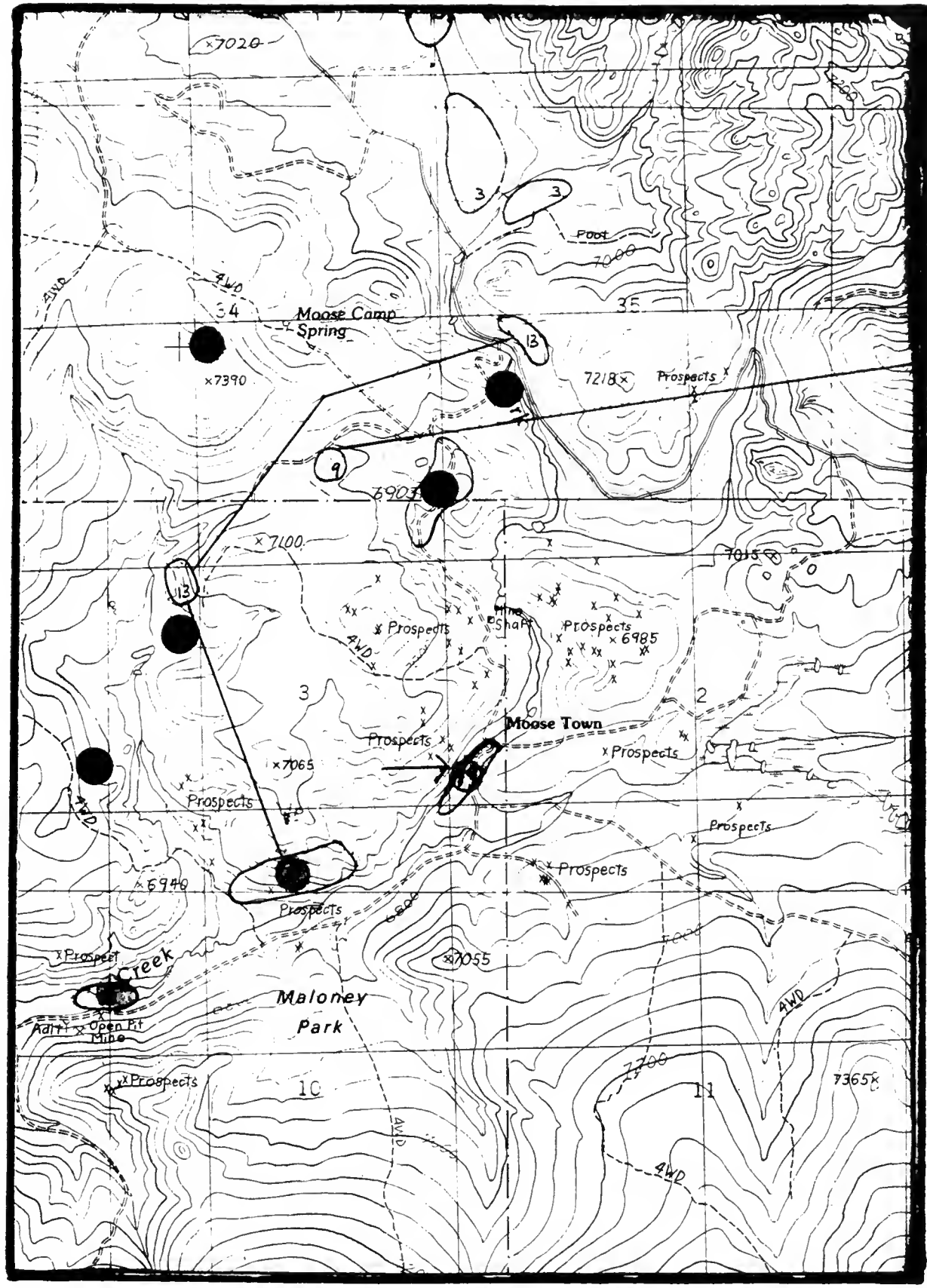
General site description:
UPPER MARGIN OF RIPARIAN WET MEADOW ON HUMMOCKS. ASSOCIATED PLANTS INCLUDE POTENTILLA FRUTICOSA, CAREX PRAEGRACILIS, FRAGARIA VIRGINIANA, ASTER OCCIDENTALIS, DESCHAMPSIA CESPITOSA, JUNCUS BALTICUS, MUHLENBERGIA RICHARDSONIA.

Land owner/manager:
PRIVATELY OWNED LAND (INDIVIDUAL OR CORPORATE)
BEAVERHEAD-DEERLODGE NATIONAL FORESTS, BUTTE RANGER DISTRICT
BLM: BUTTE DISTRICT, DILLON RESOURCE AREA

Comments:
ROAD ADJACENT. SOME DREDGING OF CREEK HAS OCCURRED.

Information source: LESICA, PETER. DIVISION OF BIOLOGICAL SCIENCES, UNIVERSITY OF MONTANA, MISSOULA, MT 59812.

Specimens:


7020
Moose Camp
Spring
34
35
7390
7218
Prospects
7100
7015
Mine Shaft
Prospects
6985
Prospects
3
2
Moose Town
Prospects
7065
Prospects
Prospects
6940
Prospects
Prospects
Prospect
Creek
7055
Maloney
Park
Adit
Open Pit
Mine
Prospects
10
11
7700
7365
4WD
Foot

Scientific Name: CAREX PARRYANA SSP IDAHOA
Common Name: IDAHO SEDGE

Global rank: G4T2 Forest Service status: SENSITIVE
State rank: S2 Federal Status:

Element occurrence code: PMCYP036E0.024
Element occurrence type:
Survey site name: BRUNDAGE CREEK
EO rank:
EO rank comments:

County: BEAVERHEAD

USGS quadrangle: METZEL CREEK

Township:	Range:	Section:	TRS comments:
013S	003W	27	SE4

Precision: S
Survey date:
First observation: 1997-08-01
Last observation: 1997-08-01
Elevation: 6640 -
Slope/aspect: 2% / SOUTH
Size (acres): 1

Location:
BELOW "NORTH-SIDE ROAD" 0.5 MILE EAST OF BLM CATTLEGUARD.

Element occurrence data:
SMALL AREA (0.25 ACRE); GRAZED, POPULATION ESTIMATE NOT POSSIBLE.
MATURE FRUIT.

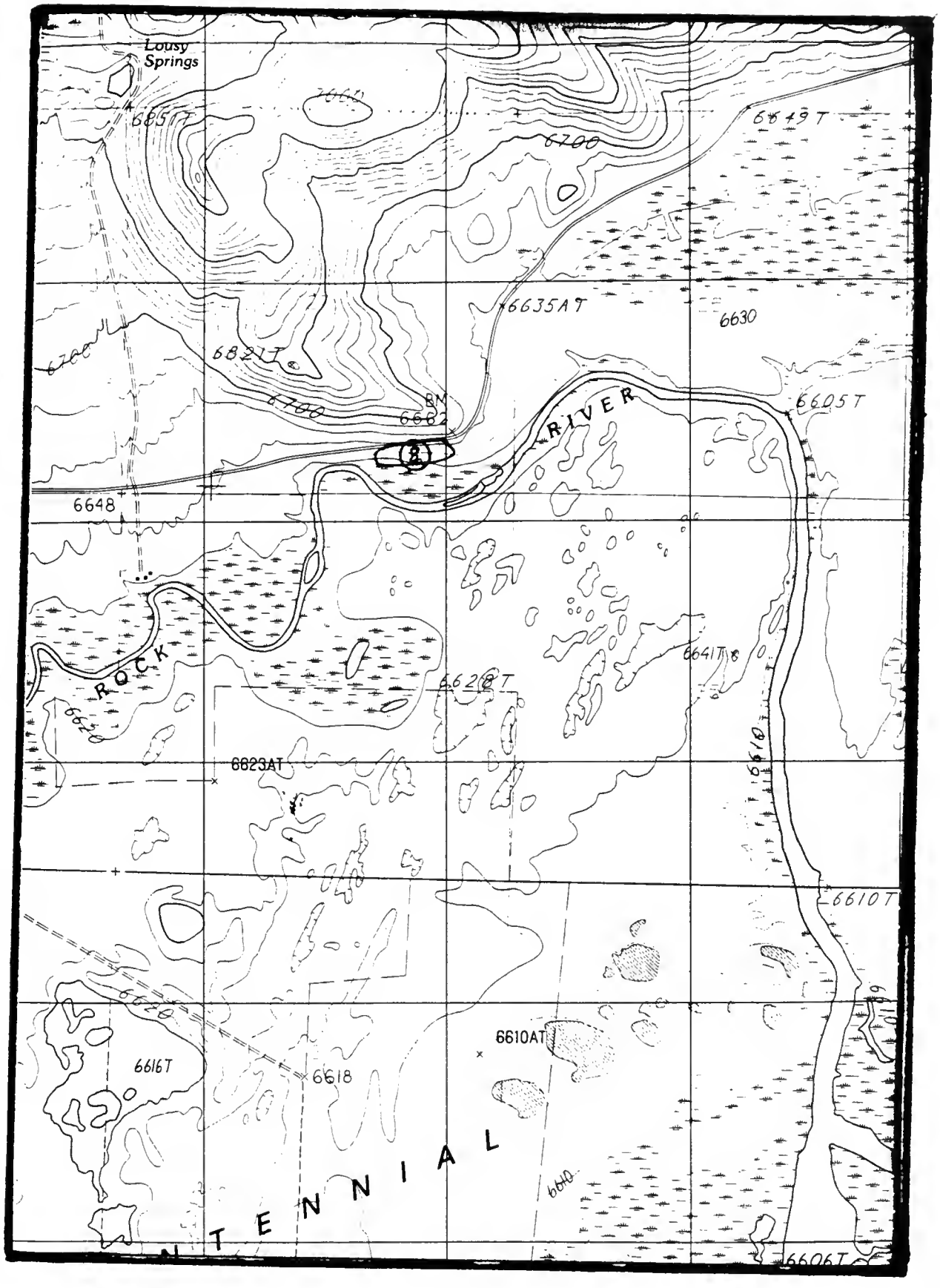
General site description:
MOIST MEADOW ABOVE WET MEADOW ALONG RIVER AND JUST BELOW ROAD BORROW PIT. ASSOCIATED PLANTS INCLUDE JUNCUS BALTICUS, DESCHAMPSIA CESPITOSA, MUHLENBERGIA RICHARDSONIA, ANTENNARIA MICROPHYLLA, TARAXACUM OFFICINALE, ASTER OCCIDENTALIS.

Land owner/manager:
BLM: BUTTE DISTRICT, DILLON RESOURCE AREA

Comments:
EVIDENCE OF DISTURBANCE: GRAZED THIS YEAR, ADJACENT TO ROAD.

Information source: LESICA, PETER. DIVISION OF BIOLOGICAL SCIENCES, UNIVERSITY OF MONTANA, MISSOULA, MT 59812.

Specimens:


Lousy Springs
6651T
6700
6649T
6635AT
6630
6821T
6700
6700
BM 6682
RIVER
6605T
6648
ROCK
6641T
6628T
6620
6623AT
6618
6610T
6610AT
6616T
6618
6610
TENNIAL
6606T

Scientific Name: CAREX PARRYANA SSP IDAHOA
Common Name: IDAHO SEDGE

Global rank: G4T2 Forest Service status: SENSITIVE
State rank: S2 Federal Status:

Element occurrence code: PMCYP036E0.025
Element occurrence type:
Survey site name: CLOVER DIVIDE
EO rank:
EO rank comments:

County: BEAVERHEAD

USGS quadrangle: LIMA DAM

Township:	Range:	Section:	TRS comments:
013S	006W	1	W2; 2 E2

Precision: S
Survey date:
First observation: 1997-08-02
Last observation: 1997-08-02
Elevation: 7160 - 7240
Slope/aspect:
Size (acres): 20

Location:
CA. 0.25 MILE SOUTH OF CLOVER CREEK-BLACKTAIL DEER CREEK DIVIDE.

Element occurrence data:
CA. 200 TOTAL STEMS WITH MATURE FRUIT IN AT LEAST 3 WIDELY SEPARATED COLONIES.

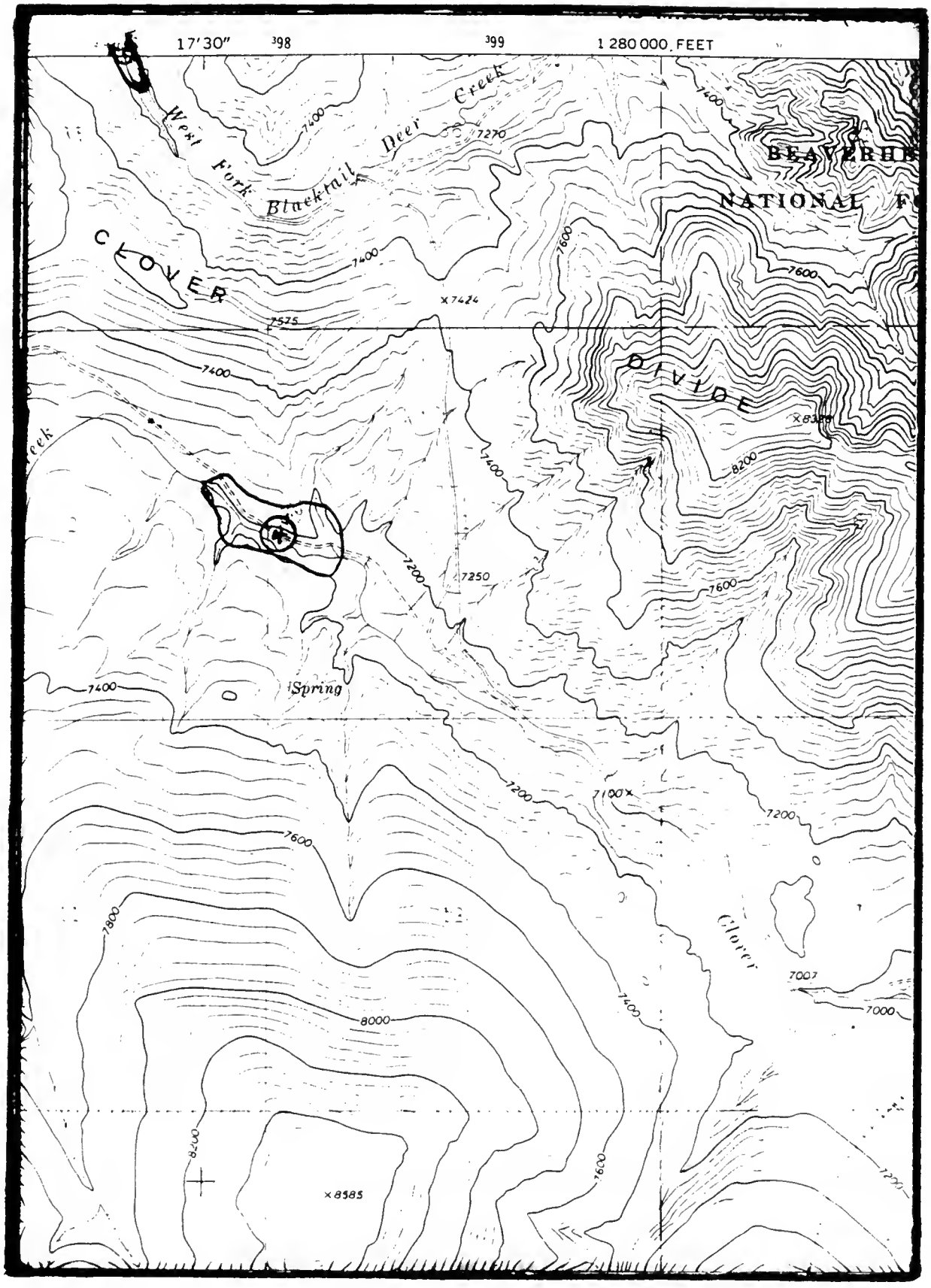
General site description:
ECOTONAL EDGE OF SUBIRRIGATED MEADOWS ALONG DRAINAGES. ASSOCIATED PLANTS INCLUDE JUNCUS BALTICUS, CAREX MICROPTERA, POTENTILLA GRACILIS, POTENTILLA ANSERINIA, CAREX PRAEGRACILIS, AND IRIS MISSOURIENSIS.

Land owner/manager:
BLM: BUTTE DISTRICT, DILLON RESOURCE AREA

Comments:
EVIDENCE OF DISTURBANCE: CATTLE TRAILS.

Information source: LESICA, PETER. DIVISION OF BIOLOGICAL SCIENCES, UNIVERSITY OF MONTANA, MISSOULA, MT 59812.

Specimens: LESICA, P. (7495). 1997. MONTU.


17'30"
398
399
1 280 000 FEET
West Fork Blacktail Deer Creek
CLOVER
DIVIDE
NATIONAL
Spring
Clover
7400
7600
7200
7800
8000
8200
7000
7250
7100
7270
7575
×7424
×8585

Scientific Name: CAREX PARRYANA SSP IDAHOA
Common Name: IDAHO SEDGE

Global rank: G4T2 Forest Service status: SENSITIVE
State rank: S2 Federal Status:

Element occurrence code: PMCYP036E0.026
Element occurrence type:
Survey site name: LIMA RESERVOIR NORTH
EO rank:
EO rank comments:

County: BEAVERHEAD

USGS quadrangle: MONIDA

Township:	Range:	Section:	TRS comments:
014S	005W	30	W2
014S	006W	25	N2

Precision: S
Survey date:
First observation: 1997-08-01
Last observation: 1997-08-01
Elevation: 6640 - 6680
Slope/aspect: LEVEL
Size (acres): 100

Location:
ALONG ROAD TO RED ROCK LAKES CA. 3.5 MILES FROM MONIDA.

Element occurrence data:
STEMS GRAZED OFF. POPULATION ESTIMATE NOT POSSIBLE.

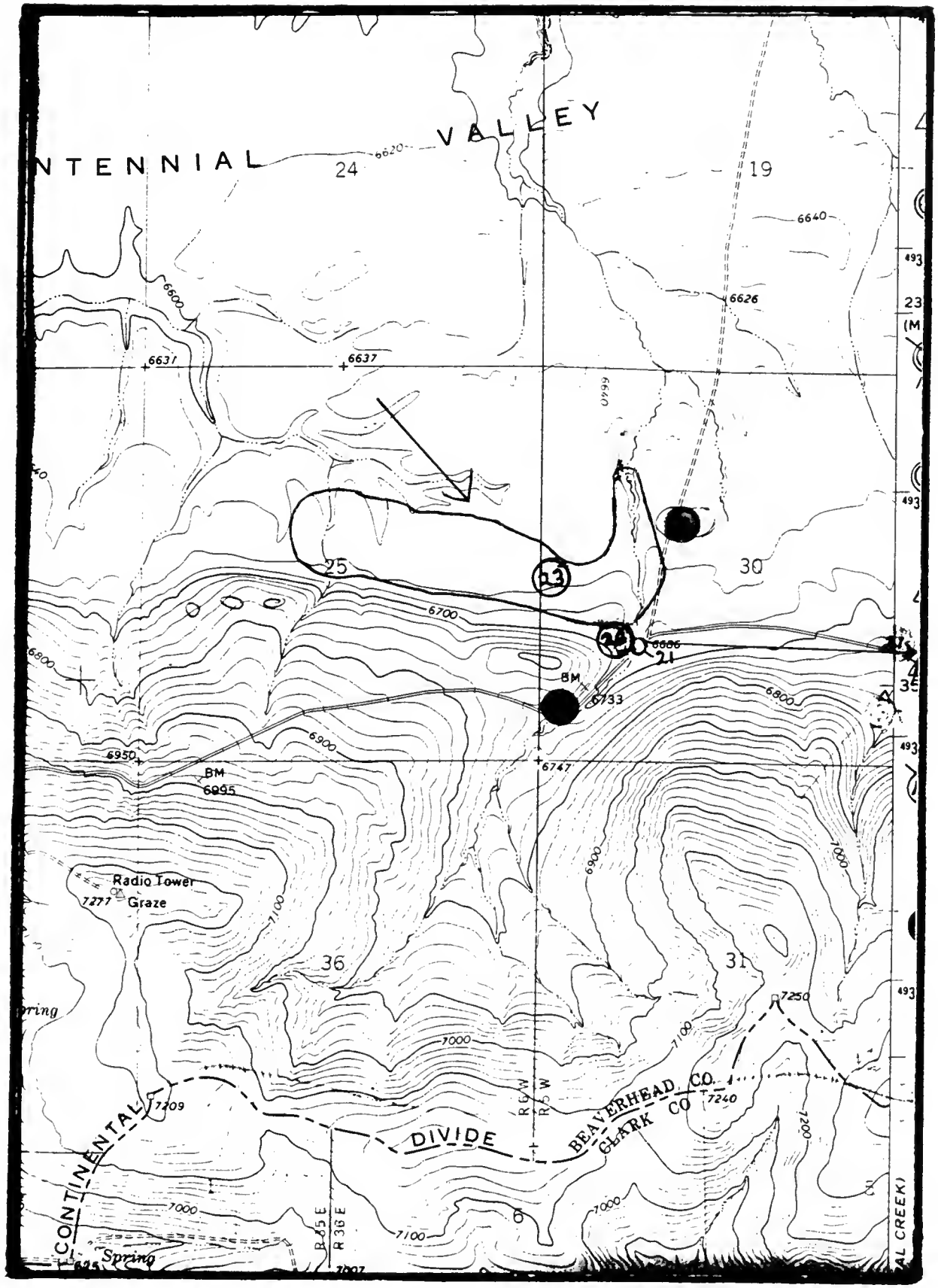
General site description:
MEADOWS ASSOCIATED WITH SMALL STREAMS AND SEEPS ALONG BASE OF RIDGE. ASSOCIATED PLANTS INCLUDE POTENTILLA ANSERINIA, POA PRATENSIS, CAREX PRAEGRACILIS, JUNCUS BALTICUS, MUHLENBERGIA RICHARDSONIS, IRIS MISSOURIENSIS, ASTER OCCIDENTALIS.

Land owner/manager:
BLM: BUTTE DISTRICT, DILLON RESOURCE AREA

Comments:
LIVESTOCK GRAZING.

Information source: LESICA, PETER. DIVISION OF BIOLOGICAL SCIENCES, UNIVERSITY OF MONTANA, MISSOULA, MT 59812.

Specimens:


NTENNIAL VALLEY
24
19
30
25
36
31
6620
6640
6626
6600
6631
6637
6700
6800
6900
6950
6747
6733
6686
BM
6995
Radio Tower
7277
Graze
7100
7000
7250
7240
7209
CONTINENTAL DIVIDE
BEAVERHEAD CO.
CLARK CO
R6W
R5W
R5E
R6E
Spring
AL CREEK)

Scientific Name: CAREX PARRYANA SSP IDAHOA
Common Name: IDAHO SEDGE

Global rank: G4T2 Forest Service status: SENSITIVE
State rank: S2 Federal Status:

Element occurrence code: PMCYP036E0.027
Element occurrence type:
Survey site name: LIMA RESERVOIR SOUTHWEST
EO rank:
EO rank comments:

County: BEAVERHEAD

USGS quadrangle: MONIDA

Township:	Range:	Section:	TRS comments:
014S	006W	16	NW4

Precision: S
Survey date:
First observation: 1997-08-01
Last observation: 1997-08-01
Elevation: 6600 -
Slope/aspect: LEVEL
Size (acres): 1

Location:
CA. 4 MILES NORTH-NORTHWEST OF MONIDA.

Element occurrence data:
17 STEMS PER 100 SQUARE METERS. MATURE FRUIT.

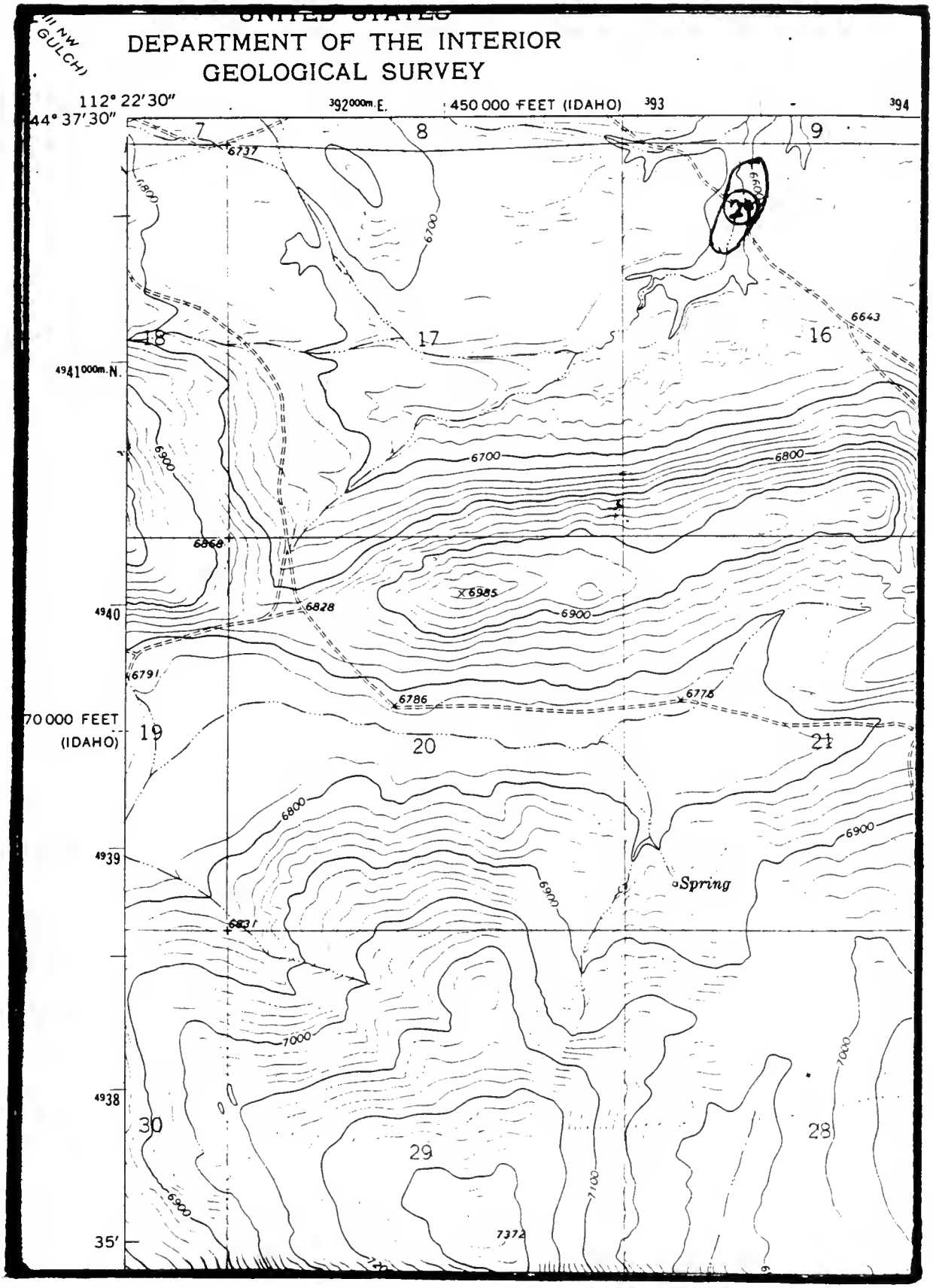
General site description:
MEADOW ECOTONE BETWEEN JUNCUS BALTICUS/DESCHAMPSIA CESPITOSA WET MEADOW AND ARTEMISIA TRIDENTATA/AGROPYRON SMITHII STEPPE. ASSOCIATED PLANTS INCLUDE JUNCUS BALTICUS, DESCHAMPSIA CESPITOSA, CAREX PRAEGRACILIS, POTENTILLA GRACILIS, MUHLENBERGIA RICHARDSONIS.

Land owner/manager:
STATE LAND - UNDESIGNATED

Comments:
HIGH FORB COVER.

Information source: LESICA, PETER. DIVISION OF BIOLOGICAL SCIENCES, UNIVERSITY OF MONTANA, MISSOULA, MT 59812.

Specimens: LESICA, P. (7489). 1997. MONTU.


DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY
112° 22' 30"
44° 37' 30"
392 000m. E.
450 000 FEET (IDAHO)
393
394
4941 000m. N.
4940
4939
4938
35'
70 000 FEET
(IDAHO)
7
8
9
16
17
18
19
20
21
28
29
30
6737
6643
6700
6800
6900
6868
6828
6985
6791
6786
6776
6831
7000
7372
Spring

Scientific Name: CAREX PARRYANA SSP IDAHOA
Common Name: IDAHO SEDGE

Global rank: G4T2 Forest Service status: SENSITIVE
State rank: S2 Federal Status:

Element occurrence code: PMCYP036E0.028
Element occurrence type:
Survey site name: SAND CREEK
EO rank:
EO rank comments:

County: BEAVERHEAD

USGS quadrangle: CORRAL CREEK

Township:	Range:	Section:	TRS comments:
014S	005W	24	SE4

Precision: S
Survey date:
First observation: 1997-08-01
Last observation: 1997-08-01
Elevation: 6680 - 6740
Slope/aspect: LEVEL
Size (acres): 2

Location:
OFF MAIN ROAD BETWEEN MONIDA AND RED ROCK LAKES.

Element occurrence data:
230 STEMS PER 100 SQUARE METERS. OVER 10,000 TOTAL STEMS. MATURE FRUIT.

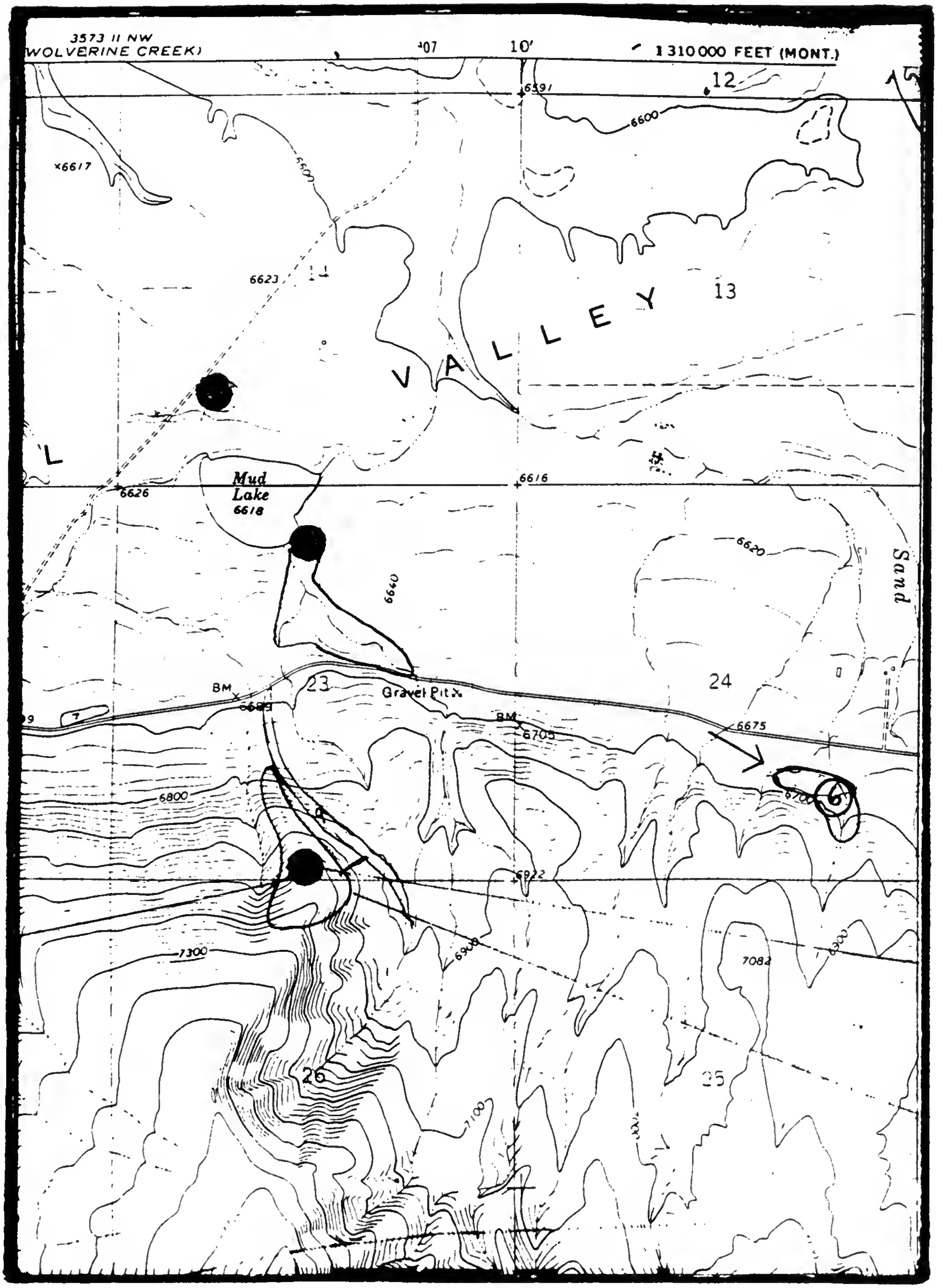
General site description:
MOIST MEADOW AT BASE OF SLOPE, PRESUMABLY SUBIRRIGATED. ASSOCIATED PLANTS INCLUDE CAREX PRAEGRACILIS, JUNCUS BALTICUS, AGROPYRON SPICATUM, HAPLOPAPPUS INTEGRIFOLIUS, TARAXACUM OFFICINALE.

Land owner/manager:
BLM: BUTTE DISTRICT, DILLON RESOURCE AREA
PRIVATELY OWNED LAND (INDIVIDUAL OR CORPORATE)

Comments:
LITTLE RECENT DISTURBANCE.

Information source: LESICA, PETER. DIVISION OF BIOLOGICAL SCIENCES, UNIVERSITY OF MONTANA, MISSOULA, MT 59812.

Specimens: LESICA, P. (7493). 1997. MONTU.


3573 II NW
(WOLVERINE CREEK)
407
10'
1 310 000 FEET (MONT.)
12
6591
6600
6617
6623
13
VALLEY
L
Mud
Lake
6618
6626
6616
6620
Sand
6640
23
Gravel Pit
BM
6689
BM
6705
24
6675
6700
6800
6922
6900
7300
7082
26
25
7100

Scientific Name: CAREX PARRYANA SSP IDAHOA
Common Name: IDAHO SEDGE

Global rank: G4T2 Forest Service status: SENSITIVE
State rank: S2 Federal Status:

Element occurrence code: PMCYP036E0.029
Element occurrence type:
Survey site name: UPPER DEADMAN CREEK
EO rank:
EO rank comments:

County: BEAVERHEAD

USGS quadrangle: CABOOSE CANYON

Township:	Range:	Section:	TRS comments:
015S	010W	22	SW4

Precision: S
Survey date:
First observation: 1997-08-11
Last observation: 1997-08-11
Elevation: 6950 -
Slope/aspect: LEVEL
Size (acres): 2

Location:
SOUTHWEST OF BANNACK PASS ROAD CROSSING OF DEADMAN CREEK.

Element occurrence data:
UNABLE TO ESTIMATE POPULATION SIZE.

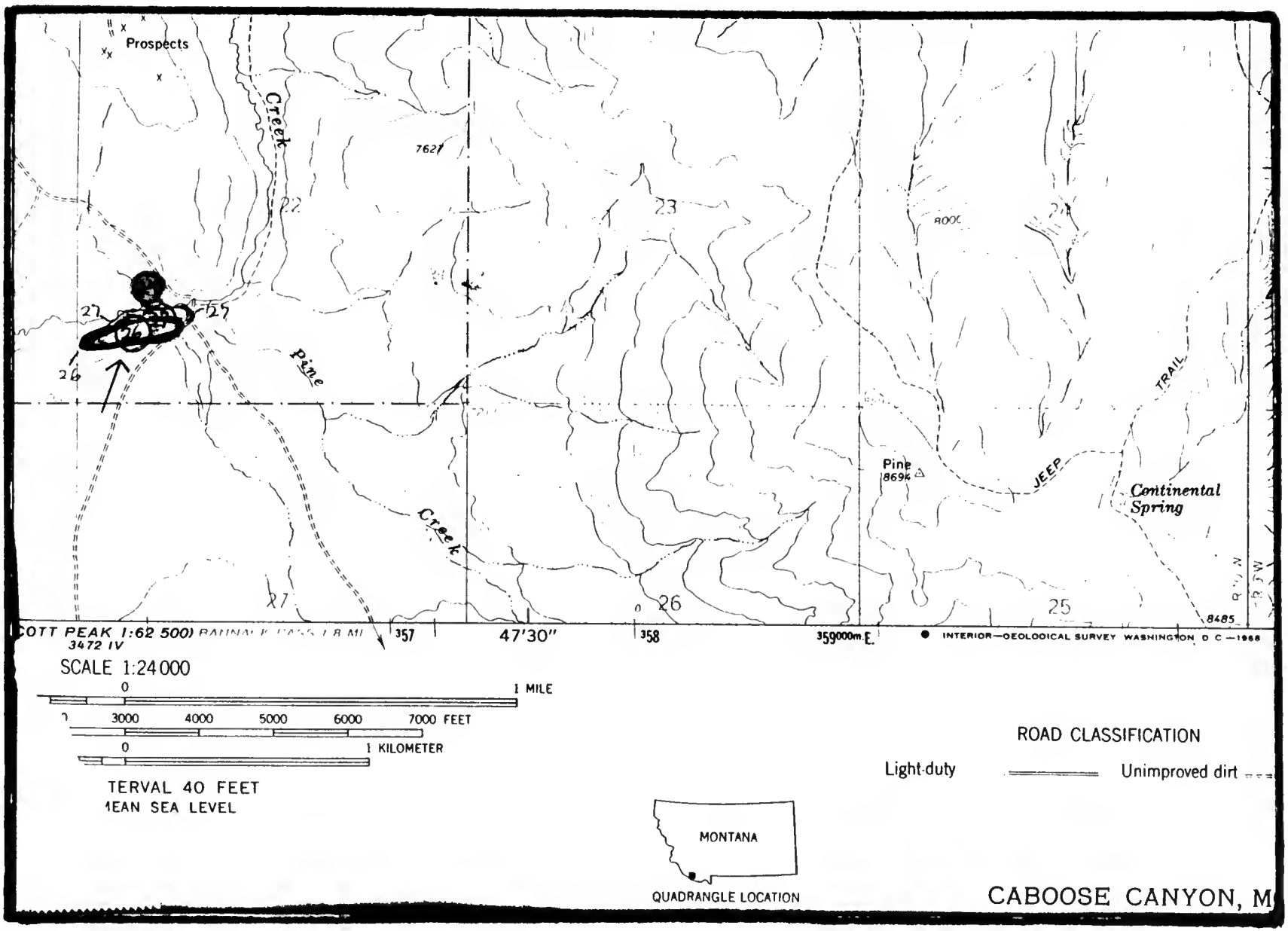
General site description:
DRIER MARGINS OF WET MEADOW ALONG CREEK. ASSOCIATED PLANTS INCLUDE DESCHAMPSIA CESPITOSA, JUNCUS BALTICUS, CAREX PRAEGRACILIS, POA JUNCIFOLIA, MUHLENBERGIA RICHARDSONIS, POTENTILLA GRACILIS, AND CREPIS RUNCINATA.

Land owner/manager:
PRIVATELY OWNED LAND (INDIVIDUAL OR CORPORATE)
BLM: BUTTE DISTRICT, DILLON RESOURCE AREA

Comments:
GRAZED; CATTLE TRAILS.

Information source: LESICA, PETER. DIVISION OF BIOLOGICAL SCIENCES, UNIVERSITY OF MONTANA, MISSOULA, MT 59812.

Specimens:


Prospects
Creek
7627
22
23
27
25
26
Pine
Creek
TRAIL
JEEP
Pine
869K
Continental
Spring
27
26
25
8485
8000
R. 7 W.
R. 6 W.
SCOTT PEAK 1:62 500) RAINAL K PASS 1.8 MI
3472 IV
357
47'30"
358
359000m E.
INTERIOR—GEOLOGICAL SURVEY WASHINGTON D C—1968
SCALE 1:24000
0
1 MILE
3000
4000
5000
6000
7000 FEET
0
1 KILOMETER
TERVAL 40 FEET
1EAN SEA LEVEL
ROAD CLASSIFICATION
Light-duty
Unimproved dirt
MONTANA
QUADRANGLE LOCATION
CABOOSE CANYON, M

Scientific Name: CAREX PARRYANA SSP IDAHOA
Common Name: IDAHO SEDGE

Global rank: G4T2 Forest Service status: SENSITIVE
State rank: S2 Federal Status:

Element occurrence code: PMCYP036E0.030
Element occurrence type:
Survey site name: UPPER BLACKTAIL DEER CREEK
EO rank:
EO rank comments:

County: BEAVERHEAD

USGS quadrangle: WHISKEY SPRING
LIMA DAM

Township:	Range:	Section:	TRS comments:
012S	006W	35	NE4

Precision: S
Survey date:
First observation: 1997-08-02
Last observation: 1997-08-02
Elevation: 7190 - 7200
Slope/aspect: LEVEL
Size (acres): 1

Location:
ALONG WEST FORK BLACKTAIL DEER CREEK 0.7 MILES BELOW ANTONE ROAD.

Element occurrence data:
SMALL POPULATION. UNABLE TO ESTIMATE TOTAL NUMBER DUE TO GRAZING.

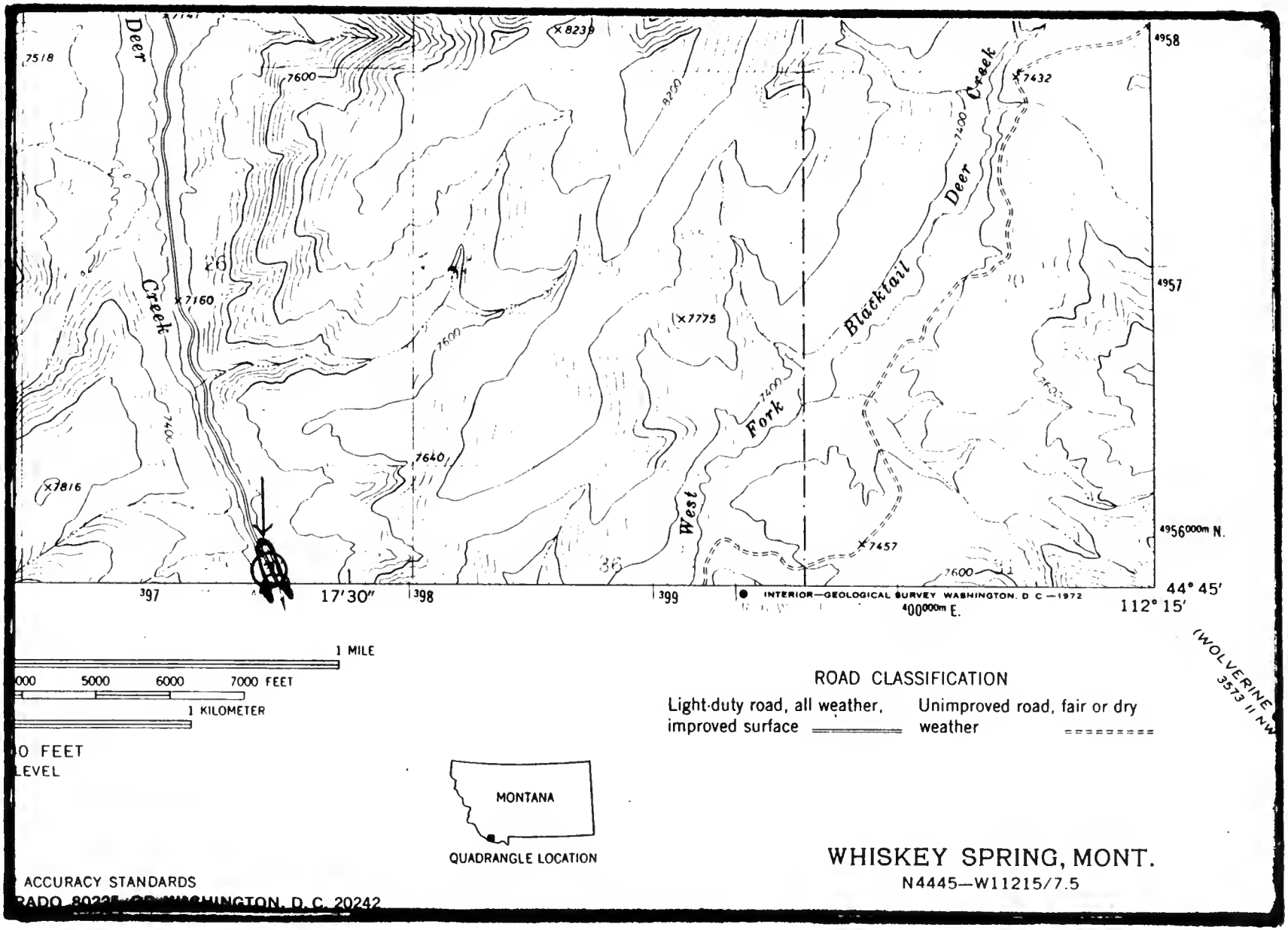
General site description:
DRIER MARGIN OF MOIST MEADOW ALONG CREEK. ASSOCIATED PLANTS INCLUDE POTENTILLA FRUTICOSA, JUNCUS BALTICUS, TRIFOLIUM REPENS, DESCHAMPSIA CESPITOSA, CAREX PRAEGRACILIS, POTENTILLA GRACILIS, TARAXACUM OFFICINALE.

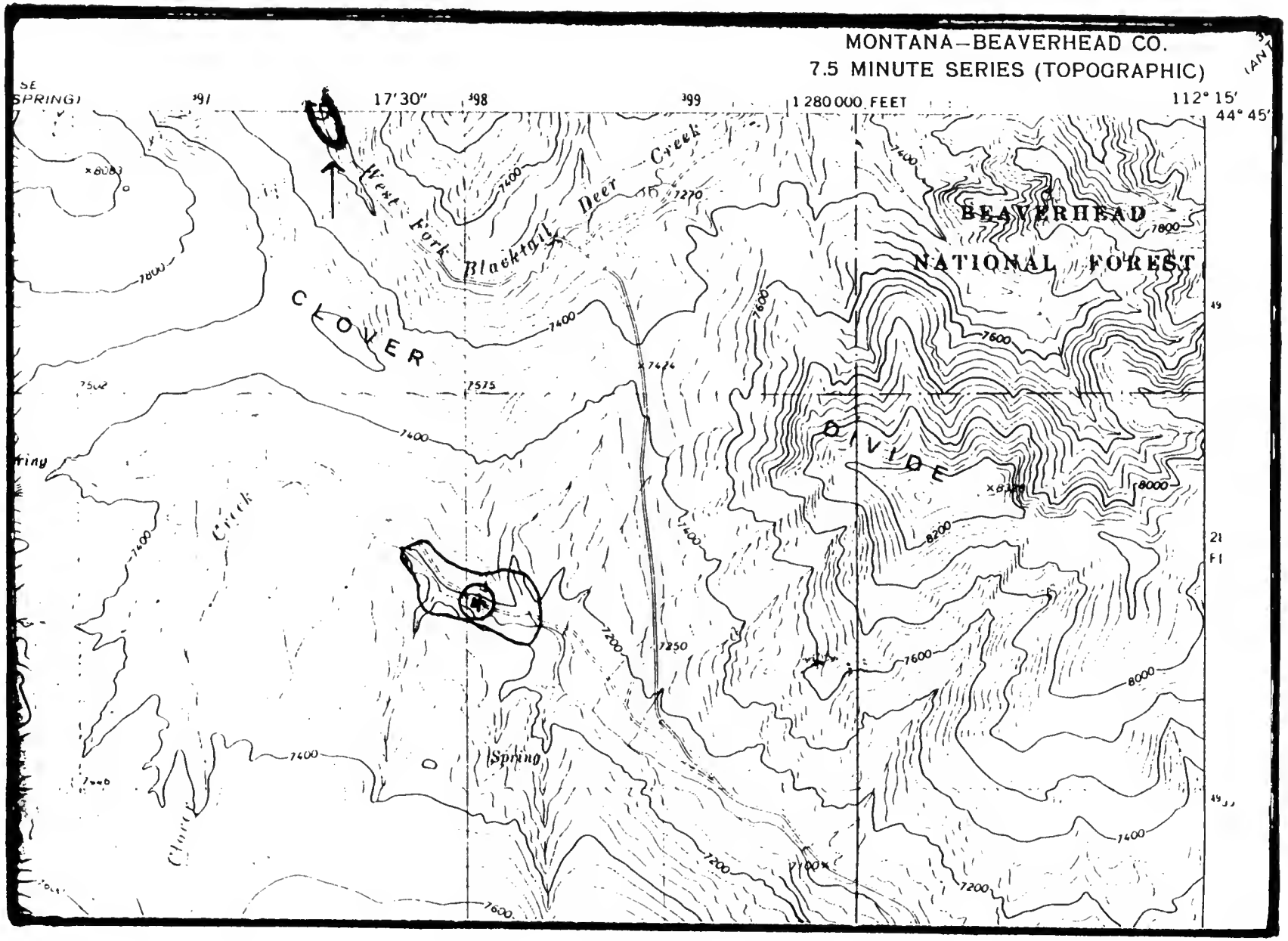
Land owner/manager:
BLM: BUTTE DISTRICT, DILLON RESOURCE AREA

Comments:
HEAVY GRAZING, CATTLE TRAILS.

Information source: LESICA, PETER. DIVISION OF BIOLOGICAL SCIENCES, UNIVERSITY OF MONTANA, MISSOULA, MT 59812.

Specimens:


Deer Creek
Blacktail Deer Creek
West Fork
7518
7600
8239
7432
7400
8200
7160
7775
7640
7816
7457
36
4958
4957
4956000m N.
397
17'30"
398
399
400000m E.
44° 45'
112° 15'
INTERIOR—GEOLOGICAL SURVEY WASHINGTON, D C —1972
1 MILE
000 5000 6000 7000 FEET
1 KILOMETER
0 FEET
LEVEL
ROAD CLASSIFICATION
Light-duty road, all weather, improved surface
Unimproved road, fair or dry weather
(WOLVERINE 3573 II NW)
MONTANA
QUADRANGLE LOCATION
ACCURACY STANDARDS
RADO 80225 OR WASHINGTON, D.C. 20242
WHISKEY SPRING, MONT.
N4445—W11215/7.5


MONTANA—BEAVERHEAD CO.
7.5 MINUTE SERIES (TOPOGRAPHIC)
17'30"
1 280 000 FEET
112° 15'
44° 45'
West Fork Blacktail Deer Creek
BEAVERHEAD
NATIONAL FOREST
CLOVER
DIVIDE
Spring
Creek

Scientific Name: CAREX PARRYANA SSP IDAHOA
Common Name: IDAHO SEDGE

Global rank: G4T2 Forest Service status: SENSITIVE
State rank: S2 Federal Status:

Element occurrence code: PMCYP036E0.031
Element occurrence type:
Survey site name: CABIN CREEK
EO rank:
EO rank comments:

County: BEAVERHEAD

USGS quadrangle: ISLAND BUTTE

Township:	Range:	Section:	TRS comments:
014S	011W	23	SE4

Precision: S
Survey date:
First observation: 1997-08-11
Last observation: 1997-08-11
Elevation: 7080 - 7100
Slope/aspect: LEVEL
Size (acres): 5

Location:
TAKE CABIN CREEK ROAD TO UPPER MOUTH OF CANYON, THEN 2-TRACK ROAD UP CABIN CREEK.

Element occurrence data:
NO SUBPOPULATION ESTIMATE POSSIBLE.

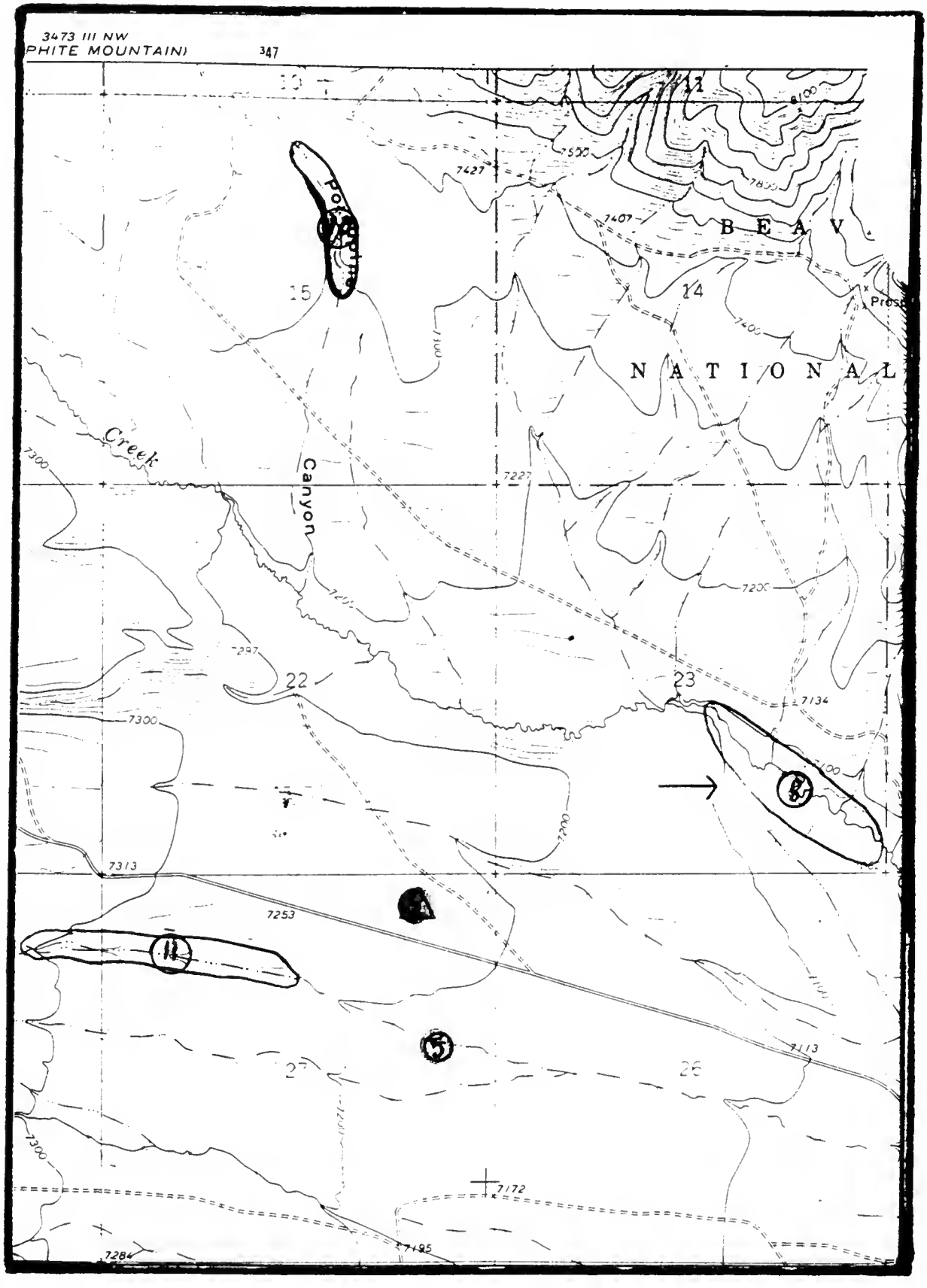
General site description:
MOIST MEADOW ALONG CREEK. ASSOCIATED PLANTS INCLUDE CAREX PRAEGRACILIS, JUNCUS BALTICUS, CIRSIUN EDULE, POA JUNCIFOLIA, CREPIS RUNCINATA, IRIS MISSOURIENSIS, POTENTILLA GRACILIS, AND ASTER OCCIDENTALIS.

Land owner/manager:
BLM: BUTTE DISTRICT, DILLON RESOURCE AREA
BEAVERHEAD-DEERLODGE NATIONAL FORESTS, DILLON RANGER DISTRICT

Comments:
HEAVILY GRAZED.

Information source: LESICA, PETER. DIVISION OF BIOLOGICAL SCIENCES, UNIVERSITY OF MONTANA, MISSOULA, MT 59812.

Specimens:


B E A V
N A T I O N A L
Creek
Canyon
15
14
22
23
26
7427
7407
7400
7300
7227
7200
7297
7134
7313
7253
7113
7172
7195
7284

Scientific Name: CAREX PARRYANA SSP IDAHOA
Common Name: IDAHO SEDGE

Global rank: G4T2 Forest Service status: SENSITIVE
State rank: S2 Federal Status:

Element occurrence code: PMCYP036E0.032
Element occurrence type:
Survey site name: COYOTE CREEK
EO rank:
EO rank comments:

County: BEAVERHEAD

USGS quadrangle: ISLAND BUTTE

Township:	Range:	Section:	TRS comments:
015S	011W	7	S2

Precision: S
Survey date:
First observation: 1997-08-10
Last observation: 1997-08-10

Elevation: 7920 - 8270
Slope/aspect: CENTRUM SUBPOP: LEVEL, SECONDARY SUBPOP: 3%/NE.
Size (acres): 1

Location:
FROM MEADOW CREEK ROAD, TAKE ALKALI CREEK 2-TRACK SOUTHWEST CA. 1.3 MILES. HIKE TO COYOTE LAKE.

Element occurrence data:
TWO SUBPOPULATIONS. THE CENTRUM POPULATION CONSISTS OF CA. 100-200 TOTAL STEMS, WITH MATURE FRUIT. THE SECOND SUBPOPULATION HAS VERY LITTLE HABITAT; ONLY 1 STEM WITH MATURE FRUIT OBSERVED.

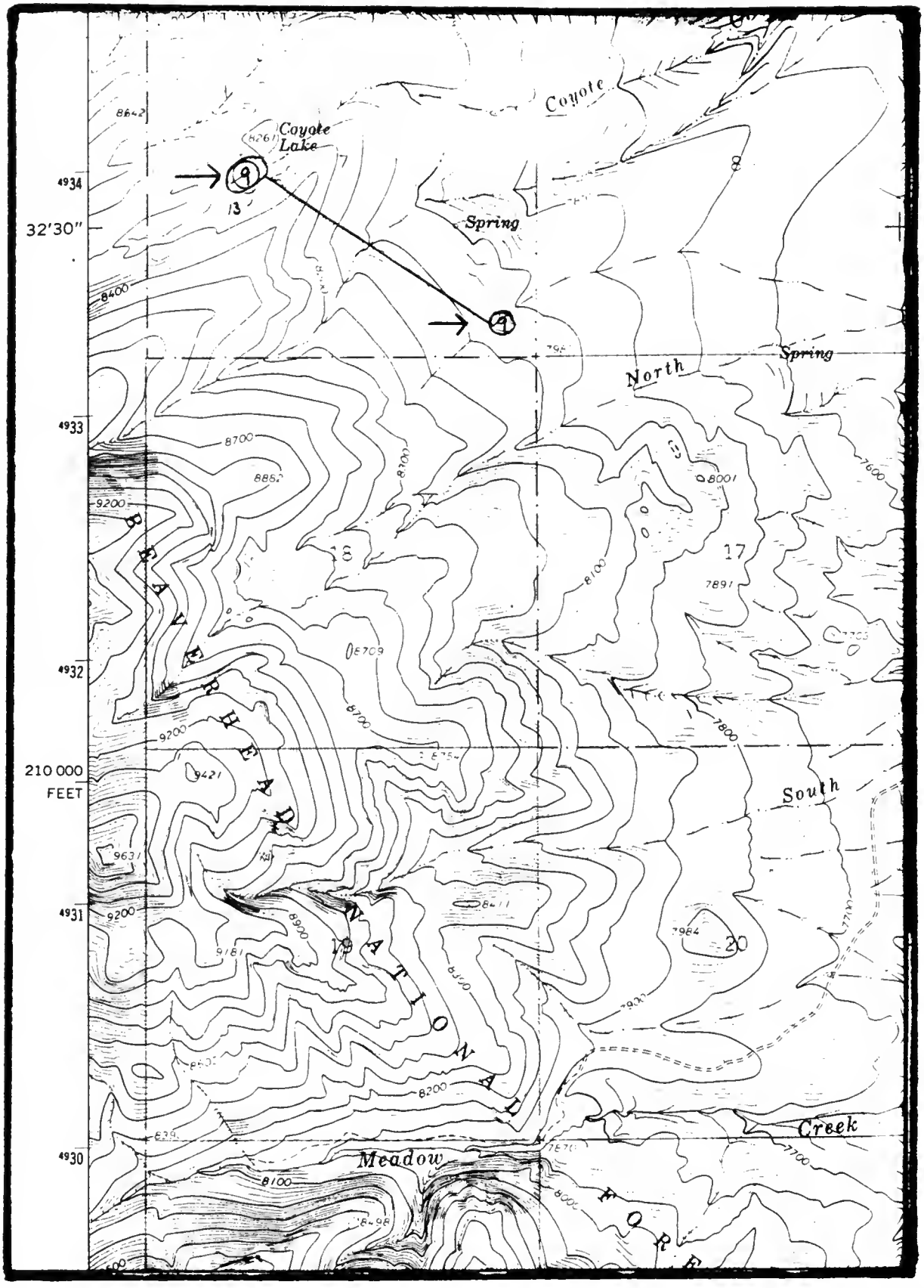
General site description:
CENTRUM SUBPOPULATION: DRIER PORTION OF SHRUBBY, MOIST MEADOW ALONG CREEK. ASSOCIATED PLANTS INCLUDE POTENTILLA FRUTICOSA, JUNCUS BALTICUS, CAREX SIMULATA, CAREX AQUATILIS, CAREX NEBRASCENSIS, CAREX MICROPTERA, ASTER OCCIDENTALIS. SECONDARY SUBPOPULATION: DRY MARGIN OF SUBIRRIGATED MEADOW ASSOCIATED WITH SEEP. ASSOCIATED PLANTS INCLUDE CAREX PRAEGRACILIS, CAREX MICROPTERA, POTENTILLA GRACILIS, POA JUNCIFOLIA, TRIFOLIUM LONGIPES.

Land owner/manager:
BLM: BUTTE DISTRICT, DILLON RESOURCE AREA
BEAVERHEAD-DEERLODGE NATIONAL FORESTS, DILLON RANGER DISTRICT
PRIVATELY OWNED LAND (INDIVIDUAL OR CORPORATE)

Comments:
TWO SUBPOPULATIONS. CATTLE TRAILS.

Information source: LESICA, PETER. DIVISION OF BIOLOGICAL SCIENCES, UNIVERSITY OF MONTANA, MISSOULA, MT 59812.

Specimens: LESICA, P. (7502). 1997. MONTU.


Coyote
Coyote Lake
Spring
North
Spring
South
Creek
Meadow
BEAVER HEAD
NATIONAL
FOREST
32'30"
210 000 FEET
4934
4933
4932
4931
4930
13
18
17
20
8642
8261
8400
8700
8882
9200
8709
8754
9421
9631
9181
8900
8411
8200
8229
8498
8100
8001
7891
7984
7800
7700
7670

Scientific Name: CAREX PARRYANA SSP IDAHOA
Common Name: IDAHO SEDGE

Global rank: G4T2 Forest Service status: SENSITIVE
State rank: S2 Federal Status:

Element occurrence code: PMCYP036E0.033
Element occurrence type:
Survey site name: HILDRETH
EO rank:
EO rank comments:

County: BEAVERHEAD

USGS quadrangle: TEPEE MOUNTAIN

Township:	Range:	Section:	TRS comments:
013S	012W	09	

Precision: S
Survey date:
First observation: 1997-07-30
Last observation: 1997-07-30
Elevation: 7400 - 7480
Slope/aspect: LEVEL
Size (acres): 1

Location:
1.5 MILES SOUTH OF HILDRETH RANCH.

Element occurrence data:
TWO SUBPOPULATIONS. CENTRUM SUBPOPULATION: CA. 100 STEMS TOTAL, WITH MATURE FRUIT. SECOND SUBPOPULATION: CA. 600 STEMS TOTAL, WITH MATURE FRUIT.

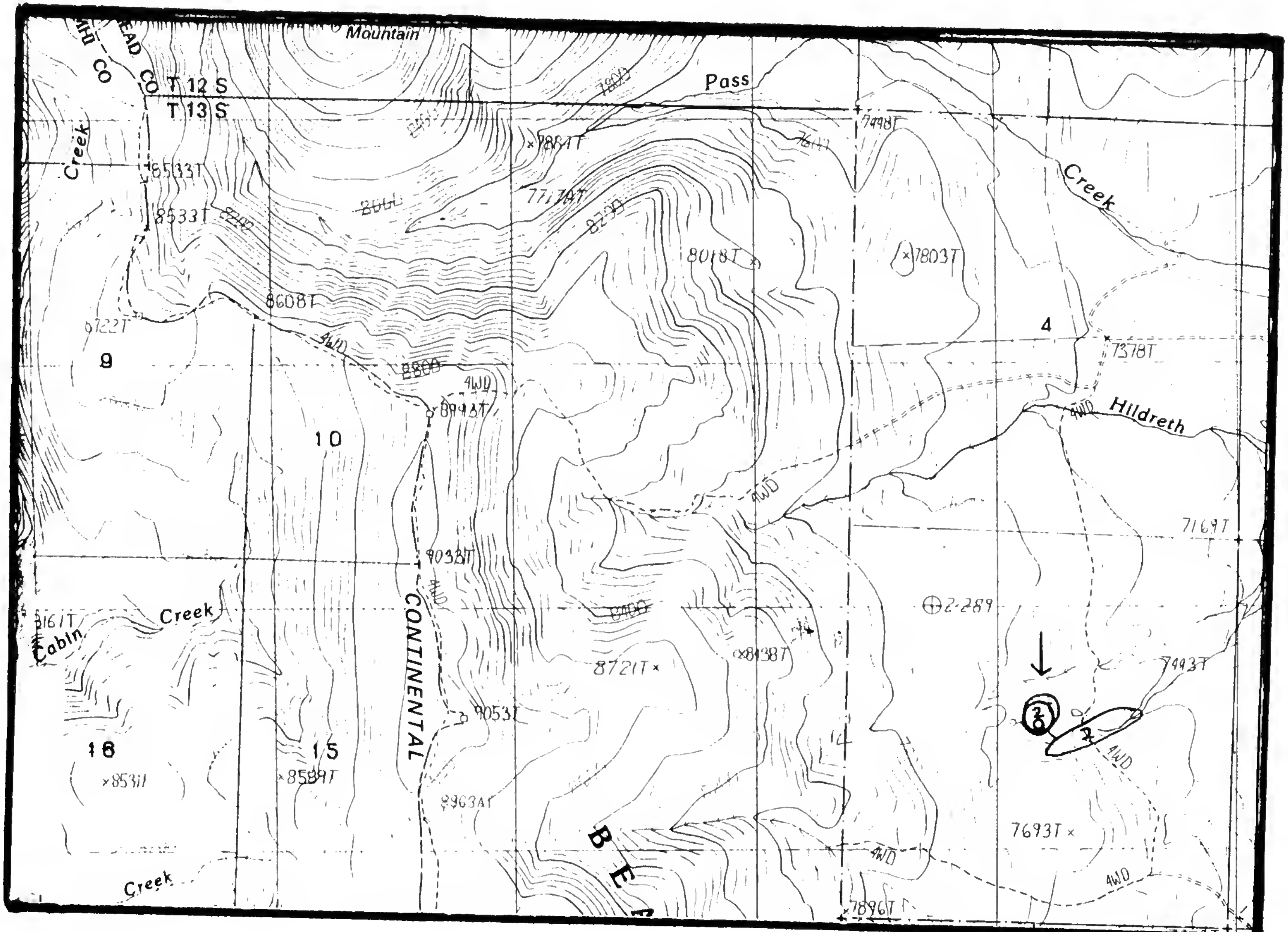
General site description:
CENTRUM SUBPOPULATION: DRIER EDGE OF SUBIRRIGATED, MOIST MEADOW ALONG A SPRING CREEK. ASSOCIATED PLANTS INCLUDE CAREX PRAEGRACILIS, JUNCUS BALTICUS, DESCHAMPSIA CESPITOSA, MUHLENBERGIA RICHARDSONIA, ANTENNARIA MICROPHYLLA, CREPIS RUNCINATA, ASTER OCCIDENTALIS. SECOND SUBPOPULATION: MOIST OUTER MARGIN OF SUBIRRIGATED MEADOW ALONG STREAM. ASSOCIATED PLANTS INCLUDE JUNCUS BALTICUS, CAREX PRAEGRACILIS, MUHLENBERGIA RICHARDSONIS, POA PRATENSIS, TARAXACUM OFFICINALE, ASTER OCCIDENTALIS, POTENTILLA GRACILIS.

Land owner/manager:
BLM: BUTTE DISTRICT, DILLON RESOURCE AREA

Comments:
A FEW LIVESTOCK TRAILS.

Information source: LESICA, PETER. DIVISION OF BIOLOGICAL SCIENCES, UNIVERSITY OF MONTANA, MISSOULA, MT 59812.

Specimens: LESICA, P. (7484). 1997. MONTU.



Mountain
Pass
T 12 S
T 13 S
Creek
8533T
8608T
9
10
4WD
8944T
9033T
CONTINENTAL
9053T
8963A
15
8589T
16
8531
Cabin
Creek
Creek
7864T
7774T
8018T
7803T
7498T
Creek
4
7378T
Hildreth
7169T
2-289
8721T
8138T
7493T
4WD
7693T
7896T
B E

Scientific Name: CAREX PARRYANA SSP IDAHOA
Common Name: IDAHO SEDGE

Global rank: G4T2 Forest Service status: SENSITIVE
State rank: S2 Federal Status:

Element occurrence code: PMCYP036E0.034
Element occurrence type:
Survey site name: KATE CREEK
EO rank:
EO rank comments:

County: BEAVERHEAD

USGS quadrangle: DEER CANYON

Township:	Range:	Section:	TRS comments:
012S	011W	18	NW4

Precision: S
Survey date:
First observation: 1997-07-30
Last observation: 1997-07-30
Elevation: 6600 -
Slope/aspect: LEVEL
Size (acres): 1

Location:
HEAD OF KATE CREEK CA. 0.25 MILES PAST LAST GATE.

Element occurrence data:
8 STEMS SEEN IN 200 SQUARE METERS OF HABITAT. MATURE FRUIT.

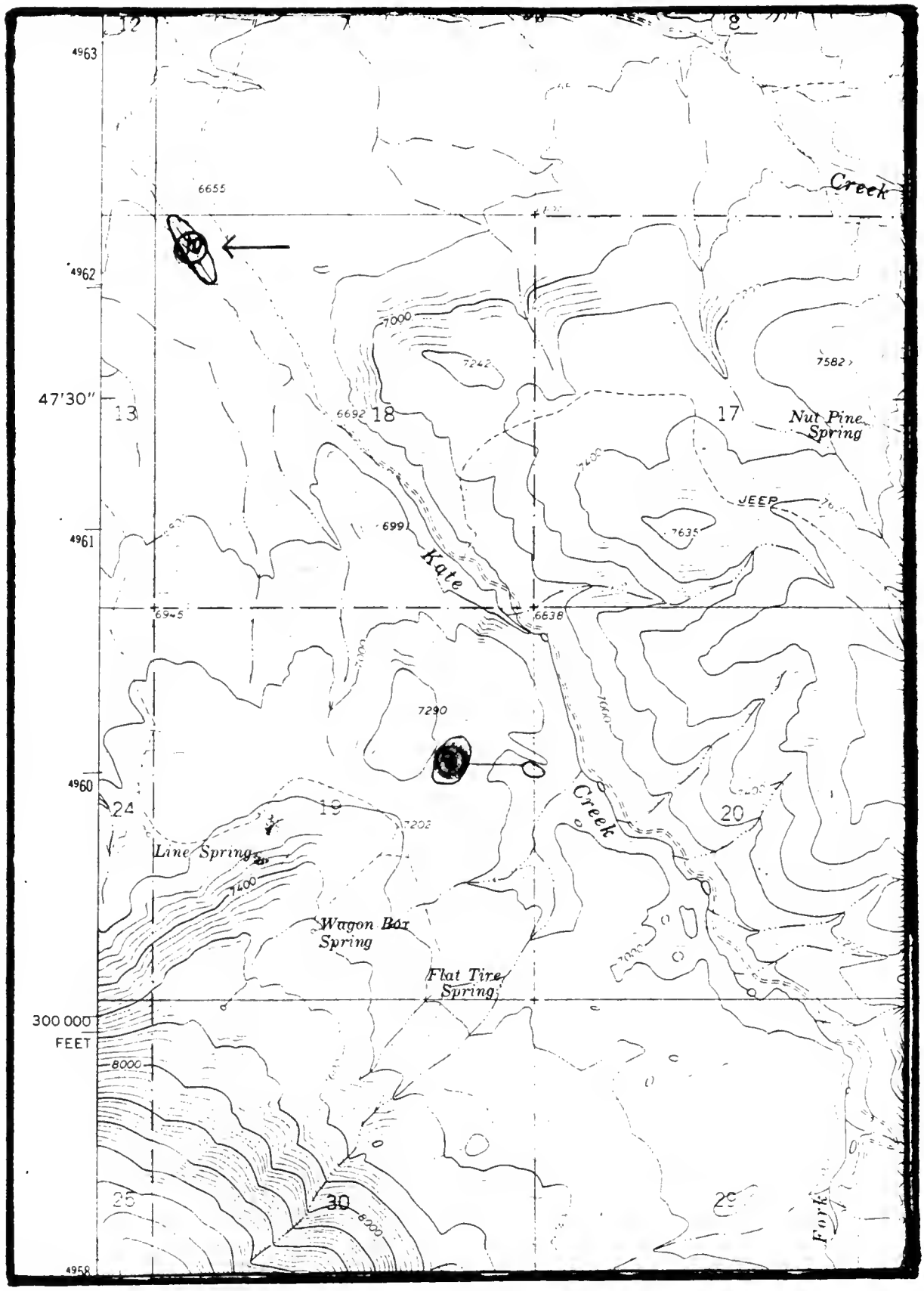
General site description:
ON HUMMOCKS IN WET MEADOW ALONG OLD SIDE CHANNEL OF CREEK. ASSOCIATED PLANTS INCLUDE JUNCUS BALTICUS, POA PRATENSIS, CAREX NEBRASCENSIS, MUHLENBERGIA RICHARDSONIS, ASTER OCCIDENTALIS, ANTENNARIA MICROPHYLLA.

Land owner/manager:
PRIVATELY OWNED LAND (INDIVIDUAL OR CORPORATE)
BLM: BUTTE DISTRICT, DILLON RESOURCE AREA

Comments:
EVIDENCE OF DISTURBANCE: HUMMOCKS.

Information source: LESICA, PETER. DIVISION OF BIOLOGICAL SCIENCES, UNIVERSITY OF MONTANA, MISSOULA, MT 59812.

Specimens:


4963
4962
47'30"
4961
4960
4958
300 000
FEET
6655
7000
7242
7582
6692
18
17
13
Nut Pine
Spring
JEEP
7635
6991
Kate
6945
6838
7290
Creek
24
19
20
Line Spring
7400
Wagon Box
Spring
Flat Tire
Spring
8000
25
30
Fork

Scientific Name: CAREX PARRYANA SSP IDAHOA
Common Name: IDAHO SEDGE

Global rank: G4T2 Forest Service status: SENSITIVE
State rank: S2 Federal Status:

Element occurrence code: PMCYP036E0.035
Element occurrence type:
Survey site name: PORCUPINE CANYON
EO rank:
EO rank comments:

County: BEAVERHEAD

USGS quadrangle: ISLAND BUTTE

Township:	Range:	Section:	TRS comments:
014S	011W	15	NE4

Precision: S
Survey date:
First observation: 1997-08-10
Last observation: 1997-08-10
Elevation: 7300 - 7360
Slope/aspect: 1% / SE
Size (acres): 2

Location:
TAKE CABIN CREEK ROAD TO UPPER MOUTH OF CANYON, THEN 2-TRACK ROAD UP CABIN CREEK.

Element occurrence data:
CA. 155 STEMS IN 50 SQUARE METERS; MORE THAN 20,000 STEMS TOTAL. MATURE FRUIT.

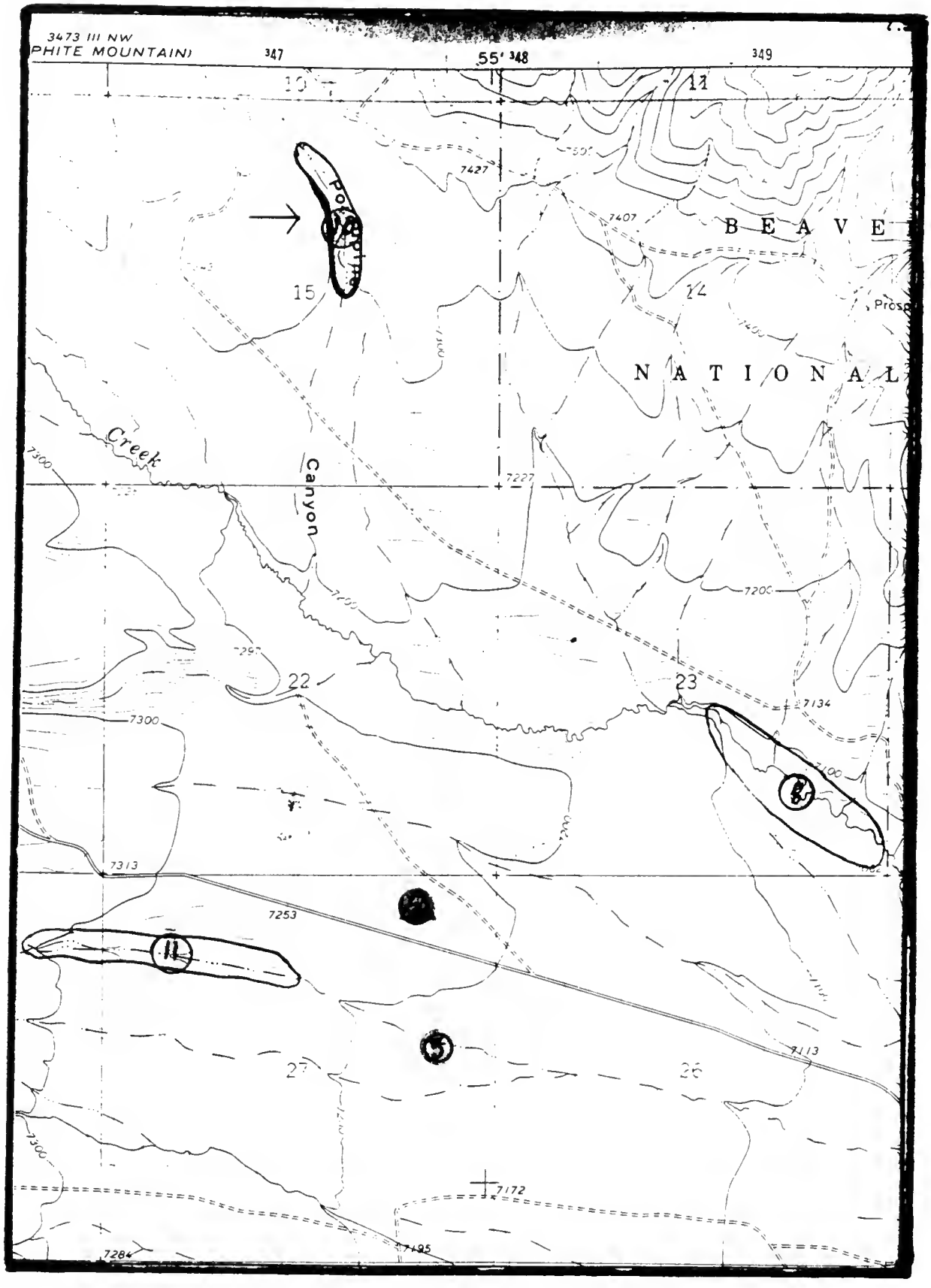
General site description:
MOIST OUTER MARGIN OF SUBIRRIGATED MEADOW ALONG STREAM. ASSOCIATED PLANTS INCLUDE CAREX PRAEGRACILIS, JUNCUS BALTICUS, MUHLENBERGIA RICHARDSONIS, POTENTILLA GRACILIS, TRIFOLIUM LONGIPES, ASTER OCCIDENTALIS.

Land owner/manager:
BLM: BUTTE DISTRICT, DILLON RESOURCE AREA

Comments:
EVIDENCE OF DISTURBANCE: SOME OLD COWPIES.

Information source: LESICA, PETER. DIVISION OF BIOLOGICAL SCIENCES, UNIVERSITY OF MONTANA, MISSOULA, MT 59812.

Specimens:


3473 III NW
PHITE MOUNTAIN)
347
55' 348
349
10
11
15
14
22
23
27
26
7427
7407
7227
7300
7313
7253
7134
7172
7284
7195
7113
BEAVE
NATIONAL
Creek
Canyon

Scientific Name: CAREX PARRYANA SSP IDAHOA
Common Name: IDAHO SEDGE

Global rank: G4T2 Forest Service status: SENSITIVE
State rank: S2 Federal Status:

Element occurrence code: PMCYP036E0.036
Element occurrence type:
Survey site name: SIMPSON CREEK
EO rank:
EO rank comments:

County: BEAVERHEAD

USGS quadrangle: ISLAND BUTTE

Township:	Range:	Section:	TRS comments:
014S	011W	27	NW4; 28 NE4

Precision: S
Survey date:
First observation: 1997-08-10
Last observation: 1997-08-10
Elevation: 7220 - 7310
Slope/aspect: 1% / EAST
Size (acres): 4

Location:
TAKE CABIN CREEK ROAD TOWARD MORRISON LAKE.

Element occurrence data:
CA. 91 STEMS IN 100 SQUARE METERS; MORE THAN 10,000 STEMS TOTAL.
MATURE FRUIT.

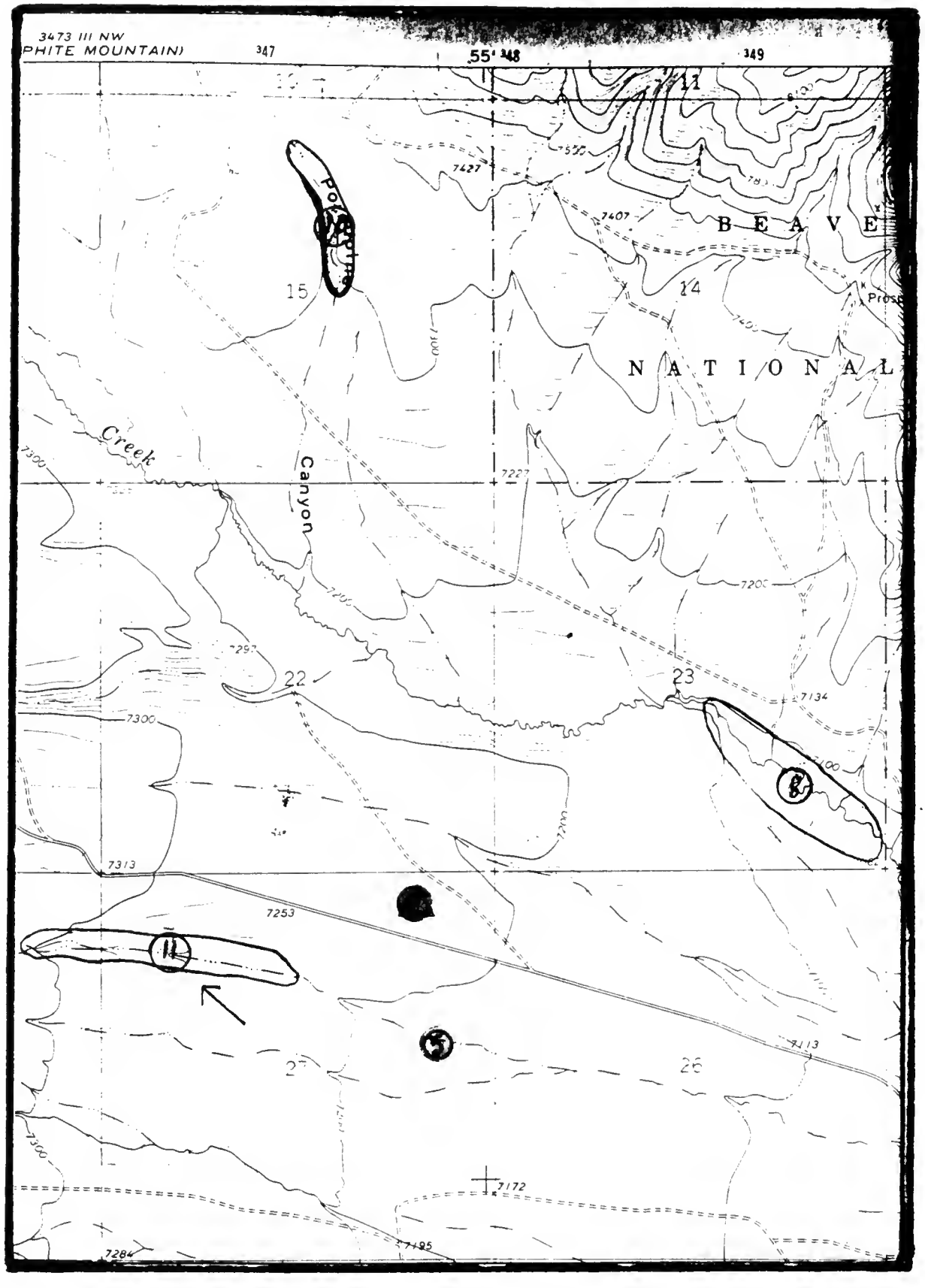
General site description:
MOIST OUTER MARGINS OF SUBIRRIGATED MEADOW ALONG CREEK. ASSOCIATED PLANTS INCLUDE CAREX PRAEGRACILIS, MUHLENBERGIA RICHARDSONIS, POTENTILLA GRACILIS, TARAXACUM OFFICINALE.

Land owner/manager:
BLM: BUTTE DISTRICT, DILLON RESOURCE AREA
PRIVATELY OWNED LAND (INDIVIDUAL OR CORPORATE)

Comments:
EVIDENCE OF DISTURBANCE: LIVESTOCK TRAILS. AREA MAPPED IS ENTIRELY ON BLM LAND. ADDITIONAL PLANTS ON NEARBY PRIVATE LAND ARE UNMAPPED.

Information source: LESICA, PETER. DIVISION OF BIOLOGICAL SCIENCES, UNIVERSITY OF MONTANA, MISSOULA, MT 59812.

Specimens: LESICA, P. (7504). 1997. MONTU.


3473 III NW
PHITE MOUNTAIN)
347
55' 348
349
11
7427
7407
B E A V E
15
14
Pros
N A T I O N A L
Creek
Canyon
7300
7227
7200
22
23
7134
7100
7313
7253
7113
26
7172
7195
7284

Scientific Name: CAREX PARRYANA SSP IDAHOA
Common Name: IDAHO SEDGE

Global rank: G4T2 Forest Service status: SENSITIVE
State rank: S2 Federal Status:

Element occurrence code: PMCYP036E0.037
Element occurrence type:
Survey site name: TAYLOR CREEK
EO rank:
EO rank comments:

County: BEAVERHEAD

USGS quadrangle: BANNACK

Township:	Range:	Section:	TRS comments:
007S	011W	18	N2; 07 SE4

Precision: S
Survey date:
First observation: 1997-07-29
Last observation: 1997-07-29
Elevation: 6300 - 6320
Slope/aspect: LEVEL
Size (acres): 1

Location:
BOTH SIDES OF TAYLOR CREEK SOUTH OF COUNTY ROAD.

Element occurrence data:
CA. 30 STEMS SEEN IN 200 SQUARE METERS OF HABITAT. MATURE FRUIT PRESENT.

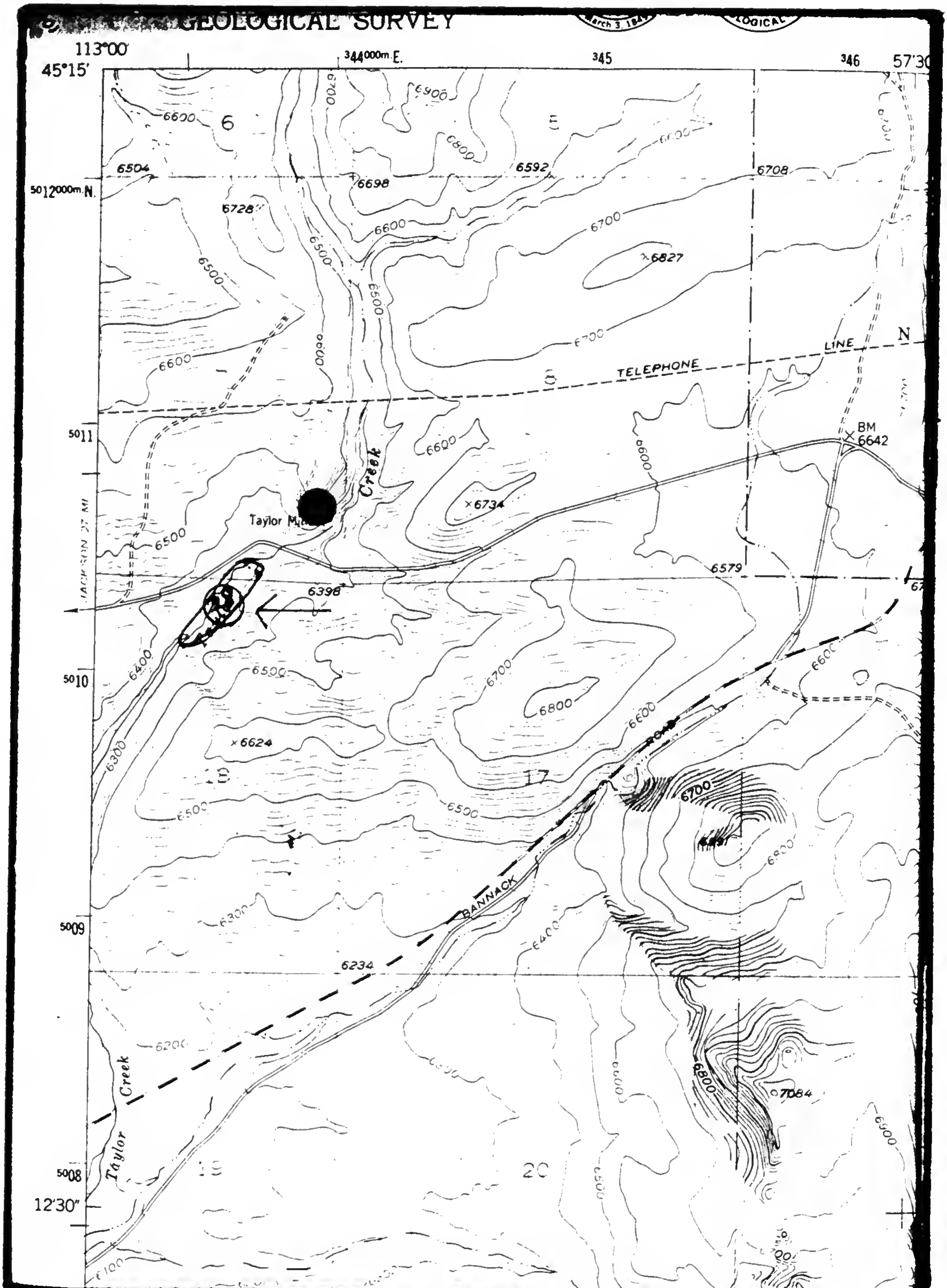
General site description:
MOIST ECOTONAL MEADOW BETWEEN RIPARIAN WET MEADOW AND SAGEBRUSH GRASSLAND. ASSOCIATED PLANTS INCLUDE POA PRATENSIS, JUNCUS BALTICUS, TRIFOLIUM REPENS, CAREX PRAEGRACILIS, CAREX NEBRASCENSIS, AGROPYRON SMITHII.

Land owner/manager:
BLM: BUTTE DISTRICT, DILLON RESOURCE AREA

Comments:
EVIDENCE OF DISTURBANCE: 40% COVER OF TARAXACUM.

Information source: LESICA, PETER. DIVISION OF BIOLOGICAL SCIENCES, UNIVERSITY OF MONTANA, MISSOULA, MT 59812.

Specimens: LESICA, P. (7479). 1997. MONTU.


GEOLOGICAL SURVEY
113°00'
45°15'
344000m E.
345
346
57'30
5012000m N.
5011
5010
5009
5008
12'30"
6600
6700
6900
6800
6504
6698
6592
6708
6728
6500
6827
TELEPHONE
LINE
N
BM
6642
Creek
Taylor Mill
6734
JACKSON 27 MI
6579
6398
6400
6300
6624
17
6234
BANNACK
ROAD
6200
7084
Taylor
Creek
20

Scientific Name: CAREX PARRYANA SSP IDAHOA
Common Name: IDAHO SEDGE

Global rank: G4T2 Forest Service status: SENSITIVE
State rank: S2 Federal Status:

Element occurrence code: PMCYP036E0.038
Element occurrence type:
Survey site name: GRASSY LAKE
EO rank:
EO rank comments:

County: MADISON

USGS quadrangle: CIRQUE LAKE
VARNEY

Township:	Range:	Section:	TRS comments:
007S	002W	08	NW

Precision: S
Survey date: Elevation: 7150 -
First observation: 1997 07 27 Slope/aspect:
Last observation: 1997 07 27 Size (acres): 1

Location:
FROM HWY 287 BETWEEN VIRGINIA CITY AND ENNIS, TAKE THE ROAD SOUTH AT THE MADISON - RUBY DIVIDE.

Element occurrence data:
5-10 STEMS, MATURE FRUIT.

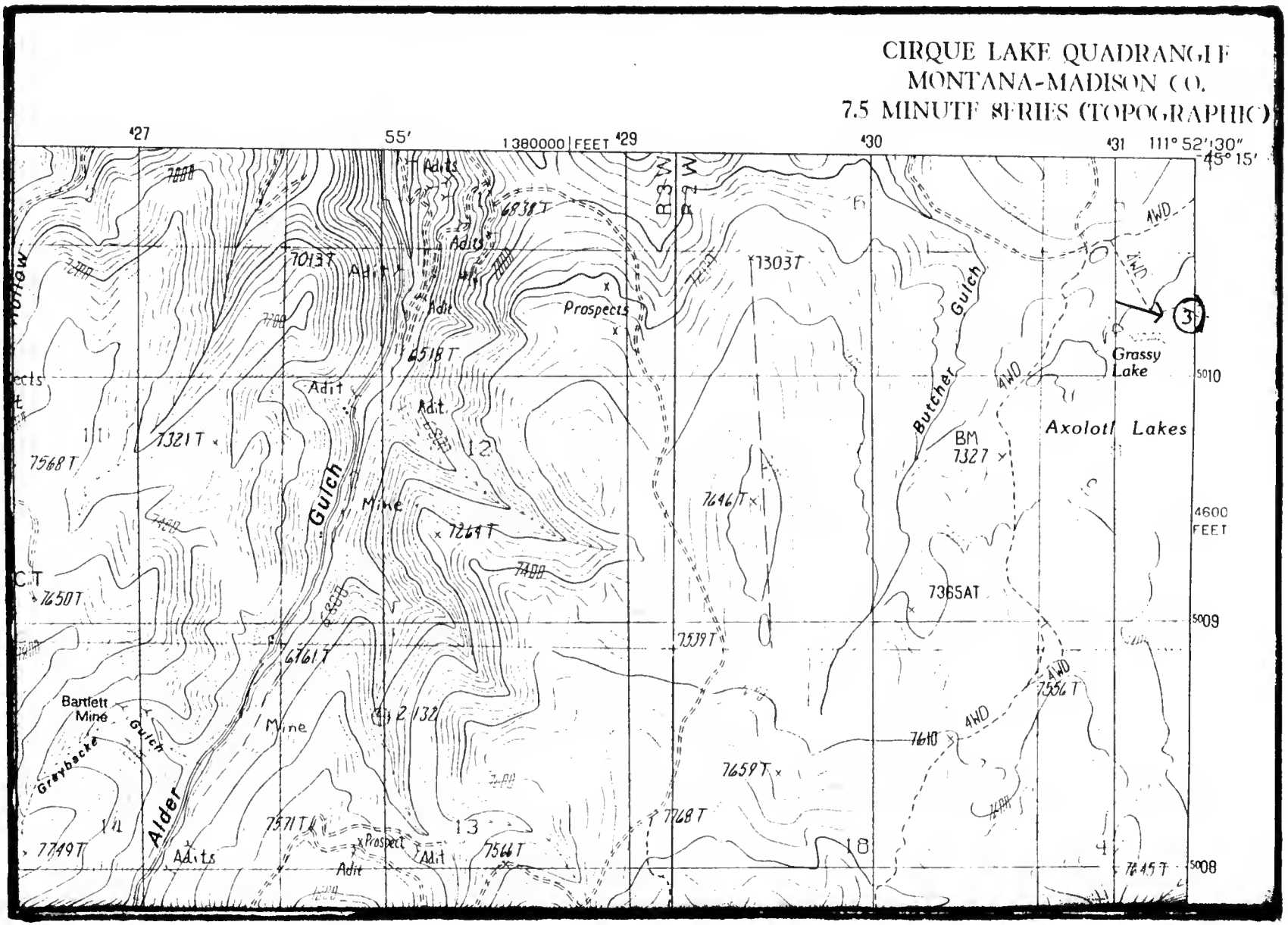
General site description:
VERY SMALL DEPRESSIONAL WETLAND; VERNALLY WET; PROBABLY OF GLACIAL ORIGIN. PLANT COMMUNITY: JUNCUS BALTICUS. ADDITIONAL ASSOCIATED PLANTS: POA PRATENSIS, CAREX PRAEGRACILIS, CAREX MICROPTERA.

Land owner/manager:
BLM: BUTTE DISTRICT, DILLON RESOURCE AREA

Comments:
ADJACENT ROAD MAY DISRUPT HYDROLOGY.

Information source: LESICA, PETER. DIVISION OF BIOLOGICAL SCIENCES, UNIVERSITY OF MONTANA, MISSOULA, MT 59812.

Specimens: LESICA, P. (7470). 1997. MONTU. DETERMINED BY D. MURRAY.


CIRQUE LAKE QUADRANGLE
MONTANA-MADISON CO.
7.5 MINUTE SERIES (TOPOGRAPHIC)
427
55'
1380000 FEET
429
430
431
111° 52'30"
45° 15'
R3W
R2W
Adits
6838T
7013T
Adit
Prospects
6518T
7303T
Butcher Gulch
4WD
Grassy Lake
5010
Axolotl Lakes
BM 7327
7321T
7568T
Gulch
Mine
7264T
7646T
4600 FEET
7650T
7365AT
5009
7539T
6761T
Bartlett Mine
Gulch
Greyback
Alder
7556T
7610
7659T
7768T
7571T
Prospect
7544T
7749T
7645T
5008
12
13
18

Scientific Name: CAREX PARRYANA SSP IDAHOA
Common Name: IDAHO SEDGE

Global rank: G4T2 Forest Service status: SENSITIVE
State rank: S2 Federal Status:

Element occurrence code: PMCYP036E0.039
Element occurrence type:
Survey site name:
EO rank:
EO rank comments:

County: POWELL

USGS quadrangle: DEER LODGE

Township: Range: Section: TRS comments:

Precision: G
Survey date: Elevation: -
First observation: 97 Slope/aspect:
Last observation: 97 Size (acres):

Location:
DEER LODGE

Element occurrence data:

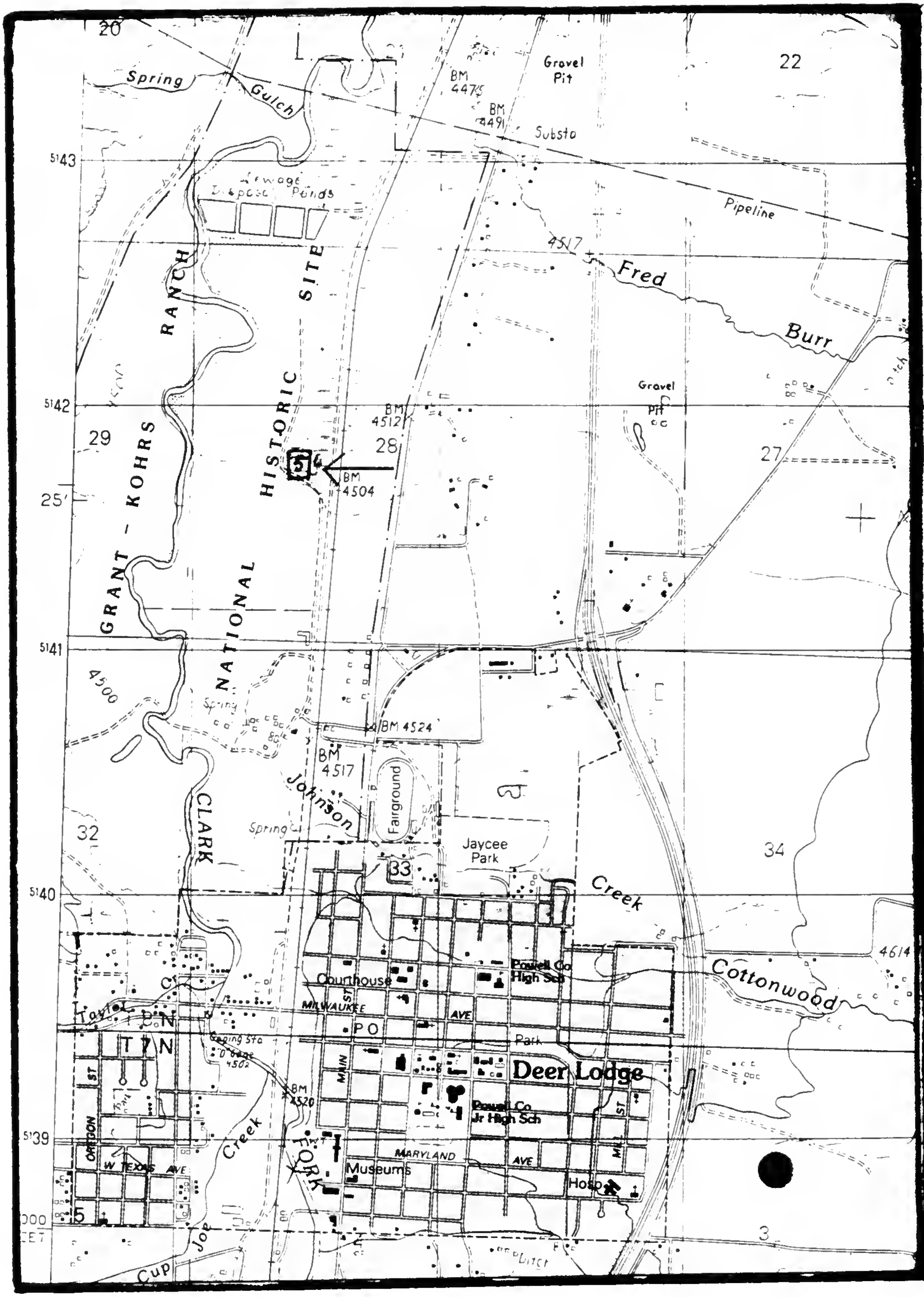
General site description:

Land owner/manager:

Comments:

Information source:

Specimens: Rydberg, P. A. (2128). 1897. NY, US. Annotated by D. Murray.



Spring Gulch
Gravel Pit
BM 4475
BM 4491
Substa
Sewage Disposal Ponds
Pipeline
4517
Fred Burr
GRANT - KOHRS RANCH NATIONAL HISTORIC SITE
Gravel Pit
BM 4512
BM 4504
28
29
27
22
20
5143
5142
5141
5140
5139
25'
4500
Spring
BM 4524
BM 4517
Johnson
Fairground
Spring
CLARK
32
33
34
Jaycee Park
Creek
Cottonwood
4614
Courthouse
Powell Co High Sch
MILWAUKEE
AVE
PO
Park
Taylor
T 8 N
T 7 N
Gaging Sta
4502
BM 4520
MAIN
Deer Lodge
Powell Co Jr High Sch
OREGON
W TEXAS AVE
Creek
FORK
MARYLAND AVE
Museums
Hosp
Joe
Cup
Ditch
3

Scientific Name: CAREX PARRYANA SSP IDAHOA
Common Name: IDAHO SEDGE

Global rank: G4T2 Forest Service status: SENSITIVE
State rank: S2 Federal Status:

Element occurrence code: PMCYP036E0.040
Element occurrence type:
Survey site name:
EO rank:
EO rank comments:

County: GALLATIN

USGS quadrangle:

Township: Range: Section: TRS comments:

Precision: U
Survey date: Elevation: -
First observation: 18XX Slope/aspect:
Last observation: 18XX Size (acres):

Location:
FORKS OF MADISON RIVER.

Element occurrence data:

General site description:

Land owner/manager:

Comments:
Peter Lesica considers Hebgen Lake in Gallatin Co. to be the likely area where this collection was made, not Madison Co. as indicated in Lesica & Shelly (1991).

Information source:

Specimens: Rydberg, P. A. and C. E. Bessey.(3762). 18XX. NY, US.
Annotated by D. Murray.