

IMPORTANT PLANT AREA NOMINATION FORM – MONTANA

Nominated Site Name: St. Mary Peak

General Location: West of Stevensville, Montana

Site Coordinates: Township 9N, Range 21W, Section 28; Latitude 46.51180 degrees N./114.243 degrees W.

Maps: Two maps of the St. Mary Peak IPA boundary are attached. One is an aerial photograph and the other shows elevation contours. The IPA boundary encompasses the greatest known concentration of rare plants.

Photographs: Included are five habitat photographs and pictures of two rare plants.

Counties: Ravalli

Elevation: 8000 feet to 9351 feet

Size of Area: 1712 acres

Property Ownership: Bitterroot National Forest

Other designations for the site: St. Mary Peak is a Federal Wilderness Area and was nominated to be a Botanical Special Interest Area.

Table 1. Plant Species of Concern contained within the boundary of the proposed St. Mary Peak IPA

Plant Species	MTNHP Rank		Population Size	Date Last Observed	Trends	Comments
	Global	State				
Vascular plants						
1. <i>Draba daviesiae</i>	G3	S3	Described as “fairly common” and population estimated at 500-1,000 plants	1992	Unknown	A Montana endemic known only from about a dozen sites in the Bitterroot Range. This is the type locality for the species.
2. <i>Eriogonum crosbyae</i> (<i>E. capistratum</i> var. <i>muhlickii</i>)	G4T3 (as <i>E. capistratum</i> var. <i>muhlickii</i>)	S3	Described as “locally common above treeline”	1992	Unknown	In Montana, known from the Bitterroot Range and the Anaconda-Pintlers
3. <i>Penstemon flavescens</i>	G3	S3	Unknown, though locally common in some areas	2010	Unknown	Species is restricted to the Bitterroot Range in MT and ID
4. <i>Physaria humilis</i>	G1	S1	Several hundred to > 1,000 plants	2009	Unknown	A Montana endemic known only from a few

						sites in the Bitterroot Range. This is the type locality for the species.
5. <i>Pinus albicaulis</i>	G4	S2		2010	Unknown	Probably declining due to insects, disease, fir suppression
Lichens						
6. <i>Nodobryoria subdivergens</i>	G2	S1S2	Described as “not common” and occurring in “Shallow recesses on north side of the wind-swept summit, in small "islands" of alpine vegetation, barely above the Krummholz.	1992	Unknown	1 of 2 known locations for the species in Montana
Bryophytes						
7. <i>Dicranum acutifolium</i>	G5?	S1	Unknown. Collected on the summit of St. Mary Peak by Bruce McCune	1978	Unknown	St. Mary Peak collection is the only documented location in Montana.
8. <i>Grimmia incurva</i>	G4G5	S1	Unknown. Collected on the summit of St. Mary Peak by Bruce McCune	1978	Unknown	St. Mary Peak collection is the only documented location in Montana.

Provide the source for trend information, citations, and other pertinent SOC data: Montana Natural Heritage Program. The nomination information was provided by Scott Mincemoyer, December 15, 2010. Other observational information obtained through field visits by Linda Pietarinen (1992, 2009, 2010), Deborah Goslin (1992) and Larry St. Clair (BYU, 1992).

The boundary for the IPA was generally mapped to encompass all terrain above the 8,000 ft contour, which largely includes the known globally rare plant species and their immediately adjacent alpine and upper subalpine habitats. This boundary also includes some potential rare plant habitat.

Size: 1,712 acres

Trend Information: There has been no official trend data or monitoring of species on St. Mary Peak.

Threats: St. Mary Peak is a heavily hiked destination Bitterroot mountain. Over 2000 people hike this mountain from June-October, with additional use by skiers and other recreationists during the winter months. Dogs often accompany these users, wandering off trail and leaving feces on-site. Hikers often cut switchbacks, creating “short-cut” trails that eventually result in loss of vegetation. There is some horse packing in the area. An additional risk and possible benefit is the St. Mary Peak Lookout Stewardship project at the request of the USFS, which would provide volunteer staffing, maintenance and support for the continued operation of the lookout. Volunteers would provide effective wilderness/public lands education to visitors and maintain the trail accessing the lookout. Staffing the lookout will also include volunteer pack support to carry supplies to and from the lookout every two weeks using two to five mules per trip. Mule packing (particularly loading and unloading animals at the Lookout) and trail maintenance may have a negative impact on this plant community. Climate change may also have an impact on the alpine community.

Table 2. Type and severity of Threats for each listed SOC plant

Plant Species #	Threats	Level	Comments
1. <i>Draba daviesiae</i>	Trampling	Low	Source-Montana Native Plant Society website Plants are at risk because of the heavy hiking use horse/mule traffic, and trail maintenance. Hikers do not necessarily stay on the main trail above timberline. When at the top of the mountain, there is not a single trail, so people wander on top of the mountain
2. <i>Eriogonum crosbyae</i>	Trampling	Low	These cushion plants are at risk from disturbance and trampling because of the heavy hiking traffic, horse traffic, and trail maintenance. Potential impacts from high number of off-trail hikers.
3. <i>Penstemon flavescens</i>	Trampling, trail maintenance	Very low	Species found along trail below timberline.
4. <i>Physaria humilis</i>	Trampling, user created trails	Low to moderate	The following comment is from the MNPS SOC site; “any new trail construction in alpine areas (particularly in the St. Mary/St. Joseph Peak area) has the potential to adversely impact <i>L. humilis</i> plants or habitat.” The MNPS Species of Concern Threats Assessment indicates that <i>L. humilis</i> is threatened by habitat development, recreation (trampling) and trail construction. Hiker impacts from cutting switchbacks, hiking off-trail above timberline, stock use. Potential impacts from dogs and trail/facilities maintenance.
5. <i>Pinus albicaulis</i>	Climate change, exotic disease	Low	Climate change, mountain pine beetle, white pine blister rust disease. Lack of fire may increase the likelihood of competition from subalpine fir.

6. <i>Nodobryoria subdivergens</i>	Trampling	Very low	This species is uncommon and St. Mary Peak is one of two locations for the species in Montana. It occurs on soil in the alpine so is susceptible to the heavy trail/off-trail use and trail maintenance.
7. <i>Dicranum acutifolium</i>	Unknown		This species is uncommon occurring on soil and collected on the summit of St. Mary which is heavily used by hikers so is susceptible to trampling.
8. <i>Grimmia incurva</i>	Unknown		This species was collected on the summit of St. Mary Peak which is the only documented location in Montana. This occurs on rocks and would be susceptible to trampling and trail maintenance.

Explain why the nominated site deserves recognition as an Important Plant Area: Saint Mary's Peak proposed IPA includes one local endemic, *Physaria humilis*, only known from three peaks in the Bitterroot Mountains, a regional endemic, *Penstemon flavescens*, only known from the Bitterroot Mountains of Montana and Idaho. This site contains five plant species of global concern and seven of state concern. St. Mary Peak is the type locality for *Draba daviesiae*, *Physaria humilis* and *Draba calcifuga*

St. Mary Peak supports at least three plant associations: *Geum rossii*/*Arenaria obtusiloba* cushion plant community (Lesica and Antibus 1986, Cooper et al. 1997), *Pinus albicaulis*/*Abies lasiocarpa* and *Larix lyallii*/*Abies lasiocarpa* habitat types (Pfister et al. 1977).

Cooper, S. V., P. Lesica and D. Page-Dumroese. 1997. Plant community classification for alpine vegetation on the Beaverhead National Forest, Montana. USDA Forest Service General Technical Report INT-GTR-362, Ogden, UT.

Lesica, P and R. K. Antibus. 1986. Mycorrhizae of alpine fellfield communities on soils derived from crystalline and calcareous parent materials. Canadian Journal of Botany 64: 1691-1697.

Pfister, R. D., B. L. Kovalchik, S. F. Arno and R. C. Presby. 1977. Forest habitat types of Montana. USDA Forest Service General Technical Report INT-34, Ogden, UT.

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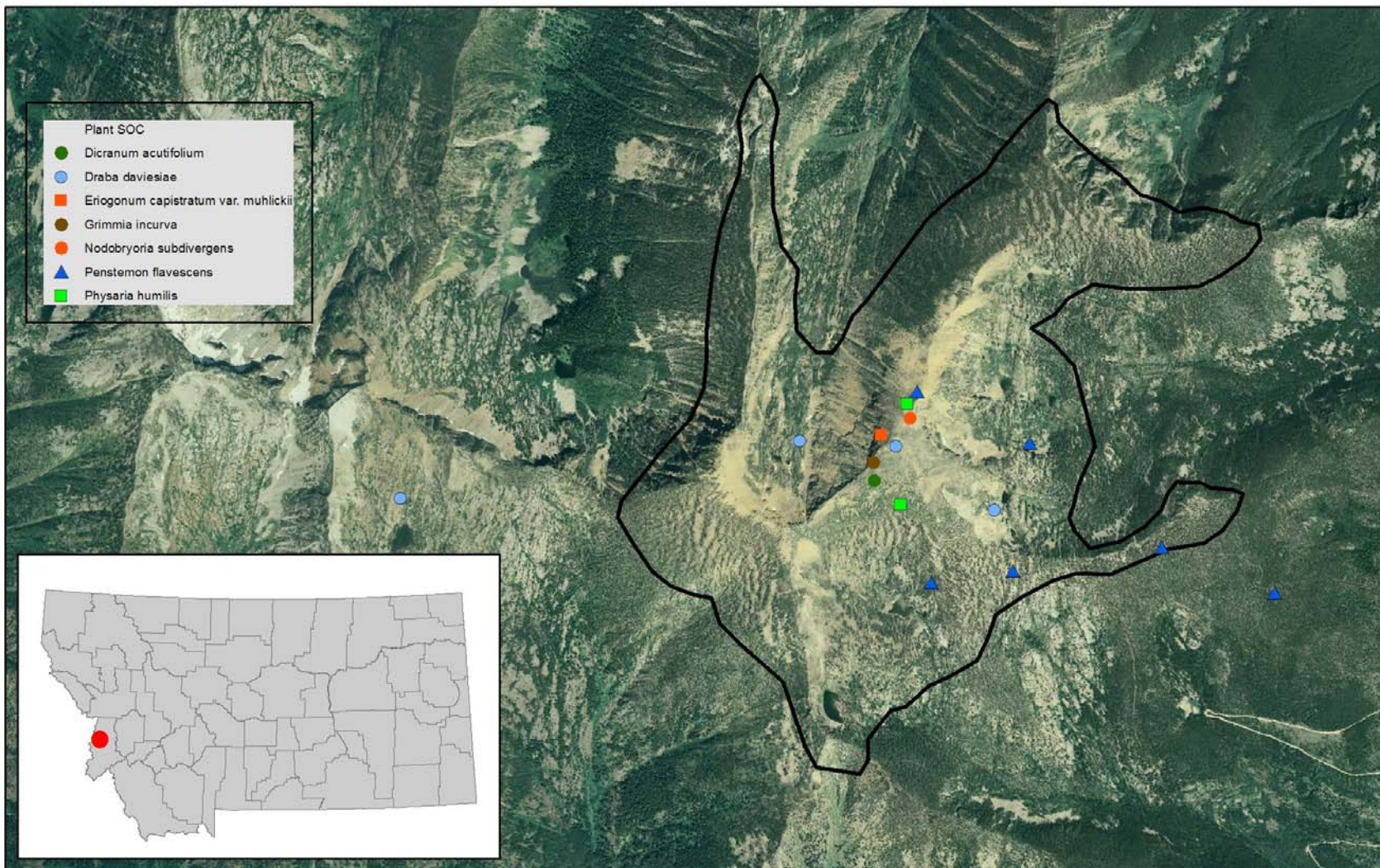
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St. Mary's Peak IPA, Ravalli County, Montana



* Map depicts generalized locations of plant Species of Concern. Some species are more widespread within the IPA boundary than is indicated by the individual point locations.

Produced: March 2011

Scale: 1:30,000



St Mary's Peak trail from below and northeast of the lookout; July, 2008



Below St Mary's Peak looking southwest from the summit; 4 July 2010



Looking southwest at the lookout.



The alpine trail north of the lookout.



Summit of St. Mary's Peak southwest of the lookout



Physaria humilis



Penstemon flavescens