

## **Status of the surveys for *Habenaria viridis* on Tonasket Ranger District**

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In April and May of 2005 Kelly Davis did a literature search on the species. Kelly also talked to a few people who have knowledge of it. Contacts included Steve Shelly and Lou Kuennen of Region 1 of the Forest Service, and Scott Mincmoyer of Montana Heritage Program.

Kelly Davis worked with Jack Rainford in Okanogan to compile maps of likely habitats in GIS. This was accomplished in May of 2005. Combinations of the following environmental attributes were used to build criteria for high, medium and low probability habitats: slope, canopy cover, elevation, and Plant Association Groups (PAG's). Criteria for high probability habitat had the following combination of attributes: slope = 0-25%; canopy cover = 10-30%; Elevation= 3,000-5,000 ft.; and PAG= PSME/PHMA-SYAL and PSME/VAME-VAMY-VACA. Criteria for medium probability habitats were as follows: slope = 25-50%; canopy cover = 30-50%; elevation = 4,400-5800 ft.; and PAG = ABAL2/VAME-LIBOL. Finally, low probability attribute combinations were: slope = > 50%; canopy cover = >50%; elevation = 2,000-3,000 ft.; and PAG = PSME/CARU-CAGE. After the criterion for high, medium and low probability habitats was established, a spreadsheet was generated showing possible combinations of high probability habitats mixed with medium probability habitats and medium probability habitats mixed with low probability habitats. These different combinations were included in the selection process to explore additional likely habitats.

Field surveys were done in June and July of 2005. In most areas about 20% of a habitat unit was surveyed. This was accomplished by surveying lines about 100 feet apart through the unit, mostly parallel to the contour of the land.

Two volunteers, Amanda Sewell and George Thornton participated in the field surveys. George Thornton previously worked for several summers doing botanical surveys on the district. George found a new population of *H. viridis* in the Bailey Creek area, consisting of four plants. This area had been previously surveyed using the intuitive controlled protocol as part of the Bailout timber sale analysis area, but we did not find it then. I believe this is because *H. viridis* is so uncommon. It is like looking for the proverbial needle in the haystack. At any rate the habitat was similar to the known sites, with snowberry present in the understory.

Kelly Davis has completed a GIS layer of survey polygons. The layer and data from the survey forms will be entered into NRIS as soon as the TES version is available.