

# Natural Heritage Ranking Form - Oregon State Rank

Oregon Ranking Form Mountain tall bugbane (*Cimicifuga elata* var. *alpestris*)

Oregon Biodiversity Information Center

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Scientific Name *Cimicifuga elata* var. *alpestris* ELCODE PDRAN0T011  
Common Name Mountain tall bugbane Element ID 11967

### Species Concept Reference Citation

Lee, H.-W. and C.-W. Park. 2004. New taxa of *Cimicifuga* (Ranunculaceae) from Korea and the United States. *Novon* 14: 180-184.

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| <b>CONSERVATION STATUS RANK</b> |
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**Assigned Rank** S4

|                                             |                                     |
|---------------------------------------------|-------------------------------------|
| <b>Rank Assignment Author</b> Sue Vrillakas | <b>Rank Review Date</b> 3/26/2010   |
| <b>Rank Factors Author</b> Sue Vrillakas    | <b>Rank Factors Date</b> 04/22/2009 |
| <b>Calculated Rank</b> S4                   | <b>Rank Change Date</b> 03/26/2010  |

### Rank Methodology Used

### Assigned Rank Reasons

Large plant numbers, large number of occurrences with good to excellent viability. Kaye study found populations relatively stable over 5 year time frame.

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| <b>RANGE/DISTRIBUTION</b> |
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### Range Extent

|                                                                 |                                                 |
|-----------------------------------------------------------------|-------------------------------------------------|
| <b>Rating</b> 1000-5000 square km (about 400-2000 square miles) |                                                 |
| <b>Estimate</b> 4755                                            | <b>Unit Used for Estimate</b> Square Kilometers |
| <b>Comments</b> 4755 sq. km.                                    |                                                 |

### Area of Occupancy

|                                                                     |  |
|---------------------------------------------------------------------|--|
| <b>Grid Cell Size</b> 4 km <sup>2</sup> Grid Cells                  |  |
| <b>Rating (as Number of 4 km<sup>2</sup> Grid Cells)</b> E = 26-125 |  |
| <b>Comments</b> 37-44 grids                                         |  |

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| <b>ABUNDANCE AND CONDITION</b> |
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### Number of Occurrences

|                        |  |
|------------------------|--|
| <b>Rating</b> 21 - 80  |  |
| <b>Estimate</b> 36     |  |
| <b>Comments</b> 36 eos |  |

  

|                                                                               |  |
|-------------------------------------------------------------------------------|--|
| <b>Rating</b> 100,000 - 1,000,000 individuals                                 |  |
| <b>Comments</b> One occurrence estimated at 100,000; 16239-23824 in other eos |  |

### Number of Occurrences with Good Viability/Ecological Integrity

|                            |
|----------------------------|
| <b>Rating</b> Some (13-40) |
|----------------------------|

Estimate 16  
Comments

16 EOs with A/B ranking

### THREATS

Calculated Overall Threat Impact

Assigned Overall Threat Impact D = Low

### TRENDS

#### Short-Term Trend

Rating G = Relatively Stable (<=10% change)

#### Comments

Kaye (2000), 1992-1999 study, CIEL populations remarkably stable with no regional population trends. Small pops declines and large population increases the norm.

#### Long-Term Trend

Rating F = Decline of 10-30%

#### Comments

Extrapolating from short term trends. No demonstrative factors seen to affect long-term outlook except possibly global warming but probably too soon to try to forecast on how this particular species would be affected. Helliwell has expressed some concern because this species is associated with early-mid seral forest community which may be disrupted by natural fire cycles and invasives that are highly competitive during this habitat stage. Because of his concern, the long-term trend was lowered to decline of 10-30%.

### OTHER FACTORS

Intrinsic Vulnerability Rating Moderately vulnerable

#### Comments

Seedling numbers low in populations but plants long-lived (median 4-6 years).

Environmental Specificity Rating Moderate. Generalist or community with some key requirements scarce.

#### Comments

At least in Rogue-Umpqua Divide, limited to specific soil moisture zone, associated with open forest in general vicinity of headwater wetlands (Helliwell).

### RANKING REFERENCES

| Short Citation | Author | Year | Full Citation                                                                                                                      |
|----------------|--------|------|------------------------------------------------------------------------------------------------------------------------------------|
| Kaye           |        | 2000 | Kaye, T.N. 2000. Population dynamics of tall bugbane and effects of forest management. Institute of Applied Ecology, Corvallis, OR |

### RESOURCES

Oregon Biodiversity Information Center, Institute for Natural Resources  
Portland State University, Mail Stop: INR, PO Box 751, Portland, OR 97207-0751 Phone: 503-725-9950

Additional ORBIC species ranking forms posted at  
<https://inr.oregonstate.edu/orbic/rare-species/ranking-documentation>

Information on Natural Heritage ranking methodology is available at  
<http://www.natureserve.org/biodiversity-science/publications/natureserve-conservation-status-assessments-methodology-assigning>

The Conservation Rank Calculator is developed and maintained by NatureServe and is available from  
<http://www.natureserve.org/conservation-tools/conservation-rank-calculator>

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| <b>ASSESSMENT CITATION</b> |
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Oregon Biodiversity Information Center. 2010. Oregon state rank assessment for Mountain tall bugbane (*Cimicifuga elata* var. *alpestris*). Institute for Natural Resources, Portland State University, Portland, OR.