Climate Change Vulnerability Index
Plant Species Assessment
Completed by John Gamon, Washington Natural Heritage Program
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Name: *Iliamna longisepala*
Index Result: Not Vulnerable / Presumed Stable

Exposure to Climate Change:

1) Temperature – All occurrences fall within the same temperature category.
2) Moisture – Distribution of EOs by moisture categories was not measured, but done by ocular estimate.

Climate: Indirect

1) Exposure to sea level rise - Neutral
2) Distribution relative to barriers
    a. Natural barriers - Neutral
    b. Anthropogenic barriers - Neutral
3) Predicted impact of land use changes resulting from human responses to climate change - Neutral

Species-Specific Factors:

1) Dispersal and movements – Selected both 'somewhat increase' and 'increase' because data from USFS research showed 72% of seedlings were within 10 meters of mature plants.
2) Predicted sensitivity to temperature and moisture changes
    a. Predicted sensitivity to changes in temperature
        i. historical thermal niche – Neutral
        ii. physiological thermal niche – 'Somewhat decrease' due to species' range occurring within relatively warm, dry environments.
    b. Predicted sensitivity to changes in precipitation, hydrology, or moisture regime
        i. historical hydrological niche – Neutral
        ii. physiological hydrological niche - Neutral (even though some occurrences are along drainages/gullies)
    c. Dependence on a specific disturbance regime likely to be impacted by climate change – 'Somewhat decrease'. However, if fire frequency increased too much, it would be detrimental and increase the vulnerability, because seed source could become depleted.
    d. Dependence on ice, ice-edge, or snow-cover habitats - Neutral
3) Restriction to uncommon geological features or derivatives - Neutral
4) Reliance on interspecific interactions
    a. Dependence on other species to generate habitat - Neutral
    b. Dietary versatility (animals only)
    c. Pollinator versatility (plants only) – Unknown
    d. Dependence on other species for propagule dispersal – Neutral. Most seedlings are within 10 meters of mature plants, suggesting that if there is any animal vector, it is limited in its ability to disperse seeds very far.
    e. Forms part of an interspecific interaction not covered by 4a-d
5) Genetic factors
    a. Measured genetic variation – Unknown.
    b. Occurrence of bottlenecks in recent evolutionary history *(use only if 5a is "unknown")* – Unknown.
6) Phenological response to changing seasonal temperature and precipitation dynamics – Unknown.