**Getting the word out: a request to fund one or two small films describing the decline of Seward Park’s old-growth forest**

Overview: what we value

“Seward Park lies in a neighborhood of nations where Somali children study the Koran a few blocks from the largest Orthodox synagogue in Seattle; where fourth-generation Italians and newly arrived South Asians shop at stores owned by second-generation Vietnamese; and where Ethiopian wat and Filipino halo-halo are as easy to find as pizza and sushi.” [from HistoryLink.org].

The Friends of Seward Park value and promote this rich cultural diversity, working to make Seward Park available to all. In the same spirit we work to protect and promote the biological diversity of Seward's 100-acre old-growth Magnificent Forest, where ancient Douglas Fir, Red Cedar, Western Hemlock, Big Leaf Maple, Bald Eagles, Barred Owls and Pileated Woodpecker live in complex ecological association. Seward's forest is a full 10% of all that survives of what was once a million acres of such forest in the Puget Lowlands.

The challenge we face

Alas, [crucial|keystone|dominant] species - hemlock and sword fern - are now in rapid decline in Seward's forest. Acres of sword fern, a species famously long-lived and resilient to every insult, are now gone, leaving barren ground. More than half of the Western Hemlocks are dead, with the remainder expected soon to follow. With this loss, the entire fabric and future of this rare forest is threatened; more die-offs of more species are nearly certain. UW's Dr. Robert Edmonds predicts that on the current trajectory of the forest, all conifers will soon be gone.

Is fern and hemlock die-off a simple result of climate change? We hear this suggestion often. However, seven years of citizen science and published research from UC Santa Cruz on sword ferns shows otherwise: an as yet unknown water-borne pathogen seems to be involved. Western Hemlock decline and death appears to be the result of a combination of newly virulent, previously known fungal pathogens. Climate change may be a factor in both die-offs, but does not explain them. We do not understand the mechanisms by which these dominant species are dying, which precludes finding any possible remedy or response.

The Friends of Seward Park has worked on these die-offs for seven years, with the help of a few donations, and pro bono efforts from UW and WSU researchers. Informal and greenhouse experiments suggest that a water-borne pathogen is involved in sword fern death. We conducted the first intensive survey of Western Hemlock populations at Seward with young interns from CHOOSE 180 this summer, documenting a dramatic decline, and identifying a possible novel implicated pathogen.

Our WSU researchers expressed interest in both of these findings, but made it their time must go to grant-funded research: they are unable to pursue these leads.

Thus citizen science has its limits. Occasional consultation with professional scientists goes only so far. Untrained, unpaid labor can set the stage for proper research, but cannot carry it out. Without sustained funding, without laboratory resources, without skilled researchers, the nature of, and possible responses to this dying forest will not be found.

The solution we propose.

With the contributions of citizen science now exhausted, the time for sustainably funded professional science has arrived. But funding at that level - perhaps $100k per year for a few years to support a graduate student and supervising faculty - is hard to come by. Research dollars go to economically significant topics, for instance, to agriculture, to lumber production, to military defense. Ecological research is chronically underfunded, but that money which is spent tends to go to charismatic species: in our region, to Orca and salmon decline and recovery.

Seward Park's declining old-growth forest is, in aggregate, and as visitors always discover, a charismatic composite of species, a complex web of co-evolved, often beautiful plants and animals.

We request a budget of up to $10,000 from the Friends of Seward Park to make this case, and to attract sustained funding so that professional, peer-reviewed research maximizes the chance of understanding the mechanisms of the forest decline, and of finding responses to it which ensure its survival. The $10,000 budget will be used to produce short, skillful videos to make the case for this essential research.