Statement of Purpose, Master of Environmental Studies Program Application for Admission for Fall 2025 Fey Boss

My interest in environmental science stems back to childhood, a time spent in contrasts between urban and rural areas and between almost violently different climates and ecosystems. From New York City and Long Island to a tiny farming hamlet nestled beneath the Shawangunk Mountains, from there to Florida with its omnipresent canal system and seething conflicts between nature and the order humanity seeks to impose on it were all informal introductions throughout my formative years to the concept of environmental studies .

In adulthood and upon moving to the Pacific Northwest, my partner and I sought to escape Seattle and moved onto a small farmstead in Lewis County where we still live and attempt to earn a living, raising sheep and maintaining orchards. This move brought a renewed awareness of the ongoing struggle to balance the needs of agriculture against the needs of wildlife, and my desire to know more and to be as good a caretaker of the land in my trust led me first to volunteering in 2010 and 2011 at my local extension agency as part of the Master Gardener Program in an effort to learn more, and when I found that insufficient to answer my questions, to my undergraduate studies at Evergreen.

While at Evergreen, from late 2012 to early 2016, I became fascinated with three key subjects: closed energy systems, such as used at Three Mile Canyon Farms, where both the liquid and solid wastes of their livestock are returned to use by way of a methane digester to power the entire operation, fertilize their crops, and provide sterile bedding for their dairies; invasive species and the management thereof, key species that I studied being scotch broom, the European green crab, nutria, and feral swine; and the philosophical and administrative communications gap between different interest groups on the subject of agriculture and the environment.

These latter two subjects have remained on my mind since my graduation, but invasive species in particular have become something of a consuming interest - both in the personal sense as I have waged war against invasive plant species on my small acreage, and in the intellectual, more abstract sense, in attempting to follow up past research on the control of nutria and feral swine, and in attempting to learn more about other invasive species of interest both within Washington state and elsewhere.

To enlarge upon this subject, I present two subjects, in both case a partial list only; some of the invasive species with which we have directly contended on our property, and some of the human/livestock and wildlife conflicts we have experienced. In the former, we have had to contend with:

- Starlings these introduced birds form extremely large flocks and in the past have damaged not only our home and outbuildings and crop fruit on our trees, but also are very good at outcompeting native species. We have successfully managed to reduce their presence so that we have a larger proportion of native birds, including Stellar's jays, golden weavers, American robins, and native doves.
- Scotch broom upon our arrival at this property, wide swathes of scotch broom dominated the landscape. By targeted grazing with a species of sheep (Soay sheep, a landrace from off the coast of Scotland) we have successfully eradicated this plant from the environs of our farm.

- Mayweed, also known as stinking chamomile this problematic plant is still endemic to our
  property and we are currently experimenting with a variety of native and introduced competing
  plants in an effort to find a solution which will outcompete it, without themselves becoming
  invaders. Thus far we are seeing the greatest success with a mix of native plants and forbs and a
  potentially invasive plant (mint) which we are able to keep under control via targeted grazing.
- And many others, including bull thistles and tansy ragwort;

In the latter case, we have had to contend with opossums raiding the nests of both wild and domestic birds, raccoons coming for adult and juvenile birds alike, and coyotes coming after birds and sheep (and in one case, almost entirely eradicating a flock of ewes and their lambs). Our efforts to both manage with these conflicts and understand and comply with all relevant regulations require a measure of ongoing not only awareness but active research.

Invasive species are a common and growing problem with major economic and policy implications, and yet one which outside of the field, few people have a real awareness of until they bump right into it. As I began raising my children (the first of whom was born the autumn after I obtained my B.S. at Evergreen), my desire to know and communicate more and more of this to my children and to others began to steadily grow. It is not just for their sake that I wish to further my studies, but also in recognition of the very real need for answers and solutions.

There are few problems that only one person can solve. But there are no problems that can be solved without one person. I hope to be one person more.