Response to Report of the 10-Year Review Committee for the Interdisciplinary Graduate Program in Quantitative Ecology and Resource Management (QERM) July 6, 2009

The QERM faculty thanks the Review Committee for its hard work in reviewing the QERM Self-Study, meeting with QERM faculty, students, alumni and outside constituents during the April 16-17, 2009 site visit, and for writing the Review Committee Report. We are pleased with the recognition of the high quality of our program. We are also aware that issues have been raised requiring thoughtful discussion among QERM faculty and students. ("Even a finely tuned program needs to change to adapt to changing conditions.")* For example, in striving to have our program be "finely tuned and optimized from admissions to placements", we have reached a local optimum. As such, the loss of an entering graduate fellowship (through budget cuts) is a perturbation that must be dealt with. Due to the lateness (currently end of spring term) in the academic year, QERM plans to have a faculty retreat in the fall (where we will also attempt to get student representation), at which time we can more thoroughly discuss the specific issues raised in the report.

In the meantime, we offer responses to the following issues raised in the Report:

1. "...the Committee recommends that the Program increase the first-year class enrollment to 6 from the current 3..." QERM will explore various ways to increase the annual intake of students, and to diversify the funding sources for them. The Review Committee has suggested, for example, having each incoming student TA for one quarter, the other two quarters being supported by fellowship. This would certainly stretch the limited number of fellowship quarters over a larger number of students. At the same time, there needs to be discussion regarding the effect this could have on the recruitment process. Currently, even though QERM guarantees only 3 quarters of first-year funding, the fact that we can offer all of it as a fellowship makes QERM entering students feel "special", thereby ensuring that QERM remains competitive with more well-funded programs that can guarantee (up front and in the offer letter) multiple years of funding to a prospective student. The effect of changing the formula to 2 quarters of fellowship + 1 quarter of TAship, according to current QERM students, would be less appealing to applicants, but with the right TAship in the right academic quarter, this remains a possibility.

QERM will also explore pursuing a grant for educational fellowships from the National Oceanic and Atmospheric Administration, where some of our alumni pursue careers. In order to tap more directly into alumni support, QERM is working with UW Advancement staff to set up electronic donations to QERM via the UW Foundation webpage. QERM also plans fundraising efforts this fall with direct contacts to QERM alumni.

2. "The Committee struggles with the question of whether the focus of the Program is too narrow, or the sharp focus is its unique character and the source of its strength." The Committee is not alone—the QERM faculty shares the same diversity of opinion. One issue regarding admitting students who require "quantitative catch-up" time is how their initial time in QERM, prior to the official Year 1, would be funded.

We can ask faculty to think of ways to provide a "Year 0" of funding to students with strong backgrounds in biology or ecology but who need a year to prepare themselves for that first year of QERM courses. One way would be through a combination of RA and TA quarters. That would allow admission into the program while still preparing for the first year. This would also diversify the QERM student body. At the same time, it is important not to "blur" the characteristics of the QERM program to the point where it becomes indistinguishable from, say, a group of quantitatively oriented students in Forestry, Fisheries, Biology, etc. (the Review Committee also pointed this out).

3. QERM will explore ways to shorten the time to degree, especially the M.S. degree. For QERM students continuing on to the Ph.D., we will work to streamline the M.S. bypass process and encourage more students to take this route. We will also set up "monitoring milestones" in addition to the progress reports that we already have to ensure that degrees are completed in a timely manner. Regarding bringing the M.S. degree down to closer to two years, we note that there are several desired courses (taken after the first year) that are only offered in alternate years. Nonetheless, there are still ways to decrease the time to completion for both the M.S. and Ph.D. degree. Particularly for the M.S., there is room for more standardization of requirements for a M.S. thesis, and for closer monitoring of thesis requirements.

To compare the QERM program with other M.S. degrees requiring a thesis, we also looked at comparable data from the following programs, all of which have time to completion greater than two years: the Department of Statistics (3.28 yrs. according to the department, 3.8 yrs. according to www.washington.edu/admin/factbook/OisAcrobat/OisPDF.html), the School of Aquatic & Fishery Sciences (SAFS, 3.39 yrs.), and the College of Forest Resources (CFR, 2.6 yrs., but this also includes M.S. students who are doing a project rather than a thesis). The QERM average of 3.5 years is not too extreme compared with these data, but we will still work to bring it down closer to 2 years.

- 4. Career mentoring, particularly for academic careers. QERM can contact its alumni for some volunteer help in this area. We can begin by asking QERM alumni to participate in a dinner or other event that includes a career panel discussion for QERM students.
- 5. More teaching experience for QERM students. With QERM's good relationship with the Center for Quantitative Science, this should not be difficult. QERM

students have also held TAships in other departments, such as Statistics and SAFS. QERM will inform thesis advisors, via the QERM Handbook and other communications, of the request by QERM students for more teaching opportunities.

6. Regarding the grooming of future leadership, this will be discussed at the QERM faculty retreat in the fall. The current director is willing to serve for up to another five years, but it is not too soon to begin thinking about a suitable transition to new leadership. The influx of new QERM faculty nearer the beginning of their careers will be helpful in this regard.

Other agenda items for the fall retreat include:

- 1. How QERM can, as an interdisciplinary program, contribute to the College of the Environment by serving as a nexus for quantitative ecology.
- 2. Continue to broaden the core faculty. This can be achieved by inviting faculty to serve on QERM thesis committees, and by having faculty give talks in the QERM 597 seminar series.
- 3. Organized pursuit of the writing of block grants to fund QERM students.
- 4. Explore recruitment of students who would come with their own NSF or NSERC fellowships.
- 5. Begin talking with NWFSC, NWAFC, and USFS to see what skill sets would be desirable in a QERM certificate for agency and other scientists.

QERM looks forward to tackling these issues, implementing changes, and making improvements in the QERM Program in the years ahead.

*Note: all italicized items in quotation marks are quoted from the Report of the QERM Review Committee.