

Natural Resources Conservation

A department in the College of Natural Resources and the Environment offering the A.S. in Arboriculture and Community Forest Management; B.S. degrees in Building Materials and Wood Technology, Forestry, Natural Resource Studies, and Wildlife and Fisheries Conservation; and M.S. and Ph.D. degrees in Forest Resources and Wildlife and Fisheries Conservation.

■ The Review Process

This was a standard AQAD review. Reviewers were:

Dean Wang, chair (University of Vermont)

David Bray (Florida International University)

Wendy Gabriel (National Marine Fisheries Service, NOAA)

Charles Nilon (University of Missouri, Columbia)

■ Main Issues

Overall, the visiting team found a “strong academic department with an excellent working environment.” Faculty are conducting “outstanding teaching and research,” with a strong focus on Massachusetts and New England and smaller component of international wildlife research. Following the “era of reduced resources” at UMass, the team expressed the view that the department “must make some tough decisions in the next few years and has an opportunity to reinvent itself with what may be a number of new and replacement hires.” The team offered several findings and recommendations to help guide that effort.

- The “human resources” of the department were found to be strong. Collegial relationships within the department were described as “very healthy;” new faculty reported feeling well-supported and mentored; undergraduates characterize department faculty as “significantly more accessible and supportive than faculty in other departments;” and the support staff has a “can do” attitude despite declining resources.
- The team found that one of the defining characteristics of the department has been “belt-tightening” resulting from “a pattern of institutional budget challenges and cuts.” This has required faculty to handle many administrative and support tasks, and faculty shrinkage through random attrition has caused programmatic priorities to “effectively become directed by retirement schedules rather than strategic plans.” The team observed that “while the department seems to be managing admirably in the short term,” there may be long-term consequences of “this long period of frugal and more protective behavior.” One of these consequences is a loss of flexibility and adaptability to changes in the discipline and the larger context of forces affecting natural resource management, and the team warned that academic units with a mission to address these changes “risk stagnation and irrelevance over time.”
- The team examined the integration and coherence of academic programs. The undergraduate program was found to have made “impressive steps in integrating students from different disciplines,” and the team reported students’ appreciation of the “strength of faculty advising and mentoring.” Students also praised the commitment to writing across the curriculum, but were critical of the junior-year writing class, which does not incorporate natural resources content. Students also reported a “lack of focus” on statistics and applied math in many

courses. The team observed that five different undergraduate majors and four tracks within those majors “may be confusing to new students” and “does not reflect integrative trends in the natural resources disciplines.” The team suggested a restructuring of the undergraduate curriculum into a single degree with concentrations in the main areas of building materials and wood technology, arboriculture and urban forestry, forestry, wildlife conservation, and natural resource studies. The team expressed the view that such a move might promote greater integration among both students and faculty while still preserving the specialized perspectives of the discipline. The change might also make updating of the curriculum less cumbersome over time.

The team found that graduate students were “complimentary of the strong graduate teaching in the department and the research opportunities and mentoring provided by the faculty,” and appreciated the strong focus on applied research. However, the team also reported that graduate students expressed a “feeling of isolation and lack of contact” with others in the department, in part due to the split location of the department in several buildings. The team suggested that this might be addressed through required seminar courses taken by all graduate students, an orientation program, and creation of a graduate student advisory group.

- The team focused much of its report on the opportunities and decisions confronting the department given that it stands at a “juncture where it will need to think hard about its next steps.” In the view of the team, clarifying the vision that guides its future will require “balancing multiple attributes.” For example, how much emphasis should be placed on biological research and technical skills vs. management and policy perspectives? How much on preservation vs. utilization of natural resources, or rural vs. urban emphases? To what extent should the department maintain a regional focus vs. national and global emphases? The team found these questions critical because of the faculty hiring opportunities likely to arise over the next few years, and in light of the plan to recruit a new department chair in 2007. That convergence suggests that the new chair might consider leading a strategic planning effort in his or her first year.

The team made several suggestions for consideration in such a process. First, the team expressed the view that the department’s mission be sharpened and more clearly defined. The team noted that the faculty do “outstanding research on Massachusetts and New England natural resource management issues,” with a handful of faculty members working on international wildlife issues. The “rewilding” of Massachusetts has connections with forest transitions elsewhere in the world, and adds complexity to broader global concerns that often focus on deforestation, so a continued UMass focus on natural resources conservation in the New England urban environment may be useful. But, in the team’s view the department could “more clearly define [its] regional strength and the global significance of what it does.”

Another critical choice identified by the team relates to the role of social scientists in the department. The team cited the “increasing tendency in environmental studies and natural resource departments to incorporate environmental social scientists,” and observed that most resource managers in all levels of government “have to deal with multiple stakeholders in complex political contexts and need more knowledge and skills in dealing with the social dynamics of applied ecology.” The team therefore recommended a larger role for environmental social scientists in the department, and in hiring priorities.

■ Results of the Review

The department indicated that some of the team's recommendations could be pursued immediately, while others would require a more extensive planning process; it was agreed that it "would be logical to have the new department head lead this process." The department reported that consolidation of the various undergraduate majors in some way had been under consideration for 20 years, and acknowledged several possible advantages, juxtaposed with the concern that sub-disciplines might lose "critical faculty and courses." The department also raised the possibility of using the existing Natural Resource Studies degree as an umbrella under which to offer different concentrations. In recognition of the diversion of faculty effort to administrative and support tasks, the department proposed adding an Undergraduate Program Manager with lecturer rank who might both teach introductory courses and handle student recruitment, internships, and the like. A similar position was suggested at the graduate level. The department indicated that the problem of dispersal of graduate students would be addressed when new office space near Holdsworth is acquired, and the formation of a graduate student advisory committee was endorsed. In terms of strategic directions and faculty hiring, the department reported that the request for new faculty under the Amherst 250 plan includes three positions relating to urbanization, with the possibility that one might be focused on human dimensions and urban policy, and that replacement hiring may include two social scientists.

The Dean described the team's report as "insightful and helpful," and concurred with the consideration of some of the larger issues through a strategic planning process. The Dean endorsed a "careful consolidation" of the undergraduate majors, and expressed confidence that concerns about the effect on sub-disciplines is "unwarranted." The Dean expressed support for the redeployment of departmental resources to fund the undergraduate program manager position and a support position for the graduate program. The suggestion for more human dimensions/social science faculty was acknowledged, with both a new urban policy position and greater use of adjuncts from around the campus mentioned as possible responses.