Lisbon Sophomores Combine Science and Public Policy

By Justin Roshak

LISBON—You can see that Pauline Corzilius loves to teach. She always has something proud to say about a student. A veteran of twenty-eight years, she practically bubbles over with new ideas for lessons and projects. Last week, she sat down with the Courier to describe her latest academic experiment: a student-produced natural resource inventory for the Lisbon Conservation Commission.

The Commission's goals, highlighted elsewhere in the Courier, are to preserve Lisbon's various wild spaces and water resources, as well as provide informed decision-making on issues of land use and land management. By law, towns are required to have a Conservation Commission, and by law they must produce a natural resources inventory. Enter Ms. Corzilius and her high school science students.

The project aims to an a comprehensive catalogue of Lisbon's natural resources, including recreational spaces, invasive and endangered species, water resources, and geological patterns. Students have done research on soil formations, collected data on key species and habitats, documented key natural assets, and done much of the drafting. Much of the collaborative work was done on google docs, allowing students to see and comment on each other's work in real time. A team of three AP Biology students is currently editing the draft.

Lisbon has a proven commitment to project-based learning. Indeed, a senior project forms a key graduation requirement. Not only do students get real-world experiences, they are also issued personal laptops. They can be brought home to work on, and are given to the students as graduation gifts.

Lisbon also focuses on competency-based assessment; instead of an overall class grade, students must prove their achievement in six to eight key focus areas. This year, they have also added "proficient with distinction", both to reward high achievers and to replicate the top-ten percentile scores that colleges look for.

Project-based learning is supposed to increase student engagement. Ms. Corzilius sees that in the inventory project, saying, "Several times during the work, kids would look up and say 'This is pretty cool, this is the real deal.'" She thinks they are motivated by the idea that the work they do will inform of Lisbon's public decision-making for years into the future.

A key goal of the sophomore biology curriculum is to build a sense of interconnectedness. Ms. Corzilius sees the inventory as a practical example of that, saying, "It ties into their sense of place very effectively." Working in their home town, for their home town, students develop a stronger appreciation for the web of life that surrounds them.

A Woodville native, Ms. Corzilius spent her first two years at Plymouth State studying music, which she calls "a terrible choice." Science came more naturally to her, and by luck, when she graduated a teaching job had just opened back in Woodsville. Working with her old principal, she filled in full time to complete her student-teaching requirement, and stayed for seventeen years. In time, she transitioned to Lisbon, and has been there for eleven years.

Ms. Corzilius hopes the project will encourage informed conservation choices. She highlighted a few key areas that the project will address.

Students are cataloguing vernal pools, which are seasonal bodies of water key for amphibian reproduction. They don't dry up overnight, but are also free of predatory fish. Knowing where these key habitats are, and how to protect them, will help achieve conservation goals.

As Lisbon revises its master plan, the inventory may guide more precise zoning decisions: "Lisbon is zoned, but the zoning is kind of broad brush, and perhaps generous in places."

Lisbon owns substantial undeveloped tracts around Pearl Lake, the deeded trust for which is somewhat vague. Many North Country towns possess similar parcels, and constantly face the pressure to sell or develop. Ms. Corzilius calls that only a short-term financial fix, saying "You can only sell it once, and then its's gone."

"The Ammonoosuc is a flashy little river," whose watershed begins on Mount Washington and follows a series of steeps so that when it floods, it floods with a vengeance. Living alongside such a temperamental body of water poses unique decision-making challenges, she says. "Hopefully, bringing that science into plain English might guide that process, and help people understand that the river is a live thing."

Once the project is completed, it will be incorporated into Lisbon's new master plan, and might not be revisited for five to six years. As a result, Ms. Corzilius has no plans to repeat the project for her next crop of sophomores. That means that this year's classes are the recipients of a unique opportunity, and their work will enrich their community long after they graduate.