Learning to see

Jennifer Landin’s students learn biology by focusing on the detail in their drawings

by Bill Krueger

Jennifer Landin will tell you that she is not an artist and that the popular biological illustration class she teaches is not an art class.

Yes, there are art majors in the class at N.C. State University and, yes, her students’ drawings have been exhibited at a state museum.

But Landin’s class is a biology class, one that explores the diversity of multicellular organisms. And while that is done through detailed pen-and-ink drawings, what Landin (BSFR ’94) is teaching is the ability to observe.

“Lines and dots, that’s all drawing is,” says Landin, an assistant professor at N.C. State. “It’s the ability to see properly, that I’m teaching. I don’t teach drawing at all. I teach seeing.”

One of the keys to a successful biological illustration, Landin says, is patience. It is the patience to research whatever it is you are drawing, to understand that the only difference between two types of woodpeckers is the proportion of the bill that extends beyond the face. It is the patience to look carefully at what you are drawing, and then the patience to capture those details on paper.

When she began the course in 2010 it quickly became one of the most popular on campus. About half the students are biology majors, with the others ranging from engineering to art majors.

Landin spends the first three-hour lab each semester teaching illustration techniques and asks her students to draw something as commonplace as a coffee cup. The students are surprised when they realize that they really didn’t know what a coffee cup looked like—not without taking the time to study it.

Jordan Lang, a recent graduate who majored in industrial design, struggled initially. He stuck with it, hoping to learn techniques that would help him land a job designing creatures for video games or movies. He eventually did an illustration of a piranha skull, learning that it had a larger bone mass than other fish and how its jaw differed to give it more force.

“Once you learn to see things the way they actually are,” he says, “the drawing part is easier.”

While Landin is pleased to see her students grasp what she’s teaching, she may be even more excited about how their work has spread beyond the classroom. Her students’ illustrations have been exhibited at the N.C. Museum of Natural Sciences and the North Carolina Aquarium at Roanoke Island. She routinely hears of her students proudly showing their illustrations to friends and families.

“They’re talking about science,” she says. “That’s probably the happiest surprise I’ve seen from the course, is how much communication about science stems from this class.”

—Bill Krueger is the senior associate editor of N.C. State Magazine at North Carolina State University.
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