Thoughts on a triptych for the Andrews Research Station

Elizabeth Farnsworth, 3 November 2010

I came to the station open-eyed and open-minded to this wonderful forest in all its phases – newly cut, young and recovering, ancient. I had read many of the *Forest Logs*, contributions from gifted writers celebrating their time in this special place. Most influential to me, though, was the book sent by Fred Swanson featuring illustrations by Bonnie Hall.

I never met Bonnie, obviously, but she was an artist after my own heart. Deft with pen-and-ink, she reveled in detail – the necessary and the beautiful minutiae that bring an organism to life. She knew her bugs, to be sure, and drew biologically accurate renderings of beetles and many other insects. I know first-hand that it takes a combination of technical acumen and biological expertise for these drawings to pass muster with entomologists and other experts on the "very small."

But Bonnie did more than merely capture these creatures in the "amber" of illustration board. She placed them — quite innovatively — against grayed-out backgrounds of their actual habitats. This approach makes her illustrations unique, singular as both scientific documentation and as art. The critter claims its rightful place in the foreground, and the details jump out at the observer. But it is also placed in its rightful home, a de-emphasized but lyrical representation of the place from which it comes.

Later, when I'd been at the Station for a day, Fred Swanson walked us around the buildings, grounds, and special places and experimental plots that have made Andrews so respected in the scientific world. He made passing mention of the importance of ecological <u>networks</u> in informing some of the new theory emanating from the Andrews. To be sure, networks are nothing new to geomorphologists or hydrologists who study watersheds. Nor to ecologists who study food webs and community assembly. Nor are they new to physiologists, like myself, who study vein architecture or model the fractal nature of colonial organisms like plants or corals.

But I decided to take a "Bonnie" approach to studying networks. In this series of simple color drawings, I link the networks of veins of maple, networks between colonies of fungi that stimulate cytokinins (and greening) of leaves in maple [left panel of triptych], conduits tracing along symbiotic colonies in *Lobaria* [central panel of triptych], and the radial conduits that feed the ray and disk flowers of Asteraceae species (now, long-dried in an early Fall) [right panel of triptych]. I laid these against a backdrop of the topographic map that is distributed to visitors at Andrews, because any elevational topo, by definition, depicts networks of streams and habitats, and because the colors used to represent these features reflected the colors of all these organisms in the Fall. I chose to place these creatures on portions of the map that seemed to echo the topographic outlines of the organisms themselves – perhaps seasoned map users will recognize the sectors from which they are taken.

To be sure, these backdrops are larger in scale and more abstract than Bonnie Hall depicted them (and reflect my only naive understanding of the affinities of these organisms). But they place the comparatively small creatures in a larger context and celebrate the networks that, in truth, link us all.

Enjoy,

Elizabeth Farnsworth, Ph. D. Senior Research Ecologist

New England Wild Flower Society