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Introduction to L.R. Hesler's Mushroom Notebooks

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L.R. HESLER'S MUSHROOM NOTEBOOKS

R.H. Petersen
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November, 2013

When the building housing the biological sciences burned to the ground in 1934, everything was lost. Up in flames went the herbarium, the small set of mycological books borrowed from the university library and from the Lloyd Library in Cincinnati, Hesler's notes on plant diseases and their causal fungi (his doctorate was from Cornell University Plant Pathology), reprints of his own published research and that of others, and all the products of countless hours of research, especially the fruits of fieldwork into the Smoky Mountains of East Tennessee searching for his new interest, mushrooms and their relatives.

There must have been no question about starting over, for as a child of German Hoosier farmers, Hesler was not a quitter. In fact, it would have been like him to calculate HOW to start afresh, not whether.

As it is for taxonomists the world over, there must be a documentary trail of past observations, kept up to date, for comparison of new findings to prior. A herbarium must be gathered – the call went out to the American mycological community that the Tennessee herbarium had been destroyed and the community responded with several thousand specimens (almost all of plant pathogenic fungi, for on such was Tennessee's reputation based). Lost volumes of journals must be replaced. And most germane to the present effort, observations must be committed to paper – measurements, colors, tastes. And so "Hesler's notebooks" began.

His interest had been piqued in the mushrooms of the southern Appalachian Mountains. First, it seemed that little was known past the usual identifications which often were based on questionable characters and short, non-meticulous descriptions. Second, an opportunity presented itself for excursions into the mountains (roads were unpaved, and many of Hesler's early penetrations of the mountains were by train - usually logging trains which would drop him off somewhere in the morning and pick him up in the afternoon). Third, a few fellow faculty and a handful of students could be cajoled to take the day for some fresh air. Fourth, in his new-found interest he had established a working relationship with William Chambers Coker, the mushroom authority at Chapel Hill,

who owned a summer home in Highlands, North Carolina, on the “other side” of the Appalachians. Hesler began taking vacations there and learned some of the finer points from Coker. And finally, as Hesler used to declare, 1934 was the best summer for mushrooms he ever saw!

One thing led to another. Hesler kept his mushroom drier busy and his typewriter (I know of only one that he ever used and the typeface of his notes never changed) at the ready. Data were compiled according to taxonomy, of course, so he amassed sheaves of papers on *Amanita*, on *Russula*, on *Lactarius*, on *Boletus* and so on. Soon, he found it useful to place these notes in a series of spring-back binders according to genus, in which order they remain to this day. For some 45 years the binders multiplied until at his death (he was active within months of his passing) they occupied some 25 linear feet of shelf space.

One principle anchored his research: in order to tack a name on a mushroom, it was necessary to know *exactly* what that name represented. The only way to gain that knowledge was to examine the same specimen as had the person who originated the name. That specimen was (and is) known as the “type specimen,” and Hesler’s notebooks are filled with information he harvested by borrowing such material. The luminaries of the day, Coker, Kauffman, Peck, Burt, Murrill in the US, Romagnesi, Kühner, Lundell, Moser, Lange in Europe, all loaned material, faithfully examined and chronicled by Hesler.

When a particular genus caught his interest, a generic floristic monograph developed, often together with his working partner, Alexander Smith at Michigan. So there are scores of notebooks on *Hygrophorus*, *Lactarius*, *Entoloma*, *Pholiota*, while other “worthy” genera are represented by only one or two. He began taking photographs of fresh specimens with a view camera replete with bellows. The photos were intercollated throughout the notebooks and the negatives filed separately.

Hesler would have been surprised, but also amused, to see that his notebooks have been rendered into zeroes and ones and made available to the world. They provide not only a chronicle of his career but a wealth of information about the people and specimens which (who) formed the foundations of American agaricology – the study of mushrooms.