

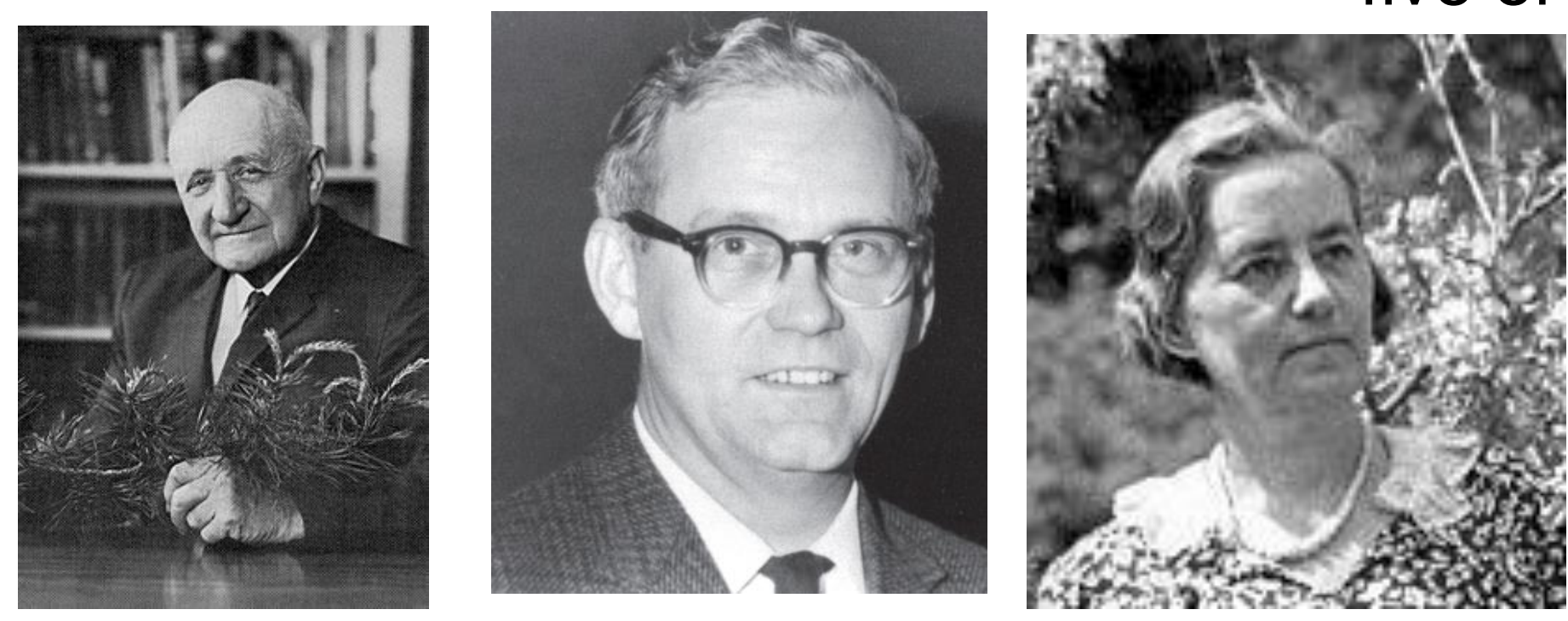
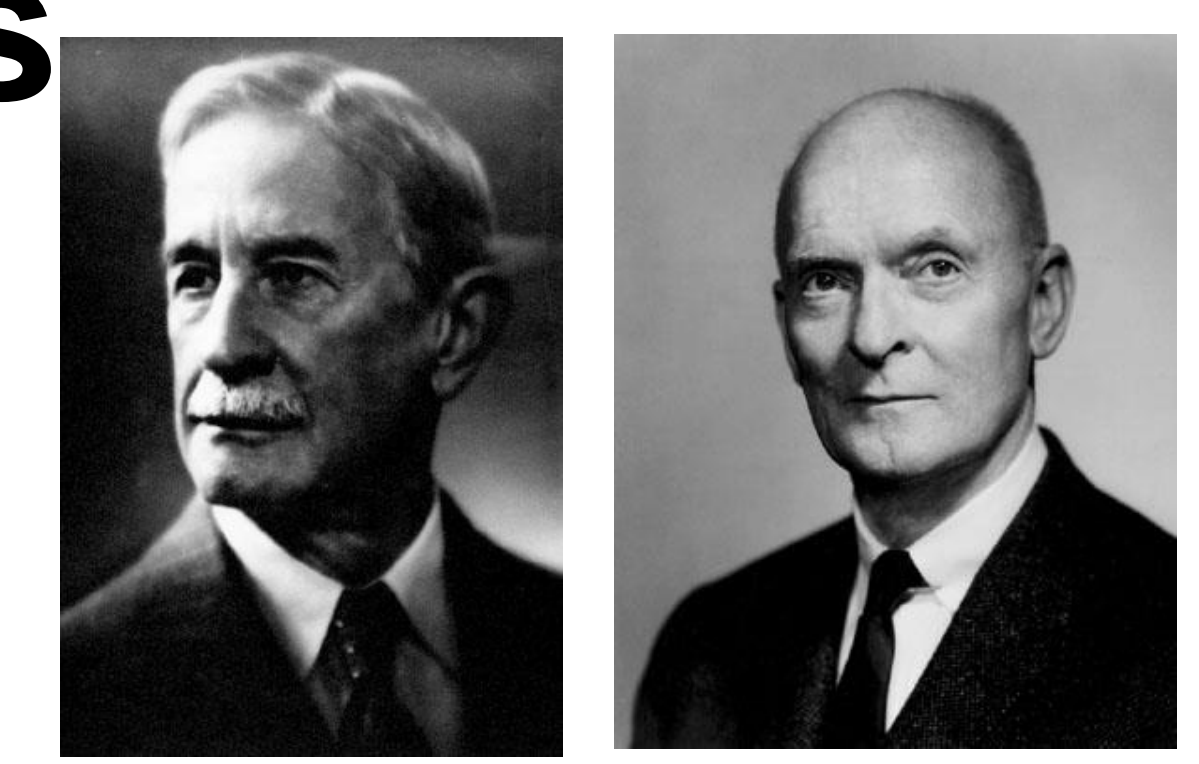
# Identification and Documentation of the Fungal Type Collections in the University of North Carolina at Chapel Hill Herbarium

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University of North Carolina Chapel Hill Herbarium (NCU)

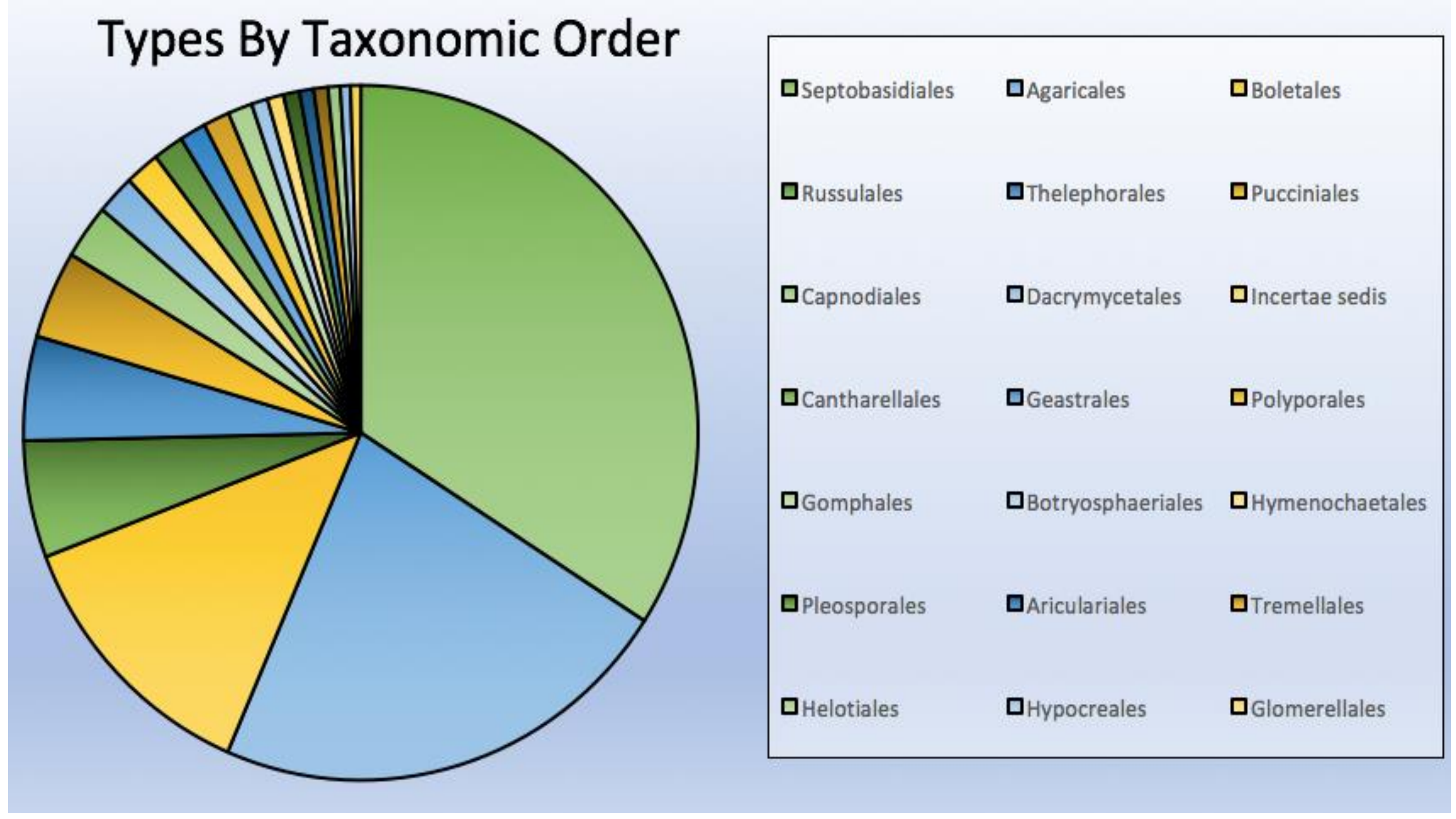
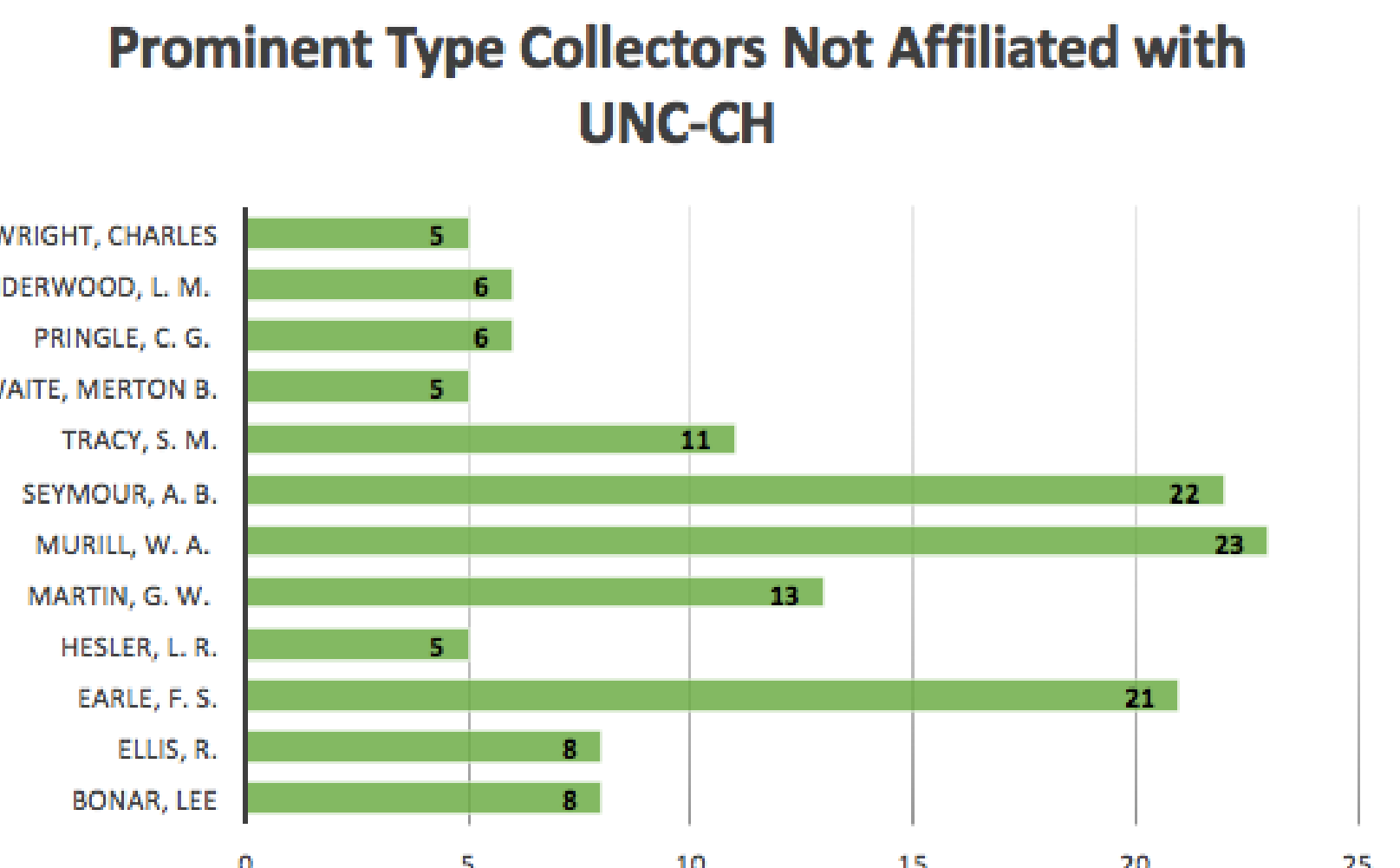
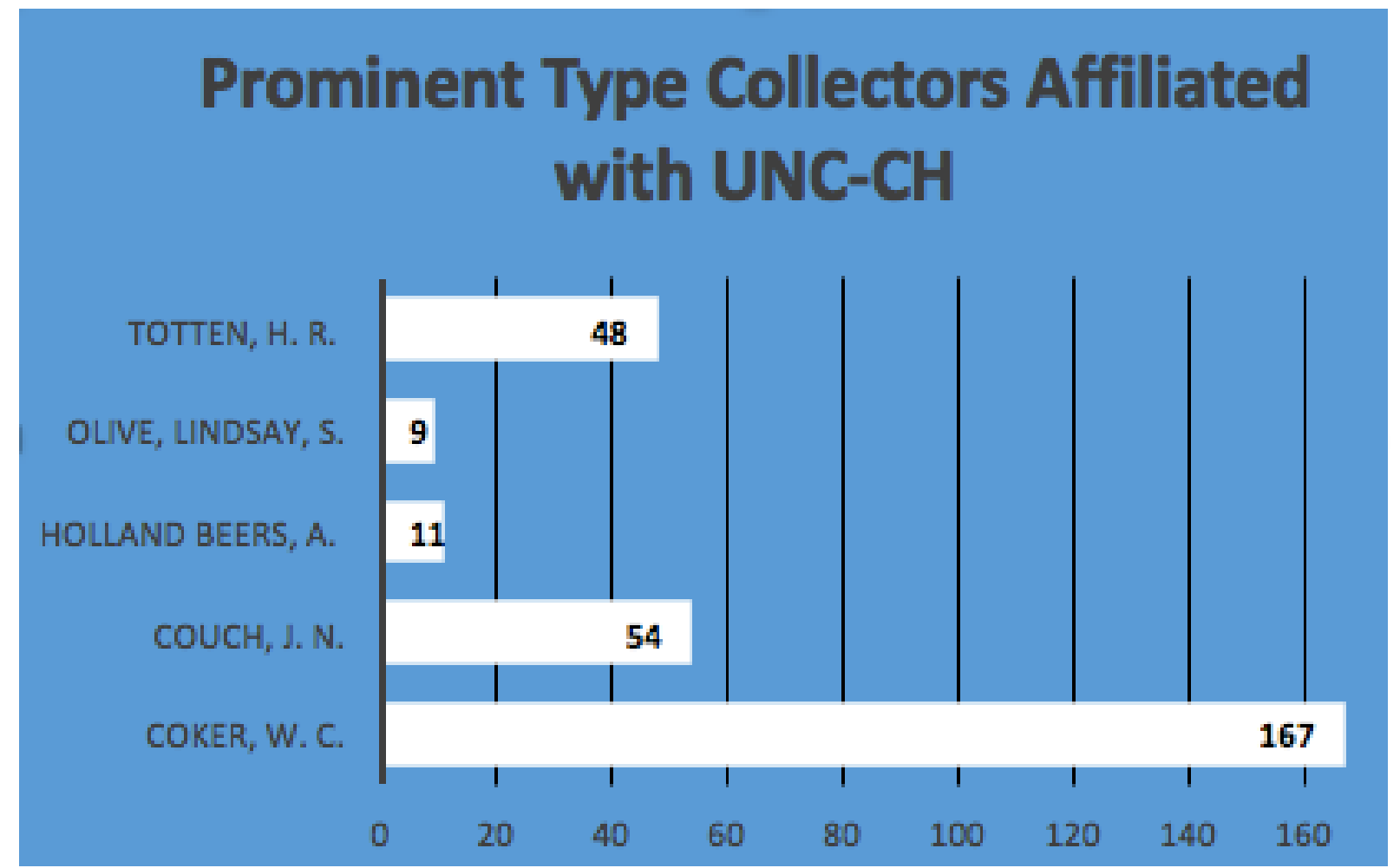
A project to identify and document the fungal type collection at the University of North Carolina Chapel Hill Herbarium (NCU) is reaching its end, with a little over 100 more type collections to be verified and 400 to be photographed and entered into the online database MyCoPortal. Of the 1,100 type specimens currently verified representing nearly 600 taxa, 732 are currently accessible in MyCoPortal. They have been verified through a combination of literature references and information from other herbaria, including the online resources Index Fungorum, MycoBank, and books written by and about Chapel Hill's own Drs. William C. Coker and John N. Couch. The project is projected to be completed by the end of 2018, with the collections photographed and added to MyCoPortal. This will be accompanied by a formal publication in a scientific journal. The importance of this project lies in the special scientific and historic significance of type specimens, and has already lead to multiple requests of type specimens for research purposes including from seven different countries on four different continents in the past two and a half years.

## NCU's Type Collectors

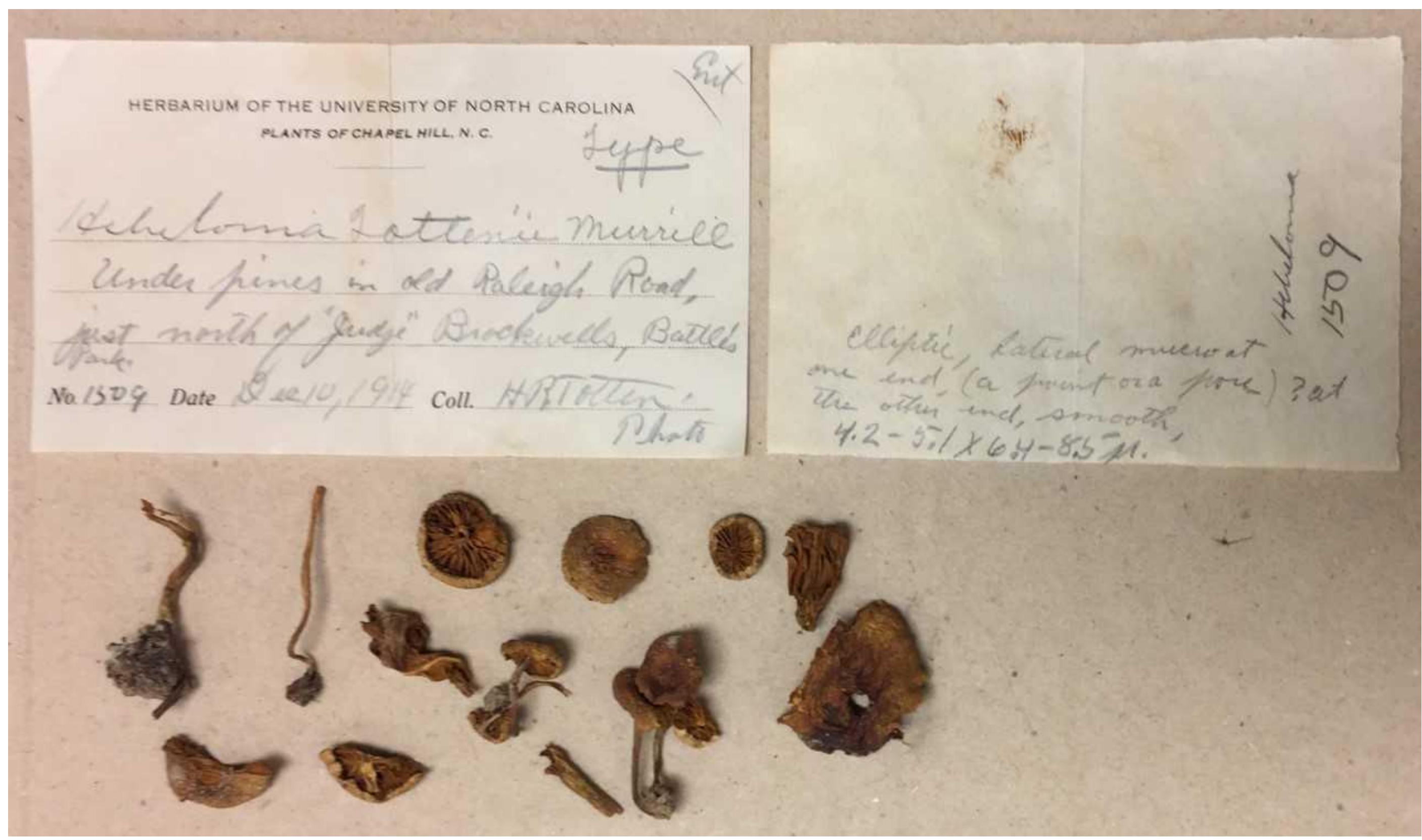
Since Coker founded the herbarium at Chapel Hill in 1908, many types from over 150 different collectors have been added to NCU, with many notable names, including Chapel Hill's own. Below are graphics representing collectors that have five or more types at NCU, and prominent collectors from Chapel Hill. NCU has types for 105 taxa described by Coker, 9 jointly with Beers, and 95 taxa described by Couch.



Pictures of Chapel Hill Collectors, left to right and top to bottom: Drs. William C. Coker and John N. Couch, Drs. Henry R. Totten and Lindsey S. Olive, and Alma Holland Beers. Photographs taken from the NCU Herbarium website: herbarium.unc.edu



## Type Spotlight: *Hebeloma tottenii* Murrill



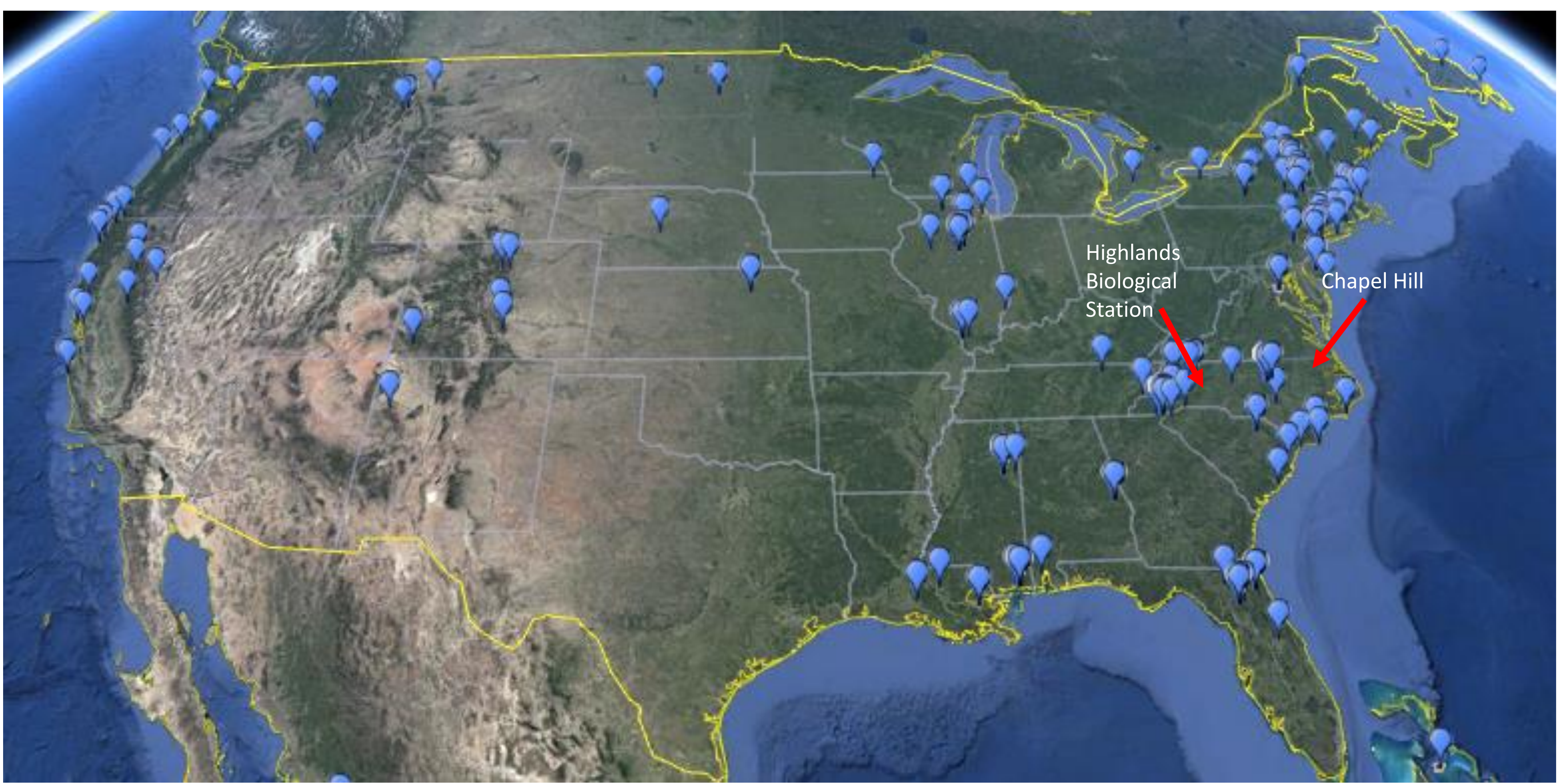
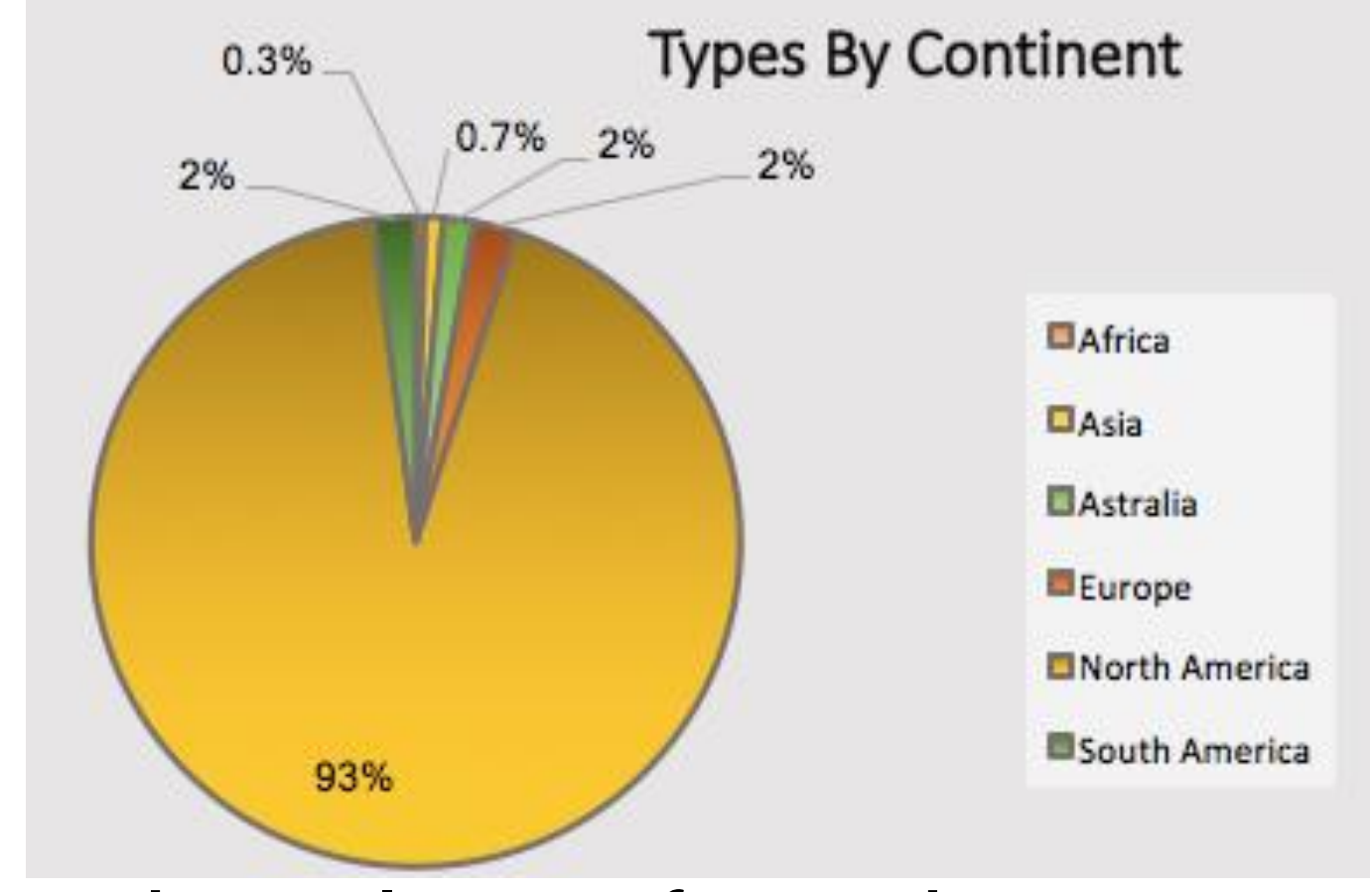
As *Pholiota tottenii* under current nomenclature, this collection from December of 1914 is one of the many Chapel Hill types, specifically from Battle Park on the eastern edge of campus. This taxon is one of the many named after prominent UNC botanists. NCU type collections contain types for 6 taxa named after Dr. Coker including *Rhizopogon cokeri* A. H. Smith.

## Type: Ineditus

Of the estimated over 1200 type collections at NCU, 48 are "Ineditus", representing 18 proposed taxa for which there is no formal description in the scientific literature. These proposed taxa still need to be researched in more depth to potentially confirm their status.

## Geographic Distribution

Collections in NCU's type collection come from every continent except Antarctica, 31 different countries, and 32 states in the continental US, Hawaii, and Washington D.C. Though this is a wide distribution, the vast majority of the types come from North Carolina (327), with 225 from Orange County, where Chapel Hill is located, and another cluster from the environs of the Highlands Biological Station in western North Carolina.



## Type Density

The NCU fungal herbarium has a type density higher than most southeastern United States fungal herbaria and comparable to major national fungal herbaria.

| Herbarium    | NCU | DUKE (Duke University) | NCSLG (North Carolina State University) | VPI (Virginia Tech) | CLEM (Clemson University) | USCH (University of South Carolina) | NY (New York Botanical Garden) | CUP (Cornell University) | PUR (Purdue University) |
|--------------|-----|------------------------|---|---------------------|---------------------------|-------------------------------------|--------------------------------|--------------------------|-------------------------|
| Type Density | 4%  | 0.4%                   | 0.22%                                   | 0.06%               | 0%                        | 18%                                 | 6%                             | 5%                       | 6%                      |

Above is a representation of the makeup of types at NCU by taxonomic order, however, only orders with more than 5 types appear in this graph, leaving out 18 orders and 37 types. Below is a timeline when types at NCU were collected. The oldest collection in the fungal herbarium at NCU is from 1869, and the most recent was collected in 1980.

