

Herbarium backlogs: Challenge or opportunity?

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In order to fulfill its role in the botanical community, an herbarium must have its specimens processed, identified, and cataloged so that botanists can consult these materials during their research. Many herbaria, however, struggle to keep up with the influx of specimens. As a result, specimens may accumulate while awaiting further processing, leaving the institutions with what is known as a 'backlog'; yet we know little about the content and origins of such backlogs. In this study, we aimed to quantify the number of backlogged specimens at herbaria around the world and identify the obstacles herbarium staff face when working with these materials. We also sought to better understand the relationship between donations/gifts and backlog at herbaria, focusing on bryophytes, which are nonvascular plants including (mosses, liverworts, and hornworts). In order to address these aims, we surveyed herbarium staff about their backlog of unaccessioned specimens. Eighty-seven staff members responded to our survey. Approximately 93.0% of staff indicated that their herbarium had a backlog with an average of approximately 67,500 unaccessioned specimens per herbarium. Based on Index Herbariorum there are 3,426 active herbaria in the world, and thus we estimate that 231 million specimens may be present in herbarium backlogs. According to our staff respondents, unaccessioned bryophyte specimens comprised approximately 15.0% of this backlog with half of these specimens being stored in field packets without labels. Herbarium staff also reported that more than half of the bryophyte specimens in their backlog are not identified to species. In addition to describing the challenges associated with the integration of partially curated materials into an herbarium, staff also discussed other limitations. These obstacles included the sheer volume of backlogged specimens, competing demands on staff time, and/or a lack of resources (e.g., herbarium staff having limited or no bryological expertise). With these findings in mind, we hope to assist the herbarium community in determining how to efficiently accession specimens currently in backlog and explore avenues for decreasing the number of donated/gifted specimens that may ultimately become backlog.

