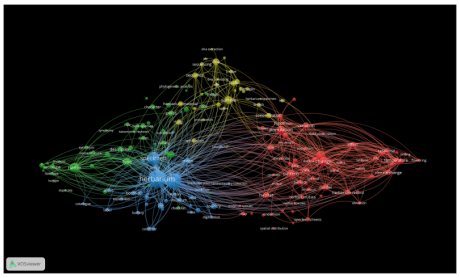
UNIVERSIDAD DE GRANADA

Departamento de Botánica

Revisión sobre el papel crucial de los herbarios en la Conservación de la Biodiversidad

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Nuestro artículo, publicado en la revista Plants People Planet revisa el papel crucial de los herbarios, como colecciones de plantas preservadas que contiene información relevante e irremplazable, en la Conservación de la Biodiversidad

Old meets new: Innovative and evolving uses of herbaria over time as revealed by a literature review

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Abstract

Herbaria as collections of preserved plants contain large amounts of data and prominent information, both on the labels and on the specimens themselves. There are 400 million specimens preserved in herbaria worldwide, with great potential for studies in conservation and effects of global change on plants. (1) In this paper, we investigate the array of herbaria uses through a systematic review of the scientific literature in SCOPUS covering the period 1842–2022. (2) We reviewed a total of 2900 papers and classified them in different areas of knowledge, as well as the taxonomic level studied. (3) Our results show that taxonomic use is the most relevant over time. This taxonomic use, together with the use as primary source of plant diversity data, is essential for documenting, planning, and acting on the conservation of threatened plants. Furthermore, our results have shown that new and diverse uses have

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emerged since 1990, mostly related to ecological issues, as herbaria provide a historical record of plant diversity and distribution, as well as their ecological and evolutionary responses, allowing scientists to track changes over time. (4) This contributes to improve the knowledge of biodiversity and to increase the effectiveness of conservation strategies and policies, which are a priority to address on going global change. Therefore, our study shows the relevance and potential of herbaria in ecology, including new or forthcoming uses, which are different from the uses originally intended by collectors. Thus, their preservation is critical as the unique and exceptional record for the knowledge of changes in biodiversity over space and time.

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