
**238 YEARS OF THE HERBARIUM OF THE JAGIELLONIAN UNIVERSITY,
KRAKÓW, POLAND**

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The article presents the history of the Herbarium of the Jagiellonian University (KRA), is the oldest herbarium associated with a university in Poland, which is among the 30 oldest herbaria in the world. It was established in 1780 and was part of the Cabinet of Natural History of the Jagiellonian University. Nowadays, the Herbarium is part of the Institute of Botany at Jagiellonian University. The oldest collections come from the 18th century. The Herbarium consists of about 885,000 sheets and bags, and is subdivided into five sections: vascular plants, bryophytes, lichens and algae, and slime molds. The separated collection is the paleoherbarium. The curators of the Herbarium sections during its history are listed. The list of the most important publications (sources) is also presented.

Keywords: KRA, herbarium, collections, curators, Jagiellonian University

Introduction

The term ‘herbarium’ originally means a collection of preserved plant specimens with associated data. The oldest collections of dried plants were made in Italy in the mid-16th century. In the following centuries, due to the evolution of the form of these collections, as well as the necessity of their proper storage, cataloging and keeping up with changes in the classification of organisms, the term ‘herbarium’ was assigned to an institution holding such collections. Today’s importance of a herbarium not only concerns the collections itself, but also relies on a huge documentary value, especially important in the nowadays fast-changing natural environment. The scientific and educational value of such collections cannot be overestimated. They contain assemblages of vascular plants, as well as cryptogamic (spore-bearing) plants, algae, fungi, and other plant-related collections. The oldest herbaria as institutions were established in Europe at university centers, where much older private collections were often their sources. The article refers to the history and present day of the oldest Herbarium in Poland and one of the 30 oldest herbaria in Europe.

History

Herbarium of the Jagiellonian University was established in 1780 and then was a part of the Cabinet of Natural History (till 1815). Later the herbarium was part of the Zoological and Botanical Cabinet (1815–1828) and the Botanical Cabinet (1828–1883). Since 1883, the collection of dry plants is a separate unit.

Initially, the herbarium consisted of specimens of many individual collections. In 1910–1914 the content of these collections was systematically arranged according to genera (and species), and this system is preserved until today. During World War II the Herbarium was subdivided into 5 sections: (1) vascular plants, (2) bryophytes, (3) lichens and algae, (4) fungi, and (5) slime molds. In 1953–1966, collections of the Institute of Botany of the Polish Academy of Sciences were also stored at the Jagiellonian University Herbarium. In 2011 the Department of Palaeobotany and Palaeoherbarium was created within the University Institute of Botany, and this palaeoherbarium was included in the Herbarium in 2016.

1. Locations

Until 1828 the Herbarium was kept at Collegium Physicum (at St. Anna Street). In 1828–1948, the collections were stored in buildings of the Botanical Garden (at Kopernika Street 27). In 1948–2001, the Herbarium was housed in a building of the University Botanical Institute (at Lubicz Street). In 2001, the Herbarium was moved to a building at Kopernika Street 31 in Kraków.

2. Curators

Until 1921, every professor of botany was a curator of the Herbarium. Later other people were designated as curators (Table 1).

Table 1

Curators of the Jagiellonian University Herbarium

Name and family name	Period of curatorship
Jan Jaśkiewicz (1749–1809)	1780–1787
Franciszek Scheidt (1759–1807)	1787–1805
Suibert Burchard Schivereck (1742–1806)	1805–1806
Josef August Schultes (1773–1831)	1806–1808
Belsazar Hacquet (1739 or 1740–1815)	1808–1809
Josef August Rhodius (?–?)	1809
Alojzy Rafał Estreicher (1786–1852)	1809–1843
Ignacy Rafał Czerwiakowski (1808–1882)	1843–1878
Józef Rostański (1850–1928)	1878–1910
Edward Janczewski (1846–1918)	1910–1912
Marian Raciborski (1863–1917)	1912–1917
Józef Rostański (1850–1928)	1917–1918
Władysław Szafer (1886–1970)	1918–1921
Bogumił Pawłowski (1898–1971)	1921–1953
Vascular plants	
Stanisława Pawłowska (1905–1985)	1953–1967
Eugenia Urszula Zajac	1967–1969
Zbigniew Dzwonko	1969–1984
Wojciech Granoszewski	1984–1989
Eugeniusz Dubiel	1989–2003
Wacław Bartoszek	2003–2014
Marcin Nobis	2014–
Fungi	
Barbara Gumińska	1950–1993
Katarzyna Turnau	1993–2005
Piotr Mleczeko	2005–
Slime moulds	
Anna Drozdowicz	1975–2014
Piotr Mleczeko	2014–
Lichen and algae	
Maria Olech	1971–2011
Piotr Osyczka	2011–
Bryophytes	
Bryophytes on loan in KRAM (prof. Ryszard Ochyra)	1967–2014
Marcin Nobis	2014–
Palaeoherbarium (palaeobotanical museum)	
Danuta Zdebska (nonformally)	until 2013
Sławomir Florjan (nonformally)	until 2016
Grzegorz Pacyna	2016–
Krystyna Harmata (until 2014), Jacek Madeja (since 2014) (only palynological collection, informally)	

The size of collections

The current size of the inventoried collections is estimated at ca. 700,000 sheets of vascular plants, 100,000 bags of lichens, 50,000 bags of fungi and slime moulds, 20,000 bags of bryophytes, and 15,000 specimens of fossil plants.

The oldest collections

Two herbaria come from the 18th century: one was part of the collections of the Jagiellonian Library before 1777 and is attributed to the Szaster family (many members of the family were professors at the University), and the other was donated on 24 October 1779 by Andrzej Badurski (1740–1789), professor of medicine. Both herbaria were kept in the Jagiellonian Library until 1813, when they were transferred to the University Natural History Cabinet.

Scanning of collections

In October 2012, scanning of the herbarium specimens was started. So far, the entire collection of ferns from *herbarium generale* (approximately 20,000 sheets) has been scanned, and ca. 4700 sheets of other plants. In the future, the scans will be available online.

Publications using herbarium material

In the case of Polish authors it should be assumed that each taxonomic monograph and any phytogeographical work referring to Central Europe used collections of the Herbarium of the Jagiellonian University.

**EXAMPLES OF PUBLICATIONS BASED ON HERBARIUM
(chronological order)**

1. *Besser W.S.J.G.* 1809. Primitiae Florae Galiciae Austriae utriusque. Encheiridion ad excursioniones botanicas concinnatum. Doll Viennae, vol. I: XVIII + 399 pp., vol II: VIII + 423 pp.
2. *Rostafński J.* 1872. Florae Poloniae Prodrum. Uebersicht der bis jetzt im Königreiche Polen beobachteten Phanerogamen. Verhandlungen der Kaiserlich-Königlichen Zoologisch-Botanischen Gesellschaft in Wien, 22: 81–208.
3. *Chalubiński T.* 1882. Grimmiae tatrenses. Pamiętnik Fizyograficzny (Warszawa), Vol. 2, part 3 (Botanika i Zoologia), p. 209–326.
4. *Raciborski M.* 1887. [Wiadomość podana przez p. Raciborskiego o Poterium polygonum W. K. w Galicyi]. Rozprawy i Sprawozdania z Posiedzeń Wydziału Matematyczno-Przyrodniczego Akademii Umiejętności, 16: XIV.
5. *Szyszyłowicz I.* 1895. Diagnoses plantarum novarum a cl. d. Const. Jelski in Peruvia lectarum. Rozprawy Akademii Umiejętności, Wydział Matematyczno-Przyrodniczy, 29 (ser. 2, vol. 9): 215–239.
6. *Szyszyłowicz I.* 1895. Pugillus plantarum novarum Americae centralis et meridionalis. Rozprawy Akademii Umiejętności, Wydział Matematyczno-Przyrodniczy, 27 (ser. 2, vol. 7): 139–142.
7. *Łazarczyk L.* 1914. Porosty polskie zabrane przez W. Jastrzębowskiego w latach 1827–1834. Polnische Flechten, gesammelt von W. Jastrzębowski in den J. 1827–1834. Sprawozdanie Komisji Fizyograficznej, 48 part. II: 73–79.
8. *Wróblewski A.* 1925. Spis grzybów zebranych przez Marjana Raciborskiego w okolicy Krakowa i w Tatrach w latach 1883 i 1890. (Champignons recueillis par M. Raciborski dans les environs de Cracovie et dans le Tatra en 1883 et 1890). Acta Societatis Botanicorum Poloniae (Warszawa), 3(1): 29–41.
9. *Piekietko A.* 1981. Dwa osiemnastowieczne zielniki ze zbiorów Instytutu Botaniki Uniwersytetu Jagiellońskiego. Zakł. Narod. im. Ossolińskich. Wrocław; Warszawa; Kraków; Gdańsk. Pp. 195.

10. Kornaś J. 1984. Type material of Marian Raciborski's names of Malesian Pteridophytes at the Herbarium Universitatis Jagellonicae Cracoviensis. *Taxon*, 33(4): 752–755.
11. Kornaś J. 1985. Type material of Marian Raciborski's names of Malesian Pteridophytes at the Herbarium Universitatis Jagellonicae Cracoviensis – addendum. *Taxon*, 34(4): 731.
12. Köhler P. 1989. The Javanese Pteridophyta collected by Marian Raciborski housed in the Herbarium of the Jagiellonian University (KRA). *Zeszyty Naukowe Uniwersytetu Jagiellońskiego, Prace Botaniczne*, 18: 127–133.
13. Köhler P. 1990. Marian Raciborski's Malesian Pteridophyta in KRA. *Taxon*, 39(2): 229.
14. Köhler P. 1991. The Malesian pteridophytes of Raciborski. *The Fern Gazette*, 14(2): 50.
15. Dubiel E. 1994. Materiały zielnikowe dra Rudolfa Wilczka z I Polskiej Wyprawy na Grenlandię w 1937 roku w zbiorach Instytutu Botaniki Uniwersytetu Jagiellońskiego. Dr Rudolf Wilczek herbarium materials collected during 1st Polish Greenland Expedition in 1937 in the Herbarium of Institute of Botany, Jagiellonian University. *Wiadomości Botaniczne*, 38(1/2): 172–173.
16. Köhler P. 1999. Historia Zielnika Instytutu Botaniki Uniwersytetu Jagiellońskiego (KRA) w latach 1780–1910. History of the Jagiellonian University Herbarium (KRA) (Cracow, Poland) in 1780–1910. *Kwartalnik Historii Nauki i Techniki*, 44(2): 7–60.
17. Köhler P. 2001. Historia Zielnika Instytutu Botaniki Uniwersytetu Jagiellońskiego (KRA) w latach 1910–2000. History of the Jagiellonian University Herbarium (KRA) (Cracow, Poland) in 1910–2000. *Kwartalnik Historii Nauki i Techniki*, 46(4): 77–104.

Exsiccata

So far, several sets of exsiccata were distributed:

Vascular plants: *Rośliny polskie. Serja II. (Plantae Poloniae exsiccatae, Series II)* (W. Szafer, B. Pawłowski, 1930, 1934, 1936, 1939; B. Pawłowski, J. Kornaś, A. Jasiewicz, 1957¹, 1961); *Pteridophyta Poloniae Exsiccata* (J. Kornaś, 1980–1985).

Bryophytes: *Bryotheca Polonica* (A.J. Żmuda, 1911, 1912, 1916; A.J. Żmuda, T. Wiśniewski, 1930).

Zooecidia: *Zooecidia Poloniae exsiccata* (A.J. Żmuda, 1912).

238 ROKIW GERBARIU JAGELLONSKOGO UNIWERSYTETU, KRAKIV, POLYCA

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У статті представлено історію гербарію Ягеллонського університету (KRA), що є найстарішим гербарієм, пов'язаним з університетом у Польщі, і одним із 30 найдавніших гербаріїв у світі. Він створений у 1780 р. як частина Кабінету Природної Історії Ягеллонського університету, пізніше був частиною Зоологічного та Ботанічного Кабінету (1815–1828) і Ботанічного Кабінету (1828–1883). З 1883 р. гербарні колекції є окремою структурою. До 1921 р. кожен професор ботаніки був куратором Гербарію. Серед найвідоміших ботаніків-кураторів варто згадати Suibert Burchard Schivereck,

¹ Together with KRAM.

Josef August Schultes, Belsazar Hacquet, Józef Rostafiński, Marian Raciborski, Władysław Szafer, Bogumił Pawłowski.

Сьогодні Гербарій є частиною Інституту ботаніки Ягеллонського університету. Його найдавніші колекції припадають на 18 ст. У Гербарії зберігається 885 000 аркушів і пакетів. Збори поділені на п'ять розділів: судинні рослини (700 000 аркушів) мохоподібні (20 000 пакетів), лишайники (100 000 пакетів), гриби і міксоміцети (50 000 пакетів). Окрема колекція – палеогербарій – містить 15 000 зразків викопних рослин. До цих пір було розповсюджено кілька серій ексикат: *Rośliny polskie. Serja II. (Plantae Poloniae exsiccatae, Series II)* (W. Szafer, B. Pawłowski, 1930, 1934, 1936, 1939; B. Pawłowski, J. Kornaś, A. Jasiewicz, 1957, 1961); *Pteridophyta Poloniae Exsiccata* (J. Kornaś, 1980–1985). *Bryotheca Polonica* (A. J. Żmuda, 1911, 1912, 1916; A. J. Żmuda, T. Wiśniewski, 1930). *Zoocecidia Poloniae exsiccata* (A. J. Żmuda, 1912).

Перелік найважливіших публікацій, що стосуються гербарних матеріалів, наведено у кінці статті.

Ключові слова: KRA, гербарій, колекції, куратор, Ягеллонський університет