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Acta Societatis Botanicorum Poloniae – One Hundred Years of Evolution in Form and Content (1923–2022)

Abstract

Acta Societatis Botanicorum Poloniae (ASBP) is the oldest journal of the Polish Botanical Society, published since 1923. Over the past 100 years, it has played an important role in the development of botany in Poland. The journal has undergone various modernizations throughout its history, culminating in the transition to an exclusively digital format in 2016.

The journal has published 3,728 articles totaling 46,197 pages. The average length of an article has decreased from 18.5 pages in the interwar period to 13.6 pages from 1952 to 1989, and to 8.65 pages in the years preceding the transition to digital format. Recently, the average length has been increasing. Conversely, the number of authors per article has grown. Initially, articles were single-authored, but post-World War II, the average number of authors gradually increased.

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From its inception, the journal has published works by women. In the interwar period, women authored 109 (26.6%) of the 410 articles from Poland, involving 112 female authors (25.6% of Polish authors). These articles primarily covered plant physiology (34 articles), with fewer focusing on cytology (23 articles) and microbiology (20 articles). In the post-war period, 1,855 articles (62.48% of Polish articles) were published exclusively by women. By 1956, women authored more than half of the articles from Poland. Women's articles were characterized by several features: in the interwar period, they were longer than the average article, and post-World War II, they more often addressed emerging, laboratory experimental fields of botany rather than older fields or those requiring significant physical exertion, particularly in field research. Over the century, women authored 52.49% of all articles in the journal.

Most articles published in *ASBP* were by Polish authors (85.6%), with fewer (10.8%) written collaboratively by authors affiliated in Poland and abroad. Over the past century, the most foreign authors came from the United States of America (52), the People's Republic of China (51), and India (48). In Poland, during the interwar period, the University of Warsaw (118 authors) dominated, followed by the Jagiellonian University (80) and the University of Poznań (51). Post-World War II, most articles were submitted by authors from the University of Wrocław (317), the University of Warsaw (296), and the Jagiellonian University (276). Outside of Poland, *ASBP* was most frequently cited by authors affiliated in the United States of America (883 citations), followed by the United Kingdom (826 citations) and the People's Republic of China (822 citations).

Throughout its century-long existence, the journal's articles have primarily focused on plant physiology (36.7% of all articles), with biochemistry being slightly less common (22.9%). However, the last 12 years have seen a shift towards ecological issues. Until recently, Polish botanists' motto was to publish their groundbreaking discoveries first in Poland. Consequently, canonical results such as Wacław Gajewski's research on the cytogenetics and evolution of the *Geum* genus, and the world's first description of a periclinal chimera in gymnosperms were announced in *ASBP*. Zygmunt Hejnowicz presented the discovery of cambial morphogenetic waves, and Tomasz Wodzicki – the auxin transport model, which was nearly a decade ahead of global models. One of the world's first articles on lichenicolous fungi was also published here. Notably, no

articles on pseudoscientific topics, such as the so-called new Soviet genetics, i.e., Lysenkoism, were published.

ASBP – the journal of the Polish Botanical Society – has come a long way over the past hundred years, evolving from a periodical of a local scientific society to a journal of considerable prestige on the international stage.

Keywords: *Acta Societatis Botanicorum Poloniae*, history of botany in Poland, botanical journals, bibliometrics, authorship trends, women in botany, institutional affiliations, citation analysis, thematic focus

Acta Societatis Botanicorum Poloniae – sto lat ewolucji formy i treści (1923–2022)

Abstrakt

Acta Societatis Botanicorum Poloniae (*ASBP*) jest najstarszym czasopismem Polskiego Towarzystwa Botanicznego. Istnieje od 1923 r. W ciągu minionych stu lat pełniło ważną rolę w rozwoju botaniki w Polsce. W tym czasie nastąpiła modernizacja procesu wydawniczego, zakończona przejściem całkowicie w formę cyfrową od 2016 r.

Czasopismo opublikowało 3728 artykułów, liczących łącznie 46 197 stron. Średnia objętość artykułu malała od 18,5 strony w okresie międzywojennym, poprzez 13,6 strony w latach 1952–1989, aż do 8,65 strony w ostatnich latach przed przejściem na wersję cyfrową, od tego czasu objętość znowu rośnie. Przeciwny proces dotyczył liczby autorów jednego artykułu: początkowo teksty były jednoautorskie, a po II wojnie światowej średnia liczba autorów artykułu stopniowo rosła. W latach 1952–1989 czasopismo miało największą objętość w swej historii.

Od początku czasopismo wydawało prace kobiet. W okresie międzywojennym wśród 410 artykułów z Polski 109 (26,6%) opublikowały kobiety. Artykuły te miały 112 autorek (25,6% autorów z Polski). W tym czasie teksty, których autorkami lub współautorkami były kobiety, tematycznie dotyczyły głównie fizjologii roślin (34 artykuły), nieco mniej – cytologii (23) i mikrobiologii (20). W okresie powojennym kobiety samodzielnie opublikowały 1855 artykułów (62,48% polskich tekstów). W 1956 r. Polki po raz pierwszy wydały ponad połowę artykułów z Polski. Artykuły,

których autorami lub współautorami były kobiety, wyróżniały się kilkoma cechami: w okresie międzywojennym były dłuższe niż przeciętny artykuł, a po II wojnie światowej częściej ich tematy dotyczyły dziedzin młodszych, laboratoryjno-eksperymentalnych oraz tych, które w ciągu ostatniego wieku szybciej się rozwijały, natomiast rzadziej dziedzin starszych lub wymagających większego wysiłku fizycznego, szczególnie podczas badań terenowych. Łącznie w ciągu 100 lat istnienia czasopisma kobiety opublikowały 52,49% wszystkich artykułów.

Większość tekstów zamieszczonych w *ASBP* była dziełem polskich autorów (85,6%). Znacznie mniej (10,8%) było napisanych wspólnie przez autorów afiliowanych w Polsce i poza nią. W ciągu minionego stulecia najwięcej autorów zagranicznych pochodziło z USA (52), Chińskiej Republiki Ludowej (51) oraz Indii (48). W okresie międzywojennym wśród instytucji podawanych jako miejsce afiliacji dominuje Uniwersytet Warszawski (118 autorów), po nim jest Uniwersytet Jagielloński (80) i Uniwersytet Poznański (51), a po II wojnie światowej najwięcej artykułów dostarczono z Uniwersytetu Wrocławskiego (317), Uniwersytetu Warszawskiego (296) i Uniwersytetu Jagiellońskiego (276). *ASBP* poza Polską było najczęściej cytowane przez autorów afiliowanych w USA (883 cytacje), następnie w Wielkiej Brytanii (826) i Chińskiej Republice Ludowej (822).

W ciągu stulecia działalności czasopisma zdecydowanie dominowała tematyka związana z fizjologią roślin (36,7% wszystkich artykułów), nieco rzadsza była biochemia (22,9%). Jednakże ostatnie 12 lat zdominowała tematyka ekologiczna. Dewizą polskich botaników było do niedawna publikowanie swych przełomowych odkryć w pierwszej kolejności w Polsce. Stąd właśnie w *ASBP* ogłoszone zostały kanoniczne wyniki badań Wacława Gajewskiego nad cytogenetyką i ewolucją rodzaju *Geum*, w *ASBP* ukazał się pierwszy na świecie opis chimery peryklinalnej u nagozalążkowych. Tutaj Zygmunt Hejnowicz przedstawił odkrycie kambialnych fal morfogenetycznych, a Tomasz Wodzicki model transportu auksyny, wyprzedzający modele światowe o niemal dekadę. Tu opublikowano jeden z pierwszych na świecie tekstów poświęconych grzybom naporostowym. Nie wydrukowano natomiast żadnego artykułu z zakresu pseudonaukowej tematyki tzw. nowej genetyki radzieckiej, czyli łysenkizmu.

ASBP – czasopismo Polskiego Towarzystwa Botanicznego – w ciągu minionych stu lat przeszło długą drogę: od periodyku

lokalnego towarzystwa naukowego do czasopisma o znacznym prestiżu na arenie międzynarodowej.

Keywords: *Acta Societatis Botanicorum Poloniae, historia botaniki w Polsce, czasopisma botaniczne, bibliometria, autorzy, kobiety w botanice, afiliacje, analiza cytacji, tematyka*

1. Introduction

Polish botanical or general-nature journals available to botanists are rarely the subject of historical studies. Exceptions include *Pamiętnik Fizjograficzny* and *Wszechświat*, whose botanical content was described in historical terms.¹ The Polish Botanical Society's serial publication "Monographiae Botanicae" includes a study of its history on the occasion of its sixtieth anniversary,² *Acta Palaeobotanica* features short notes for its fiftieth anniversary,³ and the world's oldest forest journal, *Sylvan*, has an outline of its development on the occasion of its bicentennial.⁴

Acta Societatis Botanicorum Poloniae (hereinafter: *ASBP*) is the oldest and longest-published journal of the Polish Botanical Society (hereinafter: PBS) (in Polish: Polskie Towarzystwo Botaniczne). Historical information about this periodical has so far appeared only in a few contributions. The monograph published on the occasion of the 50th anniversary of PBS includes a chapter on the publishing activities of the Society, including some data about *ASBP*.⁵ The issue of *Wiadomości Botaniczne*, another PBS journal, dedicated to the sixty-fifth anniversary of PBS, supplements the information from the aforementioned chapter with subsequent 15 years.⁶ The centenary of PBS, celebrated in 2022, provided an opportunity to publish a monograph of the Society, which includes a brief outline of the history of *ASBP*.⁷ In 2023, on the occasion of the journal's centenary, a commemorative note was published, largely devoted to the future plans of its new editors.⁸ As evident, there has been no comprehensive study dedicated to the history and development of the *ASBP* journal, including the evolution

¹ Majewski 2005.

² Czyżewska, Lipnicki 2012.

³ Stuchlik 2010; Ziąja, Stuchlik, Nalepka 2010.

⁴ Grzywacz 2020.

⁵ Gajewska 1972.

⁶ Olaczek 1986.

⁷ Mikuła, Górecka 2022a.

⁸ Sawicki, Nobis, Krawczyk 2023.

of its form and content. This article aims to fill this gap, and the journal's centenary presents an excellent opportunity to do so.

2. An Outline of the History of European and Polish Nature/Botanical Journals

A scientific journal is a type of periodical dedicated to the preservation and dissemination of scientific research results. They originated in Europe in the 17th century as a hallmark of the scientific revolution of that era. Initially, these journals were published by academies of sciences.⁹ Among the oldest journals of this type are *Journal des sçavans* in France and *Philosophical Transactions of the Royal Society* in England, both published since 1665.¹⁰ Another notable example is *Miscellanea Curiosa Medico-physica Academiae Naturae Curiosorum*, which has been published continuously in Germany since 1670 and holds the distinction of being the first scientific natural and medical journal in the world.¹¹ In the second half of the 18th century, journals devoted specifically to botany began to emerge. The oldest of these is *Curtis's Botanical Magazine*, which has been published since 1787, initially under the title *The Botanical Magazine*.¹² In Germany, one of the older publications of this type is *Flora oder Botanische Zeitung welche Recensionen, Abhandlungen, Aufsätze, Neuigkeiten und Nachrichten, die Botanik betreffend, enthält*, published since 1818 in Regensburg.¹³ In Russia, the first botanical journal was *Materialy k' blizhaishemu poznaniu proziabaemosti Rossijskoj Imperii* (*Beiträge zur Pflanzenkunde des Russischen Reiches*), published between 1844 and 1859.¹⁴

In the mid-19th century, three types of scientific journals could be distinguished: (i) general, covering all fields of knowledge, (ii) semi-general, dedicated mainly to mathematics and natural sciences, and (iii) specialized, dedicated to particular disciplines.¹⁵ Examples of publications belonging to the third group and devoted to botany, which began to be published in the second half of the 19th century, include *Kew Bulletin*,

⁹ Kryszewski 2024.

¹⁰ *Encyklopedia PWN* contributors 2024a; *Encyklopedia PWN* contributors 2024b.

¹¹ Leopoldina 2024.

¹² Rix 2024.

¹³ Leussink 1981.

¹⁴ Lipshic, Vasil'chenko 1968.

¹⁵ Kryszewski 2024.

published since 1887 by the Royal Botanical Gardens in Kew, and *International Journal of Plant Sciences*, published since 1875 in Chicago,¹⁶ United States of America. In the 19th century, Poland was occupied by partitioning powers, thus Polish botanists had access only to their journals. It was especially Austria that played an important role in the development of botanical journals then available in the Polish lands.¹⁷ These included, among others, *Verhandlungen des zoologisch-botanischen Vereins in Wien* published since 1852 and renamed in 1858 as *Verhandlungen der kaiserlich-königlichen zoologisch-botanischen Gesellschaft in Wien*,¹⁸ and *Oesterreichisches botanisches Wochenblatt*, published since 1850 and renamed in 1858 as *Oesterreichische botanische Zeitschrift*. Practically every local scientific society had its own journal at that time, resulting in a large number of publications. Examples include *Verhandlungen des Botanischen Vereins für die Provinz Brandenburg und die Angrenzenden Länder* published in Berlin (Prussia, now Germany) since 1859, and *Verhandlungen des naturforschenden Vereines in Brünn*, published since 1861 in Brünn/Brno (now in the Czech Republic), which in 1866 published Gregor Mendel's (1822–1884) later famous article on plant hybrids.¹⁹ In the Habsburg monarchy, at the beginning of the 20th century, individual nations under their rule began publishing their own botanical journals. Examples include the Hungarian *Magyar Botanikai Lapok*, published since 1902, and *Preslia*, published since 1914 by the Czech Botanical Society and named after the outstanding Czech botanists, brothers Jan Svatopluk Presl (1791–1849) and Karel Bořivoj Presl (1794–1852).²⁰ Further evolution of European botanical journals led to increasingly narrower specialization. Examples include *Journal of Experimental Botany*, published since 1950 by the Society for Experimental Biology and Oxford University Press (Great Britain),²¹ *Environmental and Experimental Botany*, published since 1961 and currently by Elsevier (Amsterdam, with the current editor at the University of Barcelona),²² *Aquatic Botany*, published since 1975, also by Elsevier, with one

¹⁶ Initially under the title *Botanical Bulletin*.

¹⁷ Compare: Szymkiewicz 1925.

¹⁸ N.N. 1877; Glickhorn 1951, pp. 9, 12, 13.

¹⁹ Mendel 1866.

²⁰ CzBS 2024.

²¹ Wikipedia contributors 2024e.

²² Wikipedia contributors 2024c.

of the editors-in-chief at the University of Lorraine (Nancy, France),²³ and *Vegetation History and Archaeobotany*, published since 1992 by Springer in Wilhelmshaven (Germany).²⁴ Since the 1980s, scientific journals have increasingly been published in electronic versions.²⁵

The oldest societies in Poland, such as Sodalitas Litteraria Vistulana operating in Kraków from 1489 to 1491 and Societas Litteraria operating in Gdańsk from 1720 to 1727, did not publish their own journals. The first natural science periodical in Poland, *Versuche und Abhandlungen der Naturforschenden Gesellschaft*, was published in Gdańsk from 1747 to 1756 by the local natural society.²⁶ Subsequent scientific journals emerged with the establishment of new scientific societies: the Warsaw Society of Friends of Sciences (in Polish: Towarzystwo Warszawskie Przyjaciół Nauk), which published *Roczniki Towarzystwa Warszawskiego Przyjaciół Nauk* from 1802 to 1830,²⁷ and the Kraków Scientific Society (in Polish: Towarzystwo Naukowe Krakowskie), which intermittently published its *Rocznik* from 1817 to 1872 featuring several botanical papers.²⁸ In 1820, the first Polish nature journal, *Sylvan*, was created and continues to be published today.²⁹ Before World War I, 57 botanical works were published in the journal.³⁰ Additionally, several articles concerning plants were published between 1815 and 1829 in Wilno (now Vilnius, Lithuania) in periodicals: *Dziennik Wileński* and *Pamiętnik Farmaceutyczny Wileński*.³¹ Until the publication of the first issue of the annual *Sprawozdanie Komisji Fizyograficznej c.k. Towarzystwa naukowego Krakowskiego* in 1867,³² Polish botanists mainly published their studies in *Verhandlungen der k.k. zoologisch-botanischen Gesellschaft in Wien*, contributing 22 articles and notes.³³ With the commencement of *Sprawozdanie Komisji Fizyograficznej*, 189 botanical works

²³ Wikipedia contributors 2024a.

²⁴ Bittmann 2024.

²⁵ B.S.-K. [Barbara Sosińska-Kalata] 2017.

²⁶ Schumann 1893.

²⁷ Hryniewiecki 1951.

²⁸ Köhler 2004.

²⁹ Grzywacz 2020.

³⁰ Author's calculations based on: Szymkiewicz 1925.

³¹ Lichocka 1981.

³² Published until World War II under a title with various spelling variants; compare: Köhler 2004, p. 18.

³³ Szymkiewicz 1925.

were published in this journal until 1923, the year the first issue of *ASBP* appeared.³⁴

Several other Polish journals that published botanical articles were founded in the second half of the 19th century. The oldest of these was *Kosmos*, published since 1876 in Lwów (now Lviv, Ukraine) by the Copernicus Polish Society of Naturalists (in Polish: Polskie Towarzystwo Przyrodników im. Kopernika).³⁵ This publication featured longer floristic notes, review articles, as well as polemics and biographical articles about botanists. Initially, the floristic studies focused only on the areas of Galicia, but since 1889, data on the flora of the Russian partition were also included. *Pamiętnik Fizjograficzny* was published in Warsaw between 1881 and 1922, serving as an analogue to *Sprawozdanie Komisji Fizjograficznej*. Additionally, *Wszechświat* was published in Warsaw as a biweekly popular science journal from 1882 to 1914. Before the first issue of *ASBP* appeared, 146 articles and botanical notes had been published in *Kosmos*, 117 in *Pamiętnik Fizjograficzny*, and 174 in *Wszechświat*.³⁶

There is no comprehensive history of Polish biological journals available to date.³⁷ The following considerations are based on the author's own tally, which does not cover the entire complex issue. The development of Polish biological journals awaits a thorough modern study.

Over the hundred years of its existence, *ASBP* has operated in the evolving market of Polish biological and botanical journals. During the interwar period in Poland, various periodicals were available to botanists, published by the Polish Academy of Arts and Sciences³⁸ (in Polish: Polska Akademia Umiejętności), the Warsaw Scientific Society³⁹ (in Polish: Towarzystwo Naukowe Warszawskie) and the local scientific societies, such as the Poznań Society of Friends of Sciences (in Polish: Poznańskie Towarzystwo Przyjaciół Nauk) (*Prace Komisji Matematyczno-Przyrodniczej. Seria B, Nauki biologiczne*) and the Society of Friends of Sciences in Wilno (in Polish: Towarzystwo Przyjaciół Nauk w Wilnie) (*Prace Towarzystwa*

³⁴ Author's calculations based on: Szymkiewicz 1925.

³⁵ Górski 1981; Wójcik 1981; Wierzchowski 2016.

³⁶ Author's calculations based on: Szymkiewicz 1925.

³⁷ Więckowska 1966. In her article, Helena Więckowska mainly discusses socio-political, cultural, humanities and medical journals. Nature journals, including biological ones, are treated marginally there.

³⁸ Köhler 2004.

³⁹ Majewski 2001.

Przyjaciół Nauk w Wilnie. Wydział Nauk Matematycznych i Przyrodniczych. Travaux de la Société des Sciences et des Lettres de Vilnius. Classe des Sciences Mathématiques et Naturelles). Until World War II, at least 20 journals accepting botanical articles were published in Poland.

World War II interrupted the publication of Polish scientific periodicals. After the war, the journals of the Polish Academy of Arts and Sciences were reissued, with the exception of *Sprawozdanie Komisji Fizjograficznej*. These were published until approximately 1951–1952, when the Polish Academy of Arts and Sciences was forced to cease its activities by the state and party authorities.⁴⁰ A similar fate befell the publications of the Warsaw Scientific Society. However, some pre-war periodicals of other scientific societies continued, such as *Prace Monograficzne o przyrodzie Wielkopolskiego Parku Narodowego* by the Poznań Society of Friends of Science and *Ochrona Przyrody* published by the State Council for Nature Conservation (in Polish: Państwowa Rada Ochrony Przyrody). The establishment of new universities after World War II resulted in the appearance of their own publications. Examples include *Annales Universitatis Mariae Curie-Skłodowska* in Lublin and *Acta Universitatis Wratislaviensis. Prace botaniczne* in Wrocław, and *Zeszyty Naukowe Uniwersytetu Mikołaja Kopernika w Toruniu. Nauki Matematyczno-Przyrodnicze. Biologia* in Toruń. The oldest Polish University, the Jagiellonian University, also began publishing its botanical journal entitled *Zeszyty Naukowe Uniwersytetu Jagiellońskiego. Prace Botaniczne*. Similarly, new scientific societies started publishing their own journals, such as *Prace Wydziału Matematyczno-Przyrodniczego Łódzkiego Towarzystwa Naukowego* in Łódź. The establishment of the new Polish Academy of Sciences (in Polish: Polska Akademia Nauk) in 1951 led to the Academy publishing its own botanical serial publications, including *Fragmenta Floristica et Geobotanica*,⁴¹ *Acta Biologica Cracoviensia, ser. Botanica*, and *Acta Palaeobotanica*.

The division of botany into increasingly narrower specialties was reflected in the emergence, especially in the 1960s and 1970s, of Polish publications with a specialized focus. Examples include *Acta Biologica Cracoviensia, ser. Botanica* published since 1959, *Acta Palaeobotanica* available since 1960, *Acta Mycologica* published since 1965, and *Acta Physiologiae Plantarum* since 1978. The development of the Internet and widespread

⁴⁰ Hübner 1994.

⁴¹ It was published initially by the Polish Botanical Society.

access to it since the 1990s enabled publishing in electronic form. In Poland, first online periodicals appeared at the end of the 20th century.⁴² In total, after World War II, at least 60 journals available to botanists were published in Poland.

3. Origins of the Journal

Archival documents related to the establishment of the PBS and its interwar activities were destroyed during the Warsaw Uprising in World War II.⁴³ Therefore, the circumstances surrounding the founding of the oldest PBS publication can only be approximately reconstructed.

Between April 7 and 10, 1920, the Congress of Polish Science was held in Warsaw. The botanists participating in it decided to establish the Polish Botanical Society. On the last day of the Congress, a 13-person organizing committee was elected and tasked with preparing both the draft statute of the future Society and its journal. This is the first recorded mention of the planned journal. For almost a year, the committee showed little activity. The ongoing Polish-Soviet war⁴⁴ may have diverted the members' attention. The project was ready only in August 1921. Due to the slow progress, Władysław Szafer (1886–1970), professor of botany and director of the Botanical Garden of the Jagiellonian University,⁴⁵ and a member of this committee, developed a draft statute for the Kraków Botanical Society himself and sent the project to Polish botanists in January 1922. The statute included provisions for the Society to publish its own journal, with Dezydery Szymkiewicz (1885–1948) proposed as its editor. The steps taken to organize the Kraków Botanical Society accelerated the efforts to establish the Polish Botanical Society. At the founding Congress of the PBS, W. Szafer presented the Statute of the Kraków Botanical Society and the draft of its periodical as the draft statute and the journal for the PBS. Whether this project was adopted is unknown due to the lack of preserved archival sources. However, it is known that D. Szymkiewicz, who was proposed to be the editor of the Kraków Botanical Society's periodical,

⁴² B.S.-K. [Barbara Sosińska-Kalata] 2017.

⁴³ Mikuła 2022, p. 18.

⁴⁴ The war between the reborn Republic of Poland and the Russian Soviet Federative Socialist Republic.

⁴⁵ Köhler 2024e.

became the first editor of the PBS journal, *ASBP*.⁴⁶ It was intended to enable members of the Society to quickly publish research results and reach botanical centers in Poland and around the world.⁴⁷

4. Editors, Committees, and Editorial Boards

Over the past 100 years, more than a dozen botanists have served as editors-in-chief of *ASBP*.⁴⁸ Some served independently, while others worked as co-editors. As mentioned above, the first editor was Dezydery Szymkiewicz. When he took up this position in 1922, he was an assistant at the Botanical Institute of the Jagiellonian University. He obtained his doctorate in 1923, his *habilitation* in 1925, both at the Jagiellonian University, and later became a professor at the Lwów Polytechnic. After World War II, he continued his career at the Jagiellonian University, focusing mainly on plant ecology.⁴⁹ He served as an editor until 1930 and again from 1945 to 1947.⁵⁰ Kazimierz Bassalik (1879–1960), professor of plant physiology at the University of Warsaw, was the next editor and co-editor, serving from 1930 to 1937 and from 1945 to 1960, respectively.⁵¹ In the years 1938–1939, the editor was Kazimierz Piech (1893–1944), professor of plant anatomy and cytology at the Jagiellonian University.⁵² Between 1949 and 1980, Waław Gajewski (1911–1997), associated with the Botanical Garden of the University of Warsaw and later professor of genetics at the University of Warsaw, co-edited *ASBP*.⁵³ Henryk Teleżyński (1905–1989), professor from the Department of Plant Anatomy and Cytology at the University of Warsaw, was a co-editor from 1960 to 1977.⁵⁴ Subsequent editors included Bohdan Rodkiewicz (1925–1998), professor at the Department of Plant Anatomy and Cytology at the Maria Curie-Skłodowska University in Lublin, who served from 1980 to 1990⁵⁵; Stefan Zajęzkowski (1943–2024), plant physiologist, professor at the Department of

⁴⁶ Köhler 1995.

⁴⁷ Gajewska 1972, p. 20.

⁴⁸ Mikuła, Górecka 2022a, p. 71, table 6.1.

⁴⁹ Köhler 2013; 2015.

⁵⁰ Gajewska 1972.

⁵¹ Köhler 2024a.

⁵² Kapła 2024.

⁵³ Kapler 2024.

⁵⁴ Mularczyk 2024.

⁵⁵ Bednara 2024.

Forest Botany at the Warsaw University of Life Sciences, who edited the journal from 1991 to 1992; and Jerzy Fabiszewski (1936–2024), ecologist and lichenologist and professor at the Agricultural University of Wrocław, the journal's editor-in-chief between 1993 and 2010.⁵⁶ From 2010 to 2022, Professor Beata Zagórska-Marek from the Institute of Experimental Biology, University of Wrocław, became the first woman to hold the editor-in-chief position in *ASBP*.⁵⁷

At the same time as the first editor, the first editorial committee was also established.⁵⁸ It included eight botanists: the aforementioned Kazimierz Bassalik; Emil Godlewski (1847–1930), plant physiologist from the State Scientific Institute of Agriculture in Puławy and former professor of agricultural chemistry at the Jagiellonian University;⁵⁹ Bolesław Hryniewiecki (1875–1963), professor of systematics and plant geography and director of the Botanical Garden of the University of Warsaw;⁶⁰ Seweryn Krzemieniewski (1871–1945), professor of plant anatomy and physiology from the Jan Kazimierz University in Lwów;⁶¹ Bronisław Niklewski (1879–1961), professor of plant physiology and agricultural chemistry from the University of Poznań;⁶² Józef Rostański (1850–1928), professor emeritus of botany and history of biological sciences and botany at the Jagiellonian University;⁶³ the aforementioned Władysław Szafer; Piotr Wiśniewski (1884–1971), plant physiologist and professor of general botany at the Stefan Batory University in Wilno;⁶⁴ and Zygmunt Wóycicki (1871–1941), cytologist and professor of general botany at the University of Warsaw.⁶⁵

In 1952, the editorial committee was reorganized and section editors were appointed.⁶⁶ In 1957, an editorial board was established, judging by affiliation of its members, representing PBS local branches. It served as an advisory and opinion-giving body, co-responsible for the scientific quality

⁵⁶ *Wikipedia* contributors 2024d.

⁵⁷ *Wikipedia* contributors 2024b.

⁵⁸ Gajewska 1972, p. 21.

⁵⁹ Krzeptowska-Moszkowicz 2024a.

⁶⁰ Köhler 2024b.

⁶¹ Krzeptowska-Moszkowicz 2024b.

⁶² Köhler 2024c.

⁶³ Zemanek 2000.

⁶⁴ Köhler 2024f.

⁶⁵ Köhler 2024h.

⁶⁶ Gajewska 1972, p. 25.

of the journal.⁶⁷ Since 1978, the names of the editor-in-chief, members of the scientific council, and the associate editors have been published in each issue of the journal. In 2016, when *ASBP* switched to electronic-only publication, the names of the editorial team members were moved to the journal's website. Sometimes, with the changes of editors-in-chief, the address of the editorial office also changed. For the last three decades, the office has been located in Wrocław, continuing a tradition established by outstanding botanists who arrived there after World War II, such as professors Helena Krzemieniewska (1878–1966), Stanisław Kulczyński (1895–1975), Stefan Macko (1899–1967), Józef Mądalski (1902–1995), Henryk Teleżyński, and others.⁶⁸ After 1989, their successors from the University of Wrocław (Professor Beata Zagórska-Marek) and the Wrocław University of Environmental and Life Sciences (Professor Jerzy Fabiszewski) became involved in the work of *ASBP*. The secretaries have also played an important role in the editorial office's operations, with Dr. Jan Koniarek and Piotr Otręba, MSc being particularly distinguished in recent years.⁶⁹ The latter of them, in 2022, was awarded the Professor Bolesław Hryniewiecki medal for his services to the digital revolution in *ASBP* and in PBS.⁷⁰

5. Outline of the Changes in the Form of the Journal

Over the past one hundred years, a number of typography changes occurred in *ASBP*. Initially, the spine of an issue was 24 cm. The print was single-column, with a column consisting of 37 to 41 lines, and a line of 61 to 71 characters with spaces. Thus, about 2,600–2,700 characters with spaces could be fit on a page. From the very beginning, published articles contained tables, figures and photographs. The photographs were initially black and white. The first color figure was published in 1927.⁷¹ A year later, the first color phytosociological map was inserted.⁷² At that time, the cost of color printing was high, so in the following years color figures and photos were rarely published. Authors' affiliation was not always

⁶⁷ Olaczek 1986, p. 249.

⁶⁸ Chmielewski et al. 2007. Professor Beata Zagórska-Marek – personal communication [22 June 2024].

⁶⁹ Professor Beata Zagórska-Marek – personal communication [22 June 2024].

⁷⁰ PTB 2022a.

⁷¹ Skupieński 1927.

⁷² Dziubałtowski 1928.

given. Similarly, authors' first names were sometimes abbreviated to an initial. The name of the journal, the volume number, together with the issue number and the year were printed on the title page of each article in the upper left corner only starting with the 1st Issue of the 24th Volume (1955). Previously, these elements were printed on the title page of only the first article of the first issue of a given volume. Gradually, other typographic and bibliographic elements were added. The date of receipt of an article was given under the author's affiliation starting with the 1st Issue of the 40th Volume (1971), the date of acceptance – starting with the 3rd–4th Issue of the 52nd Volume (1983), and starting with the same issue keywords were also given. The height of the issue spine and other features described above were provided until the end of 1992, i.e. up to and including the 3rd–4th Issue of the 61st Volume.

When Jerzy Fabiszewski became editor in 1993, the layout of *ASBP* changed. From then on, it was published in Wrocław. The height of the spine was increased and from the 1st–2nd Issue of the 62nd Volume it was 30 cm. The print was double-column, a column consisted of 57 to 63 lines, and a line had 55 to 63 characters with spaces. Both of these changes resulted in a page having around 6,300–7,900 characters with spaces. Numerous photographs, long tables and large graphs constituted a significant part of the articles published at that time. Color photographs were published frequently starting with the 1st Issue of the 66th Volume in 1997. And starting with the 1st Issue of the 73rd Volume in 2004, the publication of summaries in Polish was discontinued.

Starting with 2010, under the guidance of the next editor, Professor Beata Zagórska-Marek, further changes were introduced. The publishing process was modernized, including the publication of thematic issues featuring articles by invited outstanding Polish and foreign scientists (Table 1). Efforts were also made to ensure the visual appeal of the covers of subsequent issues. Such efforts included the publication of artistic cover photographs of moss microstructures taken with the use of a fluorescence microscope by Magdalena Turzańska, winner of the international Nikon and Olympus photography competitions. A new electronic system was introduced which enabled the publication of articles on-line prior to their appearance in print. This system was associated with a change in the layout of the title page of articles. The title of each article was accompanied by the *ASBP* name placed above, while below there was space for the address of the journal's homepage, date of receipt, of acceptance, and electronic

publication, the pattern of citation and the DOI number. In the 3rd Issue of the 80th Volume (2011), a new cover design was used, and once more in the 1st Issue of the 82nd Volume (2013).

Table 1. Special thematic issues of *ASBP*

Year	Vol. (Issue)	Title	Guest editors of the issue
2012	81(4)	Ethnobotany of wild food plants	Łukasz Łuczaj
2014	83(4)	Evolution of plant cells	Andrzej Bodył and Beata Zagórska-Marek
2016	85(4)	Phyllotaxis and related topics	Beata Zagórska-Marek and Przemysław Prusinkiewicz
2018	87(4)	Polar terrestrial ecosystems: ecology, diversity, and biogeography	Bronisław Wojtuń and Michał Ronikier
2020	89(3)	Recent developments in taxonomy and phylogeny of plants	Agnieszka Popiela and Artita Molnár V.

Since 2011, articles have been published in open access and provided with appropriate metadata, which has made *ASBP* visible to global indexing systems. Ethical procedures have been implemented, as well as tools for checking the authenticity of articles (anti-plagiarism programs). *ASBP* has also become a model for other PBS journals which have followed its example and the Society, through its journal platform, has become a serious publisher.

In 2014, in the 1st Issue of the 83rd Volume, the *ASBP* logo was introduced, symbolizing the journal's continuity⁷³ (Figure 1). The unique arrangement of plant primordia used to design it had been considered impossible in nature.⁷⁴ It was in *ASBP* that its existence was documented for the first time in the world, with an image taken using a scanning electron microscope.⁷⁵ In a short time, the journal reached the editorial standards of many Western European and even global publications.

Starting with the 1st Issue of the 85th Volume (2016), *ASBP* began to be published only in electronic form.⁷⁶ In that issue, single-column

⁷³ Description of meaning – see: Zagórska-Marek 2014.

⁷⁴ Professor Beata Zagórska-Marek – personal communication [22 June 2024].

⁷⁵ Zagórska-Marek 1994.

⁷⁶ Mikuła, Górecka 2022a, p. 73.



Fig. 1. *ASBP* cover with logo (upper right corner)

printing was restored. The number of lines varied between 52 and 60, and the number of characters with spaces per line was between 76 and 85. With such parameters, there were between 3,900 and 5,100 characters with spaces per page. The layout of the title page of articles also changed. On the left margin, in a blue stripe, the following information was placed: DOI number, publication history (dates of receipt, acceptance and publication), name of the handling editor, author's contributions, funding, and the method of citation. The last change took place in 2021. In this year, the volumes of *ASBP* started to be published without a division into 4 issues.

In the following considerations, the number of pages – essentially the size of articles or volumes – is used as the basis for analysis. The topic of the size of individual articles in *ASBP* is quite difficult due to the lack of archival data on (i) the length of the text of articles submitted, (ii) the size of tables, (iii) the size of illustrations, graphs and photographs, etc. All of these elements affect the volume of an article. Additionally, the length of articles in different periods of *ASBP* history was influenced by the different page sizes. A detailed typographic analysis of *ASBP* is beyond the scope of this study. Therefore, it should be taken in mind that the number of pages of individual articles considered in the analyses is an approximation.

6. Number of Articles and Size of Individual Volumes

Between 1923 and 2022, 3,728 articles totaling 46,197 pages were published in *ASBP*. The scope and number of articles in individual volumes varied significantly. The smallest edition was the supplement to the 20th Volume, published in 1951, with only 79 pages, while the largest edition was the 11th Volume from 1934, with a total of 1,172 pages. In the years 1952–1989, the journal reached its largest scope in history (Figure 2), publishing 1,905 articles with a total of 26,016 pages (an average of 50.1 articles per year, or 13.6 pages per article). For comparison, in the interwar period, only 394 articles with a total of 7,288 pages were published (an average of 23.2 articles per year, or 18.5 pages per article). From 1990 to 2022, 1,312 articles with a total of 11,349 pages were published (an average of less than 40 articles per year, or 8.65 pages per article).

Several factors may have influenced the substantial scope of *ASBP* in the years 1952–1989. One factor was the cessation of publications by the Polish Academy of Arts and Sciences and the Warsaw Scientific Society, which had been issuing a significant number of botanical works, leading authors to submit their manuscripts to *ASBP*. Another factor was the increase in the number of botanists. According to the PBS membership records, the Society had only 508 members in 1951,⁷⁷ but the number more than doubled to 1,120 members by 1958.⁷⁸ Membership remained high in subsequent years, with 1,254 members in 1984 and 1,268 members in 1986.⁷⁹ From 1954 to 1990, the journal was financed and published by the Polish Academy of Sciences, with a limit of 60 publisher's sheets per year.⁸⁰ The combination of these factors contributed to the growth and maintenance of a relatively high volume of issued articles and pages. The following 20 years saw a reduction of *ASBP* volumes. This was due to the global trend of limiting the size of original scientific articles, the migration of Polish authors to foreign journals, a change in journal layout (see Chapter 5), and the publisher's financial difficulties during that period.⁸¹

⁷⁷ N.N. 1951/1952.

⁷⁸ N.N. 1958.

⁷⁹ Mikuła, Górecka 2022b, p. 580.

⁸⁰ Gajewska 1972, p. 25. The publisher's sheet is a unit of calculation used to determine the volume of the payload content (text and graphics) of a publication.

⁸¹ Mikuła, Górecka 2022a, pp. 72–73. Professor Beata Zagórska-Marek – personal communication [22 June 2024].

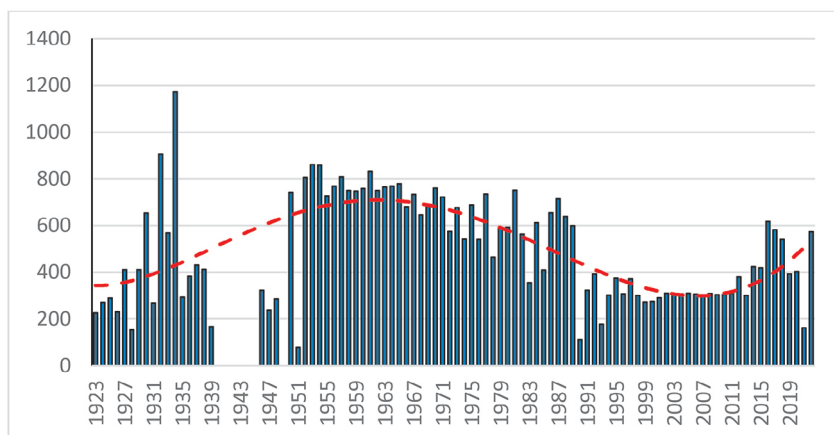


Fig. 2. Number of pages of individual volumes of *ASBP*. Red dashed line – trend line

Changes introduced since 2016 (described above) contributed to a temporary increase in the number of pages of the journal (Figure 2).

To date, an average of approximately 40.1 articles per volume have been published in *ASBP*. Individual volumes differed significantly in terms of the number of published works (Figure 3).

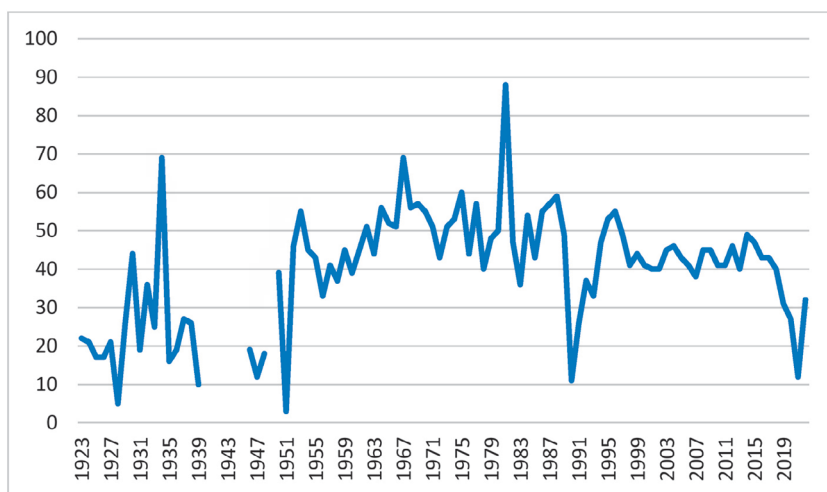


Fig. 3. Number of articles in individual volumes of *ASBP*

The fewest articles – three – were published in the supplement to Volume 20 from 1951, while the most articles – 88 – appeared in Volume 50 from 1981. This was due to the publication of extensive summaries of lectures

from the 6th International Symposium “Advances in Plant Cytoembryology,” which took place on June 6–8, 1980, at the Institute of Biology of the Maria Curie-Skłodowska University in Lublin.

The length of articles varied greatly over the past century. In the inter-war period, the longest average length was 30.4 pages in Volume 5 from 1928, while the shortest was 10.3 pages in Volume 1 from 1923. After World War II, the length of articles gradually decreased, reaching a minimum of less than 5.6 pages in Volume 63 from 1993. The average length of approximately six pages was maintained until the journal switched entirely to a digital format. Once paper constraints were removed, the length has started to increase (Figure 4).

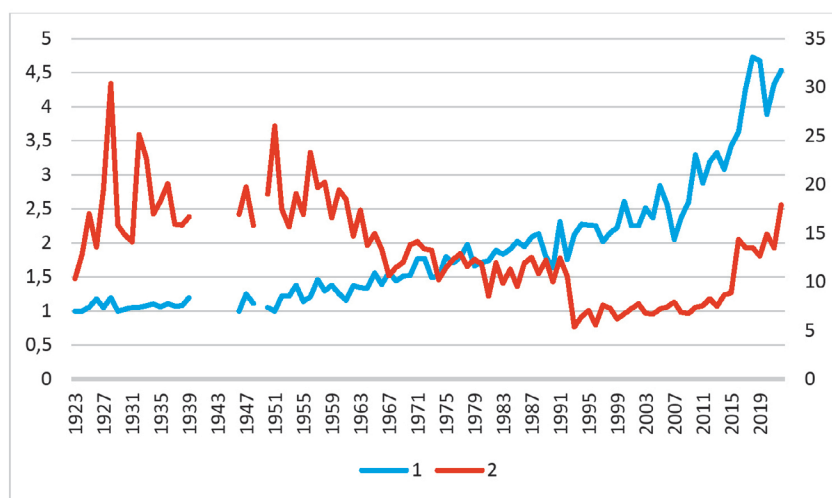


Fig. 4. *ASBP*: average number of authors per article (1) and average length (in pages) per article (2) in 1923–2022

7. Authors

7.1. General Information

ASBP published articles written by approximately 7,303 authors,⁸² with an average of 1.95 authors per article. Over the century in which the journal

⁸² No database of authors' names was created. The given number of 7,303 is the result of adding up the number of authors of individual articles. This means that the actual number of people is much smaller, because some of them published their articles in *ASBP* multiple times.

was published, a noticeable change occurred in the number of authors per article. In the interwar period, articles were most often single-authored. For approximately 25 years after World War II, the number of co-authors increased slowly, initially almost arithmetically, reaching an average of 2 authors per article for the first time in 1978. From the mid-1980s, the number of co-authors has increased almost geometrically (Figure 5).

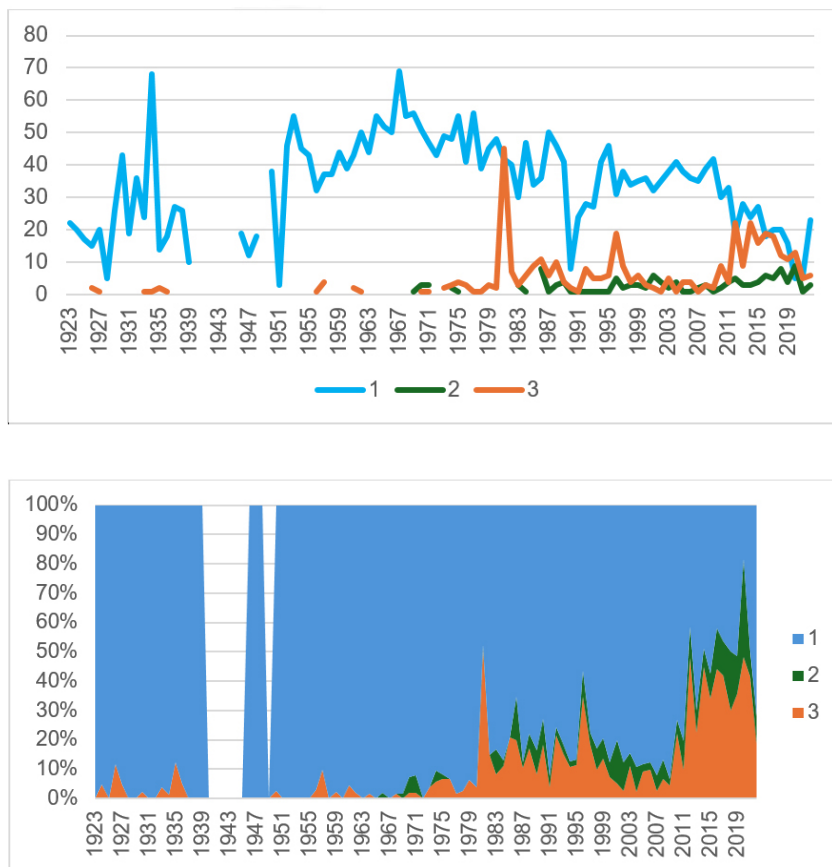


Fig. 5. Articles by Polish and foreign authors in individual volumes of *ASBP*.

A – in absolute numbers (1 – articles by Polish authors, 2 – articles by foreign authors, 3 – articles co-authored by Polish and foreign authors).

B – percentage share (1, 2, 3 – as above)

Of all the 3,728 articles, 3,193 (85.6%) were by authors from Poland, 401 (10.8%) by foreign authors, and 134 (3.6%) were co-authored by

Polish and foreign scientists. Until 1973, articles by authors from other countries were a rarity in *ASBP*.

The number of articles by Polish authors has been declining since the mid-1960s. During that time, the emergence of Polish journals with more specialized focuses than *ASBP* likely drew authors away to those publications. The decline became more pronounced after 2009, which could be attributed to the policy introduced by the Ministry of Science and Higher Education of the Republic of Poland. This policy assigned scores to journals based on their perceived “rank” or “prestige” and provided subsidies for Polish authors to publish in high-scoring journals, which particularly promoted foreign publishers.⁸³ These points obtained for publications in promoted journals were used to evaluate both individual scholars and entire scientific institutions. Unfortunately, *ASBP* was receiving relatively low scores: 13 points in 2010 (while top journals like *Nature* received 40 points, increasing to 50 points in 2012–2016), 25 points in 2016,⁸⁴ 40 points in 2019 (compared to 200 points for a publication in *Nature*),⁸⁵ and finally 70 points in 2021 (*Nature* remained at 200 points).⁸⁶ These low scores likely caused Polish authors to favor higher-scoring journals owned by foreign publishers. Consequently, the proportion of articles by foreign authors increased significantly, surpassing those by Polish authors for the first time in 2012, making *ASBP* a fully international journal. The decision in 2011 to adopt an “open access” model, allowing unlimited access to articles, also played a role in this shift. This was a risky move, as some foreign journals in this model often published low-quality scientific works. The issue was highlighted by John Bohannon, the editor of *Science*, in an experiment where he submitted a fictitious article with implausible results to numerous journals worldwide.⁸⁷ The *ASBP* editorial office rejected the manuscript during the initial review, while many other journals, including those from reputable publishers like Wolters Kluwer and Elsevier, accepted it for review and came close to publishing it.⁸⁸

⁸³ Professor Beata Zagórska-Marek – personal communication [22 June 2024].

⁸⁴ PCsearch 2017.

⁸⁵ MNiSzW 2019a; 2019b; MEiN 2021b.

⁸⁶ MEiN 2021a.

⁸⁷ Bohannon 2013.

⁸⁸ Professor Beata Zagórska-Marek – personal communication [22 June 2024].

7.2. Women Authors and Co-Authors

Women's participation in science has become an increasingly attractive research issue. By the time the first issue of *ASBP* was published in 1923, women in Poland had already had the right to study at universities for almost 30 years and they eagerly took advantage of this right. For example, the first women begun studying at the Jagiellonian University in 1894,⁸⁹ and by the academic year 1917/1918, they constituted almost 25% of all students at this University.⁹⁰ Soon they began to ascend the ranks of the university hierarchy. Jadwiga Wołoszyńska (1882–1951), a specialist in phycology and hydrobiology, was one of the first women in Poland to receive a professorship at the Jagiellonian University in 1932.⁹¹ The following considerations apply only to Polish authors. Foreign authors were excluded due to the frequent difficulty of determining their gender based on their given names (often only initials) and family names. Additionally, a dozen individuals from Poland whose gender could not be identified based on their family name were also excluded from these considerations.

Articles authored by women were published in *ASBP* from the very beginning, totaling to 1,964 works. The first woman whose article was published in *ASBP* (in Vol. 1, Issue 2 from 1923) was Wanda Heitzmanówna (1900–1978), then a student at the Jagiellonian University. In 1925, she defended her doctoral thesis and obtained a position as a senior assistant at the Department of Botany, Faculty of Agriculture at the Jagiellonian University. After marrying the botanist Jan Zabłocki (1894–1978), she took his surname. She later became an assistant professor at the Jagiellonian University, and, after World War II, a full professor at the Nicolaus Copernicus University in Toruń.⁹²

In the interwar period, no article co-authored by Polish and foreign authors was published. Among the 410 articles from Poland published in that period, 109 (including 12 co-authored by women and men) were published by women from Poland, constituting almost 26.6%. These articles had 112 authors (out of all 438 authors from Poland). Thus, women accounted for 25.6% of the authors from Poland. Issue 1 of Volume 4, published in 1926, saw the first article co-authored by a woman. The first multi-authored article written exclusively by women was published in 1934

⁸⁹ Perkowska 1994; Sikora 2007, p. 254.

⁹⁰ Perkowska 1994, p. 36.

⁹¹ Köhler 2024g.

⁹² Köhler 2024i.

(Vol. 11, Issue 4), 9 years after the first one written exclusively by men (Vol. 3, Issue 1). The majority of articles were in Polish (84 articles), followed by French (13 articles), German (11 articles), and Latin (one article). In the interwar period, articles authored or co-authored by women mainly covered plant physiology (34 articles), followed by cytology (23 articles) and microbiology (20 articles).

After World War II, the issue of female authorship became more complex due to the significant share of multi-authored publications and authors of different origins (Polish vs. foreign). Additionally, especially toward the end of this period, there was a phenomenon of simultaneous affiliation with Polish and foreign institutions. For this reason, the data given below, unlike those from the interwar period, are an approximation, though a small one.

In the post-war period, out of 2,969 articles by Polish authors, the number of works authored by women only was 1,014, and 841 articles were co-authored with men, accounting for 62.48% of all articles from Poland published in this period. For the first time in 1956, more than half of the published articles from Poland were authored by women. Since then, this share gradually increased, reaching its maximum in 2015, before starting to decline (Figure 6).

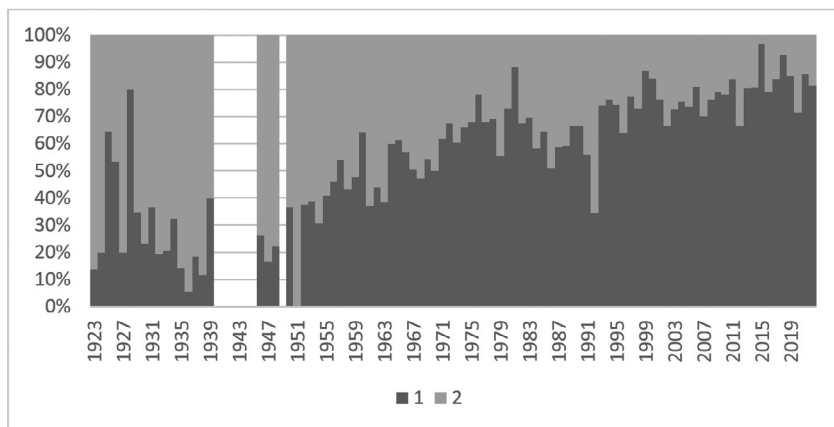


Fig. 6. *ASBP*: percentage of articles authored and co-authored by women (1) compared to other articles from Poland (2)

The pattern of female authorship in *ASBP* presents a slightly different perspective. Over the journal's hundred-year history, 2,892 women have

been identified among the authors, with 2,780 from the articles published after World War II (compared to 4,292 men overall, and 3,966 men post-war). The number of women authors was increasing steadily until 2016, with a rapid decline since (Figure 7). Interpreting this sudden decline is currently challenging due to the short time frame. It is possible that the state's scoring system established with a view to evaluation of the scientific periodicals significantly influenced the number of women publishing in *ASBP*, similar to its impact on the overall number of authors. Moreover, the substantial increase in the share of foreign authors in recent years, whose numbers were not specifically analyzed in this context, may also have played a considerable role.

Articles authored or co-authored by women were distinguished by several features. The first notable feature was length. In the interwar period, these articles were significantly longer: on average, articles authored or co-authored by women had 19.03 pages, compared to the overall average of 17.35 pages. In the post-war period, the average length of articles by women was slightly shorter than the overall average, with 11.56 pages compared to 11.76 pages. Thus, in the interwar period, there were 0.97 articles and 18.52 pages per woman author, whereas in the post-war period, these figures stood at 0.66 articles and 11.56 pages, respectively. This indicates that for each woman author, there were almost half as many articles and nearly a third fewer pages than before World War II. These proportions may be related to the rapidly growing number of co-authors per article after

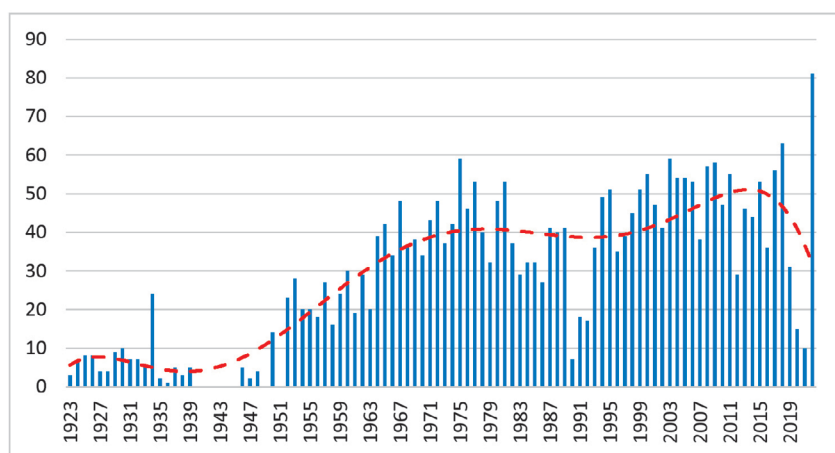


Fig. 7. Number of women authors in particular years; red dashed line – trend line

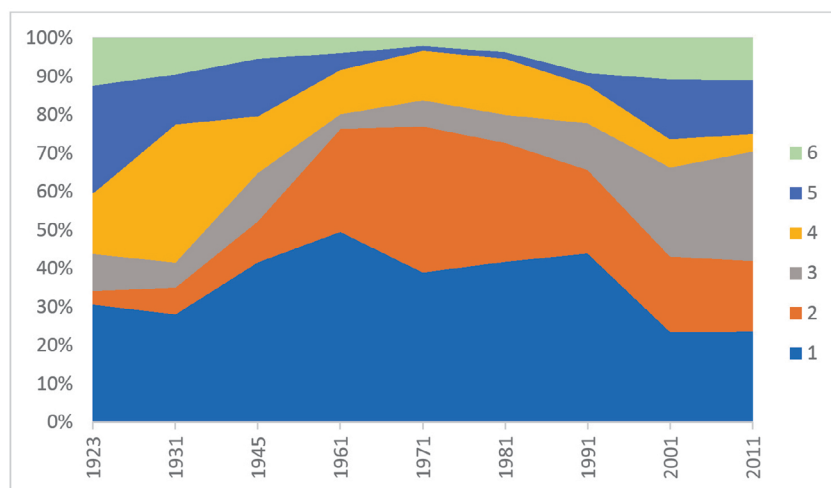


Fig. 8. Topics of articles in *ASBP* in 1923–2022 represented by the 6 most important fields: 1 – physiology, 2 – biochemistry, 3 – ecology, 4 – cytology, 5 – floristics, 6 – morphology

World War II. The number of co-authors per article increased as follows: 1.08 in the 1950s, 1.26 in the 1960s, 1.4 in the 1970s, 1.34 in the 1980s, 1.51 in the 1990s, 1.7 in the 2000s, 1.99 in the first decade of the 21st century, and as many as 2.79 in the 2020s. This trend likely reflects increasing specialization in the field.

Articles written by women, accounting for 52.49% of all articles published in *ASBP*, presented distinct patterns in terms of topic coverage. Women did not choose all research topics equally. Subjects with a higher proportion of articles authored by women, indicating a preference, included: karyology (67.8%), cytology (62.4%), anatomy (61.9%), biochemistry (61.9%), microbiology (59.7%), phytopathology (59.6%), phycology (58.5%), ecology (58%), embryology (56.7%), morphology (56.7%), physiology (56.5%), and biometry (52.3%). Conversely, subjects chosen less frequently by women included: lichenology (52%), genetics (50.7%), dendrology (49.4%), paleobotany (48.4%), floristics (48.3%), mycology (47.3%), systematics (44.9%), pteridology (44.1%), phytogeography (43.7%), histology (41.7%), bryology (37.7%), phytosociology (35.9%), history of botany (21.3%), and ethnobotany (4%). The first group predominantly includes newer, laboratory experimental fields and those that have developed more rapidly over the last century. In contrast, the second group comprises more traditional disciplines, including those that require significant physical effort, particularly during field research.

8. Affiliation Distribution Pattern

8.1. Affiliations of Foreign Authors

The diversity of author affiliations indirectly reflects the range of influence of a journal,⁹³ indicating its ability to attract scientists. The first article by a foreign author was published in 1924. It was written in German by a Hungarian botanist, eminent bryologist and long-time researcher of the Tatras' flora, Professor István Győrffy (1880–1959) from the University of Szeged.⁹⁴ His short study concerned the taxonomic and phytogeographic revision of a moss species in the Tatra Mountains. In the interwar period, the largest number of articles from abroad – seven – were from the United States; six of these were written by Antoni Kozłowski (1889–1957), who lived in the United States of America between 1923 and 1934⁹⁵ and likely sent them from there.⁹⁶

During the first 25 years after World War II, articles from abroad published in *ASBP* were relatively rare. Their authors came from various countries, including Barbados, Czechoslovakia (two articles), Denmark, Hungary (two articles), India, the Union of Soviet Socialist Republics (two articles), the United Kingdom, West Berlin, and Yugoslavia. Beginning in the early 1970s, there was a gradual increase in the number of articles by foreign authors and co-authors. In the first decade of this period, most authors were from India (35 authors, 17 articles), followed by the United States (six authors, three articles). Indian studies primarily examined the physiology and ecology of tropical trees, while research from the United States of America, often with the support of Polish botanists, focused on the physiology and biochemistry of certain useful plants. In the following decade, authors from these two countries predominated again, with 19 articles (of 38 authors) and 15 articles (of 35 authors), respectively. Papers by American authors continued the themes from the previous decade, as did those by authors from India, however, the latter extended into ecology. Additionally, foreign authors came from Czechoslovakia and the USSR (12 each), Japan (nine), Mexico (seven), and the United Kingdom (six), with individual contributions from other countries. In the last decade of

⁹³ An example of developing the geography of affiliation is shown in: Kwiek 2019.

⁹⁴ Domański 2024a.

⁹⁵ Domański 2024b.

⁹⁶ There is no affiliation in the articles. It was determined on the basis of the author's biography.

the 20th century, most authors came from Italy (11) and the United States of America (eight). The first decade of the 21st century saw the Czech Republic leading with eight authors, followed by Croatia and Slovakia with six authors each. The last 12 years have been characterized by a greater diversity of author affiliations than previously. Botanists from the People's Republic of China predominated (50), followed by the United States of America (21), the Czech Republic (20), and Turkey (17), with the remaining authors affiliated with institutions from 53 other countries.

Over the past century, most foreign authors came from the United States of America (52), the People's Republic of China (51), India (48), the Czech Republic (29), and Slovakia (25). These five countries represented almost 40% of all foreign authors, with the 65 countries accounting for the rest.

The pattern of foreign affiliations of authors publishing in *ASBP* over the past century illustrates the gradual evolution of the journal's global reach. Initially, in the interwar period, articles by foreign authors were scarce, and most had some connection to Poland, either through the author's origin or the geographical location of the study object. After World War II, during the Cold War, Poland maintained closer contacts with developing and Third World countries. The significant participation of authors from those countries may result from Polish policy at that time, such as scholarships granted to study in Poland.⁹⁷ The rapid increase in the number of foreign authors over the last 12 years may be attributed to the journal's transition to digital form, the policy of inviting articles for thematic issues,⁹⁸ and the rapidly developing People's Republic of China, from which most foreign authors now come.

8.2. Affiliations of Polish Authors

Due to significant differences in Poland's geography before and after World War II, the diversity of affiliations of Polish authors in *ASBP* in each of these periods will be presented separately.

In the interwar years, providing affiliation was not required. Therefore, for many authors, their affiliations were established based on their biographies in the *Biographical Dictionary of Polish Botanists*.⁹⁹ The affiliations

⁹⁷ Zięba 2010.

⁹⁸ Professor Beata Zagórska-Marek – personal communication [24 June 2024].

⁹⁹ Köhler 2024d.

of the authors of only two articles could not be determined. In the inter-war period, the University of Warsaw (118 authors) dominated in author affiliations, followed by the Jagiellonian University (80) and the University of Poznań (51). Due to the concentration of scientific institutions in Warsaw, most authors came from this city (172 authors), with fewer from Kraków (82) and Lwów (66). These numbers may reflect the scientific potential of individual botanical centers in Poland at that time. Notably, nine articles were written by botanists who were not employed in any scientific institution.

Botanists who published articles in *ASBP* after World War II were from 109 different institutions (here, individual institutes of the Polish Academy of Sciences are considered as separate institutions, and institutions that changed their names are considered as the same institution). Most articles were submitted by authors from the University of Wrocław (317 articles), the University of Warsaw (296), and the Jagiellonian University (276). Table 2 shows the number of articles published by botanists from the 14 most prolific institutions, with their authors contributing a total of 2,335 articles, accounting for almost 72% of all works published in *ASBP* by authors from Poland.

In the first decade after World War II, most articles originated from the oldest botanical institutions that had suffered the least damage during the war. In the following decade, the University of Łódź showed extraordinary activity, especially compared to other universities established at the same time. The period from 2010 to 2022 is marked by an increase in the diversity of affiliation institutions. These institutions were not limited to universities, as in the past, but also included the management boards of national parks (e.g., Pieniny National Park), local scientific societies (e.g., Zamość Natural Society), companies (e.g., EKOPROJEKT Environmental Survey Laboratory, A–Z Medica), and even a few independent scholars.

Polish botanists who published in *ASBP* included such outstanding scientists of the older generation as Bolesław Hryniewiecki (24 articles), Wacław Gajewski (17), Bogumił Pawłowski (1898–1971) (14), Helena Krzemieniewska (12), Władysław Szafer (10), Józef Mądalski (seven), Stanisław Tołpa (1901–1996) (four), Stanisław Kulczyński (one), and Józef Paczowski (1864–1942) (one article), among many others. With the advancement of experimental sciences in the post-war period, the journal featured articles by renowned botanists of the younger generation, such as anatomist Zygmunt Hejnowicz (1929–2016) (39 articles), physiologist

Table 2. The most common affiliations of Polish authors.

The greatest number of articles in each period is marked in bold underline typeface

Institution	1946–1959	1960–1969	1970–1979	1980–1989	1990–1999	2000–2009	2010–2022	Total
University of Wrocław (previously: University and Polytechnic in Wrocław)	42	42	<u>75</u>	56	30	31	41	317
University of Warsaw	53	43	71	<u>59</u>	21	27	22	296
Jagiellonian University	<u>107</u>	40	20	13	18	30	<u>48</u>	276
University of Łódź	31	<u>74</u>	62	33	18	15	8	241
Adam Mickiewicz University in Poznań (previously: Poznań University)	37	41	42	31	23	26	33	233
Warsaw University of Life Sciences	23	66	48	30	<u>32</u>	14	7	220
Polish Academy of Sciences since 1951 (hereinafter: PAS) – W. Szafer Institute of Botany in Kraków	21	15	10	29	9	26	25	135
University of Warmia and Mazury in Olsztyn (previously: Higher School of Agriculture, Institute of Biology and Environmental Protection of the Higher Pedagogical School in Olsztyn)	2	15	13	27	7	18	16	98
Maria Curie-Skłodowska University in Lublin	9	16	13	18	19	9	14	98
PAS – Institute of Dendrology in Kórnik (previously: Department of Dendrology and Pomology)	4	7	5	4	18	<u>39</u>	18	95

Table 2. Continued

Institution	1946–1959	1960–1969	1970–1979	1980–1989	1990–1999	2000–2009	2010–2022	Total
University of Silesia in Katowice (previously: Higher Pedagogical School in Katowice and a branch of the Jagiellonian University in Katowice)			6	32	16	17	12	83
University of Life Sciences in Poznań (previously: Higher School of Agriculture, Agricultural University)	18	7	2	3	11	25	17	83
Wrocław University of Environmental and Life Sciences (previously: Higher School of Agriculture, Agricultural University)	12	8	0	2	19	25	15	81
Nicolaus Copernicus University in Toruń	3	16	24	28	0	2	6	79

Tomasz Wodzicki (27), cytologist Maria Olszewska (1929–2011) (23), and embryologist Bohdan Rodkiewicz (19). At the same time, the esteemed traditions of pre-war Polish geobotany, nature conservation, and ecology were upheld by authors such as Jerzy Fabiszewski (13), Jan Kor-
 naś (1923–1994) (11), Zbigniew Mirek (11), and Halina Piękoś-Mirkowa (1939–2013) (five articles). Notably, until recently, Polish botanists adhered to the principle of publishing their groundbreaking discoveries first in Polish journals. Hence, the canonical results of Gajewski's research on cytogenetics and the evolution of the genus *Geum* were announced in *ASBP*,¹⁰⁰ becoming the foundation of world textbook literature. *ASBP* published the world's first description of a periclinal chimera in gymno-

¹⁰⁰ Gajewski 1958.

sperms.¹⁰¹ Additionally, Hejnowicz gained worldwide recognition for his discovery of cambial morphogenetic waves,¹⁰² while Wodzicki introduced an auxin transport model¹⁰³ that was nearly a decade ahead of international counterparts.¹⁰⁴

9. Citation Distribution Pattern

Apart from the pattern of authors' affiliations, the geographical distribution of citations is a very interesting issue from a historical perspective. It provides insights into the journal's impact on the scientific community both nationally and globally. Analyzing citation distribution offers information about the recipients of data published in *ASBP*, and indirectly about the journal's evolving influence over the years. This analysis was performed using data from the Web of Science database. Regrettably, this database includes data only for articles published since 1980.

Over the 44 years covered by the Web of Science database (with 2024 citations included only from the first 3 months), articles published in *ASBP* were cited 15,022 times. Most of these citations, namely 3,341, came from authors affiliated in Poland. This large share is entirely understandable, as *ASBP* has predominantly featured articles by Polish authors, who were subsequently cited by their peers within the same scientific community. A similar trend is observed with authors from China, where a significant increase in Chinese citations to *ASBP* occurred only after Chinese authors began publishing their works in the journal (Table 3).

As of the end of April 2024, since 1980, *ASBP* was most often cited outside Poland by authors affiliated in the United States of America (883 citations), followed by the United Kingdom (826 citations), the People's Republic of China (822 citations), Germany (542 citations), Italy (515 citations), India (476 citations), the Czech Republic (454 citations), Spain (417 citations), Turkey (376 citations), and Russia (340 citations). In terms of continents, *ASBP* was cited most frequently in Europe (6,294 citations), Asia (2,918 citations), and North America (1,301 citations).

¹⁰¹ Hejnowicz 1956.

¹⁰² Hejnowicz 1971; 1974.

¹⁰³ Wodzicki 1993.

¹⁰⁴ Zagórska-Marek 2013. Professor Beata Zagórska-Marek – personal communication [24 June 2024].

Table 3. 10. countries where articles from *ASBP* were cited most often.

The largest number was marked in each of the highlighted periods

Country	1980–1984	1985–1989	1990–1994	1995–1999	2000–2004	2005–2009	2010–2014	2015–2019	2020–2022 (–2023)	Overall
USA	16	39	59	52	75	88	96	233	175 (225)	883
UK	6	45	34	45	89	79	100	199	184 (229)	826
PR of China	0	0	4	5	13	43	94	246	310 (417)	822
Germany	0	9	22	26	33	41	72	157	129 (182)	542
Italy	1	16	10	15	25	45	60	147	143 (196)	515
India	1	13	19	19	18	34	61	120	144 (191)	476
Czech Rep.	–	–	1	3	26	50	85	138	104 (144)	454
Spain	0	1	10	20	20	24	54	134	114 (154)	417
Turkey	0	0	0	2	4	25	53	133	124 (159)	376
Russia	–	–	3	13	21	14	40	113	106 (136)	340

10. Linguistic Diversity of Articles

ASBP published articles in six languages, with the majority being in English (Table 4). The first English-language article was published in 1925 in the second Issue of Volume 3. Since 1973, English has been the exclusive language of the journal. Two articles in Czech were published in 1956 in the second Issue of Volume 26, one focusing on mycology and the other on physiology. Articles in French were published between 1923 and 1971. Most of them – 24 articles – addressed physiology and were made available in the journal between 1924 and 1968. Slightly fewer – 17 articles – covered ecology and were published from 1923 to 1957. Articles in Latin appeared between 1923 and 1964, with one concerning floristics and the others – systematics of plants and fungi. Articles in German were published between 1923–1938 and 1956–1970. Most of them – 12 articles published between 1929 and 1938 and again between 1956 and 1962 – focused on physiology. Meanwhile, 8 articles published between 1927 and 1938, and

1956 and 1959, concentrated on paleobotany. Polish language was used for articles published between 1923 and 1973. The majority of works in Polish – 263 articles from years 1923–1972 – focused on physiological issues, while 262 articles addressed floristics (131 articles published between 1923 and 1971) and biochemistry (131 articles published between 1927 and 1971).

Table 4. Language of articles published in *ASBP* in the years 1923–2022

	Language	Number of articles	%
1	Czech	2	0.05
2	English	2,659	71.33
3	French	91	2.44
4	German	60	1.61
5	Latin	9	0.24
6	Polish	907	24.33
	Together	3,728	100

11. Evolution of Content

ASBP published articles on various topics. To understand the journal's course of development, the content of each article was classified into 17 thematic areas (Table 5). When an article spanned through multiple areas, it was classified into each relevant category. Consequently, the total number of classifications exceeds the actual number of articles published. Throughout the journal's century-long history, articles related to plant physiology have predominated, with biochemistry being slightly less common.

Throughout the past century, the focus of articles has shifted (Figure 8). In the interwar period, cytology and physiology were the primary topics, covered in 106 and 104 articles, respectively. Specifically, articles on cytology explored the structure and function of various subcellular components in plants,¹⁰⁵ fungi,¹⁰⁶ and bacteria.¹⁰⁷ Meanwhile, physiological works ex-

¹⁰⁵ E.g. Lublinerówna 1925.

¹⁰⁶ E.g. Łopińska 1927.

¹⁰⁷ E.g. Krzemienievska, Krzemienievski 1928.

Table 5. Topics of articles in *ASBP*

Item	Branch of botany	Number of articles	%
1	physiology	1,368	36.7%
2	biochemistry	855	22.9%
3	ecology	453	12.1%
4	cytology	420	11.3%
5	floristics	304	8.1%
6	morphology	245	6.6%
7	taxonomy	176	4.7%
8	genetics	148	4%
9	embryology	141	3.8%
10	histology	139	3.7%
11	paleobotany	126	3.4%
12	karyology	118	3.2%
13	phytosociology	117	3.1%
14	anatomy	92	2.4%
15	history of botany	89	2.3%
16	ethnobotany	50	1.3%
17	phytopathology	47	1.2%

amined crop plants,¹⁰⁸ bacteria,¹⁰⁹ and slime molds.¹¹⁰ Notably, *ASBP* was among the first to publish an article on lichenicolous fungi globally.¹¹¹

In the post-war period, topics related to physiology dominated for the first 6 out of the 7 decades. During the initial period, as many as 156 articles addressed physiology,¹¹² discussing mycorrhiza¹¹³ and the effects of various chemical substances and physical factors on physiological processes¹¹⁴ in a wide range of organisms, including crops,¹¹⁵ trees,¹¹⁶ slime

¹⁰⁸ E.g. Golińska 1928.

¹⁰⁹ E.g. Ledenbaum 1930.

¹¹⁰ E.g. Skupieński 1933.

¹¹¹ Michalski 1937.

¹¹² E.g. Wojciechowski, Kuźdowicz 1939.

¹¹³ E.g. Dominik, Truszkowska 1947.

¹¹⁴ E.g. Gumiński 1950; Zurzycka, Zurzycki 1950.

¹¹⁵ E.g. Słabęcka-Szweykowska 1955.

¹¹⁶ E.g. Żelawski 1956.

molds,¹¹⁷ algae,¹¹⁸ fungi,¹¹⁹ and bacteria.¹²⁰ Floristics was the second most frequently represented subject until the end of the 1950s, with 56 articles, primarily on algae¹²¹ and fungi.¹²² This significant focus on floristics may have resulted from exploratory research in areas that were previously unavailable or insufficiently studied by Polish botanists before World War II, as well as studies on less known groups of organisms.

In the 1960s, physiology in *ASBP* dominated again, with 284 articles. These included a series of research on the development of slime molds¹²³ and various plants,¹²⁴ including trees,¹²⁵ ferns,¹²⁶ mosses,¹²⁷ and fungi.¹²⁸ Studies during this time were often focused on the physiology of crop plants,¹²⁹ which were not only relevant to increasing crop productivity, but readily available for examination. Biochemistry followed as the second most frequently represented research subject, with 153 articles investigating the properties,¹³⁰ synthesis,¹³¹ decomposition,¹³² activity¹³³ and role in various metabolic processes¹³⁴ in different plant species.

From the 1970s through the 1980s up to the 1990s, physiological and biochemical topics continued to dominate in *ASBP*, with 648 and 478 articles, respectively. Studies from previous periods were further refined, with physiological processes studied at the organismal, tissue, cellular, organelle, and molecular levels. Consequently, 175 articles combined physiological and biochemical research topics. Purely biochemical studies investigated

¹¹⁷ E.g. Skupieński 1954.

¹¹⁸ E.g. Starmach 1952.

¹¹⁹ E.g. Dominik, Truszkowska 1947.

¹²⁰ E.g. Janota 1956.

¹²¹ E.g. Słabęcka-Szweykowska 1953.

¹²² E.g. Zaleski, Domański, Wojciechowski 1948.

¹²³ E.g. Rakoczy 1961; 1963.

¹²⁴ E.g. Listowski, Jackowska 1965.

¹²⁵ E.g. Żelawski 1962; Kopcewicz 1970.

¹²⁶ E.g. Pietrykowska 1962.

¹²⁷ E.g. Szweykowska 1962.

¹²⁸ E.g. Ważny 1963.

¹²⁹ E.g. Strebeyko 1961.

¹³⁰ E.g. Łukasiak 1961.

¹³¹ E.g. Baszyński, Dudziak 1966.

¹³² E.g. Kostecka-Mądalska, Dziurzycka, Kudrewicz-Hubicka 1965.

¹³³ E.g. Dąbrowska, Kleczkowski, Reifer 1966.

¹³⁴ E.g. Czopek 1963.

free amino acids,¹³⁵ pigments in slime molds,¹³⁶ and the metabolism of various chemical compounds,¹³⁷ expanding upon research from earlier decades.

In the first decade of the 21st century, physiological topics remained dominant, although the number of articles covering this area of research decreased by almost 50% (from 209 to 106) compared to the period discussed previously. This period saw new study fields in *ASBP*, namely, species interactions,¹³⁸ thermodynamics of physiological processes,¹³⁹ and microreproduction.¹⁴⁰ For the first time, ecology almost matched physiology in the number of articles (104). Ecological research from this period included studies on soil seed banks,¹⁴¹ pollination ecology,¹⁴² population dynamics,¹⁴³ habitat variability,¹⁴⁴ and the structure and dynamics of plant communities.¹⁴⁵

In the last 12 years of the journal's history, ecological topics prevailed and were represented by 118 articles. New research issues were introduced into the ecology theme, however, they included the intersection of ecology and biochemistry,¹⁴⁶ invasive species,¹⁴⁷ habitats properties,¹⁴⁸ species diversity,¹⁴⁹ and population demography.¹⁵⁰ Plant physiology was already slightly less popular, appearing in 98 articles, often closely related to biochemical studies, examining stress factors¹⁵¹ and *in vitro* culture techniques.¹⁵² Importantly, the entirely new field of computer

¹³⁵ E.g. Ryczkowski 1971.

¹³⁶ E.g. Rakoczy 1971.

¹³⁷ E.g. Przybylska 1972.

¹³⁸ E.g. Werner, Idzikowska 2001.

¹³⁹ E.g. Pietruszka, Lewicka, Pazurkiewicz-Kocot 2006.

¹⁴⁰ E.g. Andrzejewska-Golec, Makowczyńska 2008.

¹⁴¹ E.g. Panufnik-Mędrzycka, Kwiatkowska-Falińska 2001.

¹⁴² E.g. Zych 2002.

¹⁴³ E.g. Brzosko 2002.

¹⁴⁴ E.g. Kłosowski 2002.

¹⁴⁵ E.g. Bąba 2003.

¹⁴⁶ E.g. Orczewska, Piotrowska, Lemanowicz 2012.

¹⁴⁷ E.g. Chmura et al. 2015.

¹⁴⁸ E.g. Kosiba 2004.

¹⁴⁹ E.g. Anioł-Kwiatkowska, Kącki 2006.

¹⁵⁰ E.g. Jermakowicz, Brzosko 2016.

¹⁵¹ E.g. KeLing et al. 2013.

¹⁵² E.g. Płazek, Dubert 2022.

modeling of developmental processes in plants and *in silico* materialized in *ASBP*.¹⁵³

Ethnobotany has been present in the journal since 1936, but was sporadic for almost 75 years.¹⁵⁴ However, the last 10 years have seen a surge, with 48 articles addressing issues such as the plant food of indigenous peoples,¹⁵⁵ folk medicinal plants,¹⁵⁶ and ethnobotanical knowledge.¹⁵⁷ The first thematic issue of *ASBP*, published in 2012 and edited by Professor Łukasz Łuczaj (Vol. 81, Issue 4), was devoted to the ethnobotany of wild food plants.

In the interwar period, articles on the history of botany primarily included biographies of late botanists.¹⁵⁸ After World War II and until the mid-1960s, memoir articles, written by Bolesław Hryniewiecki, continued this tradition. Later, the scope expanded to include more comprehensive publications, such as summaries of Polish botany in the years 1944–1974,¹⁵⁹ the history of *in vitro* cultures in Poland over 65 years,¹⁶⁰ and historical herbarium collections.¹⁶¹ On the occasion of the centenary of PBS, several articles on the achievements of Poland's botany were published in Volume 91 of the journal. Apart from botany, which historically also encompassed mycology and phycology, *ASBP* has occasionally published papers related to more distant scientific disciplines, such as philosophy¹⁶² and astrobiology.¹⁶³

12. Final Remarks

ASBP, the journal of the Polish Botanical Society, has evolved significantly over the past hundred years, transitioning from a local scientific society's periodical to a journal of considerable international prestige. Established

¹⁵³ Zagórska-Marek, Szpak 2016.

¹⁵⁴ Muszyński 1936; Łuka 1950.

¹⁵⁵ E.g. Svanberg, Ægisson 2012.

¹⁵⁶ E.g. Weijuan et al. 2016.

¹⁵⁷ E.g. Baránková 2022.

¹⁵⁸ E.g. Wiśniewski 1938.

¹⁵⁹ Szwejkowski 1974.

¹⁶⁰ Zenkteler, Zenkteler 2013.

¹⁶¹ E.g. Plewa, Köhler 2019.

¹⁶² Chmielewski 2012. Professor Beata Zagórska-Marek – personal communication [24 June 2024].

¹⁶³ Mautner 2014.

in the wake of the consolidation of the Polish botanists' community after the partition period, its initial purpose was to facilitate the exchange of research results. Over the years, its scope expanded, welcoming contributions from both outside the PBS and abroad. Despite often unfavorable circumstances, the editors managed the journal efficiently. Notably, the editors resisted political influence, as evidenced by the complete absence of the so-called new Soviet genetics (Lysenkoism), which was heavily propagated in Poland from the late 1940s by the state authorities and the Polish Academy of Sciences.¹⁶⁴ Another example is the 2022 decision of the journal's Editorial Board, in line with the resolution of the PBS Main Board, not to accept articles by Russian authors following the outbreak of a full-scale war against Ukraine.¹⁶⁵ This position was also adopted by editorial teams of all other serial publications issued by PBS.¹⁶⁶

Over the past century, the journal has published 3,728 articles, totaling 46,197 pages. The average length of an article decreased from 18.5 pages in the interwar period to 13.6 pages in the years 1952–1989 to 8.65 pages in recent years before the transition to an exclusively digital format in 2016; since then, article length has been increasing. Conversely, the number of authors per article has gradually increased after World War II, likely due to specialization among authors and the need to employ new research methods.

Most articles published in *ASBP* were authored by Polish scientists (85.6%). Fewer publications (10.8%) were written jointly by authors affiliated in Poland and abroad and works by authors affiliated solely outside Poland have been relatively rare (3.6%), though their number has been rising recently. The number of Polish authors has been decreasing since the mid-1960s, possibly due to the emergence of specialized journals focusing on narrower fields of botany. The significant decline since 2009 is likely due to authors moving to higher-scoring journals.

An analysis of foreign authors' affiliations has revealed that authors affiliated in the United States of America have been the most frequent contributors to *ASBP*, followed closely by authors from the People's Republic of China. Given the rapid increase in contributions from Chinese authors, they are likely to take the lead in the near future. In the interwar period, the majority of authors came from the University of Warsaw (118 authors),

¹⁶⁴ Köhler 2008; 2010.

¹⁶⁵ Professor Beata Zagórska-Marek – personal communication [24 June 2024].

¹⁶⁶ PTB 2022b.

and after World War II, from the University of Wrocław (317 authors). Citation analysis using the Web of Science database indicated that, outside of Poland, *ASBP* has been most frequently cited in the United States of America (883 citations).

Almost from the journal's inception, women have been publishing their articles in *ASBP*. In the interwar period, women authored 26.6% of the articles, and this proportion rose to 62.48% after World War II. Articles by women often focused on laboratory and experimental issues in younger, rapidly developing fields.

Many of the earliest works published in *ASBP*, particularly those from swiftly advancing fields, now primarily serve as historical references. Nevertheless, the published output of this flagship PBS journal will continue to gain value over time, serving as a testament to the progress of botany in Poland. It will undoubtedly become the subject of further analyses by botanical historians. Not all branches of botany have been equally represented in *ASBP* over time. Physiology has been the most frequently covered topic, followed by biochemistry in later years. The journal's focus on laboratory and experimental disciplines, especially physiology and biochemistry, and its openness to a diversity of research topics, have significantly contributed to its development, recognition in the global scientific community, and high standing in the scientific publishing market. The journal proudly reflects the dedication of its editors and the contributions of Polish botanists.

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