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Paweł Czenpiński (1755-1793): precursor of the Linnaean classification system in Poland

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Abstract: The article presents the results of the first comprehensive analysis of the zoological contributions of Paweł Czenpiński – the co-author of the first Polish zoology textbook. Paper highlights the crucial role of Czenpiński in promoting the Linnaean classification system within Polish and European scientific communities. In this context, his doctoral dissertation is revisited while its structure and contents are briefly described. Circumstances concerning the selection of Czenpiński for the correspondent member of the Société Royale de Médecine (Royal Medical Society) in Paris are discussed in the light of available documents. Furthermore, the context of the discovery and description of *Scotias psylloides* (CZENPIŃSKI, 1778) (Coleoptera: Ptinidae) is clarified. Finally, details on Czenpiński's work for the National Education Commission (KEN) and the Society for Elementary Books are provided, with an emphasis on his contributions to the first Polish zoology textbook published in 1789.

Key words: history of zoology, 18th century, reform of science education, Paweł Czenpiński, Commission of National Education, origins of Linnaean classification in Poland.

INTRODUCTION

The life of Paweł Czenpiński¹ has already been a subject of historiographic research. In the interwar period, his biography was compiled by MACIESZA (1923), while KOWALSKA (1987) included a biographic entry for him in the Biographical Dictionary of Polish Biologists. Czenpiński is most widely recognized for his work for the Society for Elementary Books (pol. *Towarzystwo Książ Elementarnych*) and participation in the development of textbooks, which together with development of the science curriculum for schools was the most important task of that institution (KOŁODZIEJCZYK 1936). As part of these activities, the first Polish zoology textbook entitled “*Zoologia czyli Zwierzętopismo, dla szkół narodowych*” was published in

¹ The following spelling of the surname is also encountered: Czempiniński or Czepiniński.



Fig. 1. Title page of the first Polish zoology textbook *Zoologia czyli zwierzętopismo dla Szkół Narodowych pierwszy raz wydane* (CZENPIŃSKI and KLUK 1789).

Ryc. 1. Strona tytułowa dzieła pierwszego polskiego podręcznika do zoologii *Zoologia czyli zwierzętopismo dla Szkół Narodowych pierwszy raz wydane* (CZENPIŃSKI i KLUK 1789).

1789 (Fig. 1). Progressive for its time, this resource included the Linnaean classification and nomenclature, which had been developed just a few decades before (LINNAEUS 1758, 1766). As the authorship of the textbook was not clearly specified, initially the exact contributions of Czenpiński and Krzysztof Kluk (1739-1796), who sent the first version of Zoology to the National Education Commission (pol. *Komisja Edukacji Narodowej*) (Fig. 2), were not clear. According to MACIESZA (1921) the primary version submitted by Kluk was later supplemented and corrected by Czenpiński. As of now, historians recognize both of these naturalists as co-authors of the abovementioned textbook (WAŁĘGA 2014). During his work on this publication, Czenpiński visited a wide variety of zoological collections including the one owned by Anna Jabłonowska (1728-1800) in Siemiatycze, Poland. Other available contributions picture Czenpiński not only as a medical doctor or zoologist, but also as an geologist. According to BRZEK (2007), in 1782 Czenpiński together with Jan Jaśkiewicz (1749-1809) conducted the first geological exploration of the Kraków and Sandomierz Voivodeships (Poland).



Fig. 2. A post stamp *National Education Commission*.

Ryc. 2. Znaczek pocztowy *Komisja Edukacji Narodowej*.

Despite the relative abundance of available historiographic contributions, a detailed analysis of zoological publications authored by Czenpiński has never been conducted. As such, the authors of this paper evaluated them in the context of 18th century zoology.

BACKGROUND

In 1772, Czenpiński probably started his medical studies in Vienna at Universität Wien (called also Alma mater Rudolphina). Although his official matriculation dates back to 1776, it seems improbable as in 1778 he defended his doctorate (MACIESZA 1923). It should be noted that at that time, dedicated natural science studies did not exist and a significant portion, if not most, of natural scientists were educated at medical faculties. The Viennese faculty of medicine (Medizinische Fakultät der Universität Wien) was just being reformed by Gerard Van Swieten (1700-1772) who was brought in from Leiden. However, the presence of another naturalist at that facility – Nikolaus Joseph von Jacquin (1727-1817) – was probably crucial for later development of Czenpiński's zoological interests. Specifically, von Jacquin was a scientist who befriended and frequently corresponded with Carl Linnaeus. Over 4,000 letters between these two naturalists have been catalogued so far (The Linnean Society of London <http://linnean-online.org/>). On the other hand, a close relation between von Jacquin and Czenpiński is also well-documented as both researchers conducted common trips to the Alps (JACQUIN 1778).

DOCTORAL DISSERTATION

In 1778, Czenpiński published his doctoral dissertation entitled: *Dissertatio inauguralis zoologico-medica, sistens totius regni animalis genera, in classes et ordines Linnæana methodo digesta, præfixa cuilibet classi terminorum explicatione, quam annuente inclyta*

facultate medica in antiquissima ac celeberrima Universitate Vindobonensi publicæ disquisitioni submittit Paulus de Czenpinski, nobilis Polonus Varsoviensis (Fig. 3). Only a few physical copies of this work existed, and thus at some point in the history this dissertation was hard to obtain. Even the library of the National Museum of Natural History in Paris – the largest natural history library in the world – lacks a copy of this work in its collections. In 1923, Maciesza described a single copy found by him in the University of Warsaw Library. It consisted of 122 numbered pages, with additional 16 unindexed ones in the beginning of the desertion and two ones at the end. The studied copy had a format of 21 cm x 13.5 cm, and a cover made of coloured paper. Maciesza also noticed a dedication to Prince Adam Czartoryski (1734-1823). According to the Sudoc catalogue, an additional copy of Czenpiński's dissertation is available in the collection of National University Library of

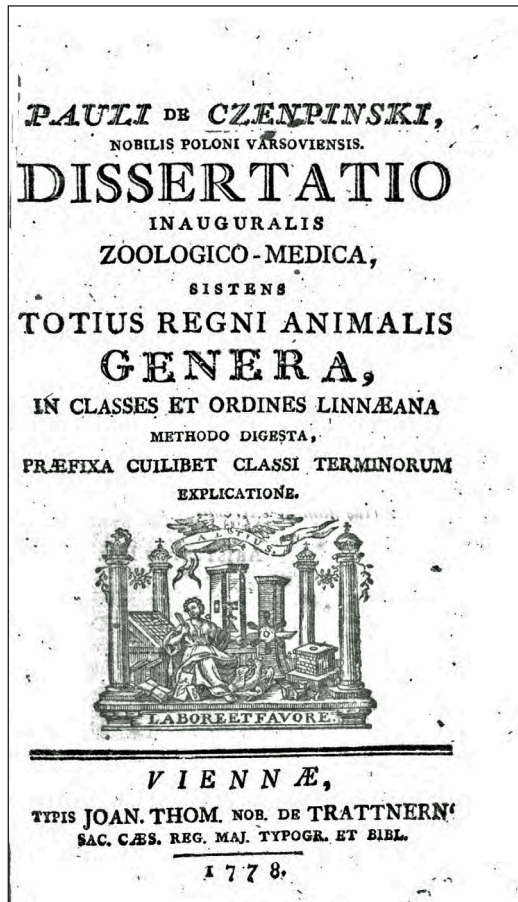


Fig. 3. Title page of the doctoral dissertation by Paweł Czenpiński in 1778: *Dissertatio inauguralis zoologico-medica, sistens totius regni animalis genera, in classes et ordines Linnæana methodo digesta, præfixa cuilibet classi terminorum explicatione, quam annuente inclyta facultate medica in antiquissima ac celeberrima Universitate Vindobonensi publicæ disquisitioni submittit Paulus de Czenpinski, nobilis Polonus Varsoviensis.*

Ryc. 3. Strona tytułowa rozprawy doktorskiej Pawła Czenpińskiego wydanej w 1778 roku: *Dissertatio inauguralis zoologico-medica, sistens totius regni animalis genera, in classes et ordines Linnæana methodo digesta, præfixa cuilibet classi terminorum explicatione, quam annuente inclyta facultate medica in antiquissima ac celeberrima Universitate Vindobonensi publicæ disquisitioni submittit Paulus de Czenpinski, nobilis Polonus Varsoviensis.*

Strasbourg. In Poland, a single copy can be found in the Princes Czartoryski Library (pol. *Biblioteka Książąt Czartoryskich*) in Krakow, which is not unexpected given close personal relations of Czenpiński and Prince Adam Czartoryski. Recently, Czenpiński's dissertation has been digitized (<http://resolver.sub.uni-goettingen.de/purl?PPN577844474>). The scanned copy, analysed by the authors of this paper, was the property of the prominent English naturalist Sir Joseph Banks (1743-1820).

Czenpiński's doctoral dissertation is a summarized overview of the classification system introduced by Linnaeus. Currently, the tenth edition of *Systema naturae* from 1758 is considered to be a starting point of the zoological nomenclature (ICZN 1999). However, Czenpiński based his work on the first volume of the twelfth edition from 1766, which at that time was the most recent version. In the introduction, Czenpiński presented a number of groundbreaking hypotheses that were essential discoveries of the 18th century zoology, such as the ones concerning embryonic development of animals, analogies of protozoa and sperm, animal nutrition and absorption, movement as an expression of life, differences between animals and plants, and organism regeneration. Czenpiński's work was supplemented by a number of important zoological contributions, including *Entomologie parisienne* (GEOFFROY 1762). Furthermore, the presentation of the Linnaean system was complemented by the addition of two fish genera – *Lepidopus* and *Lepadogaster* – described by Antoine Gouan (1733-1821) in his *Histoire des Poissons* (GOUAN 1770) and the genus *Antilope* described by Pallas in *Miscellanea zoologica* (PALLAS 1766). Additionally, Czenpiński described a monotypic genus of ptinid beetles (Coleoptera: Ptinidae) named *Scotias* and the type species *Scotias psylloides* – currently interpreted as *Gibbium psylloides* (CZENPIŃSKI, 1778). In the introduction of his thesis, Czenpiński suggested the authorship of *Scotias* should be given to Johann Jacob von Well: “*at in Insectis novum propono genus, à Celeb. Historiae natur. Profess. Iacobo de Well descriptum & Scotias vocatum*”. However, the data analysed here does not support this interpretation. During the time of Czenpiński's studies, Jacob von Well (1725-1787) was a professor of natural history in Vienna. According to JACQUIN (1778), together with Czenpiński and Jan Jaśkiewicz (1749-1809), Well conducted field studies of the fauna and flora of the Alpine Region in 1777. Analysed library catalogs, specialist literature (e.g. BOUSQUET 2016) and zoological bibliographies (e.g. Index Animalium Sherborn) does not provide any support that the authorship of *Scotias* should be given to Well. All verified sources point to Czenpiński. It is hereby hypothesized that maybe Well drew Czenpiński's attention to the morphological distinctiveness of the genus, and was later acknowledged in the dissertation. In 1803, Pierre-André Latreille (1762-1833) synonymised *Scotias* with *Gibbium* SCOPOLI, 1777.

THE AWARD

MACIESZA (1923) hypothesises that after obtaining his doctorate, the 23 year-old Czenpiński went on a scientific excursion, which was common among the naturalists at that time. Unfortunately, no historiographical data supporting this statement is available as the documentation on Czenpiński's life between 1778 and 1780 is scarce (MACIESZA 1923).

On September 25th, 1779, Czenpiński became a correspondent member of the Société Royale de Médecine (Royal Medical Society) in Paris. At that time of the election he was living in Warsaw (ANONYMOUS 1779). The query of the archives of the Medical Academy – an institution which currently holds the historic documents of the Société Royale de Médecine – did not return any specific data on the election of Czenpiński. It can be assumed that the prestigious title was given to him as a tribute to his doctoral dissertation.

The above described circumstances might suggest that between 1778 and 1780 Czenpiński visited Paris. However, another hypothesis on this subject is also possible. Namely, while the Linnaean classification was becoming more and more popular throughout Europe, in France it was accepted with great resistance (DURIS 1993). Its fierce opponent was the prominent steward of the Paris Jardin des Plantes, Georges Leclerc Buffon (1707-1788). Due to this ideological barrere, initially the Linnaean system gained supporters in research centers distributed outside of Paris (Montpellier and Lyon), and was only later introduced in the capital by Étienne-Louis Geoffroy (1727-1810). Given the ferocity with which the intellectual battle between Buffon and Geoffroy was fought it is possible to assume that the award given to Czenpiński was a strategic move used by the supporters of the Linnean revolution in increasing their revenue.

THE TEXTBOOK

After returning to Poland, Czenpiński devoted himself to work on textbooks and school curricula. He was undoubtedly one of the most active members of the National Education Commission and the Society for Elementary Books. As already mentioned, one of the most iconic results of his work is the publication of the first zoology textbook written in Polish. Although the preceding resource was written by the Gdansk naturalist Michał Krzysztof Hanow (1695-1773), it was written in Latin and published in Germany (HANOW 1762-68). Furthermore, Hanow attempted to synthesize various classification systems instead of relying on the Linnaean taxonomy. The textbook by CZENPIŃSKI & KLUK (1789), published almost thirty years later, was a modern resource which matched the high standards set by the publications released in other European countries. It was the first in Poland to introduce an ascending system of teaching zoology (from the lower animals to humans), a classification based on anatomical and physiological foundations, while the authors were discussing the concept for a "natural classification system" (BRZEK 2007). After introducing the definition of animals (*"Zwierzęta zaś są to ciała organiczne, które żyją, czują i wewnętrzną własną swoją mocą się poruszają"*²), the authors presented an extensive physiological chapter, which described the basic functions of organisms and the organs that are involved in them. The next part of the handbook is a systematic overview of the animal world. The authors were aware of the taxonomic limitations of their work indicating that only selected lineages of animals were described in details (CZENPIŃSKI & KLUK 1789): *"Ponieważ to dzieło będąc początkowym powinno być krótkim, nie mogło zatem zamknąć wszystkich gatunków zwierząt: umieszczone są tylko w nim gromady, rodzaje prawie wszystkie i znajomsze gatunki"*³. The purpose of the textbook was not only to teach, but also to become a helpful tool for the inventory of native fauna conducted at that time by the National Education Commission. The authors appealed: *"Toż samo dzieło, że pierwszy raz w języku polskim wychodzi, nie może być zupełnie dokładne; przeto czytający, a zwłaszcza Nauczyciele, proszeni są aby, postrzeżenia i uwagi swoje, osobliwie co do krajowych zwierząt, nie wyłączając najmniejszych robaków, przysyłali Towarzystwu do Xiąg Elementarnych, które postrzeżenia wnidą w poprawę tego dzieła przy drugim jego wydaniu"*⁴.

² Eng. "Animals, on the other hand, are organic bodies that live, feel and move within their own power."

³ Eng. "Since this work, being the initial one, should be short, it would not be possible to enclose all species of animals: only classes, almost all genera, and the selected iconic species are contained within it."

⁴ Eng. "The same work, which is first published in Polish, cannot be completely accurate; therefore, the readers, and especially the Teachers, are asked to send their observations and remarks, especially to domestic animals, including the smallest worms, to the Society for Elementary Books, which will contribute to the improvement of this work in the second edition"

When discussing the importance of the textbook published by CZENPIŃSKI & KLUK (1789) for the developed of the Polish school of Zoology, it is crucial to mention the role of this publication in the creation of Polish zoological vocabulary. Its significance has been emphasized by, among others, BENEDYKT DYBOWSKI (1900). The textbook is, along with the work of KLUK (1779-1780), the basic source of Polish zoological names. It should be also mentioned that at least some of the names introduced by Kluk in his aforementioned paper were also proposed by Czempiński, for example “wazka” referring to a dragonfly (MIELEWCZYK 2005). Only a few Polish zoological names are derived from other, earlier works, mainly the one authored by GABRIEL RZACZYŃSKI (1721). In many cases when introducing Polish names CZENPIŃSKI & KLUK (1789) did not fully rely on translating the corresponding latin terms. Instead they searched for the scecity of particular lineages displayed by their representatives in the Polish fauna: “*Ostrzega się także co do wyrazów i imion Polskich, że te razem położone z łacińskimi nie ściśle podług tych były tłumaczone, stosowano je raczej do rzeczy, które w Polsce inazej odbijają: nie opuściliśmy zaś łacińskich i Greckich słów dlatego, aby Młodzież z temi początkami mogła czytać obszernie dzieła Historji Naturalnej w języku Łacińskim pisane. Imiona Łacińskie są wszystkie podług Linneusza*”⁵. However, some important names, especially those concerning higher ranks of classification, were derived from strict translations, for example “dwuskrzydłe” (meaning Diptera) or “błonkoskrzydłe” (meaning Hymenoptera).

SUMMARY

More than two centuries have passed since the publication of Czenpiński's works. In retrospect, it can be concluded that his doctoral dissertation undoubtedly played a significant role in popularizing the Linnaean classification system at a time when it spread throughout Europe. Furthermore, the textbook co-authored by Czenpiński was essential and set the direction for the development of Polish zoology and the creation of the national zoological vocabulary. The available documentation displays Czenpiński as an outstanding naturalist who was widely recognised by the Polish scientific society, and has been valued by the most important European research institutions. Czenpiński happened to exist in the period of two important events for Polish history: the reform of the educational system in the Republic of Poland and the establishment of the National Education Commission. He actively contributed to both. Despite the importance of his works, Czenpiński remains a figure little known to Polish naturalists today. The authors hope that this article will help to popularise the achievements of this outstanding naturalist.

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⁵ Eng. “It has to be noted that the Polish terms and names do not directly correspond to the Latin ones as they were applied to specific qualities of the Polish language. However, the Latin and Greek terms were not omitted from the text enabling the young readers to become familiar with them. Latin names are all according to Linnaeus.”

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STRESZCZENIE

Paweł Czenpiński (1755–1793): prekursor linneuszowskiego systemu klasyfikacji w Polsce

Artykuł przedstawia sylwetkę, wykształcenie i prace Pawła Czenpińskiego, współautora pierwszego polskiego podręcznika zoologii. Przeanalizowana została zawartość tego podręcznika oraz działalność Czenpińskiego w Komisji Edukacji Narodowej i Towarzystwie Ksiąg Elementarnych, instytucji mającej za cel opracowanie szkolnych podręczników, także dla nauk przyrodniczych. Przypomniane zostały także jego zasługi dla wprowadzenia i popularyzacji systemu klasyfikacji Linneusza. Rozprawa doktorska *Dissertatio inauguralis zoologico-medica... steszczająca, omawiająca i uzupełniająca o nowe rodzaje* wydanie z 1766 roku *Systema naturae* została doceniona we Francji, a Czenpiński mianowany członkiem Société Royale de Médecine. Autorzy analizują ten fakt w kontekście początków systematyki Linneusza we Francji. Przedstawione zostały także okoliczności opisanego gatunku *Scotias psylloides*. W artykule po raz pierwszy przedstawiona została analiza wszystkich zoologicznych prac Pawła Czenpińskiego.

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