# FOLIA MENDELIANA



Edited by Jiří Sekerák

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#### **EDITORIAL**

The Mendelianum Committee of the Moravian Museum has awarded this year's Mendel Memorial Medal to Daniel L. Hartl for his contribution to the development of Gregor Mendel's legacy and the interpretation of his scientific work. Daniel L. Hartl, Higgins Professor of Biology at Harvard University in the USA, is one of the world's leading geneticists, whose research has contributed significantly to the development of population genetics and evolution. He has also published several important papers on Gregor Mendel in collaboration with Vítězslav Orel, the first director of the Mendelianum. The medal ceremony took place on Friday, 3<sup>rd</sup> May, in the Gilbert Room of the Museum of Comparative Zoology at Harvard University. In his acceptance speech for the Mendel Memorial Medal, Professor Hartl explains why he has always felt a certain affection for Moravia, the land where Johann Gregor Mendel lived and worked.

I am very pleased that in this year's double issue we can offer a number of other fascinating topics, particularly relating to some of the lesser-known aspects of Mendel's life and work. Daniel Fairbanks' lead article compares Mendel's notes with his published citations of Gärtner's Experiments and Observations on the Production of Hybrids in the Plant Kingdom. Contextual analysis of Mendel's notes provides evidence of his agreement with the evolution of species in plants. Other articles, including two on the redating of Mendel's trip to Dresden and his trip to Leipzig in September 1865, are also enlightening. Additional pieces cover Mendel's entry in the parish register of births in Hynčice and his work as a priest in the parish of Staré Brno in 1848. The final sections feature our review of the book by Karl Porges and Uwe Hoßfeld: Ernst Haeckel in the GDR (2023) along with several other events.

Jiří Sekerák

## MENDEL'S ANNOTATIONS IN GÄRTNER'S (1849) EXPERIMENTS AND OBSERVATIONS ON THE PRODUCTION OF HYBRIDS IN THE PLANT KINGDOM:

### I. COMPARISON OF MENDEL'S ANNOTATIONS WITH HIS PUBLISHED CITATIONS OF GÄRTNER

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ABSTRACT - Gregor Mendel owned a copy of Carl Friedrich von Gärtner's 1849 book Experiments and Observations on the Production of Hybrids in the Plant Kingdom, which he cited more than any other work in his classic 1866 article. Mendel's copy of the book contains more than 200 hand annotations. In this article we compare Mendel's annotations in this book with his citations of Gärtner in his 1866 article and infer how the passages Mendel annotated influenced this article and the direction he subsequently pursued in his hybridisation research. A contextual analysis of Mendel's annotations provides additional evidence of his acceptance of species evolution in plants despite Gärtner's contrary views.

Gregor Johann Mendel (1822–1884), in the introductory remarks of his classic article *Versuche über Pflanzenhybriden* (Experiments on Plant Hybrids), highlighted plant hybridists who preceded him, naming Kölreuter, Gärtner, Herbert, Lecocq, and Wichura (MENDEL 1866). He remarked that, even when considering the many experiments of these hybridists, "a generally standard law for the formation and development of hybrids has not yet been successfully given" (ABBOTT and FAIRBANKS translation 2016, p. 407). Mendel then documented in detail his experiments and the evidence from them that led him to derive such a law, placing his research and his theoretical inferences in the context of his predecessors' work.

Also in the introductory remarks, Mendel emphasised that, "Gärtner especially, in his work 'The Production of Hybrids in the Plant Kingdom', documented very worthwhile observations" (p. 407). Mendel's reference is to Carl Friedrich von Gärtner (1772–1850) and his book *Versuche und Beobachtungen über die Bastarderzeugung im Pflanzenreich (Experiments and Observations on the Production of Hybrids in the Plant Kingdom*) (GÄRTNER 1849). It is a book of 808 pages with an extensive account of numerous hybridisation experiments conducted by Gärtner, and his references to experiments by other plant hybridists. After these two introductory citations, Mendel cited Gärtner sixteen additional times throughout his article, more than he cited any other author of previous research.

Gärtner's book was published in 1849, the same year Mendel was assigned to teach mathematics and Greek at the Znojmo Gymnasium (ILTIS 1924). Gärtner died in 1850, not

#### A REDATING OF GREGOR MENDEL'S JOURNEY TO DRESDEN

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ABSTRACT - It has long been believed that Gregor Mendel made a stopover in Dresden during his visit to the Kiel Bee Conference in 1871. Information about this stop is based on two sources. The first was the published itinerary of the trip, and the second was a late recollection by the plant physiologist Hans Molisch, who published a short memoir in which he recalled that Mendel had visited his brother Ferdinand Molisch in Dresden, where the latter was working in a plant nursery. Molisch's account is important because it is the only direct evidence that Mendel visited foreign nurseries. We report here on a fundamental problem in Hans Molisch's account and provide an alternative date for Mendel's visit to Ferdinand Molisch in Dresden.

Hans Molisch (1856-1937) was a prominent plant physiologist in the first decades of the 20th century working in Prague and Vienna. Molisch himself was from Brno, and he remembered meeting Gregor J. Mendel as a nine-year old boy when the latter was visiting his parent's house and vineyards. 1 The meeting was said to have taken place in 1865, the very year in which Mendel had first presented the results of his experiments on plant hybrids. Apparently, this was a memory that was very dear to H. Molisch, and he seems to have retold the story on several occasions including it also as an anecdote in several of his books.<sup>2</sup> It is noteworthy that two of Molisch's students, Hugo Iltis (1882-1952) and Oswald Richter (1878–1955), wrote the first two extended biographies of Gregor Mendel.<sup>3</sup> Molisch's account of his meeting with Mendel is not very remarkable in historical terms, and the story itself, so often retold, did not change much over the years. During the 1930s, however Hans Molisch added another facet to the story when he wrote that Mendel had visited his brother Ferdinand Molisch who was then working in Dresden at the Wagner nursery studying especially Azalea, Rhododendrons and Ericas.<sup>4</sup> H. Molisch does not give many further details on this visit and his families relations to Mendel, other than that his own personal encounter occurred in 1865 and that Mendel visited his brother in Dresden while being on the journey through and also noting that both of his brothers, Edmund and Ferdinand, had listened to lectures of Mendel in the schoolhouse located in the Johannesgasse. However, the original narrative of Molisch was later revised by O. Richter, who had been particularly interested in the travels made by Mendel during his lifetime. Probably because he could find only one specific reference to Mendel's trip to the Wagner

#### MORE ON MENDEL'S TRIP TO LEIPZIG IN SEPTEMBER 1865

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ABSTRACT - A hotel registration for Gregor Mendel in Hamburg on September 19, 1865, has been discovered in a newspaper. This was ten days later than one previously known in Leipzig. So, it can be inferred that Mendel travelled through Germany during that period. The second German Botanical Congress, held in Erfurt from September 9 to 13, falls within this period. Erfurt was easily accessible by train from Leipzig, and the interesting program made the congress a likely destination for Mendel's trip. However, proving Mendel's presence has not been possible so far. We discuss indirect evidence for his presence and the potential reasons for his onward travel to Hamburg.

Very few primary historical sources exist regarding Gregor Mendel. This is especially true for the period between his lectures in February and March 1865 and his letters to Nägeli from late 1866 onwards. Any new historical source about Mendel's activities from this period is therefore of great importance. In Folia Mendeliana 59/2, we wrote about a previously unknown trip Mendel made to Leipzig (VAN DIJK & ELLIS 2023). The clue for that trip was that Mendel was listed in the *Leipziger Tageblatt* on September 9, 1865, as having arrived at Hotel Hamburg ("*Mendel, Stifts-Capit. a. Brünn*"). We have now found a second hotel registration 10 days later in Hamburg. A Hamburg newspaper lists Mendel in the arrivals list of September 19, 1865, under Hotel Belvédère ("*G. Mendel, Stifts Kapitular, v. Brünn*"). It seems to us that these registrations must belong to the same trip. We conclude that Mendel, upon arriving in Leipzig was on his outbound journey from Brünn (now Brno), something that had not previously been established. In 1865, Leipzig was about as far as one could travel by train from Brünn (via Prague and Dresden) in one day. Leipzig therefore was a logical station for a stopover for further travel by train.

The arrival reports mentioned in the newspapers appeared a few days after the actual arrival. If this delay was three days, the actual arrivals in Leipzig would have been on September 6 and in Hamburg on September 16. This period overlaps with the 14<sup>th</sup> German Beekeepers Meeting, held from September 12 to 14 in Brünn, partly at the monastery. The opening of this important event was featured in newspapers across Germany and Austria. The famous and innovative beekeeper Dzierzon was one of the participants. Dzierzon had discovered a 1:1 segregation in the colour of drones from hybrids between Italian and German bees. Orel (1996), among others, wondered why Mendel did not appear on the participant list for this congress, which should have interested him. This can be explained by Mendel travelling through Germany at that time. Another conclusion we can draw from this is that Mendel's trip to Germany must have had

#### REGARDING MENDEL'S ENTRY IN THE PARISH BIRTH REGISTER\*

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ABSTRACT - In 1971, Peter W. van der Pas made a mistake in the translation and subsequent interpretation of the entry regarding Mendel's birth in the church register of the parish of Groß Petersdorf. Had this mistake not been repeated in the literature to this day, it would not be unique in and of itself. To prevent this from happening again, we think it would be a good idea to examine other entries in this register that may be connected to Mendel's record, for example, the birth records of his sisters or the custom of including the names and addresses of the midwives in the notes.

As has been previously pointed out, the core of the problem lies in the inaccurate transcription and translation of the note written across the columns below the name of the baptized (Name des täuflings). The handwritten note below the name Johann Mendel is transcribed by Van der Pas, and those after him, as Kath. Taufname, No. 35 (Cath. Christian name, No. 35). Van der Pas interprets the meaning of this note based on a comparison with other comparable notes from the same page in the register, which he transcribes as Kath. Taufname, etc. He believes that the place of baptism is recorded here in this way. He explains the etc. sign as an anacronym, meaning that the baptism took place in the prescribed manner in the usual place (the church). The note Kath. Taufname, No. 35 may therefore mean that Mendel was christened in house No. 35, which has been identified as the midwife's house, rather than in the church or at home in house No. 58.

Let's take a closer look at what is actually stated in Mendel's entry in the register: The page of the parish register of births is divided into 14 columns. Transcription of the heading of Folio No. 87: 1822; ihr Geburt (date of birth); Monat, Tag der Taufe (month, day of baptism); hat getauft (baptized by); Haus No. (house number); Name des Täuflings (name of the baptized); Religion, Katholisch, Protest. (religion, Catholic, Protestant); Geschlecht: Männlich, Weiblich (gender: male, female); it is further stated whether the child was legitimate: Ehelich or illegitimate: Unehelich. The last two pairs of columns refer to parents and godparents: Eltern: Vater, Mutter (parents: father, mother); Pathen: Namen, Stand (godparents: name, status).

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## SOME REMARKS ON GREGOR MENDEL'S WORK AS A PRIEST IN THE STARÉ BRNO PARISH IN 1848\*

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ABSTRACT - Gregor Mendel's role as a priest is widely known, and not just among scientists who are interested in the life of this pioneer in the study of heredity. However, the details of these activities were either unknown or they were not considered by scholars to be important or interesting enough for inclusion in Mendel's biography. However, the archival material available today - the Staré Brno parish registers - can be used well for this purpose. They make it possible to map the extent and intensity of Mendel's activities and better track his movements within the parish. The aim of this article is to gain a better understanding of the circumstances in the parish of Staré Brno and the activities of some of the members of the monastery whose task it was to administer the parish. Indeed, the territorial extent of Mendel's activity as a parish vicar has not yet been defined, nor has the exact scope of his work.

In publications dealing with Gregor Mendel's life, we find a familiar division of his roles in life, arranged in chronological order. One part of his biography is presented as Mendel the priest. It tells a short episode in the life of the famous man of science, when he served as a priest in the parish of Staré Brno. This role in Mendel's life, however, does not occupy a very large part of his biography and is more or less connected with his studies at the seminary and also with Mendel's subsequent health, which is, not without reason, interpreted as a consequence of excessive mental strain during his priestly work. Mendel's health is here placed in the context of other episodes of similar health problems, and it is said that Mendel's illness manifested itself during periods of great strain and stress. This situation is aptly described as Mendel's breakdown in service.

Thus, there is a general awareness of Gregor Mendel's involvement as a priest, not only among scholars interested in the life of this pioneer in the study of heredity. However, specific acts are not yet known, or scholars have not considered them important or interesting enough to add to Mendel's biography. For this purpose, however, the digitalised archival material available today – the registers of the Staré Brno parish – can be used very well.

This short period of Mendel's life is treated very briefly in the existing literature.

Alois Schindler describes this period of his uncle's life: "In this environment and in these gardens with their luxuriant flowers, greenhouses, and fruit tree nursery, Mendel spent

<sup>\*</sup> This work appears through the institutional support of long-term conceptual development of research institutions provided by the Ministry of Culture (ref. MK000094862).

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