

PÁL KITAIBEL WAS BORN 250 YEARS AGO
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Pál Kitaibel, the “Hungarian Linnaeus”, is the founder of modern botanical research of the 18th–19th century in the Carpathian Basin. As seen in the lives of many great early scientists – who are regarded as polymaths – he had a truly wide interest in natural history. Kitaibel not only achieved significant results in botany, but also in the field of zoology (HORVÁTH 1918*a*), mineralogy (TOKODY 1957), chemistry (INCZE 1927), geophysics (RÉTHLY 1958), and ethnography (HORVÁTH 1918*b*).

Kitaibel was born in Nagymarton, part of Sopron county in the western part of historical Hungary (currently Mattersburg, Austria) as a son of a well-off peasant family. He completed his secondary schools studies in Sopron and Győr, and then attended the university in Buda, for a short period of time on the faculty of law, and later on the medical faculty. His talent and scientific determination was so obvious that he was appointed senior lecturer already as a fourth-year student, by the side of Jacob Joseph Winterl, professor of botany and chemistry. From this time he began developing the living material of the botanical garden of the university through collecting live plants and seeds. In 1790 he arranged the herbarium collection of Ferenc Mygind, counting 5,461 species, and completed it with his own specimens. This way he established the foundation of the herbarium of the university. From 1784 he directed the botanical garden, which initially comprised of 800–1,000 plant species, however, by the time of his retirement (1816) this increased to a robust number of 6,755.

There is a long list of references presenting the achievements and appreciating the life-history of Kitaibel. Related to his life and activities, the works of SCHUSTER (1829; its Hungarian translation: SCHUSTER 2000), GOMBOCZ (1936) and JÁVORKA (1957) are fundamental, which provide all important information on his whole walk of life, his work in natural sciences, as well as on the relationships with his contemporaries and on his private life.

The Kitaibel bibliography was compiled by JÁVORKA (1957). Later, Péter Andrásy issued a continuation of this bibliography between 1957–1993 (ANDRÁSSY 1994), followed by additional works published between 1994–1996 (ANDRÁSSY 1997).

The botanist Pál Kitaibel can be well characterised by two major achievements: the collecting journeys in the territory of historical Hungary (these trips partly were made together with his friend and benefactor, Adam Waldstein), which resulted in the accumulation of collections (including new species) and written travel diaries; and the “Icones”, his huge and beautiful work jointly made with Waldstein. During his collecting trips he basically covered the entire Carpathian Basin and collected significant quantities of dried and living plant material. He kept good records of these trips, made descriptions and notes (in German language), not only on the plants he observed, but also on other important information (*e.g.* GOMBOCZ 1939, GOMBOCZ and HORVÁTH 1939, 1941, POZDER 1985, SZERENCSEŠ and POZDER 1985, PRISZTER 2001, ANDRÁSSY 2004). Kitaibel’s travel diaries prepared between 1796–1805 were processed by GOMBOCZ (1945), and subsequently Kitaibel’s shorter but no less important journeys before 1796 were elaborated by HARMATTA (1962, 1963). At last, his travel diaries after the year of 1805 (LÖKÖS 2001) and the routes of his research trips (GUSZLEV and PRISZTER 2001) were also published. Although the bulk of the herbarium of Kitaibel comes from his journeys, a good number of specimens were gathered in botanical gardens or received through exchanges with his foreign and Hungarian counterparts (*e.g.* Baumgarten, De Candolle, Generisch, Lumnitzer, Rochel, Willdenow). Numerous specimens of his collections can be found exclusively in other collections of those in regular contact with him. His herbarium, shortly after his death, was purchased by Joseph Palatinus for the predecessor of the Hungarian Natural History Museum and was kept and managed as a separate collection ever since.

The first cataloguing of the herbarium of Kitaibel was completed by Károly Haberle in 1818, followed by another recording by Antal Ramisch in 1840. Later a novel catalogue was compiled during the directorate of Nándor Filarszky. However, all of these remained in manuscript. Among other collections, at first the algae of the herbarium of Kitaibel were elaborated and published by ISTVÁNFFI (1891); subsequently, the fungi were

done by MOESZ (1923). The elaboration of the vascular plants (14,702 sheets) together with the revision of the national collections was carried out by JÁVORKA (1926, 1929, 1934, 1935, 1936). The lichens of the Kitaibel collection were processed as well as published by TIMKÓ (1943) and SZEPESFALVY (1943*b*), and the mosses by SZEPESFALVY (1943*a*). Types of the flowering plants of the Kitaibel herbarium were designated and published by KOVÁTS (1992, 1997), the revision of the *Cytisus* names and specimens was undertaken by PIFKÓ (2007).

Kitaibel's travel diaries contain a valuable set of local (vernacular) names: of these GOMBOCZ (1938) showed approximately 220 items, subsequently extended by PRISZTER (1984) with 160 additional names.

Unquestionably, the second principal part of Kitaibel's life-work is the "Icones" (GÉCZI 2003), with the full title "*Descriptiones et icones plantarum rariorum Hungariae*", published together with Waldstein in three volumes (1802, 1805, 1812). The first volume came out in 1802 containing an introduction, and providing a comprehensive description of the natural history of Hungary. Following this, it illustrates on 100 colour plates 100 plants native to the Great Hungarian Plain, the Hungarian Mountain Ranges as well as to Bánát and Máramaros. The second volume, issued in 1805, in its introduction describes the natural history of Croatia and on 100 plates it illustrates another 100 plants from this area. The third volume, published in 1812, contains the description of another 80 plants, only a small part of the material left unpublished in the former volumes. Thus, the series – despite of all the efforts – remained incomplete at the end. It has been regarded, however, such a landmark work that it was re-issued as reprint by the Pytheas Publisher in 2004 (WALDSTEIN and KITAIBEL 2004). The "revised" species list of the altogether 280 taxa described in the three volumes was published by HORTOBÁGYI (1994, 1997). Special merits of the 3-volume "Icones" include the unique way they illustrate previously unknown species, not only those discovered by Kitaibel, but also of other authors. The detailed characterisation, which combines art and science, was a meaningful and lavish contribution to that-time botany when it was customary to describe plants with telegraphic conciseness and minor, if any, illustrations. Only a certain part of the descriptions of the species discovered by Kitaibel and Waldstein appeared in the "Icones". At the beginning Kitaibel included the species discovered by himself in the seed-exchange catalogues

sent out to botanical gardens, together with their exact descriptions and occasionally with copperplate engravings. Many of the plant descriptions by Kitaibel and Waldstein were published in works of Willdenow (e.g. *Acer obtusatum*, *Achillea distans*, *Hieracium racemosum*, *Lotus tenuis*), Schultes (e.g. *Corispermum canescens*, *Dianthus diutinus*), Hornemann (*Hieracium bifidum*), and others in publications by Kanitz, Reichenbach, Nyman, Rochel, Steudel, Boissier, De Candolle, Sadler and others (see JÁVORKA 1957).

Kitaibel was blessed in his life-time by a general appreciation of his knowledge and life-work: his achievements were broadly acknowledged by the contemporaries. He is also held in high esteem by all succeeding generations. Both his house of birth and grave fell victims to urban growth, as it happened with the botanical garden he developed into a rich collection; thus not much remained for botanical pilgrimage. However, several public institutions, programmes and a botanical journal "Kitaibelia" keep his name even in these days. On the occasion of the 250th anniversary of his birth and 190th anniversary of his death we not only remember his grand life-work, but also feel our obligation to make his collections more accessible to the professional public in any form that fits the modern age of botany.

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