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JEAN EMMANUEL GILIBERT AND VILNIUS UNIVERSITY BOTANICAL GARDEN: RESULTS OF CURRENT STUDIES OF ARCHIVE MATERIAL FROM VILNIUS ARCHIVES, GÖTTINGEN UNIVERSITY AND NATIONAL HERBARIUM OF UKRAINE (KW)

INTRODUCTION

Vilnius University Botanical Garden (VU BG) had been founded during the great educational reform of the Lithuanian–Polish Commonwealth at the end of the 18th century in 1781 by French Professor Jean Emmanuel Gilibert (*Joannes Emmanuel Gilibert*, 1741-1814), whose name had been coherent with the first years of the BG history as botany science in Lithuania. In 1775-1783 he was the first scientist (botanist) who studied flora of Lithuania. In 1781 and 1782 Prof. J.E. Gilibert published the first Flora of Lithuania (Gilibert, 1781, 1782). In 1782 J.E. Gilibert and his students produced an educational book – *Botanical Exercises* (Gilibert, 1782). Those publications were the first serious steps in developing botany science in Lithuania. The BG history is closely connected with pioneers of the natural science (botany, mineralogy, zoology) in Lithuania – J.E. Gilibert, Georg Forster (*Johann Georg Adam Forster*, 1754-1794) and Stanisław Bonifacy Jundziłł (*Stanisław Bonifacy Jundziłł*, 1761-1847), but the first one is today especially honoured as the person who started the botany science in Lithuania. J.E. Gilibert in 1781 headed new Department of Nature History in Vilnius University and for a very short time founded the first botanical garden in Vilnius. The present paper deals with the contribution by J.E. Gilibert into the flora investigations during the period of the Great Duchy of Lithuania; as well as the review of the works done by this VU BG founder, based on the archive and herbaria data investigations.

J.E. GILIBERT AS A FOUNDER OF THE VU BOTANICAL GARDEN

J.E. Gilibert was invited to Vilnius (by Rector *Marcin Poczobutt*, 1728-1810) in 1781, and he came there in the late autumn of that year. He was commissioned to establish the Natural History Department (NHD) and the Botanical Garden. Before coming to Vilnius, he had been working in Grodno (now Belarus) since 1775. There he founded the School of Medicine and Botanical Garden (Sławiński, 1925; Daszkiewicz, 1995). Before coming to Vilnius he had also the experience in founding the botanical garden in Lyon (France); so he was proficient head of the garden. Location of the first BG in Vilnius was in the heart of the town, in the courtyard of the Medical College (*Collegium Medicum*) (now 22, Pilies St.), in a small plot of about 200 square metres. In early spring of 1782, the majority of plants were moved from Grodno BG to the newly founded VU BG (Łapczyński, 1892; Sławiński, 1925; Mowszowicz, 1966; Köhler, 1994, 1995; Skridaila, 2001). Plants, in that time known as hard for Lithuanian climate conditions, were planted outdoor into soil beds. Others were planted in a small, quickly built greenhouse. There is no accurate data how many plants were moved from Grodno to Vilnius and how many plants were cultivated by J.E. Gilibert in VU BG. The claims of some authors that soon about 2.000 species of plants had been gathered should be evaluated carefully (Skridaila, 2001). Doubts about such numbers appear mainly due to the lack of a single authentic document prepared by J.E. Gilibert to confirm this fact. The plants he left had been taken over by G. Forster, the second director of BG, only after two years from departure of J.E. Gilibert from Vilnius. Today we can discuss only about one archive source of the 18th century to approximately assess the plant collection accumulated by J.E. Gilibert in Vilnius, i.e. G. Forster's manuscripts (kept in the archive of the Göttingen University).

G. FORSTER'S DATA ABOUT PLANT COLLECTIONS FORMED BY J.E. GILIBERT IN VU BG

The takeover inventory of the J.E. Gilibert collection of garden plants (more exactly, seeds) compiled in May of 1785 in Vilnius by G. Forster contains 350 items (Forster, 1785a) (Fig. 1). Beside this manuscript, the same archive has one more untitled list of plants that in its style (plants are presented not in alphabet or system order but as if it reflected the distribution of plants growing under their natural conditions) and plant names (some of them as cherry laurel and common box were mentioned later by other authors) undoubtedly refer to a list of plants which had been grown at that time in soil beds and a little greenhouse of the VU BG (Forster, 1785b). The latter list contains names of 257 plants, 208 of which seem to have been grown outdoors and 49 ones in a greenhouse. According to G. Forster's data given in 1785, he found J.E. Gilibert's collection of plants and seeds in VU BG to contain in total up to 600 names of

plants (Skridaila, 2006). It is important to mention that G. Forster fixed J.E. Gilibert-compiled catalogue numbers of plant and seeds in the above-mentioned inventory, where the largest one was just 501 (Forster, 1785c). Today we have no data this J.E. Gilibert's catalogue survived in any archive; therefore we can rely only on an indirect source (but undoubtedly objective) – the G. Forster's manuscripts held in Göttingen. Unfortunately, they confirm that in Vilnius J.E. Gilibert had formed a significantly smaller collection of plants and seeds than the later authors (19th-20th c.) had claimed.

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Index
Plantarum Systematicus,
Gyllenhalii
Herbarii Botanici
D. Giliberti in h. Verolichensi.
Majo. 1785.

2^o editio
Ab. Numeris Remanent numerus Catalogi, quem
ab Hortulano accepit.

+ <i>Phlox inopata</i> <u>Plantula.</u>		18. 129. <i>Iris germanica.</i> +	
1	45. <i>Veronica maritima</i>	19. 131. — <i>germanica.</i> +	
+ 2	59 — <i>multifida</i>	20. 132 — <i>variegata.</i> +	
+ 3	46. —	21. 133. —	
4	48 —	22. 459 <i>Phalaris.</i>	
5	42 <i>Xiphora capitata</i>	23. 483 <i>Phlox.</i>	
6	49. <i>Salvia sylvestris.</i>	24. 487. <i>Stipensurus.</i>	
7	54 — <i>austriaca.</i>	25. 488 <i>Agrostis indica.</i> +	
+ 8	76 — <i>officinalis</i>	26. 484 —	
+ 9	38 — <i>horminum</i> <u>Plantula.</u>	27. 485 —	
+ 10	415. <i>Seia chinensis.</i>	28. 489 <i>Arundo (paragmites?)</i>	
+ 11	120 <i>Iris.</i>	29. 490. (<i>Gramen</i>)	
+ 12	121 — <i>iberica.</i>	30. 481. —	
+ 13	122 — <i>flava.</i>	31. 486 —	
+ 14	124 — <i>angustifolia.</i>	32. 490 —	
+ 15	125 —	33. 492 —	
16	127 —	34. 494 <i>Phalaris amurensis.</i> +	
+ 17	128 — <i>pumila.</i>	35. 493 —	
		36. 497 —	
		37. 499 —	
		<u>Tetrandria.</u>	
		38. 107. <i>Sabiosa Colimbaria.</i>	
		39. 112 — <i>rubrolens.</i> +	
		40. 179 — <i>fucifera.</i> +	

Fig. 1. The first page of inventory written by G. Forster in May 1785 by successions of J.E. Gilibert Garden

J.E. GILIBERT'S HERBARIUM IN VILNIUS BEFORE 1842 AND ITS FATE

Coming to Grodno, J.E. Gilibert brought a herbarium from the Mediterranean coast and France. Living in Grodno he collected plants from local and more remote environs and botanical gardens, while in Vilnius he also herbarised plants of Vilnius environs and the Botanical Garden. After departure of J.E. Gilibert, some herbaria had been sent to France, but quite a few remained in Vilnius. A part of J.E. Gilibert's herbarium had been sent to Kremenec (now Ukraine) and remained there for more than a decade. In 1821 S.B. Jundziłł asked by Wilibald Besser (*Wilibald Swibert Joseph Gottlieb von Besser*, 1784-1842) had sent 9 of 10 collections (Köhler, 1994; Oleszakowa, 1971; Galinis, 1974). The herbarium lent was given back only in 1833 (Köhler, 1994). These were plants from Lithuanian fields as well as plants from Grodno BG in 6 packages (LVIA, f. 567, ap. 2, b. 3635). In the same year of 1833, Prof. Józef Jundziłł (*Józef Jundziłł*, 1794-1877) passed the property left after the closure of Vilnius University to the Academy of Medicine and Surgery (*Caesarea Academia Medico-Chirurgica Vilnensis*); these were mainly J.E. Gilibert's herbaria *Herbarium Linneanum* – 31 sheets; *Herbarium Tournefortianum* – 17 leather sheets with external plants; *Herbarium hortense* – 6 material packages with plants collected by students. There had also been a collection of dried fruits (various cones and coconuts) and tree models in quadrangular plates placed in a box. Moreover, a catalogue compiled and signed by J. Jundziłł was accepted (LVIA, f. 567, ap. 2, b. 3635). Preparing to close the Academy of Medicine and Surgery, a commission had been formed to make a property inventory. The commission in 1840 indicated the occurrence of following J.E. Gilibert's herbaria in the Botanical Garden (LVIA, f. 567, ap.2, b. 3024): 1) 31 cases (*futliar*) with an inscription *Herbarium Linneanum*, there is a full catalogue compiled by Prof. J. Jundziłł; 2) 15 packages (*sviazok*) with an inscription *Herbarium Lithuanicum*, the plants collected in various places, including environs of Grodno and Vilnius; 3) 18 cases (*futliar*) with an inscription *Herbarium Tournefortianum* with various plants. As the Academy of Medicine and Surgery was closed, the herbaria of J.E. Giliber and other were prepared for transportation to Kyiv. For this purpose, 11 wooden boxes of 8 different measurements had been ordered (84-120 cm long, 44-74 cm wide, 71-96 cm high). However, all the wealth was packed into 9 boxes, which were numbered, marked by a superscription 'Botanical Garden' and sent to Kyiv on 20 May 1841. Thus, J.E. Gilibert's herbaria placed in the boxes I, II, III, IV, and V had been transported to Kyiv together with other herbaria. Box VIII contained the *Herbarium Linnaeanum* catalogue signed on 17 May 1833 by Prof. J. Jundziłł, (LVIA, f. 567, ap.2, b. 4954).

THE J.E. GILIBERT HERBARIUM IN KYIV NOWADAYS

A single presently known herbarium by J.E. Gilibert now held in the archives of the National Herbarium of Ukraine (KW) at the Institute of Botany of the Ukrainian Academy of Sciences (Kyiv) is an important source of information about the plants from the Botanical Garden in Vilnius.

In 2008-2012, a full inventory of this Herbarium has been carried out and a catalogue compiled (Shiyan et al., 2013). Today the Herbarium consists of three parts: *Herbarium Linneanum*, *Herbarium Grodnensis* and *Zielnik Klasa 5. Pentandria*. The collection contains 7401 specimens and 7141 sheets of herbaria and includes the collections of vascular plants (7289), mosses (64), lichen (47) and one specimen of algae from Belarus, Lithuania and Poland (Shiyan et al., 2013). The *Herbarium Linneanum* consists of 29 cases with 4755 specimens of vascular plants fixed on 4544 sheets of herbarium (Fig. 2, 3). The specimens in this part of the collection arrived mainly from West Europe (from botanical gardens of Lion, Paris, Montpellier, and Padua). There are also specimens from North, East and South Africa, French Guiana and Siberia. The materials from *Herbarium Linneanum* are dated as (1760) 1764 and 1774 (1775). The second part of J.E. Gilibert's collection conditionally called *Herbarium Grodnense* is a mix of three independent collections, i.e.: *Hortus Grodnensis* (specimens from Grodno Botanical Garden), *Herbarium Grodnense* or *Herbarium Giliberti* (flora from Grodno environs) and an untitled collection of specimens from Vilnius environs. The 14 files of this part of J.E. Gilibert's collection contain 2360 specimens on 2356 sheets (Fig. 4, 5). These specimens come from the Botanical Garden of Grodno (*Horti Grodnensis* (KW 000076833), *Horto Grodnensis* (KW 000076860)), and from nearby and remote environs of this town (*Circa Grodnam* (KW 000077477)), *Lososna prope Grodnam* (KW 000077509), *Grodnam in silvis circa Nieman* (KW 000087383), *Prope Grodnam in rivo Horodnisa* (KW 000087850), *Circa Lipsk* (KW 077488, KW 000077493), *In arvis arenosis communis Augustow* (KW 000087661)). Materials from Lithuania also are present here (Shiyan et al., 2013).

One more part of J.E. Gilibert's collection is a herbarium constructed as a hand-made book of a plant collector marked as *Zielnik Klasa 5. Pentandria* (Shiyan et al., 2013). It seems to have been used for teaching students. This herbarium 'book' contains 286 specimens of, mainly, local flora of the mentioned Linnaean class of plants (Shiyan et al., 2010, 2013) (Fig. 6, 7).



Fig. 2. The *Herbarium Linneanum*

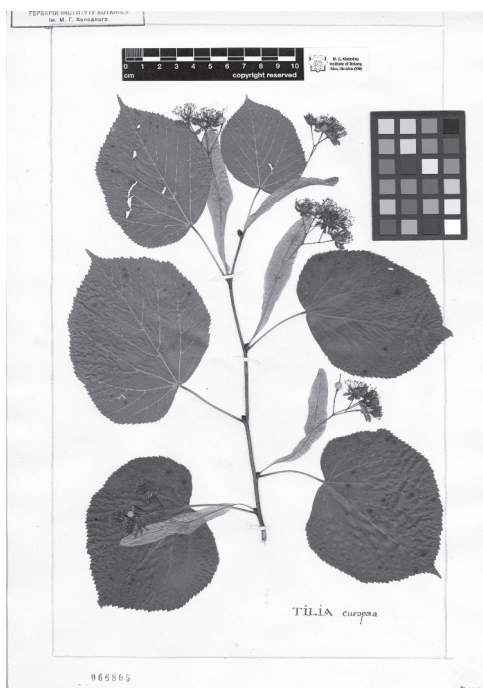


Fig. 3. Sheet of the *Herbarium Linneanum*



Fig. 4. The *Herbarium Grodnense*

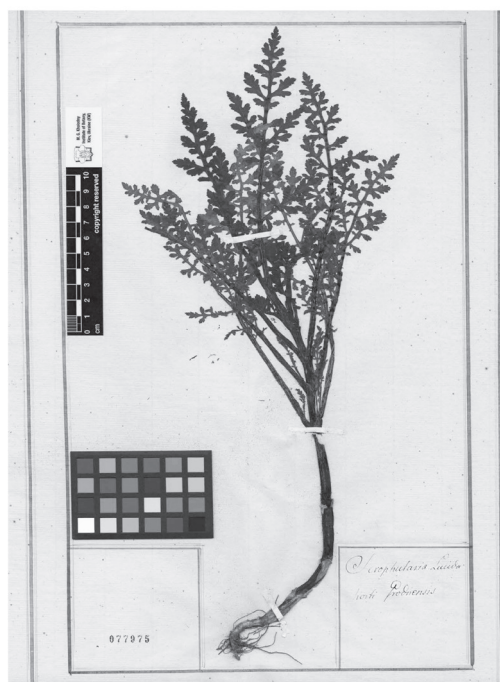


Fig. 5. Sheet of the *Herbarium Grodnense*



Fig. 6. The herbarium *Zielnik Klasa 5. Pentandria*



Fig. 7. Sheet of the herbarium *Zielnik Klasa 5. Pentandria*

THE VU BOTANICAL GARDEN PLANTS IN THE HERBARIUM IN KYIV

The analysis of material from *Herbarium Grodnense*, including specimens from Lithuania, enabled to detect 82 specimens probably collected from the Botanical Garden of Vilnius (Table 1). Although the year of collection is not indicated we suppose that all the specimens had been fixed in 1782 from May (...*florebat fine maii* (KW 000077733) to end-July (*florebat julio*, KW 000086853). Nearly all the specimens studied had been collected from the Botanical Garden of Vilnius as the inscriptions on the sheets indicate: *ex horto acad[emia]* (KW 000076869), *in horto acad[emia]* (KW 000076854), *florebat in horto acad[emia]*, KW 000077973) (Fig. 8, 9), one sample is marked as *in sylvis lithuania* (KW 000086952). Taking into account the herbarium data it can be stated that the following Linnaean species had been cultivated during the first years of the Botanical Garden of Vilnius University. The majority of 82 herbarised plants are defined correctly, only definition of two plants (*Trifolium alpestre*, *Arundo phragmites*) should be adjusted. The overwhelming majority of plants are introduced from other areas. Specimens of 82 plants are attributed to 30 families with most abundant ones being *Asteraceae* – 13 specimens, *Fabaceae* – 10, and *Lamiaceae* – 6 (Table 2). Of 82 herbarised plants, the following 10 self-pervasive Lithuanian plants are distinguished: *Chenopodium rubrum*, *Herniaria glabra*, *Trifolium alpestre*, *Salvia pratensis*, *Plantago major*, *Arundo phragmites*, *Rumex acetosa*, *Rumex maritimus*, *Scrophularia marilandica*, and *Veronica longifolia*.

Table 1. Plants of the Vilnius University Botanical Garden from J.E. Gilibert HERBARIUM GRODNENSIS at the National Herbarium of Ukraine (KW)

№	The label text	Ordinal sample number in the collection	Inventory number at the herbarium KW
1	2	3	4
Folder No 1			
4568.	3a <i>Boerhavia scandens</i> <i>boerhavia scandens</i> in horto acad.	s.n.	000076854
4569.	2a. <i>Leonurus marrubiastrum</i> // Bidy. gym. <i>leonurus marrubiastrum</i> . ex horto acad.	s.n.	000076855
4571.	1a. <i>Crucianella angustifolia</i> <i>Crucianella angustifolia</i> ex horto acad.	14	000076857
4578.	5a <i>Datura fastuosa</i> <i>datura fastuosa</i> ex horto acad.	s.n.	000076864
4581.	<i>Androsace elongata</i> // pent. mono. <i>androsace elongata</i> ex horto acad. floruit julio	[...]	000076867
4583.	1a <i>Androsace maxima</i> // pent. mono. <i>Androsace maxima</i> ex horto acad. floribus julio	s.n.	000076869
4587.	15. <i>Plantago loeflingii</i> <i>plantago loeflingii</i> ex horto acad. flovebus junio	20	000076873
4589.	1a <i>Plantago major</i> <i>Plantago major</i> est abortus horti acad.	s.n.	000076875
4590.	7a <i>Plantago lagopus</i> <i>plantago lagopus</i> in horto acad. floruis fine junii	s.n.	000076876
4610.	9a <i>Lavatera trimestris</i> Jacq. hort. fig. 72. mon. poly. <i>lavatera trimestres</i> ex horto acad.	842	000076896
4663.	6a. <i>Ipomoea lacunosa</i> // pent. mono. <i>hypomoea lacunosa</i> ex horto acad. florer. julio	s.n.	000076949
4666.	35. <i>Convolvulus tricolor</i> <i>convolvulus tricolor</i> ex horto acad.	s.n.	000076953
Folder No 3			
4804.	24. <i>Rumex acetosa</i> <i>Rumex acetosa</i> ? ex horto acad.	s.n.	000077724

4805.	9a. Rumex maritimus // Hexand. trigy. <i>Rumex maritimus</i> ex horto acad.	s.n.	000077725
4813.	14a. Rumex aquaticus ? <i>rumex polyantia</i> ex horto acad. florebat fine maii	985	000077733
4825.	8a. Anthericum alooides <i>anthericum alloides</i> ex horto acad. florebat julio	899	000077745
4831.	1a. Herniaria glabra // Pent. digy. <i>herniaria glabra</i> ex horto acad. florebat junio	972	000077751
4845.	3. Chenopodium rubrum ? <i>chenopodium</i> ex horto acad.	[972]	000077765
4855.	Salsola // ex horto acad.	968	000077775
4867.	<i>Aloperucus paniceus</i> // ex horto acad.	1032	000077787
4871.	5a. Phalaris phleoides <i>phalaris phleoides</i> in horto acad. [flor...] junio	1030	000077791
4872.	Phalaris paradoxa <i>phalaris paradoxa</i> florebat in horto acad. junio	s.n.	000077792
4882.	3 ^a . Arundo phragmites <i>arundo fragmites</i> in horto acad.	[...]	000077802
4914.	Amaranthus // ex horto acad.	1112	000077834
4915.	Amaranthus // ex horto acad.	1112	000077835
4916.	Amaranthus spinosus // ex horto acad.	1112	000077836
4940.	Carum bunias // ex horto acad.	s.n.	000077860
4955.	Bunias erucago [tetcad. filig. guare non tetrad. filicul.] <i>bunias erucago</i> florebat in horto acad.	999	000077875
4957.	Lepidium I. <i>Lepidium sativum</i> ? ex horto acad. [on the additional label:] vid. <i>Lep. sativum</i> . satis vifferi a <i>Lep. virginico</i> alterius herb. II. <i>Lepidium virginicum</i>	548	000077877
4968.	Brassica Brassica eruca ? ex horto academia [on the additional label:] nullamgabe cousinis [...] Brassica alt. Gerb. Lin. dicit. [siliqua], <i>Brassica</i> <i>erucaeglabras</i> ene, hic. coniza videntus hirsutae	531	000077888
Folder No 4			
4997.	Xeranthemum annuum // ex horto acad.	s.n.	000077917
5018.	7a. Mentha sativa // Didy. Gym. ex horto acad. florebat junio. <i>Mentha sativa</i> ex horto acad. florebat junio.	[2...]	000077938

5036.	15. <i>Verbena officinalis</i> <i>Verbena officinalis</i> florebat julii initio in horto academia	304	000077956
5053.	1 ^a . <i>Scrophularia marilandica</i> // Didy. Angi. <i>Scrophularia</i> mare landica florebat in horto acad.	[...]	000077973
5061.	5a . <i>Echium creticum</i> <i>Echium creticum</i> ex horto acad. floruit ex primis inatio junis	s.n.	000077981
5064.	3a. <i>Hyosciamus albus</i> <i>hyosciamus albus</i> ex horto acad.	[365]	000077984
5065.	<i>Canna indica</i> <i>Canna indica</i> cannacorus ex seminibus floruit in horto academico pulcherima planta. Sacilime propagotus sibiolis flores lutei ex rubicundi. monquam simul amnia amittifolia, dessicantus amiqua paulatim nona que [succedans]	s.n.	000077985
5072.	17. <i>Salvia clandestina</i> <i>Salvia clandestina</i> in horto acad. floruet	242	000077992
5073.	30. <i>Salvia ceratophylla</i> <i>Salvia ceratophylla</i> floruit in horto acad.	s.n.	000077993
5081.	4a. <i>Salvia officinalis</i> <i>Salvia officinalis</i> in horto acad. colitus var. aurita	242	000078001
5087.	12a. <i>Salvia pratensis</i> <i>Salvia pratensis</i> in horto acad.	s.n.	000078007
5105.	5a. <i>Veronica longifolia</i> <i>Veronica longifolia</i> ex horto acad. flores pulere caerulei	[...]	000078025
5109.	3a. <i>Valeriana cornucopiae</i> <i>Valeriana coronopus</i> florebat in horto acad. julii mensi[s]	s.n.	000078029
Folder No 5			
5143.	<i>Vicia</i> // ex horto <i>Vicia hybrida</i> ex horto acad. [on the additional label:] nullalenus congruit cum fig. 34. horti Jacq. a Linnaeo indicata – al videtio errorem ene hauc indicationem tabula enim 34 horti potties phaseolum refere quam viciam	s.n.	000086501
5160.	69 <i>Cicer arietinum</i> // ex horto acad.	[6...]	000086518
5161.	<i>Cytisus austriacus</i> ? // ex horto acad.	[6...]	000086519
5180.	<i>Coronilla securidaca</i> // ex horto acad.	s.n.	000086537

5192.	5a. Lathyrus sativus <i>Lathyrus annuus</i> ex horto acad. [on the additional label:] non annuus: haec enim species pedunculos habeo bifloros. maximam habeo convarientiam cum [<u>salivo</u>] alt. herbi	s.n.	000086549
5209.	721a. Dolichos sinensis // Diad. dec. <i>Dolichos sinensis</i> ex horto acad.	635	000086566
5225.	Papaver flore luteo // horti acad.	[...]	000086581
5253.	Matricaria parthenium // ex horto acad.	449	000086610
5259.	Senecio lividus // ex horto acad.	462	000086616
5272.	Bidens pilosa // ex horto acad.	s.n.	000086629
5278.	Arctotis tristis // ex horto acad.	s.n.	000086635
5290.	Centaurea benedicta // in horti acad.	479	000086647
5294.	Seriola aethnensis // ex horto acad.	[434]	000086651
5310.	[Calcitrapa] Centaurea eriophora // ex horto acad.	479	000086667
5314.	Lapsana stellata ? // ex horto academico	429	000086671
5327.	Hyoseris rhagadioloides // ex horto acad.	431	000086684
5338.	Crepis alpina // ex horto acad.	s.n.	000086695
5340.	Porthenium hysterothorus // ex horto acad.	[...]	000086697
5348.	15. Scabiosa stellata <i>scabiosa stellata</i> ex horto acad.	s.n.	000086705
5349.	25a. Scabiosa palaestina <i>scabiosa palaestina</i> florebat julio in horto acad.	[37...]	000086706
5350.	Lactuca sativa // ex horto acad.	440	000086707
Folder No 6			
5369.	Trifolium alpestre // ex horto acad.	612	000086725
5370.	Trifolium indicum // ex horto acad.	612	000086726
5371.	Trifolium lap[p]aceum //ex horto acad.	612	000086727
5372.	Trifolium creticum // ex horto acad.	612	000086728
5389.	9a. Potentilla supina <i>potentilla supina</i> ex horto acad. florebat julio	s.n.	000086745
5392.	32. Ranunculus muricatus // Poly. poly. <i>Ranunculus muricatus</i> ex horto acad.	810	000086748
5400.	2a. Nigella sativa // Poly. pent. <i>nigella sativa</i> ex horto acad.	502	000086756
5406.	26. Cistus aegyptiacus <i>cistus aegyptiacus</i> ex horto acad.	769	000086762

5416.	4a. <i>Silene nocturna</i> // dec. trig. <i>Silene nocturna</i> ex horto acad. florebat sine Junii	s.n.	000086772
5438.	12. <i>Gypsophilla saxifraga</i> // dec. digy. <i>Gypsophilla saxifraga</i> ex horto acad.	746	000086794
5440.	<i>Gypsophilla</i> <i>Gypsophilla repens</i> ?ex horto acad.	s.n.	000086796
5453.	9a. <i>Dianthus chinensis</i> <i>dianthus chinensis</i> ex horto acad.	s.n.	000086810
5486.	34. <i>Geranium ciconium</i> ? <i>Geranium</i> ex horto academico	[...]	000086843
5493.	<i>Geranium</i> <i>Geranium gruinum</i> ex horto acad.	s.n.	000086850
5496.	4a. <i>Scandix anthriscus</i> <i>Scandix anthriscus</i> ex horto acad. florebat julio	s.n.	000086853
5505.	7a. <i>Tordylium nodosum</i> <i>Tordylium nodosum</i> ex horto academia	s.n.	000086862
5530.	[<i>Aconitum</i>] <i>Delphinium</i> ex horto acad. poly. trigy.	[930]	000086887
5534.	<i>Delphinium</i> <i>Delphinium elatum</i> ? Ex horto acad. [on the additional label:] Vid. <i>Consolida</i> cum elato alterius herb. Nullomodo [con...]	936	000086891



Fig. 8. Sheet with the plant of VU Botanical Garden - *Phalaris*



Fig. 9. Sheet with the plant of VU Botanical Garden – *Canna*

Table 2 Plants of the Vilnius University Botanical Garden from J.E. Gilibert HERBARIUM GRODNENSIS by families

No	Family	Genus and species (with KW number)
1	Amaranthaceae	Amaranthus sp. (KW 000077834) Amaranthus sp. (KW 000077835) Amaranthus spinosus L. (KW 000077836)
2	Anthericaceae	Anthericum alooides L. (KW 000077745)
3	Apiaceae	Carum bunias L. [Synonyms: Ptychotis saxifraga (L.) Loret & Barrandon] (KW 000077860) Scandix anthriscus L. (KW 000086853) Tordylium nodosum L. (KW 000086862)
4	Asteraceae	Arctotis tristis L. (KW 000086635) Bidens pilosa L. (KW 000086629) Centaurea benedicta (L.) L. (KW 000086647) Centaurea eriophora L. (KW 000086667) Crepis alpina L. (KW 000086695) Hyoseris rhagadioloides L. (KW 000086684) Lactuca sativa L. (KW 000086707) Lapsana stellata L. (KW 000086671) Matricaria parthenium L. (KW 000086610) Parthenium hysterophorus L. (KW 000086697) Senecio lividus L. (KW 000086616) Seriola aethnensis L. (KW 000086651) Xeranthemum annuum L. (KW 000077917)
5	Boraginaceae	Echium creticum L. (KW 000077981)
6	Brassicaceae	Brassica eruca L. (KW 000077888) Bunias erucago L. (KW 000077875) Lepidium sativum L. (KW 000077877)
7	Cannaceae	Canna indica L. (KW 000077985)
8	Caryophyllaceae	Dianthus chinensis L. (KW 000086810) Gypsophila repens L. (KW 000086796) Gypsophila saxifraga L. (KW 000086794) Silene nocturna L. (KW 000086772)
9	Chenopodiaceae	Chenopodium rubrum L. (KW 000077765) Salsola sp. (KW 000077775)
10	Cistaceae	Cistus aegyptiacus L. (KW 000086762)
11	Convolvulaceae	Convolvulus tricolor L. (KW 000076953) Ipomoea lacunosa L. (KW 000076949)
12	Dipsacaceae	Scabiosa palaestina L. (KW 000086706) Scabiosa stellata L. (KW 000086705)

13	Fabaceae	Cicer arietinum L. (KW 000086518) Coronilla securidaca L. (KW 000086537) Cytisus austriacus L. (KW 000086519) Dolichos sinensis L. (KW 000086566) Lathyrus sativus L. (KW 000086549) Trifolium alpestre L. (KW 000086725) Trifolium creticum L. (KW 000086728) Trifolium indicum L. (KW 000086726) Trifolium lappaceum L. (KW 000086727) Vicia hybrida L. (KW 000086501)
14	Geraniaceae	Geranium ciconium L. (KW 000086843) Geranium gruinum L. (KW 000086850)
15	Illecebraceae	Herniaria glabra L. (KW 000077751)
16	Lamiaceae	Leonurus marrubiastrum L. (KW 000076855) Mentha sativa L. (KW 000077938) Salvia ceratophylla L. (KW 000077993) Salvia clandestina L. (KW 000077992) Salvia officinalis L. (KW 000078001) Salvia pratensis L. (KW 000078007)
17	Malvaceae	Lavatera trimestris L. (KW 000076896)
18	Nyctaginaceae	Boerhavia scandens L. (KW 000076854)
19	Papaveraceae	Papaver sp. (KW 000086581)
20	Plantaginaceae	Plantago lagopus L. (KW 000076876) Plantago loeffingii L. (KW 000076873) Plantago major L. (KW 000076875)
21	Poaceae	Aloperucus paniceus L. (KW 000077787) Arundo phragmites L. (KW 000077802) Phalaris paradoxa L. (KW 000077792) Phalaris phleoides L. (KW 000077791)
22	Polygonaceae	Rumex acetosa L. (KW 000077724) Rumex aquaticus L. (KW 000077733) Rumex maritimus L. (KW 000077725)
23	Primulaceae	Androsace elongata L. (KW 000076867) Androsace maxima L. (KW 000076869)
24	Ranunculaceae	Delphinium sp. (KW 000086887) Delphinium elatum L. (KW 000086891) Nigella sativa L. (KW 000086756) Ranunculus muricatus L. (KW 000086748)
25	Rosaceae	Potentilla supina L. (KW 000086745)

26	Rubiaceae	<i>Crucianella angustifolia</i> L. (KW 000076857)
27	Scrophulariaceae	<i>Scrophularia marilandica</i> L. (KW 000077973) <i>Veronica longifolia</i> L. (KW 000078025)
28	Solanaceae	<i>Datura fastuosa</i> L. (KW 000076864) <i>Hyoscyamus albus</i> L. (KW 000077984)
29	Valerianaceae	<i>Valeriana cornucopiae</i> L. (KW 000078029)
30	Verbenaceae	<i>Verbena officinalis</i> L. (KW 000077956)

THE FATE OF THE J.E. GILIBERT PLANT COLLECTION IN VILNIUS

Unfortunately, J.E. Gilibert had worked in Vilnius only for about two years (1781-1783 m.). Due to a provoking scandal related to his family, he decided to leave the work that just started (investigations of local flora, formation of botanical garden and his teaching activities) and go back to his homeland (France). This was a great loss for Vilnius University, where the nature studies had just been started. Only after nearly two years from the departure of J.E. Gilibert, the university managed to invite Georg Forster – a celebrity of the Europe – to come to Vilnius in 1785 to head the Nature History Department and the Botanical Garden. Unfortunately G. Forster's work in Vilnius also was not long – in August of 1787 he hastily gave over his business and left (for a voyage around the world). During these two years in Vilnius, however, his efforts to perform local flora studies and creation of Botanical Garden were rather fruitful. Although today we do not have a full view about plant collections G. Forster left in VU Botanical Garden (his 50-page report to VU Rector had disappeared), it is obvious, he contributed significantly to J.E. Gilibert's heritage. He had brought to Vilnius quite a few seeds and live plants and organise a purchase of a considerably larger land plot for the botanical garden. As S.B. Jundziłł wrote in his reminiscences, G. Forster managed to keep all plants inherited from J.E. Gilibert (Skridaila, 2001; Kurpiel, 1905). After departure of G. Forster, VU Nature History Department had left without a professor for a long time, and the Botanical Garden without a director. There were almost no documents left allowing to visualise the state of the VU Botanical Garden of that time. It is known that the collections had decreased dramatically (Skridaila, 2001). Only in 1792, Ferdinand Spitznagel (1760-1826) had come to work in Vilnius from Vienna. It isn't known what were the collections he inherited. After him, in April of 1799 S.B. Jundziłł took over the Botanical Garden from him and indicated that in the summer of 1799 F. Spitznagel gave over the plants in the Botanical Garden (Medical College yard) (Skridaila, 2001). The inventory act of the Botanical Garden of the 19th July of 1799 (LVIA, f. 567, ap. 2, b. 14), signed by S.B. Jundziłł, has 474 plant names: 107 ones grown in a greenhouse, 172 – open soil perennials and 195 – open soil an-

nuals. According to S.B. Jundziŭ, these were the remains of J.E. Gilibert's collection; however, the newest investigations showed that departing J. E. Gilibert could leave a plant and seed collection of a very similar size. Anyhow, in 1800, S. B. Jundziŭ had transferred about 200 plants to a new garden in Sereikiškės (Skridaila, 2001; Sławiński, 1947), and about 1806, all the left plants (grown in a greenhouse) went there as well. Thus, a new stage in the history of the Botanical Garden, notable for its striking prosperity, started and lasted by 1830. Probably, at least a part of J.E. Gilibert's collection remained by that time. Unfortunately, in 1842 the Botanical Garden in Vilnius had been closed and the entire heritage left by J.E. Gilibert lost.

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CONCLUSIONS

By coming to Vilnius in 1781 Jean Emmanuel Gilibert did a very important work in founding the Botanical Garden and the Nature History Department in Vilnius University. J.E. Gilibert in 1775-1783 performed the first scientific researches of Lithuanian flora and published the first its description (Introduction to Lithuanian Flora). J.E. Gilibert involved his disciples, who were first to study botany here, into the researches of the Lithuanian flora. In VU Botanical Garden J.E. Gilibert formed the first collection that contained plants of at least 500 names and their seeds, as is confirmed by the newest investigations of archive and herbaria material in Vilnius, Göttingen and Kyiv. J.E. Gilibert's disciples (Georg Forster, F. Spitznagel, S.B. Jundziŭ) in fact kept the plant and seed collection formed by their teacher in Vilnius Botanical Garden and made efforts to enlarge it.

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JEAN EMMANUEL GILIBERT A OGRÓD DOTANICZNY
UNIwersytetu WILEŃSKIEGO:
REZULTATY BIEŻĄCYCH BADAŃ MATERIAŁÓW ARCHIWALNYCH
W UNIwersYTECIE WILEŃSKIM, UNIwersYTECIE W GETYNDZE
ORAZ W NATIONAL HERBARIUM OF UKRAINE (KW)

Ogród Botaniczny Uniwersytetu w Wilnie (VUBG) został założony przez francuskiego profesora Jeana Emmanuela Giliberta (1741-1814), który zanim przybył do Wilna, pracował w Grodnie (obecnie na Białorusi), gdzie w 1776 roku założył ogród botaniczny. W 1781 roku Gilibert został zaproszony do Wilna, do którego przybył późną jesienią tego roku. Lokalizacja pierwszego ogrodu botanicznego w Wilnie znajdowała się w samym sercu miasta, na dziedzińcu *Collegium Medicum* (teraz ulica Pilies nr 22), na małej działce wielkości około 200 m². Wczesną wiosną 1782 r. większość roślin (drzewa i krzewy) przeniesiono z ogrodu w Grodnie do nowego ogrodu botanicznego w Wilnie (Köhler, 1995; Skridaila, 2001). Rośliny, uznawane wówczas jako trudne do uprawy w litewskich warunkach klimatycznych, zostały posadzone na zewnątrz. Część z nich posadzono w małych, szybko wybudowanych szklarniach. J.E. Gilibert w krótkim czasie stanął na czele nowego ogrodu botanicznego w Wilnie. Niestety, na początku 1783 roku opuścił Wilno na zawsze.

Nie ma dokładnych danych, ile roślin było uprawianych przez J.E. Giliberta w ogrodzie botanicznym w Wilnie. Odzyskiwanie dokumentów przeprowadzono w różnych litewskich i zagranicznych archiwach (Getynga, Kijów). Niektóre rękopisy drugiego dyrektora wileńskiego ogrodu botanicznego - Georga Forstera (1754-1794), zbadano w Getyndze, gdzie się zachowały do dziś. Według danych G. Forstera z roku 1785, znalazł on w ogrodzie botanicznym w Wilnie, pozostawiony przez J.E. Giliberta, zbiór roślin i nasion - w którym było 500-600 nazw roślin (Skridaila, 2006). Inne źródła zbadano w Zielniku Instytutu Botaniki w Kijowie. W okresie 2008-2012 przeprowadzono kompletny inwentarz tego Zielnika. Kolekcja zawiera 7401 okazów i obejmuje zbiory roślin naczyniowych, mchów, porostów oraz okazy glonów z Białorusi, Litwy i Polski (Shiyan, 2014). Zielnik składa się z trzech części: *Herbarium Linneanum*, *Herbarium Grodnensis* i *Zielnik Klasa 5. Pentandria*. *Herbarium Grodnensis* zawiera arkusze zielnikowe podpisane: „ex Horti Acad.” lub „in Horti Acad.”. Arkusze te przedstawiają rośliny, które były uprawiane w ogrodzie botanicznym w Wilnie. Całkowita liczba arkuszy zielnikowych wynosi 82. Biorąc pod uwagę powyższe dane oraz inne źródła, można zasugerować, że w ogrodzie botanicznym w Wilnie J.E. Gilibert zgromadził kolekcję roślin i nasion sięgającą blisko tysiąc taksonów.