

Symposium proceedings

Creation of a Salicetum in Vrijbroekpark, Mechelen, Belgium

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Abstract

A brief introduction is given to a new project: the creation of a collection of willows (Salicetum) in Vrijbroekpark, Mechelen, Belgium.

Key words: Mechelen, Salicetum, Vrijbroekpark

In May 2019 we opened to the public our Salicetum in Vrijbroekpark, Mechelen, Belgium. This project began in 2017 after Sonja Deneve, at that time a nature guide in the park and passionate about *Salix* L., convinced us to start a collection of *Salix* species. Vrijbroekpark is a public park in Mechelen, which contains many collections of plants from a number of genera, such as *Rosa*, *Canna*, *Dahlia*, etc., and now also *Salix*.



Figure 1. Ferraris's map of the meadows, 1778

This *Salix* collection was planted in a part of the park where there have been well preserved meadows since 1778, as can be seen on the maps of de Ferraris (Fig. 1). A count serving in the Imperial Army of Austria, he produced large-scale maps of the area between 1771 and 1778. We planted willows along the

borders between small patches of meadows, thus forming an historically correct and spectacular landscape element (Fig. 2).



Figure 2. Willows planted along the borders between meadows



Figure 3. Information panels at strategic points around the site

Why is Vrijbroekpark a good place for willows?

First of all, prior to the development of the park, the territory had been a wetland. The soil rich in clay makes the park very wet. A recent addition to the park, the Wilgernis has been in need of enhancements that would add value both for our visitors and the ecosystem. Therefore, the decision to start a Salicetum was quickly and broadly supported. Education is a very important part of our mission and willows are of interest and commonly grown in Belgium. It was therefore felt that willows should receive more attention. We plan to provide content on the ecological, historical and economic importance of willows and bring this information to our visitors in the most suitable way, with a living willow collection.

What are our aims and ambitions?

Our first goal is provision of an educational and recreational facility for our visitors. Today one can walk around the Salicetum and have access to information about the willows from

panels situated at the side of the path (Fig. 3). In the future, we are going to offer guided tours and workshops.

Secondly, we would like to focus on the landscape. It is our ambition to show different forms of willows. Forming the meadow borders and thus recreating a historic landscape, these willows are to represent variable landscape elements as they mature, some growing into large trees of various habits (weeping, pyramidal, spherical etc.), others pollarded and coppiced to demonstrate how they can be used (Fig. 4). We would like to also have some willow landscape art in our park.



Figure 4. Older willows providing examples of pollarding in the Salicetum

Although the scientific aspect is not our main goal, we are implementing proper collection management by ensuring the correct identification and labelling including consultations with

specialists for taxonomic revisions. It is our aim to collect and maintain specimens commonly grown worldwide. At a later stage we will add some *Populus* L. species, creating a Populetum.

Our current collection includes specimens from Kaisaniemi Botanic Garden, Helsinki, Finland; Royal Botanic Gardens, Kew, UK; Lebbeke, Belgium; Botanic Garden of Friedrich Wilhelm University, Bonn, Germany and from Zaryadye Park, Moscow, Russia (Table 1). Photographs of some plants growing in the Salicetum are shown in Figures 5–8.

Table 1. Taxa represented in the Wilgernis Salicetum and the nursery (accession number with *) (2019). Accepted names shown in bold. All names in accordance with IPNI (2020) and WCVP (Belyaeva & Govaerts, 2020).

Name	Accession number
<i>Salix acutifolia</i> Willd.	20180001*
<i>S. aegyptiaca</i> L.	20180002*
<i>S. apennina</i> A.K.Skvortsov	20180003
<i>S. appendiculata</i> Vill.	20180004*
<i>S. aurita</i> L.	20180005
<i>S. babylonica</i> L. ‘Crispa’	20180006
<i>S. caprea</i> L.	20180007
<i>S. cinerea</i> L.	20180008
<i>S. daphnoides</i> Vill.	20180009
<i>S. eleagnos</i> Brot.	20180010
<i>S. eriocephala</i> Michx.	20180011
<i>S. gmelinii</i> Pall. ‘Angustifolia’	20180012
<i>S. gracilistyla</i> f. <i>melanostachys</i> (Makino) H.Ohashi	20180013
<i>S. irrorata</i> Andersson	20180015
<i>S. myrsinifolia</i> Salisb.	20180016
<i>S. purpurea</i> L.	20180017*
<i>S. pyrifolia</i> Andersson	20180018
<i>S. repens</i> L.	20180019*
<i>S. triandra</i> L. ‘Groene Reins’	20180020
<i>S. triandra</i> L. ‘Grote Grijze Wis’	20180021
<i>S. triandra</i> L. ‘Kleine Grijze Wis’	20180022
<i>S. udensis</i> Trautv. & C.A.Mey. ‘Sekka’	20180023
<i>S. udensis</i> Trautv. & C.A.Mey. ‘Sekka’ × <i>S. cinerea</i> L.	20180024*
<i>S. udensis</i> Trautv. & C.A.Mey. ‘Sekka’ × <i>S. viminalis</i> L.	20180025*
<i>S. udensis</i> Trautv. & C.A.Mey. ‘Sekka’ × <i>S. caprea</i> L.	20180026
<i>S. viminalis</i> L.	20180027
<i>S. × Bögelsack’</i> (<i>S. aegyptiaca</i> L. × <i>S. caprea</i> L.)	20180028
Name	Accession number
<i>S. × salomonii</i> (Carrière) Carrière = <i>S. pendulina</i> Wender. f. <i>salomonii</i> (Carrière) I.V.Belyaeva	20180068
<i>S. × tetrapla</i> Walk. (<i>S. myrsinifolia</i> Salisb. × <i>S. phylicifolia</i> L.)	20180069*
<i>S. atrocinerea</i> Brot. × <i>S. phylicifolia</i> L.	20180072
<i>S. eriocephala</i> Michx.	20180073
<i>S. euxina</i> I.V.Belyaeva ‘Bullata’	20180074
<i>S. exigua</i> Nutt.	20180075*
<i>S. integra</i> Thunb. ‘Hakuro-Nishiki’	20180076*
<i>S. miyabeana</i> f. <i>gilgiana</i> (Seemen) H.Ohashi	20180077
<i>S. prolixa</i> Andersson	20180079
<i>S. udensis</i> Trautv. & C.A.Mey.	20180080
<i>S. hylematica</i> C.K.Schneid. ≡ <i>S. fruticulosa</i> Andersson	20180081*
<i>S. purpurea</i> L.	20180082
<i>S. hastata</i> L.	20180083*
<i>S. aurita</i> L.	20180084
<i>S. nigra</i> Marshall	20180085
<i>S. futura</i> Seemen	20180087
<i>S. rosmarinifolia</i> L.	20180088
<i>S. waldsteiniana</i> Willd.	20180089
<i>S. hookeriana</i> Barratt ex Hook.	20180091
<i>S. humilis</i> Marshall	20180094
<i>S. helvetica</i> Vill.	20180095
<i>S. miyabeana</i> Seemen	20180096
<i>S. sitchensis</i> Sanson ex Bong.	20180097*
<i>S. pentandra</i> L.	20180098
<i>S. sitchensis</i> Sanson ex Bong.	20180099
<i>S. viminalis</i> L.	20180100*
<i>S. repens</i> L. ‘Argentea’	20190020*

<i>S. × calodendron</i> Wimm. (<i>S. caprea</i> L. × <i>S. cinerea</i> L. × <i>S. viminalis</i> L.) = <i>S. gmelinii</i> Pall.	20180029	<i>S. × mollissima</i> Hoffm. ex Elwert var. <i>hippophaefolia</i> (Thuill.) Wimm. (<i>S. triandra</i> L. × <i>S. viminalis</i> L.)	20180102*
<i>S. × capreola</i> A.Kern. ex Andersson (20180030*	<i>S. dasyclados</i> 'Aquatrica Gigantea' = <i>S. gmelinii</i> Pall.	20180104*
<i>S. × charrieri</i> Chass. (<i>S. aurita</i> L. × <i>S. atrocinerea</i> Brot.)	20180031	<i>S. koreensis</i> Andersson = <i>S. pierottii</i> Miq.	20180105
<i>S. × erdingeri</i> A.Kern. (<i>S. caprea</i> L.× <i>S. daphnoides</i> Vill.)	20180032	<i>S. × pendulina</i> Wender. (<i>S. babylonica</i> L. × <i>S. euxina</i> I.V.Belyaeva)	20180106
<i>S. × pendulina</i> Wender. f. <i>erythroflexuosa</i> I.V.Belyaeva	20180033*	<i>S. sitchensis</i> Sanson ex Bong.	20180107*
<i>S. × fragilis</i> L. 'Furcata'	20180034	<i>S. mielichhoferi</i> Saut.	20190001*
<i>S. × friesiana</i> Andersson (<i>S. repens</i> L. × <i>S. viminalis</i> L.)	20180035	<i>S. × sepulcralis</i> Simonk. 'Öresund' (<i>S. babylonica</i> L. × <i>S. × fragilis</i> L.f. <i>vitellina</i> (L.) I.V.Belyaeva) = <i>S. pendulina</i> Wender. f. <i>salamonii</i> (Carrière) I.V.Belyaeva	20180109
<i>S. × guinieri</i> Chass. & Goerz (<i>S. cinerea</i> L.× <i>S. atrocinerea</i> Brot.)	20180036	<i>S. euxina</i> I.V.Belyaeva (Tallin, Estonia)	20180110*
<i>S. × holosericea</i> Willd. (<i>S. cinerea</i> L. × <i>S. viminalis</i> L.) = <i>S. gmelinii</i> Pall.	20180037	<i>S. euxina</i> I.V.Belyaeva (Long Ashton, UK)	20180111*
<i>S. × meyeriana</i> (<i>S. euxina</i> I.V.Belyaeva × <i>S. pentandra</i> L.)	20180038	<i>S. × ehrhartiana</i> Sm. (<i>S. alba</i> L. × <i>S. pentandra</i> L.)	20180112*
<i>S. × mollissima</i> Hoffm. ex Elwert var. <i>undulata</i> (Ehrh.) Wimm. (<i>S. triandra</i> L. × <i>S. viminalis</i> L.)	20180039	<i>S. eriocephala</i> Michx.	20180114*
<i>S. × quercifolia</i> Sennen ex Goerz (<i>S. atrocinerea</i> Brot. × <i>S. caprea</i> L.)	20180040	<i>S. subopposita</i> Miq.	20180116
<i>S. × rubens</i> Schrank 'Gele Twijg' = <i>S. × fragilis</i> L.	20180041	<i>S. pupurea</i> L.f. <i>gracilis</i> Wimm.	20180117
<i>S. × rubra</i> Huds. (<i>S. pupurea</i> L. × <i>S. viminalis</i> L.)	20180042	<i>S. schwerinii</i> E.L.Wolf	20180118*
<i>S. schraderiana</i> Willd. = <i>S. bicolor</i> Ehrh. ex Willd.)	20180043*	<i>S. bicolor</i> Ehrh. ex Willd.	20180119*
<i>S. × holosericea</i> Willd. (<i>S. cinerea</i> L. × <i>S. viminalis</i> L.) = <i>S. gmelinii</i> Pall.	20180044*	<i>S. × multinervis</i> Döll (<i>S. aurita</i> L. × <i>S. cinerea</i> L.)	20190002*
<i>S. euxina</i> I.V.Belyaeva	20180047	<i>S. × holosericea</i> Willd. (<i>S. cinerea</i> L. × <i>S. viminalis</i> L.) = <i>S. gmelinii</i> Pall.	20190003*
<i>S. alba</i> L. 'Vitellina' = <i>S. × fragilis</i> L.f. <i>vitellina</i> (L.) I.V.Belyaeva	20180048	<i>S. basfordiana</i> Scaling ex J.Salter = <i>S. × fragilis</i> L. f. <i>vitellina</i> (L.) I.V.Belyaeva	20190004*
<i>S. viminalis</i> L. 'Ulv'	20180049*	<i>S. smithiana</i> Willd. = <i>S. gmelinii</i> Pall.	20190005*
<i>S. fragilis</i> L. var. <i>fragilis</i>	20180050*	<i>S. viminalis</i> L.	20190006*
<i>S. euxina</i> I.V.Belyaeva 'Bullata'	20180051	<i>S. alba</i> L.	20190007*
<i>S. alba</i> L. f. <i>sericea</i> Gaudin 'Sibirica'	20180052	<i>S. caprea</i> L.	20190008*
<i>S. euxina</i> I.V.Belyaeva	20180053	<i>S. caerulea</i> Sm. = <i>S. alba</i> L.	20190009*
<i>S. elaeagnos</i> Scop. ssp. <i>angustifolia</i> (Cariot) Rech.f.	20180054*	<i>S. × calodendron</i> Wimm. (<i>S. caprea</i> L. × <i>S. cinerea</i> L. × <i>S. viminalis</i> L.) = <i>S. gmelinii</i> Pall.	20190010*
<i>S. purpurea</i> L. ssp. <i>purpurea</i>	20180055*	<i>S. × reichardtii</i> A.Kern. (<i>S. caprea</i> L. × <i>S. cinerea</i> L.)	20190011*
<i>S. × erythroclados</i> Simonk. (<i>S. alba</i> L. × <i>S. triandra</i> L.)	20180056*	<i>S. babylonica</i> L.	20190012*
<i>S. × pendulina</i> Wender. var. <i>elegantissima</i> (K.Koch) Meikle = <i>S. × pendulina</i> Wender.	20180057*	<i>S. 'Americana'</i>	20190013*
<i>S. atrocinerea</i> Brot. × <i>S. udensis</i> Trautv. & C.A.Mey. 'Sekka'	20180059	<i>S. lutea</i> Nutt.	20190014*

<i>S. × fragilis</i> L. (<i>S. alba</i> L. × <i>S. euxina</i> I.V.Belyaeva)	20180060*
<i>S. × fragilis</i> L. (<i>S. alba</i> L. × <i>S. euxina</i> I.V.Belyaeva)	20180061
<i>S. × fragilis</i> L. 'Basfordiana'	20180062
<i>S. × fragilis</i> L. 'Lasipalatsi'	20180063*
<i>S. × fragilis</i> L. f. <i>vitellina</i> (L.) I.V.Belyaeva	20180064
<i>S. euxina</i> I.V.Belyaeva	20180065
<i>S. × fragilis</i> L. var. <i>russelliana</i> (Sm.) Klett & Richt.	20180066*

<i>S. triandra</i> L.	20190015*
<i>S. × reichardtii</i> A.Kern. (<i>S. caprea</i> L. × <i>S. cinerea</i> L.)	20190016*
<i>S. × finnmarchica</i> Willd. (<i>S. myrtilloides</i> L. × <i>S. repens</i> L.)	20190017*
<i>S. × multinervis</i> Döll (<i>S. aurit a</i> L. × <i>S. cinerea</i> L.)	20190018*
<i>S. triandra</i> L. 'Noir de Villaines'	20190019*
<i>S. udensis</i> Trautv. & C.A.Mey. 'Sekka'	20180101*



Figure 5. *Salix babylonica* L. 'Crispa'



Figure 6. *Salix euxina* I.V.Belyaeva



Figure 7. *Salix pendulina* Wender. f. *salamonii* (Carrière) I.V.Belyaeva



Figure 8. *Salix udensis* Trautv. & C.A.Mey. ‘Sekka’

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