

**Betula in the World, and Arboreta  
IDS Study week-end  
Devon, UK**

**Philippe de Spoelberch  
Octobre 2011**

# The genus *Betula* - Classification crossed with geographical distribution (2011.1008)

SUBGENUS										
Section	Europe Western Asia	Caucasus	Himalaya	W. China, (Yun.,Sich., Guiz.)	C&E. China	Siberia	Korea, Mandsh.	Japan	Western North America	Eastern North America
<u>NIPPONOBETULA</u>										
Nipponobetula	corylifolia									
<u>ASPERAE</u>										
Asperae	calicola									
<i>Asperae</i>	potaninii schmidtii schmidtii schmidtii									
<i>Chinenses</i>	bomiensis delavayi fargesii chichibuensis									
Lentae	skvortsovii fargesii chinensis chinensis globispica									
	medwediewii insignis grossa lenta									
	megrelica murrayana alleghaniensis									
<u>ACUMINATAE</u>										
	alnoides alnoides alnoides									
	cylindrostachya cylindrostachya cylindrostachya maximowicziana									
	luminifera luminifera									
<u>BETULA</u>										
Dahuricae	raddeana dahurica 8x dahurica 8x dahurica 6x nigra									
Costatae	utilis aggr. (jacquemontii - utilis - albosinensis) ermanii ermanii									
	ashburneri costata costata									
Betula	celtiberica pubescens pubescens (microphylla/tianshanica) occidentalis populifolia									
	pendula pendula pendula aggr. papyrifera papyrifera									
	(szechuanica, mandshurica mandshurica mandshurica) neoalaskana cordifolia									
Apterocaryon	humilis humilis / fruticosa fruticosa fruticosa pumila pumila									
	nana gmelinii gmelinii/apoiensis glandulosa glandulosa									
	michauxii									
This table is based on McAlister (2011), Skvortsov (2002), compiled by Philippe de Spoelberch for the IDS <i>Betula</i> Symposium 9 October 2011										



*Betula corylifolia* - RBGE 1996.2934a - Edinburgh



**Betula corylifolia - RBGE 1996.2934a - Edinburgh - 2008.0508**



**Betula corylifolia - RBGE 1996.2934a - Edinburgh - 2008.0508**





The genus *Betula* - Classification crossed with geographical distribution (2011.1008)

SUBGENUS	Europe Western Asia	Caucasus	Himalaya	W. China, (Yun.,Sich., Guiz.)	C&E. China	Siberia	Korea, Mandsh.	Japan	Western North America	Eastern North America
<u>NIPPONOBETULA</u>										
Nipponobetula	corylifolia									
<u>ASPERAE</u>										
Asperae	calcolica									
<i>Asperae</i>	potaninii									
	schmidtii									
	schmidtii									
	schmidtii									
	chichibuensis									
<i>Chinenses</i>	bomiensis									
	delavayi									
	fargesii									
	skvortsovi									
	fargesii									
	chinensis									
	chinensis									
	globispica									
Lentae	medwediewii									
	megrelica									
	insignis									
	grossa									
	lenta									
	murrayana									
	alleghaniensis									
<u>ACUMINATAE</u>										
	alnoides									
	cylindrostachya									
	alnoides									
	cylindrostachya									
	alnoides									
	cylindrostachya									
	luminifera									
	luminifera									
	maximowicziana									
<u>BETULA</u>										
Dahuricae	raddeana									
	dahurica 8x									
	dahurica 8x									
	dahurica 6x									
	nigra									
Costatae	utilis aggr.									
	(jacquemontii - utilis - albosinensis)									
	ermanii									
	ermanii									
	ashburneri									
	costata									
	costata									
Betula	celtiberica									
	pubescens									
	pubescens									
	(microphylla/tianshanica)									
	occidentalis									
	populifolia									
	pendula									
	pendula									
	pendula aggr.									
	(szechuanica, mandshurica mandshurica mandshurica)									
	papyrifera									
	papyrifera									
	nealaskana									
	cordifolia									
Apterocaryon	humilis									
	nana									
	humilis / fruticosa									
	fruticosa									
	fruticosa									
	fruticosa									
	pumila									
	glandulosa									
	glandulosa									
	gmelinii									
	gmelinii/apoiensis									
	michauxii									
This table is based on McAlistair (2011), Skvortsov (2002), compiled by Philippe de Spoelberch for the IDS <i>Betula</i> Symposium 9 October 2011										





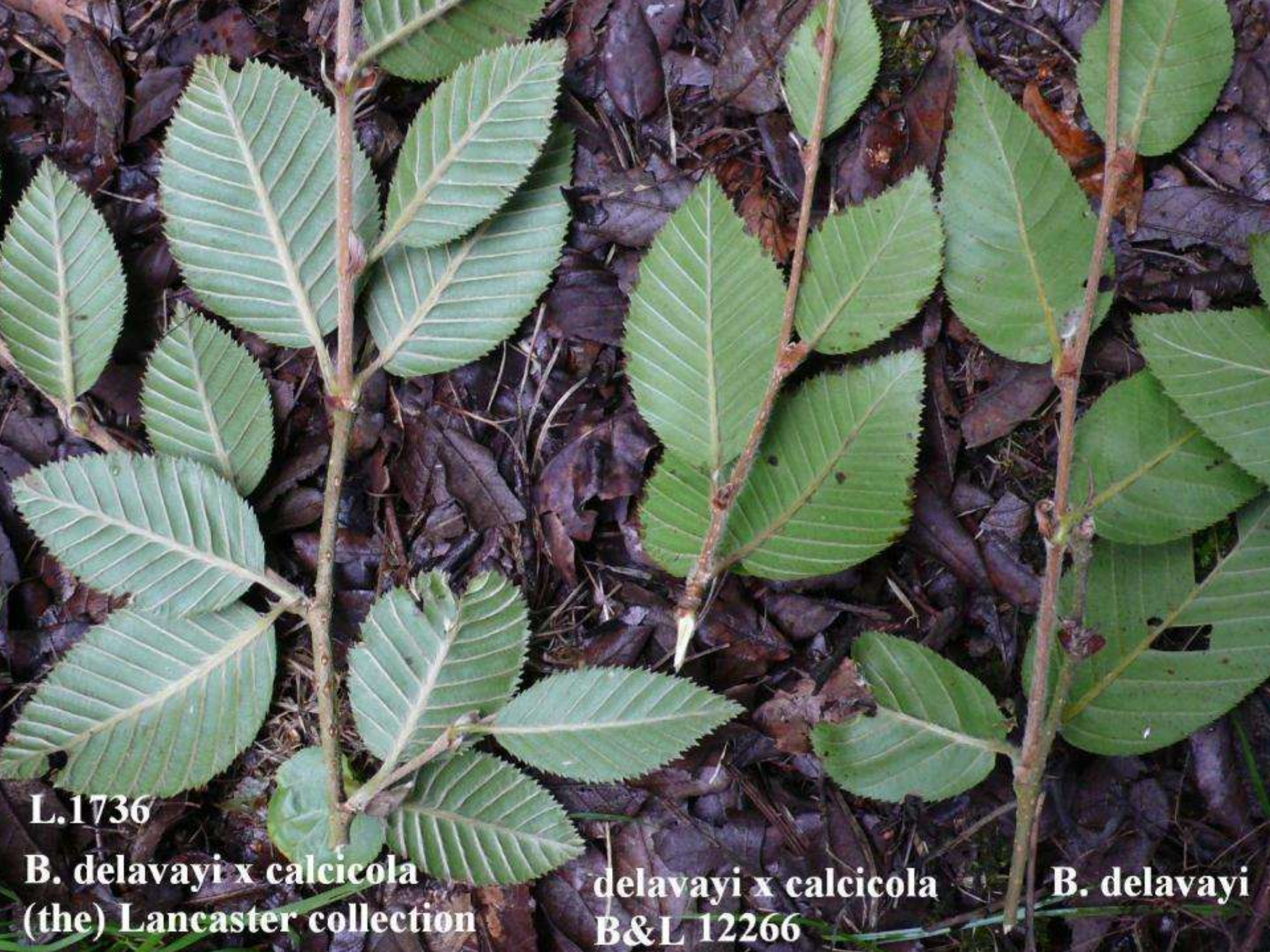
Betula bomiensis KR ...- White House Farm - 2008.0906



**Betula calcicola, Glendoick - 2008.0506**



Betula calcicola x delavayi Lanc.1736 - (small tree) - White House Farm - 2008.0906



**L.1736**

**B. delavayi x calcicola  
(the) Lancaster collection**

**delavayi x calcicola  
B&L 12266**

**B. delavayi**



**Betula delavayi - Gorge out of Lijiang, Yunnan - 2008.0625**



Betula delavayi - Gorge out of Lijiang - 2008.0625



Rhododendron lepidotum - Gorge out of Lijiang- 2008.0625



Betula delavayi - Gorge out of Lijiang - 2008.0625





*Betula delavayi* aff. - Gorge out of Lijiang - 2008.0625 096



Betula delavayi aff. - Gorge out of Lijiang - 2008.0625 097



**Betula delavayi (Herb) - Tianshe lake, S.Zongdian , Yunnan- 2008.0628**



**Betula potaninii - J.B. Saverne (Strasbourg) - BDB - 2006.0528-**



**Betula potaninii - J.B. Saverne (Strasbourg) - BDB - 2006.0528-**



**Betula potaninii - Howick -**



Betula schmidtii with B. platyphylla –  
Changbaishan, Jilin, N.E. China , 1984



Betula schmidtii - Arnold Arb. - 2006.1001



Betula schmidtii (Mt.Sobaek, S.Korea)



**Betula schmidtii - Arnold.7486-B - 1997.1018 - BDB in New England - 18 Oct 1997**





*Betula schmidtii* (Mt.Sobaek,S.Korea) - 93017-wld-279 - 1996.0824 -



**Betula schmidtii (Mt. Sobaek, S. Korea) - 93017-wld-279 - 2005.0508**



**Betula schmidtii (Mt .Sobaek, S. Korea) - 93017-wld-279 - 2008.0601**











*Betula schmidtii* (Mt. Sobaek, S.Korea) - 93017-wld-279 -





**Betula chichibuensis – Hergest Croft**



*Betula chichibuensis* (Mt Kano, Honshu, Japan) McAllistair col.- 10235-wld- 32 -2010.05

# The genus *Betula* - Classification crossed with geographical distribution (2011.1008)

<u>SUBGENUS</u>	Europe Western Asia	Caucasus	Himalaya	W. China, (Yun.,Sich., Guiz.)	C&E. China	Siberia	Korea, Mandsh.	Japan	Western North America	Eastern North America
<u>NIPPONOBETULA</u> Nipponobetula								corylifolia		
<u>ASPERAE</u> Asperae <i>Asperae</i>  <i>Chinenses</i>  Lentae			bomiensis	calicola potaninii delavayi skvortsovi fargesii	fargesii	schmidtii	schmidtii	schmidtii chichibuensis  globispica		
		medwediewii megrelica		insignis				grossa		lenta murrayana alleghaniensis
<u>ACUMINATAE</u>			alnoides cylindrostachya	alnoides cylindrostachya luminifera	alnoides cylindrostachya luminifera			maximowicziana		
<u>BETULA</u> Dahuricae		raddeana				dahurica 8x	dahurica 8x	dahurica 6x		nigra
Costatae				utilis aggr. (jacquemontii - utilis - albosinensis)		ermanii	ermanii			
			ashburneri	costata			costata			
Betula	celtiberica pubescens	pubescens					(microphylla/tianshanica)		occidentalis	populifolia
	pendula	pendula		pendula aggr. (szechuanica, mandshurica)	mandshurica	mandshurica	mandshurica		papyrifera neoalaskana	papyrifera cordifolia
Apterocaryon	humilis nana				humilis / fruticosa	fruticosa	fruticosa	fruticosa	pumila glandulosa	pumila glandulosa michauxii
						gmelinii		gmelinii/apoiensis		

This table is based on McAlister (2011), Skvortsov (2002),  
compiled by Philippe de Spoelberch for the IDS *Betula* Symposium 9 October 2011



Betula fargesii - Arnold Arboretum, Boston, Mass.- 1992.0530 -



Betula chinensis - White House Farm, Kent -



*Betula chinensis* (Mt.Sobaek,S.Korea,1330m) - 98119-wld-277 - 2011.0425



**Betula chinensis - from Mount Sobaek, Korea, at Arboretum Wespelaar**



**Betula chinensis - from Mount Sobaek,**





*Betula chinensis* (Mt.Sobaek,S.Korea) - 93016-wld- 32 - 2002.0709



**Betula chinensis** - from Mount Sobaek,





*Betula globispica* - Ness B.G., Liverpool - 2000.0504 -



**Betula globispica – Ness B.G.,**



Betula globispica - White House Farm -



*Betula globispica* - White House Farm - 2008.0906

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<u>SUBGENUS</u>	Europe Western Asia	Caucasus	Himalaya	W. China, (Yun.,Sich., Guiz.)	C&E. China	Siberia	Korea, Mandsh.	Japan	Western North America	Eastern North America
<u>NIPPONOBETULA</u> Nipponobetula								corylifolia		
<u>ASPERAE</u> Asperae <i>Asperae</i>  <i>Chinenses</i>  Lentae			bomiensis	calicola potaninii delavayi skvortsovi fargesii	fargesii	schmidtii	schmidtii	schmidtii chichibuensis		
		medwediewii megrelica		insignis				grossa		lenta murrayana alleghaniensis
<u>ACUMINATAE</u>			alnoides cylindrostachya	alnoides cylindrostachya luminifera	alnoides cylindrostachya luminifera			maximowicziana		
<u>BETULA</u> Dahuricae		raddeana				dahurica 8x	dahurica 8x	dahurica 6x		nigra
Costatae				utilis aggr. (jacquemontii - utilis - albosinensis)		ermanii	ermanii			
			ashburneri	costata			costata			
Betula	celtiberica pubescens	pubescens				(microphylla/tianshanica)			occidentalis	populifolia
	pendula	pendula		pendula aggr. (szechuanica, mandshurica)	mandshurica	mandshurica	mandshurica		papyrifera neoalaskana	papyrifera cordifolia
Apterocaryon	humilis nana				humilis / fruticosa	fruticosa	fruticosa	fruticosa	pumila glandulosa	pumila glandulosa michauxii
						gmelinii		gmelinii/apoiensis		

This table is based on McAlister (2011), Skvortsov (2002),  
compiled by Philippe de Spoelberch for the IDS *Betula* Symposium 9 October 2011



**Betula medwediewii - 84173-esv- 27**







**Betula medwediewii – Parc de Mariemont, Belgium, BD.9780 etc - 2006.1021**



Betula medwediewii - 84942-esv-276 - 2006.0326



*Betula medwediewii* 'Gold Bark' - 91043-pav- 36 - 2008.0601



Betula medwediewii 'Gold Bark' - 91043-pav- 36 - 2008.0601



Betula insignis - Guiz 82 - RBG Kew.1996.1194 - 2006.0426-



**Betula insignis - Guiz 82 - RBG Kew.1996.1194 - 2006.0426-**







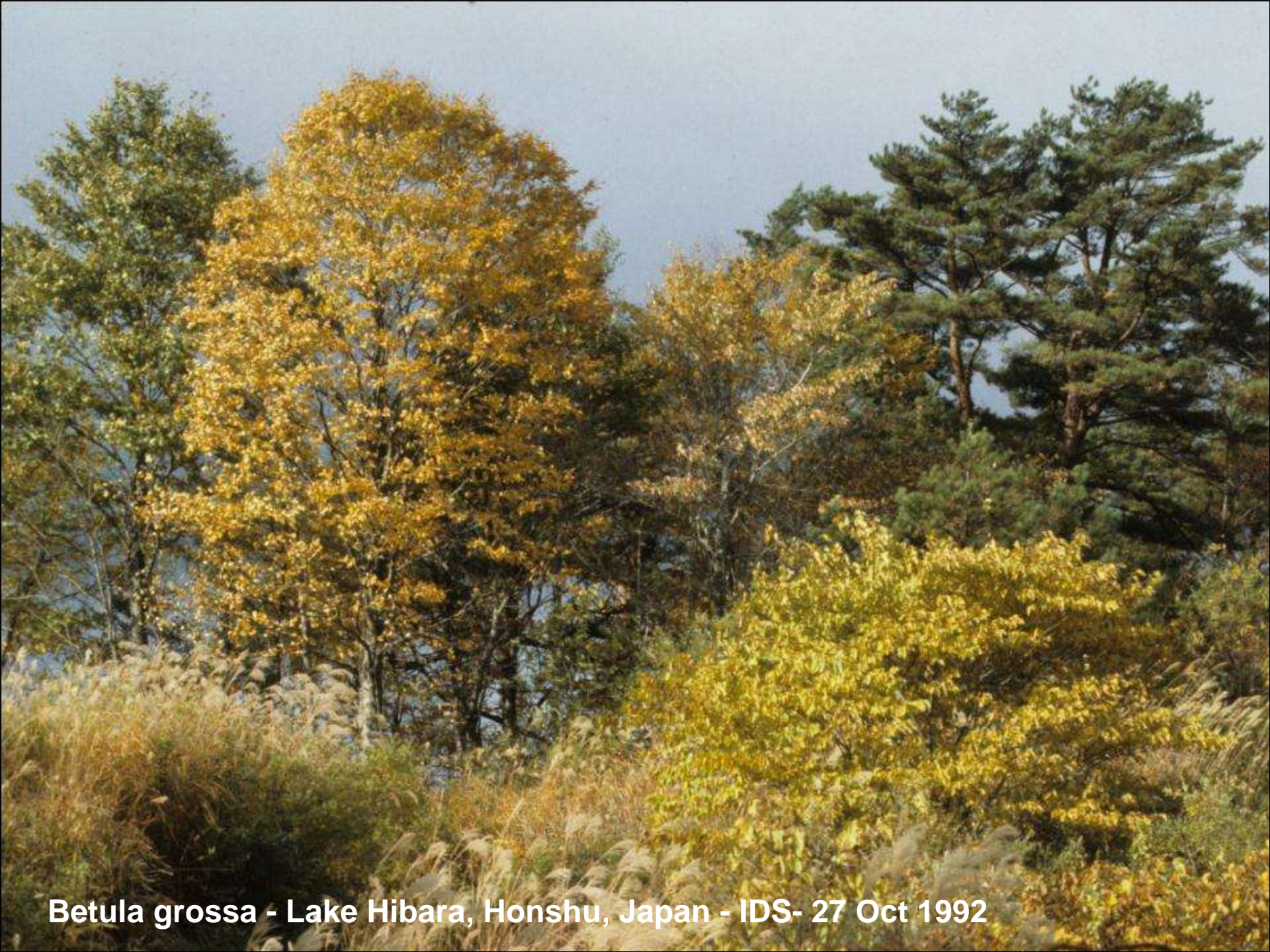
*Betula insignis* - Guiz 82 - RBG  
Kew.1996.1194 - 2006.0426-



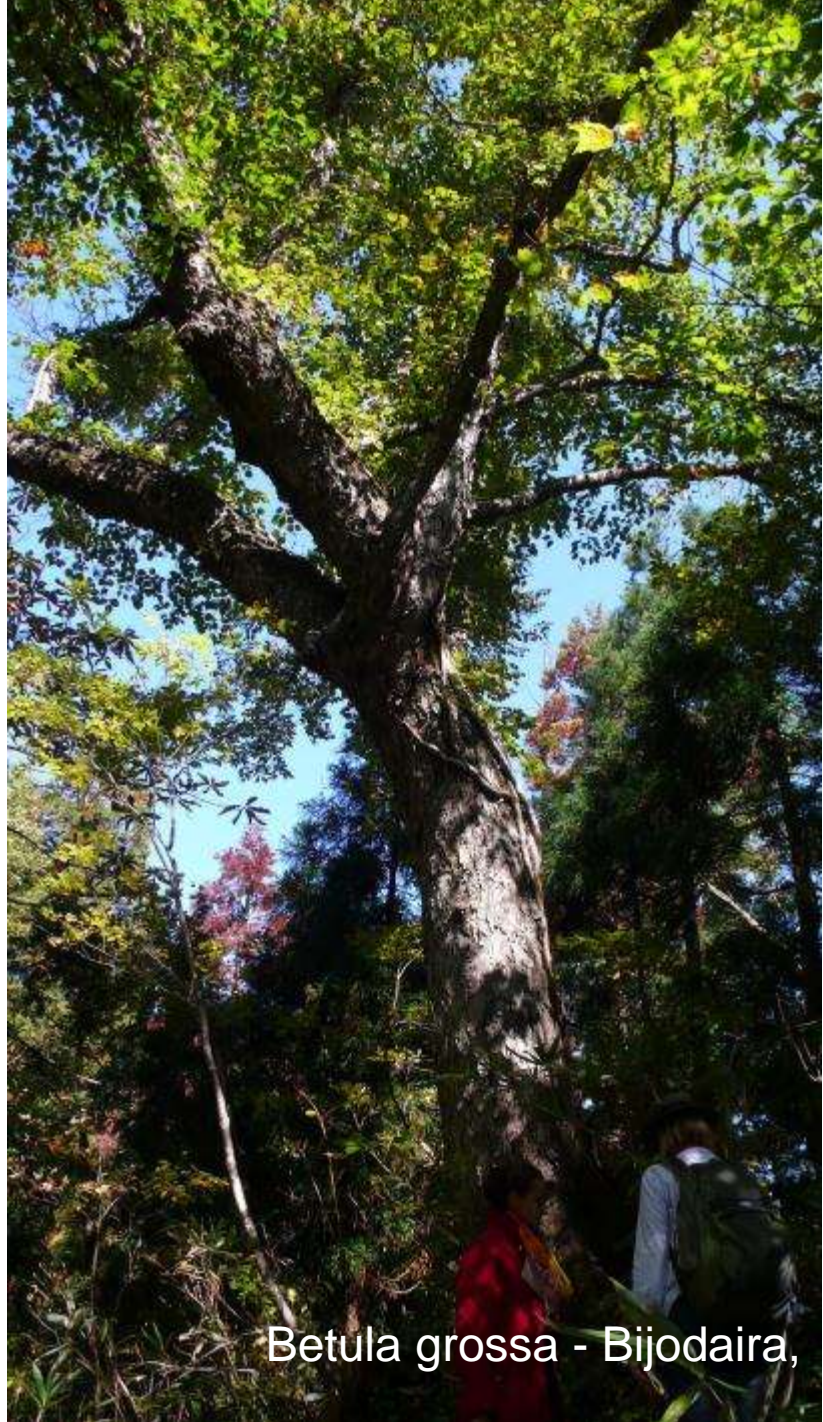
*Betula insignis* - White House Farm -  
2008.0906



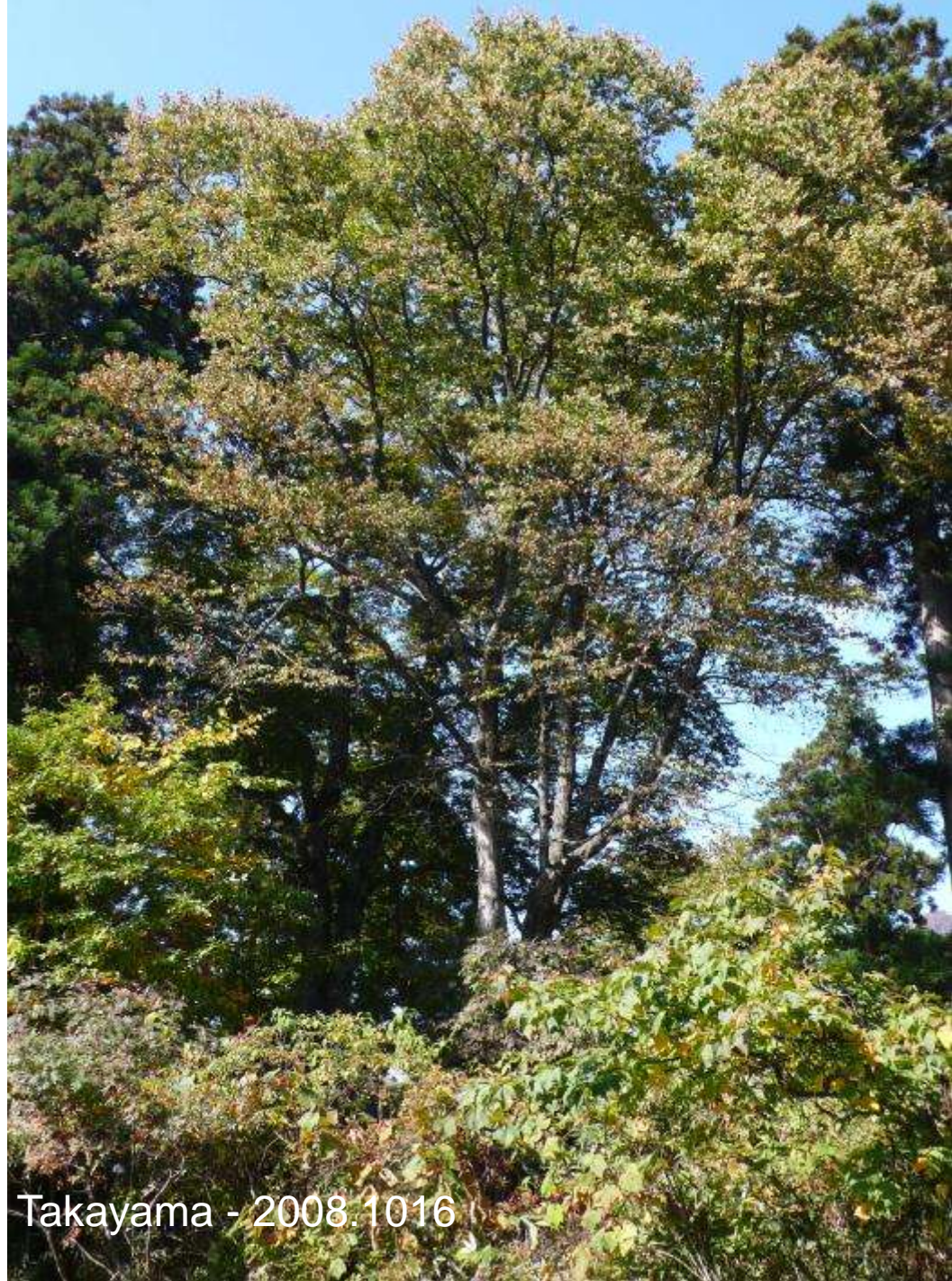
*Betula insignis* - Guiz 82 - Guizhou, Fan Jin Shan - Castle Howard 34245 -



**Betula grossa - Lake Hibara, Honshu, Japan - IDS- 27 Oct 1992**



*Betula grossa* - Bijodaira,



Takayama - 2008.10.16



**Betula grossa – Hemelrijk**



**Betula grossa - 88078-ter-147**



**Betula grossa - 91102-ter-131- 2001.1102**













**Betula lenta - 92163-pds-165 - 2006.1024**





Betula lenta - 92163-pds-166 - 2010.1029



Betula lenta - Frelinghyzen Arbor. NJ, US  
- IDS 16 Oct 1988



*Betula lenta* - (with Bob Berry) -  
Frelinghyzen, NJ, USA - IDS 16 Oct 1988



*Betula lenta* - Arnold Arbor. — 1997.1018



*Betula lenta* KA 301 ( Waynsboro, Virginia, 300m) - Herkenrode 96122, 2006.1025





Betula lenta KA 301

(Waynsboro, Virginia ,300m) -

96124-wld-277 -



Betula lenta - Arnold.Arboretum 628-88 - 2000.1025



*Betula lenta* subsp. *uber* (1982.00338) - Von Gimborn Arboretum, Netherlands. - 200



*Betula lenta* subsp. *uber* – Jard .Botan. de Gondremér, Vosges, France - 2006.0527-



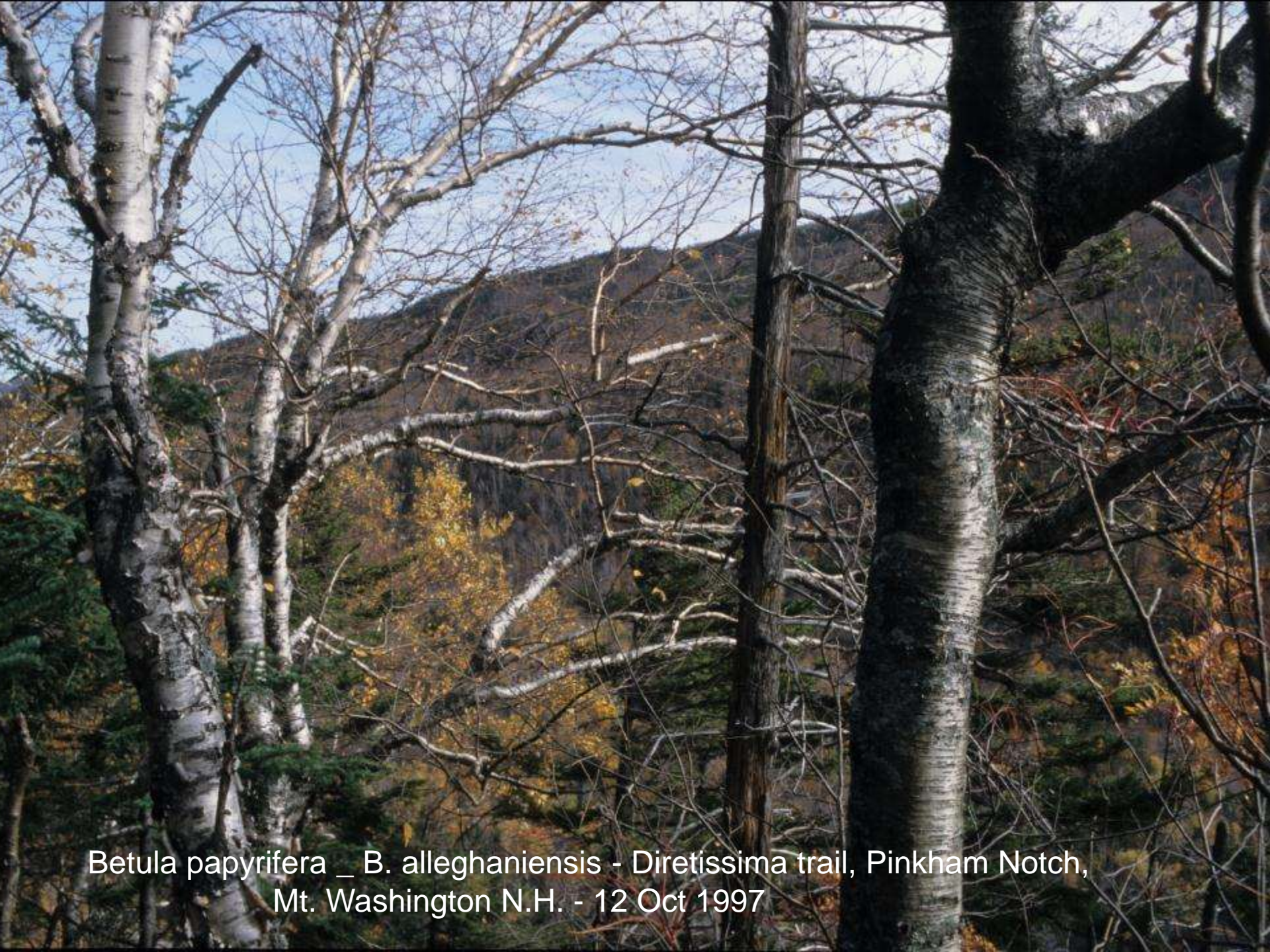
Betula lenta subsp. uber – Herkenrode 88174-esv- 36 - 2010.1026



Betula lenta subsp. uber - Herkenrode - 88174-esv- 36 - 9 July 2005

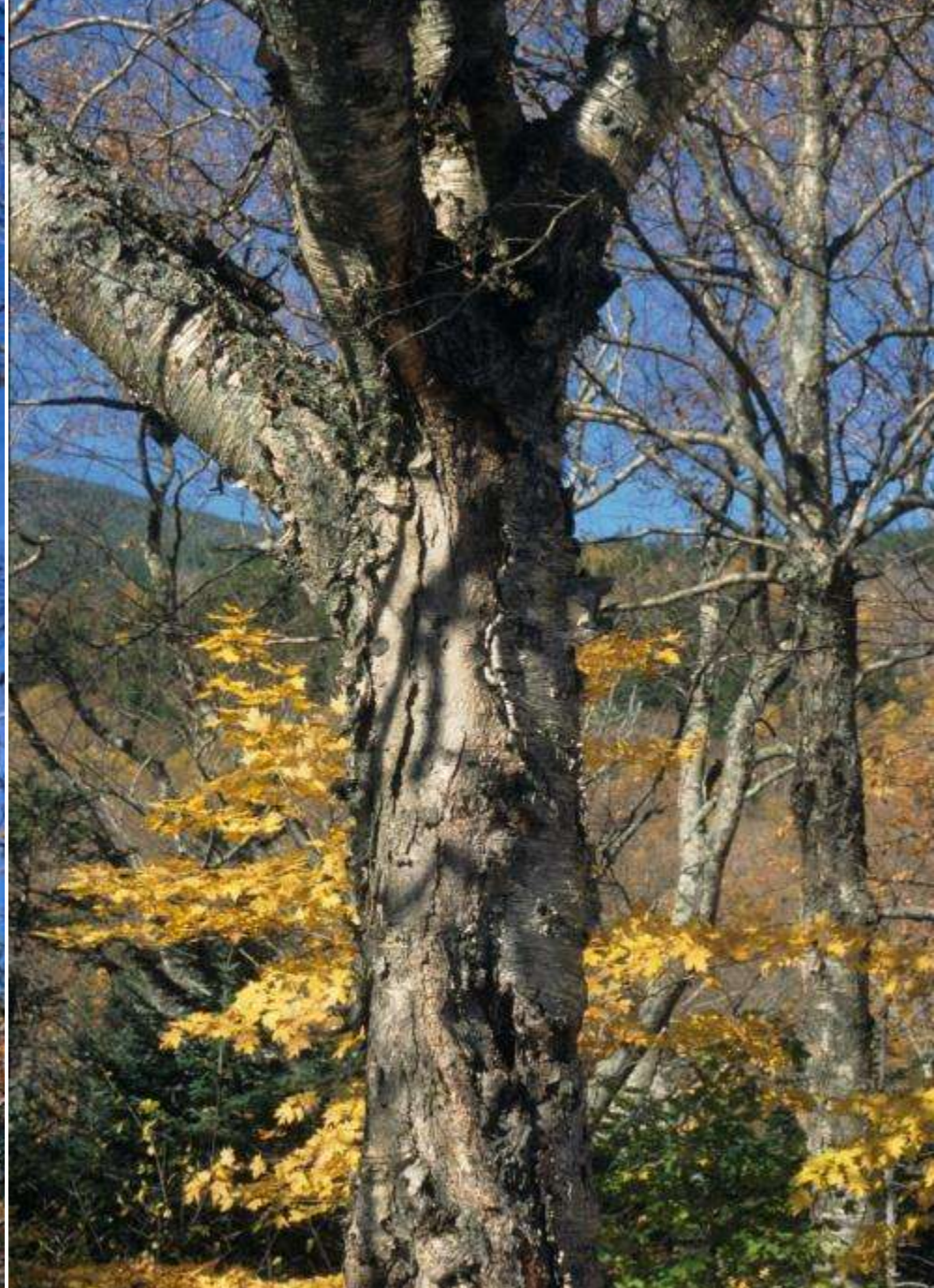


**Betula lenta subsp. uber –  
Starhill Forest Arboretum, Petersburg, Illinois**



Betula papyrifera \_ B. alleghaniensis - Diretissima trail, Pinkham Notch,  
Mt. Washington N.H. - 12 Oct 1997





*Betula alleghaniensis* - Pinkham Notch, Mt. Washington N.H. - 12 Oct 1997



*Betula alleghaniensis* - 88167-esv-133 - 2005.0710



**Betula alleghaniensis – Mount Pisgah National Park - Smokey Mountains**



*Betula alleghaniensis* - Mount Pisgah National Park - 17 Avril 1992





**Betulla alleghaniensis – hairy shoot**



*Betula alleghaniensis* – Arboretum Wespelaar 88167-esv-133 - 2005.1013

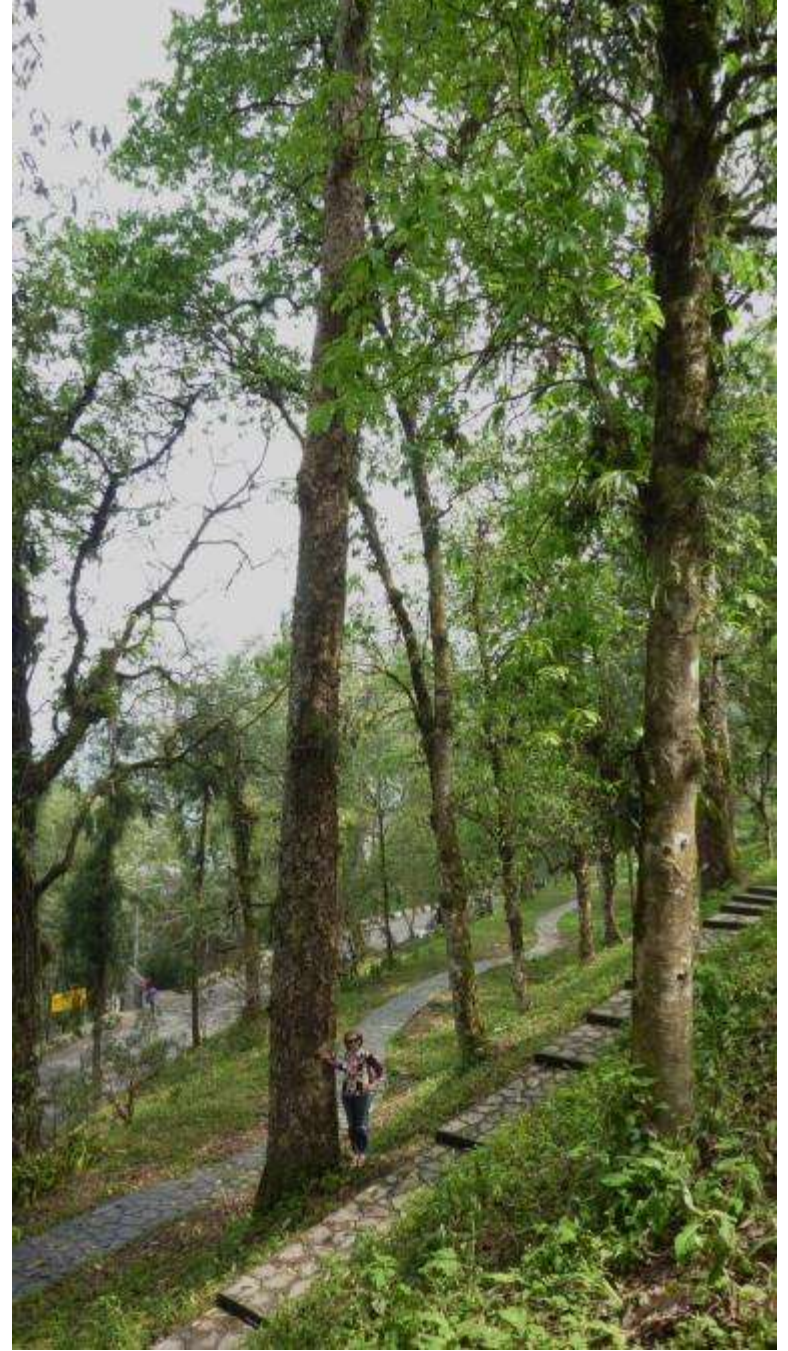
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<u>NIPPONOBETULA</u>											
Nipponobetula									corylifolia		
<u>ASPERAE</u>											
Asperae				calcicola potaninii		schmidtii	schmidtii	schmidtii			
<i>Asperae</i>			bomiensis	delavayi	fargesii			chichibuensis			
<i>Chinenses</i>				skvortsovii							
				fargesii	chinensis		chinensis	globispica			
Lentae	medwediewii megrelica			insignis				grossa	lenta murrayana alleghaniensis		
<u>ACUMINATAE</u>											
			alnoides cylindrostachya	alnoides cylindrostachya luminifera	alnoides cylindrostachya luminifera				maximowicziana		
<u>BETULA</u>											
Dahuricae	raddeana					dahurica 8x	dahurica 8x	dahurica 6x	nigra		
Costatae											
			utilis aggr. (jacquemontii - utilis - albosinensis)			ermanii	ermanii				
			ashburneri	costata				costata			
Betula											
	celtiberica	pubescens pubescens		(microphylla/tianshanica)					occidentalis	populifolia	
	pendula	pendula	pendula aggr. (szechuanica, mandshurica mandshurica mandshurica)					papyrifera neoalaskana	papyrifera cordifolia		
Aptercaryon	humilis nana		humilis / fruticosa			fruticosa	fruticosa	fruticosa	pumila glandulosa	pumila glandulosa michauxii	
						gmelinii	gmelinii/apoiensis				
This table is based on McAlister (2011), Skvortsov (2002), compiled by Philippe de Spoelberch for the IDS <i>Betula</i> Symposium 9 October 2011											





*Betula  
alnoides*



*Betula alnoides* - Gangtok, Royal Park, IDS in Sikkim , 3 May 2010







*Betula cylindrostachya* - Cangshan, Dali, Yunnan - 2007.0405



Betula cylindrostachya - Cangshan, Dali, Yunnan - 2007.0405



*Betula cylindrostachya* - Cangshan, Dali - 2007.0405

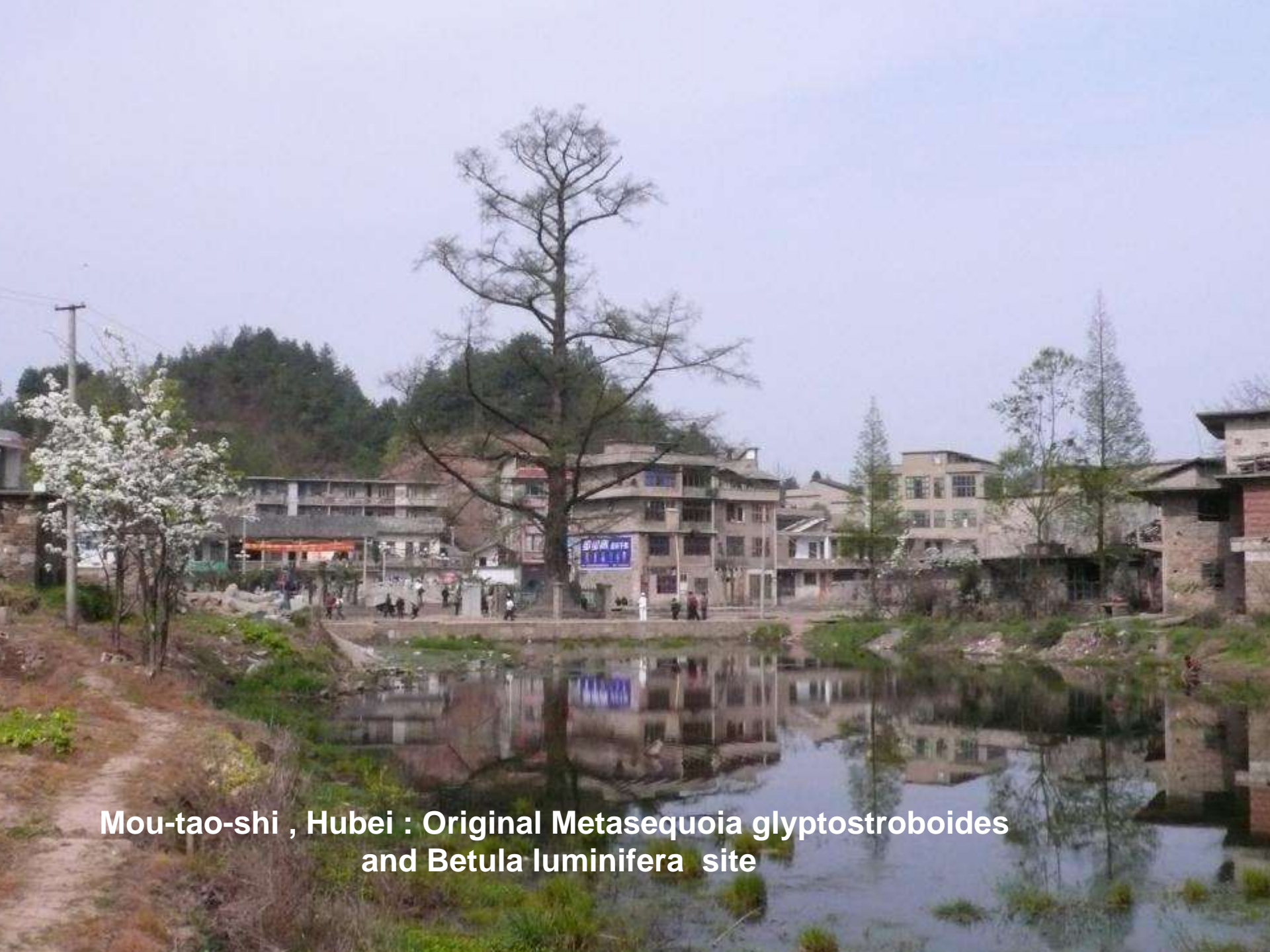


*Betula cylindrostachya* - Cangshan, Dali - 2007.0405





*Betula cylindrostachya* - RBG Kew.1996.620 - 2006.0426



**Mou-tao-shi , Hubei : Original *Metasequoia glyptostroboides*  
and *Betula luminifera* site**



**Betula luminifera - Mou-tao-shi, Hubei - 2007.0414**



Betula luminifera - Mou-tao-shi, Hubei - 2007.0414



Betula luminifera - Mou-tao-shi, , Hubei - 2007.0414



Betula luminifera - Mou-tao-shi, , Hubei - 2007.0414



*Betula luminifera* –Hergest Croft 1605 -  
2001.0913 -



*Betula luminifera* - Maurice Foster's,  
White House Farm Ivy Hatch - 1992.0502 -



*Betula luminifera* - Quarryhill B.G , California -1999.028 C. – 31 June 2010





Betula luminifera (Crosbie coll., Hubei, China, 1800m) –  
Arb. Wespelaar 08116 - 2011.0510





*Betula luminifera* (Crosbie coll., Hubei, China, 1800m) – AW. 08116 – 11 April 201



*Betula maximowicziana* - Kohan, Shikotsu, Hokkaido, IDS in Japan - 1992.10.23



*Betula maximowicziana* - Josankei region, nr Bano-sa-wa, Hokkaido, - IDS - 1992



Betula maximowicziana - (190cm) - Lake Chosenji, Nikko - 2008.1009



*Betula maximowicziana* - Nopporo Forest Park, Sapporo - 2008.0929



*Betula maximowicziana* - Sapporo BG. - 2008.0929







Betula maximowicziana – Arboretum Wespelaar 92697-ddh-133 - 2004.1022 -

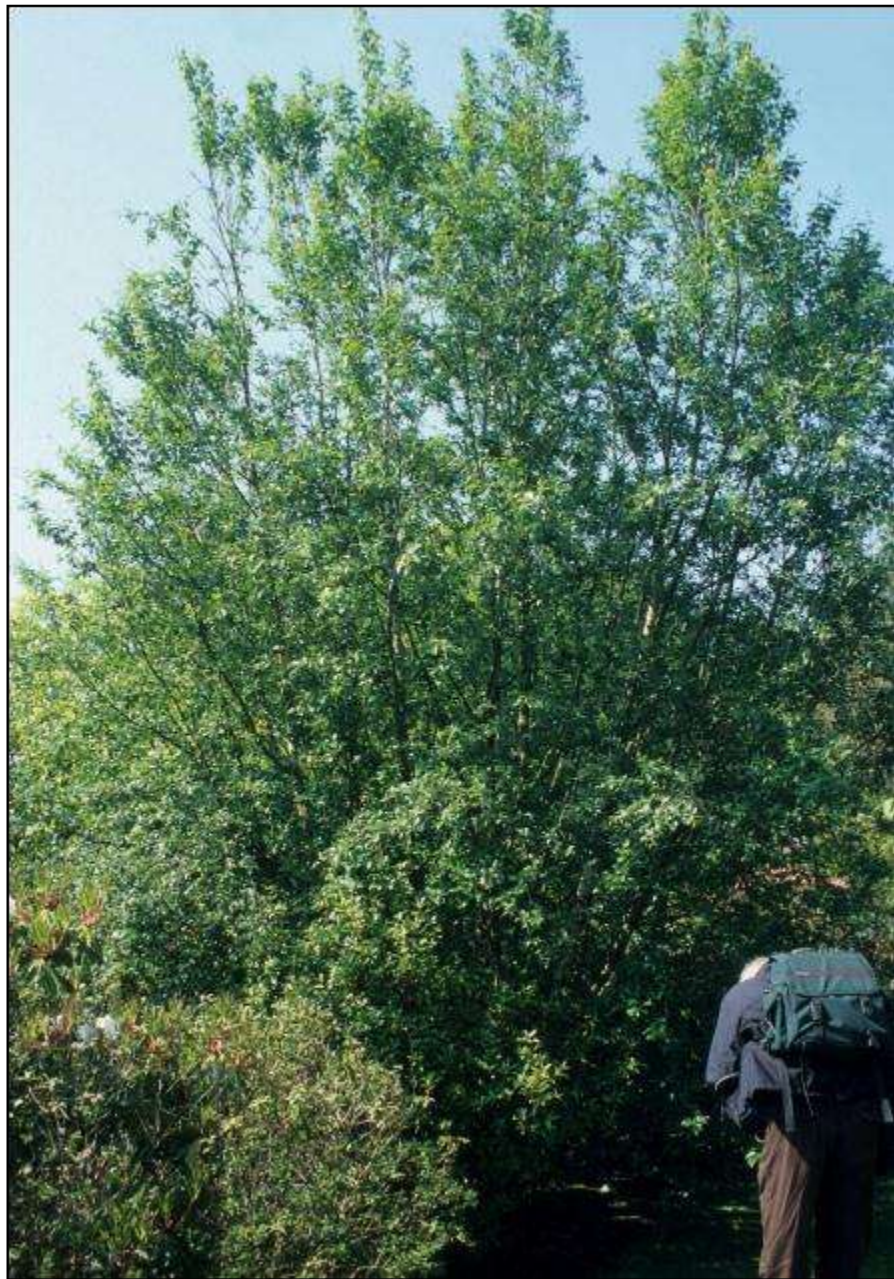


Betula maximowicziana - 92697-ddh-133 - 2010.1026

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<u>ASPERAE</u>										
Asperae	calicola									
<i>Asperae</i>	potaninii schmidtii schmidtii schmidtii									
<i>Chinenses</i>	bomiensis delavayi fargesii chichibuensis									
Lentae	skvortsovii fargesii chinensis chinensis globispica									
	medwediewii insignis grossa lenta									
	megrelica murrayana alleghaniensis									
<u>ACUMINATAE</u>										
	alnoides alnoides alnoides									
	cylindrostachya cylindrostachya cylindrostachya maximowicziana									
	luminifera luminifera									
<u>BETULA</u>										
Dahuricae	raddeana dahurica 8x dahurica 8x dahurica 6x nigra									
Costatae	utilis aggr. (jacquemontii - utilis - albosinensis) ermanii ermanii									
	ashburneri costata costata									
Betula	celtiberica pubescens pubescens (microphylla/tianshanica) occidentalis populifolia									
	pendula pendula pendula aggr. papyrifera papyrifera									
	(szechuanica, mandshurica mandshurica mandshurica) neoalaskana cordifolia									
Apterocaryon	humilis humilis / fruticosa fruticosa fruticosa pumila pumila									
	nana glandulosa glandulosa									
	gmelinii gmelinii/apoiensis michauxii									

This table is based on McAlister (2011), Skvortsov (2002),  
compiled by Philippe de Spoelberch for the IDS *Betula* Symposium 9 October 2011



**Betula raddeana , Ness, Liverpool - 2000.0504**



Betula raddeana - Belgian National B.G., -  
Meise, 2008.0913





*Betula dahurica* - Arnold Arboretum Boston -  
- 1989.1009 -



*Betula dahurica* – Arb. Robert Lenoir  
n°1865 - 1992.1010 -





Betula dahurica -  
LENOI.1865 1992.0405  
-



White House farm -



Herkenrode - 89134-waa- Y  
- 2008.0310





Betula dahurica - Herkenrode

89134-waa- Y -

2005.0709 -



*Betula dahurica* -

Morton Arboretum, Lisle, Illinois -



**Betula dahurica (Mt. Togyu, S.Korea) – Arb. Wespelaar 93007- 288 - 2008.0106**







*Betula dahurica* (Mt.Togyu,S.Korea) - 93007-wld-288 - 2008.0106

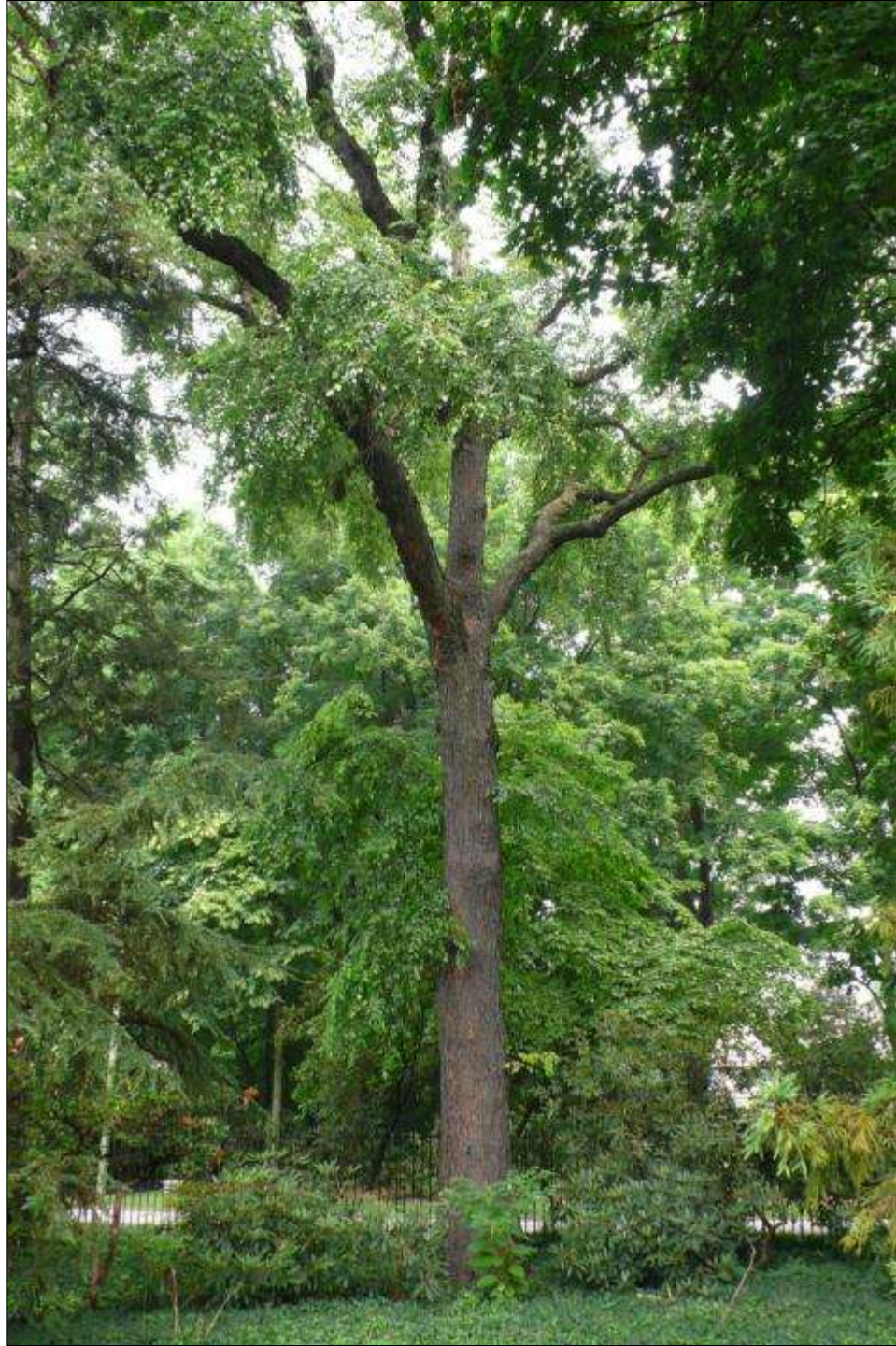


*Betula dahurica* (Mt. Togyu, S. Korea) – Arb. Wespelaar 93007-288 –  
Spring frost on 2008.0420

**Betula nigra**

**Barnes Arboretum,  
Philadelphia,  
Pennsylvania  
a giant tree -**

**2007.0718**







**Betula nigra – Arboretum Kalmthout - 2007.1005**



Betula nigra - Kalmthout 000.0818A \_ Belgian champion - 2006.0506





**Betula nigra – Golf du Ravenstein, Brussels -BD.22714 - 251 cm - 2006.0912**



*Betula nigra* - 1900 ZG01035 Von Gimborn Arboretum, Netherlands - 2008.0527

**Betula nigra 'Heritage'**  
**USNA, Washington DC**  
**BDB 1992.0416 -**



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<b>NIPPONOBETULA</b>										
Nipponobetula	corylifolia									
<b>ASPERAE</b>										
Asperae	calvicola									
<i>Asperae</i>	potaninii schmidtii schmidtii schmidtii									
	bomiensis delavayi fargesii chichibuensis									
<i>Chinenses</i>	skvortsovii fargesii chinensis chinensis globispica									
Lentae	medwediewii insignis grossa									
	megrelica lenta murrayana alleghaniensis									
<b>ACUMINATAE</b>										
	alnoides alnoides alnoides									
	cylindrostachya cylindrostachya cylindrostachya maximowicziana									
	luminifera luminifera									
<b>BETULA</b>										
Dahuricae	raddeana dahurica 8x dahurica 8x dahurica 6x nigra									
Costatae	utilis aggr. (jacquemontii - utilis - albosinensis) ermanii ermanii									
	ashburneri costata costata									
Betula	celtiberica pubescens pubescens (microphylla/tianshanica) occidentalis populifolia									
	pendula pendula pendula aggr. papyrifera papyrifera									
	(szechuanica, mandshurica mandshurica mandshurica) neoalaskana cordifolia									
Apterocaryon	humilis humilis / fruticosa fruticosa fruticosa pumila pumila									
	nana glandulosa glandulosa									
	gmelinii gmelinii/apoiensis michauxii									
This table is based on McAlister (2011), Skvortsov (2002), compiled by Philippe de Spoelberch for the IDS <i>Betula</i> Symposium 9 October 2011										



Betula ashburneri – Ashill 2011.1007





*Betula ashburneri* – Ashill 2011.1007, (long lasting stipules)



*Betula utilis* var.  
*jacquemontii* 'Silver  
Shadow' Wisley -



*Betula utilis* var. *utilis* - Dochu  
La, Bhutan - April 1984



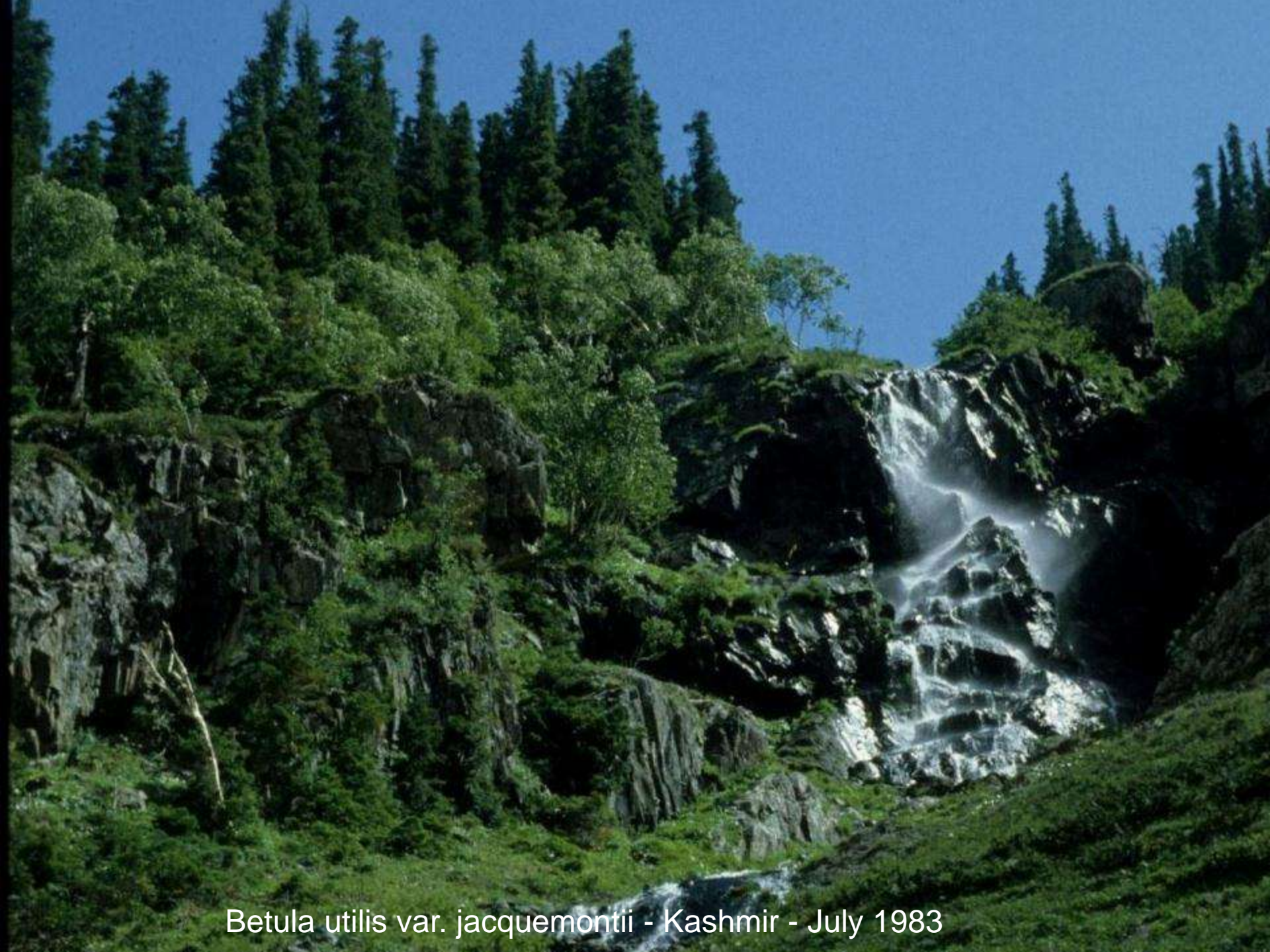
*Betula utilis* var. *prattii*  
White House Farm - 2008.090

*Betula utilis* var.  
*jacquemontii* –

Kashmir - -  
from Kargil back  
to Shrinagar

July 1983 -315





*Betula utilis* var. *jacquemontii* - Kashmir - July 1983





**Betula utilis var. jacquemontii - McBeath 1737 - Dawyck.1985.1857 - 2008.0430**

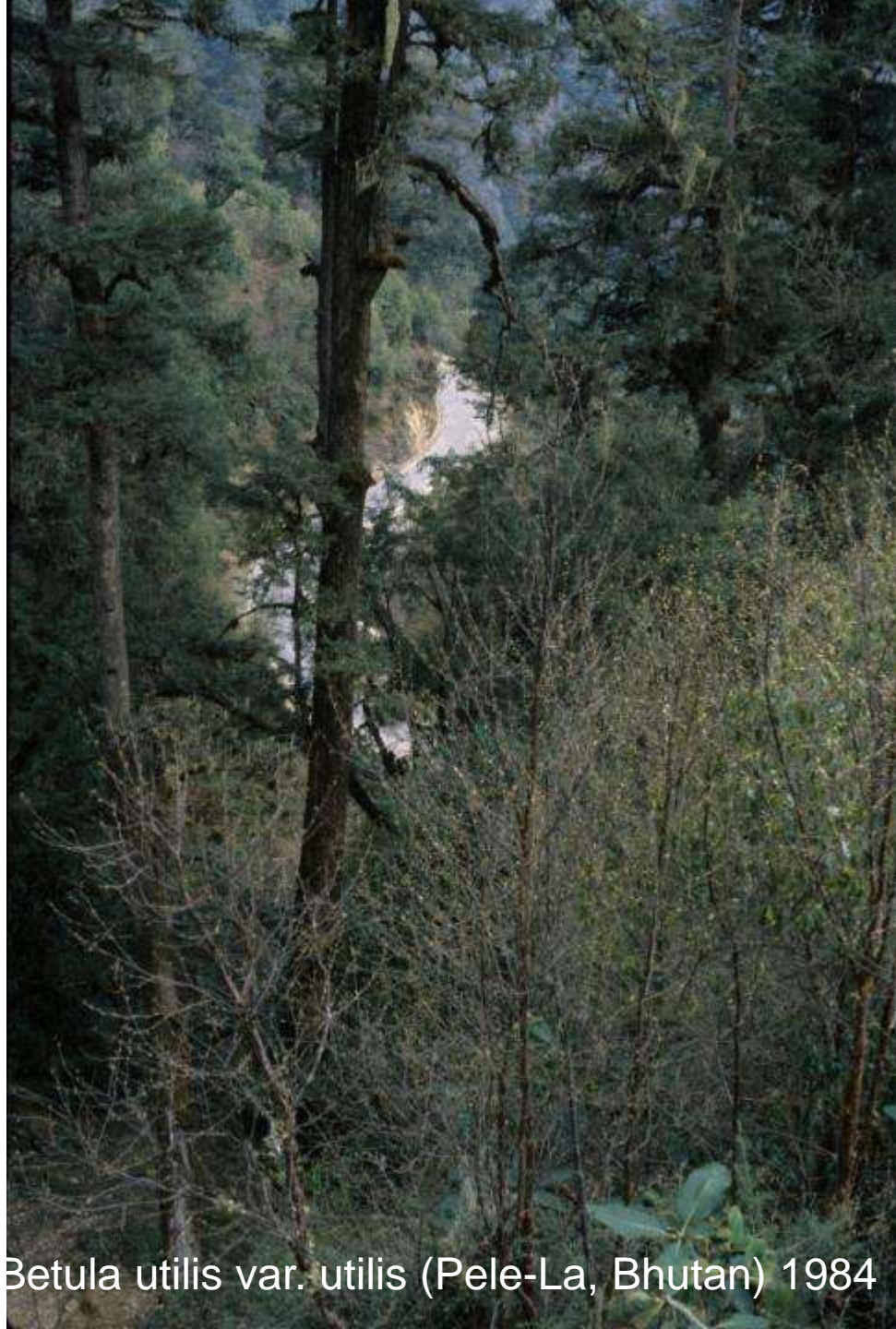


*Betula utilis* var. *jacquemontii* - Van Dusen, Vancouver Canada - 2008.0422



*Betula utilis* var. *jacquemontii* – Closerie du Rond Chêne, Belgium, BD 4336





*Betula utilis* var. *utilis* (Pele-La, Bhutan) 1984



and at Herkenrode 85133 - 1998.09



**Betula utilis var. utilis - MachunGo (Bear Gorge) - Sangdui to Xiangchang - 2008.070**







*Betula utilis* var. *utilis* - Cangshan, Dali - 2007.0405



*Betula utilis* var. *utilis* ( *albosinensis*) (Jiuzhaigou, Sichuan) - 1986.0909 - Long Lake,



*Betula utilis* var. *utilis* (*albosinensis*) (Jiuzhaigou, Sichuan) - 1986.0909 - Long Lake,



*Betula utilis* (ex *B. albosinensis*)  
(Jiuzhaigou, Sichuan) - 1986.0909 -



*Betula albosinensis* (Jiuzhaigou) – 89174-  
2010.1026 with Roy L., Marcel Robichon





**Betula utilis var. Utilis (albosinensis) - Castle Howard 017-86**



*Ulmus* var. *utilis* (*albosinensis*) (Jiuzhaigou, Sichuan) - 89174-wld- X - 2008.0601



*Betula costata* - R. Lancaster – Changbaishan, Jilin, China - July 1984



Betula costata



Changbaishan , Jilin, China 1984.0707



**Betula costata (Mt. Odae) - 92046-wld- R - 2004.1022 -**



**Betula costata (Mt. Odae) - 92046-wld- R - 2004.1022 -**



**Betula costata (Mt. Odae) - 92046-wld- R - 2004.1022 -**



**Betula costata (Mt. Odae) - 92046-wld- R - 2004.1022 -**





Betula costata (Mt. Odae) -

Arb. Wespelaar 92045-wld-289, -



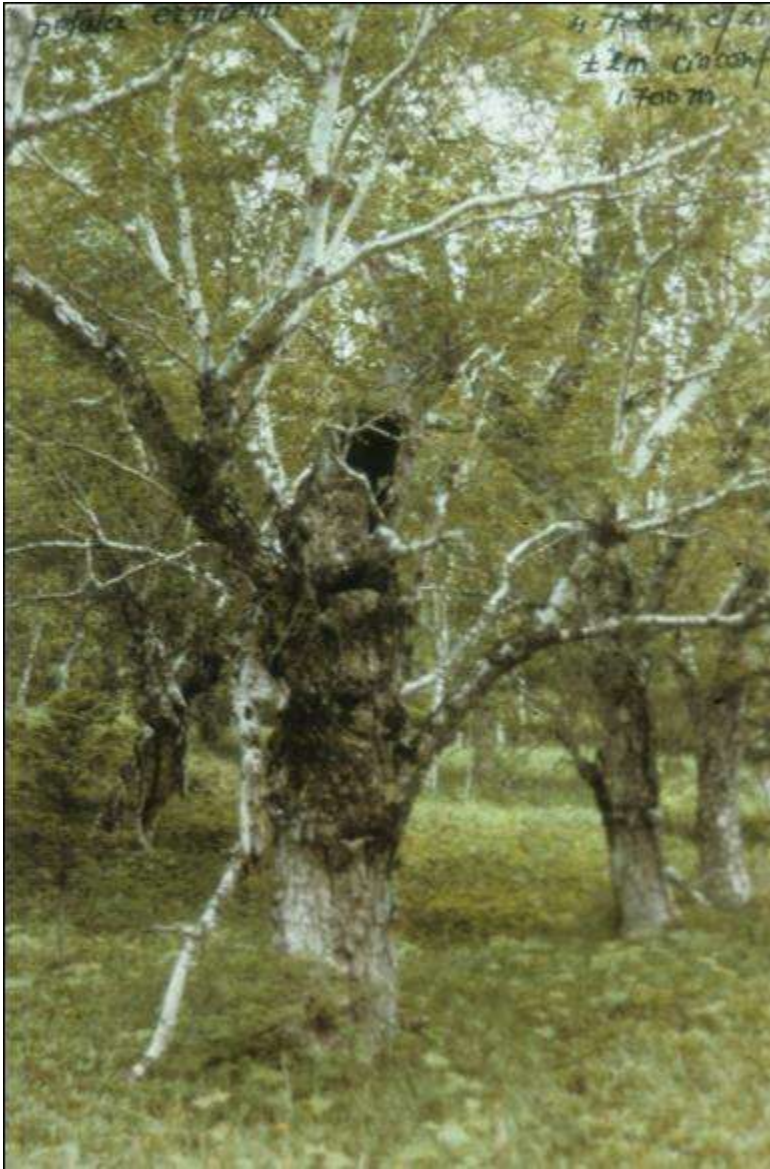
Betula costata -

Arnold Arboretum 664-79-

2000.1025 -



Betula ermanii – Changbai shan 2000 m -- July 1984



Betula ermanii – 2000 m , Changbai shan, Jilin - 1984.0708



**Betula ermanii - Azumakofuji, 1450m, Honshu, IDS in Japan - 1992.1028**



**Betula ermanii -**

**Azumakofugi, 1450m, Honshu, IDS in Japan - 199**



*Betula ermanii* – Mt. Azumakofugi, 1400m, Honshu - IDS in Japan - 2008.1007



Betula ermanii - Azumakofuji - 2008.1007







*Betula ermanii* - Kamikochi , Japan - 2008.1014



Betula ermanii - 88082-ter-220 - 2006.10.19



Betula ermanii - 88082-ter-220 - 2006.1029



Betula ermanii - 88082-ter-220 - 2006.1029



Betula ermanii - 88082-ter-220 - 2006.1029

# Section Betula

The genus <i>Betula</i> - Classification crossed with geographical distribution (2011.1008)										
SUBGENUS	Europe Western Asia	Caucasus	Himalaya	W. China, (Yun., Sich., Guiz.)	C&E. China	Siberia	Korea, Mandsh.	Japan	Western North America	Eastern North America
<u>NIPPONOBETULA</u>										
Nipponobetula	corylifolia									
<u>ASPERAE</u>										
Asperae	calciicola									
<i>Asperae</i>	potaniiii schmidtii schmidtii schmidtii schmidtii									
	bomiensis delavayi fargesii schmidtii chichibuensis									
<i>Chinenses</i>	skvortsovii fargesii chinensis chinensis globispica									
Lentae	medwediewii insignis grossa lenta murrayana alleghaniensis									
	megrelica									
<u>ACUMINATAE</u>										
	alnoides alnoides alnoides									
	cylindrostachya cylindrostachia cylindrostachia maximowicziana									
	luminifera luminifera									
<u>BETULA</u>										
Dahuricae	raddeana dahurica 8x dahurica 8x dahurica 6x nigra									
Costatae	utilis aggr. (jacquemontii - utilis - albosinensis) ermanii ermanii ashburneri costata costata									
Betula	celtiberica pubescens pubescens (microphylla/tianshanica) occidentalis populifolia									
	pendula pendula pendula aggr. (szechuanica, mandshurica mandshurica mandshurica) papyrifera papyrifera cordifolia neoalaskana									
Apterocaryon	humilis humilis / fruticosa fruticosa fruticosa pumila pumila nana glandulosa glandulosa gmelinii gmelinii/apoiensis michauxii									
This table is based on McAlister (2011), Skvortsov (2002), compiled by Philippe de Spoelberch for the IDS <i>Betula</i> Symposium 9 October 2011										



*Betula pubescens* - Reserve du Rouge Poncé, Ardennes, Belgium - 23 April 20 05





*Betula pubescens* - Reserve du Rouge Poncé, Ardennes, Belgium - 23 apr 05 -



*Betula pubescens* - Mostver,  
IDS in Norway - 2002.0608 -



*Betula pubescens* - Duffryn - 2009.0903



*Betula pubescens* subsp. *carpatica* - Skalnaté pleso 1700m, High Tatras, IDS in Slovakia, 27 June 1988



*Betula pubescens carpatica* - Skalnaté pleso 1700m, High Tatras, IDS in Slovakia -  
27 June 1988



BD-15760, *B. pubescens*

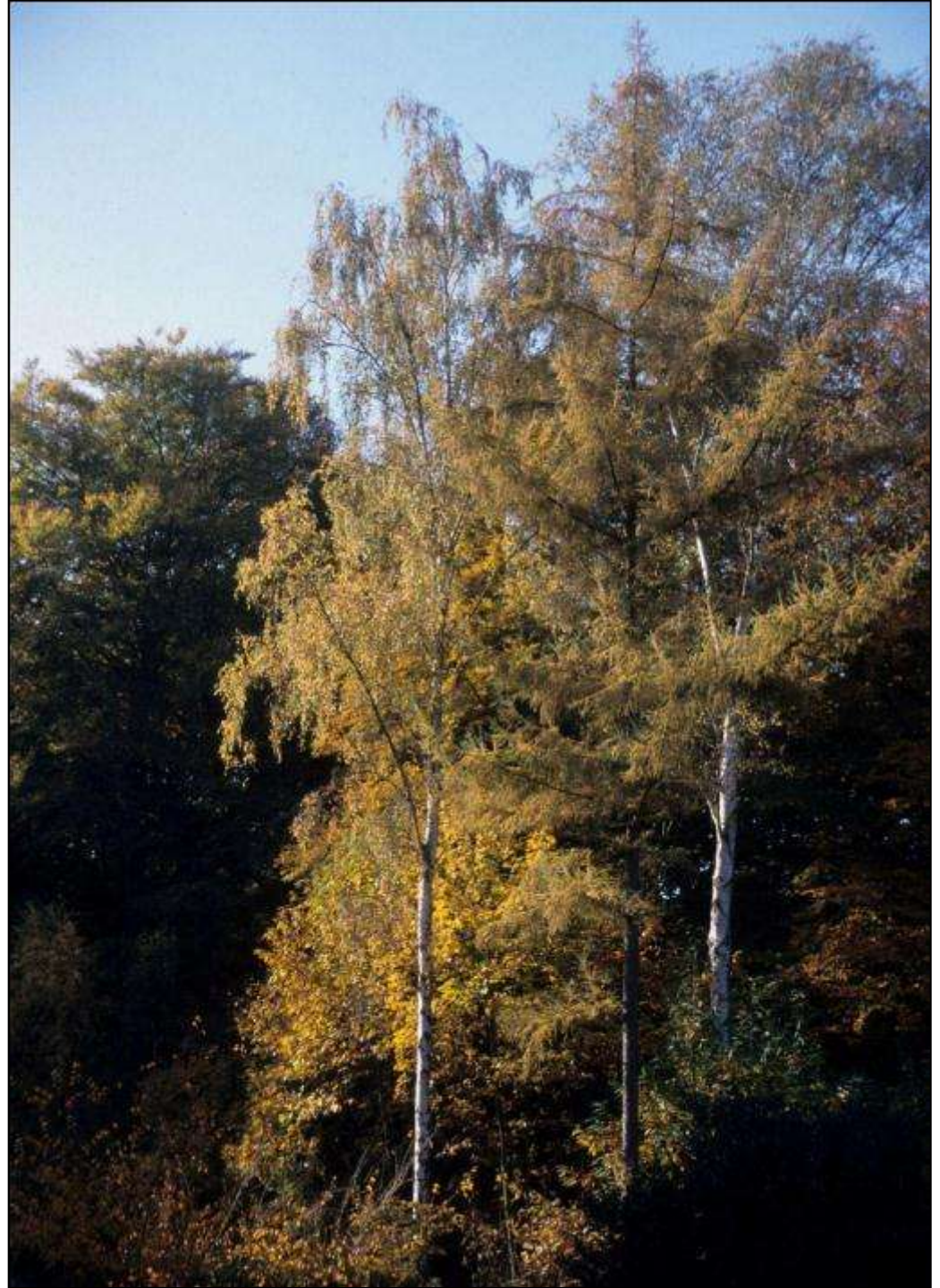
BD-15759, *Betula x aurata* (*pubescens* x *pendula*)

BD-5223, *Betula pubescens* 244 cm



Betula pendula vs B. pubescens - Stord Nature res., Norway - 2002.06

**Betula pendula**  
**spontaneous**  
**Herkenrode in 300**  
**1999.10**











**Betula pendula & Ilex aquifolium - Killarney Nat. Park, BDB in Ireland - 2001.0327**



Betula pendula 'Youngii' - DAVE 1,16x4m, - 1992.08 -



**Betula szechuanica - Road to Daju, Yunnan - 2008.0625**



**Betula szechuanica - Road to Daju, Yunnan - 2008.0625**



*Betula szechuanica* - Road to Daju, Yunnan - 2008.0625



*Betula szechuanica* - Jiuzhaigou,  
Sichuan, Rizegou Valley - 1986.0911



*Betula szechuanica* - Long lake 3100 m,  
Jiuzhaigou - 2009.0705



*Betula szechuanica* (MF 93073,Zhongdian) – Arb. Wespelaar 95311-wld-203 - 2011.0902





*Betula platyphylla* – Changbaishan, Jilin, China - 800m - July 1984



Betula platyphylla - Nakayama Toge (pass) 830m - IDS in Japan - 1992.10.23 -



*Betula platyphylla* var. *japonica*) - 1350m nr. Norikura Mt.- 2008.1015



atyphylla var.  
- 1350m nr.  
Mt.- 2008.1015



*Betula platyphylla* var. *japonica* -  
Kamikochi Japan - 2008.1014



*Betula platyphylla* var. *japonica* - Sapporo, Olympic Sky stadium - 2008.1001



**Betula platyphylla var. japonica - 95301-wld-140 - 2004.1022**



Betula occidentalis - Onion Valley, Sierra Nevada, USA 2650m - 2010.0711





*Betula occidentalis* - Onion Valley, Sierra Nevada, USA 2650m - 2010.0711



*Betula occidentalis* - Onion Valley, Sierra Nevada, 2650m - 2010.0711



*Betula occidentalis* - Onion Valley, Sierra Nevada, 2650m - 2010.0711



**Betula occidentalis - Animas river, to Durango, Col., IDS Rocky Mts**



***Betula occidentalis* (Escalante Canyon, ,Utah, USA ,2590m) - 07149-S - 2010.0831**



*Betula occidentalis* (Escalante, UT, USA, 2590m) - 07149-wld- S - 2011.0926



**Betula papyrifera – Kalmthout .0822**



**Betula papyrifera – Tervuren Arb., in 1**



**Betula papyrifera – Kalmthout Arb., .0822 - 2007.1027-**





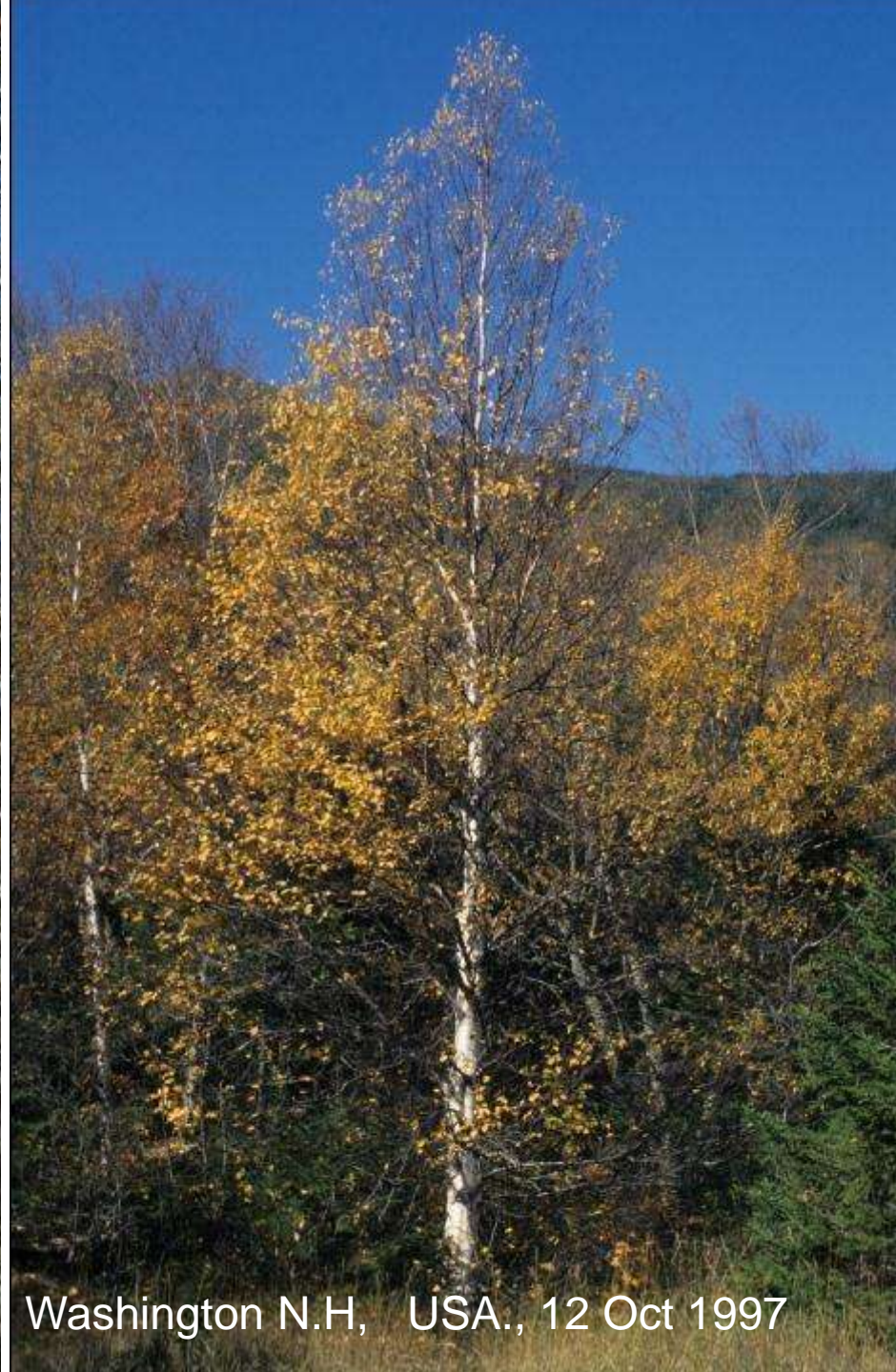
**Betula papyrifera - Heilmannshof, Krefeld , BDB - 2007.0520**



*Betula papyrifera* \_ *B. alleghaniensis* - Pinkham Notch, Mt. Washington N.H. 1997



**Betula papyrifera - Pinkham Notch, Mt. Washington N.H. - BDB- 12 Oct 1997**



*Betula papyrifera* - Pinkham Notch, , Mt. Washington N.H, USA., 12 Oct 1997





*Betula papyrifera* - North slope - Pinkham Notch, Mt. Washington N.H 12 Oct 1997



*Betula papyrifera* - Pinkham Notch, Mt. Washington N.H. -



**Betula populifolia (Rice Sanctuary, Peru, Mass.) – Arb Wespelaar 99184-wld-278 - 2006.1024**



**Betula populifolia (Rice Sanctuary, Peru, Mass.) – Arb Wespelaar 99184-wld-278 - 2006.1024**





**Betula populifolia (Rice Sanctuary, Peru, Mass.) – Arb Wespelaar 99184-wld-278 - 2006.1024**



**Betula populifolia (Rice Sanctuary, Peru, Mass.) – Arb Wespelaar 99184-wld-278 - 2006.1024**



*Betula populifolia* (Rice  
Sanctuary, Peru, Mass.) –  
J. Wespelaar 99184-wld-  
1988 - 2006.1024

# Section Apterocaryon

The genus Betula - Classification crossed with geographical distribution (2011.1008)											
SUBGENUS											
Section	Europe Western Asia	Caucasus	Himalaya	W. China, (Yun.,Sich., Guiz.)	C&E. China	Siberia	Korea, Mandsh.	Japan	Western North America	Eastern North America	
<u>NIPPONOBETULA</u>											
Nipponobetula							corylifolia				
<u>ASPERAE</u>											
Asperae				calcicola							
Asperae				potaninii		schmidtii	schmidtii	schmidtii			
Chinenses	bomiensis			delavayi	fargesii			chichibuensis			
Lentae				skvortsovii							
				fargesii	chinensis	chinensis		globispica			
	medwediewii		insignis					grossa		lenta	
	megrelica									murrayana	alleganiensis
<u>ACUMINATAE</u>											
			alnoides	alnoides	alnoides						
			cylindrostachya	cylindrostachya	cylindrostachya					maximowicziana	
			luminifera		luminifera						
<u>BETULA</u>											
Dahuricae	raddeana					dahurica 8x	dahurica 8x	dahurica 6x	nigra		
Costatae	<p style="text-align: center;"><u>utilis aggr.</u></p> <p style="text-align: center;">(jacquemontii - utilis - albosinensis)</p>										
				ashburneri	costata	ermanii		ermanii	costata		
Betula	celtiberica				(microphylla/tianshanica)			occidentalis		populifolia	
	pubescens	pubescens									
	pendula	pendula				<u>pendula aggr.</u>		papyrifera	papyrifera		
			(szechuanica,		mandshurica	mandshurica	mandshurica)	neoalaskana	cordifolia		
Apterocaryon	humilis				humilis / fruticosa	fruticosa	fruticosa	pumila	pumila		
	nana						gmelinii	gmelinii/apoiensis	glandulosa	glandulosa	
										michauxii	
This table is based on McAlister (2011), Skvortsov (2002), compiled by Philippe de Spoelberch for the IDS Betula Symposium 9 October 2011											



**Betula nana - Lucina Găina, IDS in Romania - 2007.0702**



**Betula nana - Lucina Gaina, Romania - 2007.0702**



*Betula fruticosa* – Changbaishan National Prk, Jilin China - July 1984



**Betula fruticosa – Herkenrode - 91347-waa- 32 -**





**Betula fruticosa - 91347-waa- 32 - Herkenrode**



**Betula fruticosa - 91347-waa- 32 - Herkenrode**



**Betula glandulosa - Creste Butte, Col., IDS in Rocky Mountains**



Betula glandulosa – Brush creek, Crested Bute, Colorado. - 2003.070

THE END

