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Lilacs

Quarterly Journal of the International Lilac Society

New Zealand's Lost Lilacs

Lessons from Chinese Research

S. vulgaris 'Praire Petite'
by Kitty Werner UVMHF

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International Lilac Society Web Site Address:
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Published January 2023

S. chinensis 'Red Rothamagenois'
by Kitty Werner UVMHF

INTERNATIONAL LILAC SOCIETY

EST. 1971

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EDITOR'S DEADLINE

FOR Spring 2023 ISSUE:
February 28, 2023

[Please send photos ***at least 300dpi*** + articles]

President's Message

Dear lilac enthusiasts around the world,

As I sit here writing this message to you, it is right after the US holiday of Thanksgiving. It is a time of year to give thanks for all of the people and good fortunes in our lives. It is, also, the official kick-off of the winter holiday season. I am thankful for all of you. I have had the opportunity to meet many of you over the years at meetings, Conventions, and even in my lilac garden; and I appreciate your friendship. I look forward to seeing you at an upcoming Convention.

Speaking of Conventions, there was a change of locations for next year's meeting. Being originally planned for Oldenburg, Germany, but with the current situation between the Russian Federation and Ukraine, it was determined that attendance from both countries would be low. So at the last Board meeting (October 16, 2022), it was decided to postpone Germany until 2024. The new location of the 2023 convention is Minneapolis, MN. The tentative dates are May 25–May 27, 2023. Tentative agenda includes visits to Minnesota Landscape Arboretum and a visit to Kelly Applegate's extensive collection of rare lilacs. Other details are still being finalized, so watch for details in upcoming Journals, on the website and on Facebook. Mark your calendar and save the dates. This is the weekend of the US Memorial Day. On final note, with Germany being postponed to 2024, Kent/Akron, Ohio, US will be pushed to 2025.

It's time to renew your ILS membership. At the Board meeting in May 2022, it was determined that with the current membership rates, the Society was losing money with the printing and postage costs of the Journal 'LILACS'. Costs for the printing have been rapidly increasing. We have been tapping into our investments to remain sustainable. This is not a viable option for the long-term. As a result, several changes to the membership renewal categories were enacted. First, Life Membership went from $500 to $1000. Membership rates will remain the same if to chose an electronic version of the Journal. Secondly, for a printed copy mailed to you, you will see a $25 increase in all the present categories. Thirdly, an added membership category was the Sustaining Individual Membership at $50 (Electronic Journal includes a $25 donation) and $75 for printed option of the Journal. In summary, if you opt for the Journal in electronic form, you will not see an increased to your renewal rate. But if you choose the printed option, you get the electronic version, as well.

I know that no one wants to see increases in costs, but it is necessary for the Society to continue. The electronic versions of the Journals are located on the members side of the website. I would like to thank you for you time in reading this message. Plan to attend this year's convention; it looks to be a good one. Until next time, I hope you had a wonderful holiday season, and start browsing those plant and seed catalogues. It's a great way to make the long cold winter days to pass quickly.

Dr Robert Zavodny
ILS President

S. vulgaris 'Congo'
by Kitty Werner UVMHF

2022 International Lilac Society Annual Board of Directors Meeting May 12, 2022

Rochester, NY, USA and Zoom Meeting presided by President Dr. Robert Zavodny.

Meeting recorder: Claire Fouquet

- Dr. Robert Zavodny (President), Claire Fouquet (via Zoom) (Executive Vice President), Dr Mark DeBard (Membership secretary)
- Members of Board of Directors: Kelly Applegate, Bradley Bittorf, Bruce Peart, Jack Alexander III, David Gressley, Nicole Jordan, Brian Morley.

All supporting documents can be found in the appendix

1. Call to Order:
President Zavodny called the meeting to order at 12h11 Eastern Daylight Time.

2. Roll Call and Quorum:
A quorum of at least four board members was established, per requirements in the ILS Bylaws.

3. Review of Board Meeting Minutes from February 13, 2022 virtual meeting.
Minutes were approved as submitted. Motion by Bruce Peart and seconded by Nicole Jordan.

4. Officers Reports
The following reports had been previously submitted and reviewed by all: President's, Executive Vice-President VP, Treasurer, Editor, Membership, Elections and Auditor.

5. Committees Reports
The following reports had been previously submitted and reviewed by all: Honors/Awards, Preservation, Registrar and photo database, Research, Website. The preservation committee report was very good.

6. Regional Reports
The following reports had been previously submitted and reviewed by all Russia/Asia, USA, Canada. Asia/Russia report was very good and complete.

7. Member Benefits
The list of new benefits was reviewed and should be in place on the Website by next fall.

8. Complimentary Membership

The complimentary membership category will be eliminated and be removed from the roster, each will get a digital copy of the journal Lilacs. Those are Margaret Pooler at USNA in DC, Smithsonian Libraries, RBG in Hamilton Ontario Canada, EBSCO, Central Botanical Garden, Kyiv, Ukraine. The registrar will still get a paper copy which will be kept in the paper archives.

9. Webmaster Officer's Duties

Duties description was submitted by acting webmaster Dr. Mark DeBard and approved. Bradley Bittorf will update the Officers Duties.

10. Accounts Payable and Accounts Receivable

This will be discussed at our next board meeting since not were all in favor of following our Bylaws and Officers Duties which indicate that all monies should be received by the treasurer in which case a change to the Bylaws would need a change. Bradley Bittorf will write a proposal for changes to the Bylaws.

11. Printing Costs

The following decisions were taken so that a deficit is not generated by printing and mailing of the journal to members:

- No inserts
- Membership directory printed on paper only and totally black and white. Will still be separate from the actual journal.
- Bleed printing when required.
- Maximum 44 pages
- Minimum 300 copies, will be evaluated later on if we need to decrease the number of copies printed.
- Move what is actually the first printed page (Publishing info) to inside front cover, move table of content to first page, move standing committees to inside back cover saving 3 pages and making space for more articles.
- Officially inform the typesetter (K. Werner) of the changes to conform to.

12. Membership Dues

A motion was made by Brian Morley, seconded by David Gressley and passed to make the following changes: all membership category dues are increased by 25$ for those who want to get a paper copy of the journal. There will be no increase in membership dues for those who chose to

receive an electronic copy only. Lifetime membership goes to 1000$ and includes a paper copy of the journal. E-Members who add 25$ to the 25$ dues (total 50$) will be called digital sustaining members and will get an electronic journal copy. Members who add 50$ to their dues (total 75$) will be called printed sustaining members. These donations are eligible for a tax receipt. The increase in dues will be presented to members at the annual member meeting as well as be explained in the next journal. New fees go into effect for the 2023 membership dues. Lifetime membership goes into effect immediately.

	USA/Canada		International	
	Electronic	Paper	Electronic	Paper
Individual	US$ 25	US$ 50	US$ 25	US$ 60
Family	US$ 35	US$ 60	US$ 35	US$ 70
Commercial-				
Institution	US$ 55	US$ 80	US$ 55	US$ 90
Individual Lifetime		US$ 1,000		US$ 1,000
Individual				
Sustaining	US$ 50	US$ 75	US$ 50	US$ 85

13. Third Party Membership

On occasion, memberships are paid for by third parties unrelated to the member or member's business. Dr. Mark DeBard will send a letter to that member for whom the membership has been paid for by a third party whether it is a new membership or not.

14. Convention Planning and Content

A motion by Dr. Mark DeBard seconded by Brian Morley was made and passed to make modifications to the convention guidelines. The major changes are to have the first board meeting before the convention to save on cost for participants and rental cost for the ILS. To make visiting lilac collection more the center of interest, to give freedom to the local hosting committee, to give clear deadlines to the local committee.

15. Code of Conduct

In light of events that happened over the years, ILS has chosen to implement a code of conduct for all its members, or non-members, that interact with each other whether be it in person, e-mail, social platforms and various media. Brian Morley seconded a motion made by Dr. Mark DeBard and the following motion was passed:

We are volunteers and, many still have full-time jobs.

We are a diverse group of people, coming from many different backgrounds, countries, beliefs, and socioeconomic situations.

- Be respectful of others' vision
- Harsh, abusive words and attitudes are NOT acceptable during any function pertaining to the ILS
- During in-person events, excessive alcohol use and rude behavior are not acceptable: remember this is a professional group
- All social platforms will be monitored for inappropriate posts and other issues
- After two warnings, offender can be censured or membership be revoked

16. Bylaws Amendments

A motion by Kelly Applegate, seconded by David Gressley and was passed to make the following changes to the Bylaws

Members present at the annual meeting shall constitute a quorum to conduct the business of the Corporation. Previously 25 members were needed and provisions on how to deal with a lack of quorum were described.

A second proposition was made to change the way the President is nominated. This will be brought to the annual membership meeting to get an assessment of their opinion on the matter. If need be, it will be further discussed at another board meeting. The President is now chosen by board members. The proposal was as follows: The President shall be elected at the annual meeting by a vote of the membership in good standing in the same manner as Election of Directors.

17. Online convention registration

ILS will allow $250 to be able to accept online Convention for conventions held in the USA. The motion was made by David Gressley, seconded by Brian Morley and passed.

18. Elections, electronic voting only

About half of the ballots come by regular mail. The ballot will now be printed as a tear away page, and not a paper insert, so cost is not an issue. Therefore, both electronic and paper ballots will be used. We might look into Doodle and see if anonymity can be preserved if used for voting purposes.

19. Other points discussed (for which no action was taken)

- Lourene Wishart fund: How is it refunded?
- Life membership contributions: Should be kept in a separate fund?
- Visibility: ILS got visibility in Naomie Slade (UK) lilac book as well as in Better Home and Garden magazine through an article on Cherry Valley Lilacs at Bates Hop House and Barracks. More effort should be put into having more exposure in magazines and the likes.
- Preservation committee: Money ($300?) should be given up front to the committee and have it submit a report on how the money was spent.
- When the ILS Preservation committee donates lilacs, a plaque acknowledging this should/could be installed.
- Board meeting documents are for board members and officers and should not be distributed outside these people. They could be sent if a member request it?
- Members attending board meetings: Bylaws need to be looked at but probably any member can attend a board meeting as an observer but cannot participate.
- Most of the above points should be on a future board meeting agenda.

20. Adjournment

Nicole Jordan moved and was second by Brian Morley to adjourn the meeting at 15h44. Motion passed.

Claire Fouquet, recording secretary, May 17, 2022

S. vulgaris PI 257611
by Kitty Werner UVMHF

ILS Treasurer's Report 2022

FY April 1, 2021 through March 31, 2022

	4/1/2021	3/31/2022
KeyBank Checking balance	**15,593.03**	13,879.**71**
Edward Jones Investments		
Edward Jones Market Value	67,482.44	62,592.11
Total	**83,075.47**	**76,471.82**
Life Member Endowment Fund		41,944.57
Plant Propagation Fund (Laurene Wishart)		2,307.94
Education and Research		
Youth Program Fund		0.00
Total Funds in Special Accounts		41,944.57
Total Funds in General Accounts		20,647.43
Total Funds Available		**76,471.82**

Income

Membership Dues	5,410.10
Life Member Dues	1,000.00
Contributions	
Interest Income	1,400.51
Auction Income	0.00
Misc. Income	0.00
Convention Income	0.00
Total Income	**10,645.02**

Expenses

Journal Printing	3,266.49
Postage	173.75
Bank Fees	0.00
Credit Card Fees	266.84
Website Expense	1,954.99
Insurance	402.50
Convention Refunds	0.00
Miscellaneous Expense	0.00
Total Expenses	**12,306.57**

New Zealand's Lost Lilacs: Were they ever here?

Beryl Lee

A lilac grows outside the Garden Museum in London. Tradescant the Elder is buried here. Photo by Beryl Lee

Why do so many people love lilacs? For eleven months of the year they do nothing—they're often a scraggy, shapeless bush, they have no berries or decorative bark and they usually drop their heart-shaped leaves without putting on a colourful autumn display. Add to this, a few sucker, which is reason enough for some people not to grow them. Yet to others who love their lush flowers and heady fragrance, lilacs are the embodiment of an old adage, *'Roses are the queen of the garden, peonies the emperor but lilacs are the soul of the garden.'*

Lilacs have long been part of northern hemisphere landscapes where they do more than herald the arrival of spring. They conjure up memories of special times and places or of a loved one no longer with us. Lilacs make a fragrant connection to lives lived in the past—they are plants of nostalgia. The golden age of lilacs started over a century ago. It reached its peak after the second world war when Ivor Novello gave hope to a war-weary nation with his song of lovers yearning for the time when they could once again gather spring lilacs. It is not surprising that in the language of flowers, lilacs symbolise 'first love'.

Lilacs belong to the *Oleaceae* family along with olives, the forsythias and privet. In their natural habitat, they are tough, long-lived shrubs, demanding little from their environment. There are twenty-three species with all but two coming from Asia. It is the two European species, though, that have been most influential in the breeding of the cultivars of today. *Syringa josikaea*, commonly known as the Hungarian lilac, comes from hillsides in Hungary and the Czech Republic while *Syringa vulgaris* is native to the Balkans, particular the areas around Romania, the old Yugoslavian areas and Macedonia region.

Lilac breeding has a short but interesting history with two divergent

strands. The first is well documented and begins in earnest with Frenchman, Victor Lemoine, while the second, less well known, evolved in the shadow of the Iron Curtain. To understand how the work of two nurserymen from different cultures merged, we must first look to the earliest attempts at lilac growing.

One of the first mentions of lilac cultivation comes from Serbia. In the thirteenth century, King Uroš had hundreds planted along the route his bride, Helen of Anjou, would take as she journeyed to the kingdom that would later canonise her as a saint. Further east, Romanian peasants were known to take wild lilacs into their gardens and it is from these small plots that they made their way to Constantinople and the court of Suleiman the Magnificent.

The next step in the lilac diaspora involved Austria's ambassador to the sultan's court, Ogier Ghiselin de Busbecq. He is most remembered for introducing tulip bulbs to Europe but he is also credited with taking lilac suckers from Turkey to Vienna and then, a few years later, on to Paris. As time passed, many noted travellers took plants back to their home countries. Tradescant the Elder took them to London, Peter the Great to St Petersburg and as they became a feature in private gardens throughout Europe, they accompanied colonisers to the USA, Canada and a few to Australia and New Zealand.

During this time, there were probably only three different lilacs: a lilac, a white, and a taller-growing purple. All were singles. Seedlings with slightly different characteristics appeared but were the result of nature doing her work rather than deliberate hybridising. A few breeders in France, Germany and Belgium dabbled with this small group of lilacs and produced some of the earliest named *vulgaris* varieties of which 'Marie Legraye', 'Lucie Baltet' and 'Andenken an Ludwig Späth' remain popular today. It was, however, because of the work of the French plant breeder, Victor Lemoine, that lilacs began to be widely appreciated.

Lemoine was a gifted plantsman who was already highly regarded for his work with peonies, pelargoniums and gladioli, when his interest turned to lilacs. He chose a few open pollinated varieties to cross with a small-flowered double he had acquired from Belgium. This almost sterile mutant, *Syringa vulgaris* 'Azurea Plena' would become especially important in his hybridising and in the subsequent development of the lilacs of today. With the introduction of his 214 cultivars, the age of the French double lilacs dawned. Many of these early hybrids such as *S.vulgaris* 'Condorcet' and *S.vulgaris* 'Belle de Nancy' continue to be widely grown.

As well as wanting bigger and more colourful inflorescences, Lemoine recognised that the *vulgaris* cultivars had a short flowering season. By

Catherine the Great's private garden in St Petersburg is now left to nature. Lilacs are growing on either side of the carriageway to her propagation houses. Photo by Beryl Lee

crossing with an early-flowering species from China, *Syringa oblata*, he added a few extra weeks to the bloom period. The resultant subspecies was *Syringa x hyacinthiflora* of which one, 'Buffon', is one still occasionally seen in established New Zealand gardens.

It is interesting to note that Victor had very poor eyesight and it was his wife who had the steady hand necessary to undertake the delicate task of transferring pollen from one floret to another. He acknowledged her role in his success by naming a double, white, *S. vulgaris* 'Madam Lemoine', after her.

Victor's success continued with his son-in-law Émile and his grandson Henri taking over the nursery until 1968 when 'Lemoine et Fils' finally closed. Opened in 1849, it had survived two world wars, but could not survive peacetime. For almost forty years the once-thriving nursery fell into disrepair, but all was not lost. Fortunately his cultivars were so well dispersed that when Les jardins botaniques du Grand Nancy decided to recognise Lemoine's legacy in 2009, it was possible to assemble a complete collection.

As the popularity of lilacs grew, so did public demand for them as a cut flower. Forcing lilacs commercially started in France in the early 1880s but it was Dutch nurserymen who tried breeding different varieties to extend the colour range beyond the white that the forced blooms usually reverted to. An interesting lilac from this period is *S. vulgaris* 'Sensation' which has single, deep-purple petals with a white edging. It is a mutation of a single white and occasionally exhibits both multicoloured and white florets on the same thyrse.

The lilacs that French, Dutch and English colonists introduced to the

Americas flourished. As they became established in home gardens in both the northern states of the USA and Canada, public plantings dedicated to lilacs appeared and the number of breeders grew. At Ottawa's Central Experimental Farm, Isabella Preston, known in New Zealand more as the breeder of Explorer Roses, used *S. villosa* and *S. reflexa* to further extend the flowering season with over 200 late-flowering, hardy hybrids. In the USA, others worked on improving lilacs' natural attributes and others on creating repeat-flowering varieties. Unfortunately, the last cultivars that appear to have come into New Zealand were in the 1950s and are the work of Californian G. W. Clarke. Interestingly, two that are currently available, *S. x hyacinthiflora* 'Sweetheart' and *S. x hyacinthiflora* 'Esther Staley' tend to prefer a warmer climate, perhaps in deference to where they originated. A hint that more was happening in the lilac world than was generally acknowledged came in 1958 when a small publication entitled *Lilacs* appeared at the Brussels World Fair. Written by the talented and self-taught nurseryman Leonid Kolesnikov, the treatise described a very different approach to the culture and propagation of lilacs in the USSR. It garnered little interest when it was first released and considerable skepticism a year later, when it was reviewed by the director of Harvard University's Arnold Arboretum. The propagation and culture techniques Kolesnikov put forward were in stark contrast to those practised in the USA and Europe at the time.

Fast forward to 1970 when Charles Holetich of the Royal Botanical Gardens in Hamilton, Ontario and Nikolai L. Mikhailov of the Moscow Botanical Garden developed a working relationship that saw an exchange of lilac plants. Finally lilac lovers in the west were to see the outcome of Kolesnikov's propagation theory. They were not disappointed. By using a small pool of Lemoine doubles as parent plants, he had successfully cross-fertilised sterile, double lilacs. His controversial method of stressing plants to force seed development had borne stunning results.

S. vulgaris 'Krasavitsa Moskvy' with its pink buds and triple, pearly-white florets is still considered one of the finest lilacs.

Kolesnikov faced many challenges during his lifetime, and as with Lemoine

Olimpiada Kolesnikova

Krasavitsa Moskvy

before him, he relied on his wife to continue his work during the difficult war years. Also, like his predecessor he named a lilac, the double, blue 'Olimpiada Kolesnikova' in her honour. After his death in 1968, Kolesnikov's Moscow garden fell victim to urban development and some of his cultivars were lost. Fortunately, a group of devotees were aware of his considerable contribution to the lilac world and set about converting the site of his nursery into a lilac park. Today it hosts one of Russia's many spring lilac festivals.

The entrance to the lilac collection at the Royal Botanical Gardens, Hamilton, Canada. Photo by Beryl Lee

Without doubt, Lemoine and Kolesnikov are the giants of the lilac-breeding world. It is here though, that the similarities stop. While France has seen little hybridising activity in recent times, Russia and the former USSR satellite countries have continued to produce large numbers of new cultivars. Perhaps the most interesting release has been 'Lilacs of Victory', a series to commemorate the end of German occupation during World War Two. These lilacs are notable for their form, depth of colour and intense fragrance, as well as the names they have been given. Titles such as 'Stalingrad' and 'Leningradskaya Simfoniya' serve as a salutary reminder of the country's difficult history.

Lilacs are indeed plants of remembrance.

'Leningradskaya Simfoniya'

Epilogue

So where does New Zealand fit into this decidedly northern hemisphere narrative? With apparently no new cultivars entering the country since those from the USA in the 1950s, what is the chance any Russian ones arrived? Is it possible? Well, yes, just maybe.

Some years ago, this writer received an article from the Russian author and lilac breeder, Tatiana Polyakova. While researching her biography on Kolesnikov, she had found a 1959 Russian newspaper clipping among his personal papers. The article raises some fascinating questions.

It explains how Kolesnikov had received a letter from a gardener in New Zealand who also bred lilacs—twenty-six of them. The Russian responded by sending a package of his hybrid seeds to New Zealand. Did they arrive? Who was the New Zealand enthusiast? Are any of his lilacs still growing?

Possibilities abound when translating Russian into English but add Māori

Kolesnikov's Garden Park

place names and they increase exponentially. The gardener's name appears to be Paul Beck although options for his hometown are more problematic. The translation suggests it sounds similar to 'Renoun' or 'Renuana'. Could it be Remuera? Clearly Mr Beck had some knowledge of Kolesnikov's 1958 book, for prior to that date, nothing was known of Russian lilacs. Had he been to the Brussels World Fair?

Perhaps a reader has some knowledge that might lead to solving this intriguing botanical mystery. It would be quite a coup to discover we have had Russian lilacs growing in New Zealand for seventy years. It would be even more extraordinary if we were to discover that we were also home to twenty-six New Zealand-bred lilacs.

References

Gromov, A., 'Creator of Russian Lilacs', *International Lilac Society Journal*, Volume 2: Number 4, 1974.

Fiala, John L. and Vrugtman, F., *Lilacs: A gardener's encyclopaedia*, Timber Press, 2008.

Howard, Richard A., 'A Booklet on Lilacs from Russia', *Arnoldia*, Volume 19: Numbers 6 –7, 1959.

Polyakova, Tatiana., *Kolesnikov Biography and Personal Correspondence, 2010.*

Unsourced newspaper article, Moscow, 1959.

This article originally appeared in a New Zealand publication, *The Gardener's Journal*, published by Margaret Long.

Although Beryl Lee comes from a family with a strong background in gardening, she is the first that she is aware of, who is a lilac lover. Since retiring from teaching, as well as indulging in her lilac hobby, she has been involved in the multi-ethnic community. This has included starting a community garden for migrants and refugees and writing a book on their food stories. She has visited many northern-hemisphere lilac collections, attended several conventions and presented at conferences in Moscow and St Petersburg.

Lessons from Chinese Research on Lilacs

*By Mark L. DeBard**

This article analyzes and hopefully simplifies the concepts in the complex genetic information from the published Chinese article listed first in the References section, chronicling milestone research establishing, for the first time, the complete genome of a lilac species, *Syringa oblata*.

A prominent member of the International Lilac Society (ILS), Hongxia Cui, is one of the corresponding authors of this study.

Prior to 2000, lilac species relationships were based on morphology, or physical appearance. The assumption was that similar appearances came from common ancestors. This has turned out to be only partially true, as we now realize that similar physical characteristics can frequently arise in unrelated species due to environmental pressures. Let me paraphrase how Hongxia Cui characterizes this important fact.

Morphology and evolution

Distant species may have a remote ancestor in antiquity, so they inherit similar abilities to respond to environmental crises. It is energy-saving for distantly separated and seemingly unrelated species to share remotely developed phenotypes (morphological characteristics or appearances) in the face of any stress situation, which would allow for the development of similar characteristics from unrelated (at least recently) species. A corollary of this is that reproductive organs (like flowers, and number and length of stamens) are more conservative and less sensitive to environmental stress than vegetative (non-reproductive) organs such as leaves or plant height which are vegetative growth phenotypes.

Genome of *Syringa*

In the last 20 years, Chloroplast DNA (cDNA) and nuclear DNA (nDNA) genetic sampling have been used to analyze lilac Series and species, which are partial genetic studies. These results have been used to study lilac evolutionary history, development, and diversity, including lines of descent and relationships among the diverse species, a study and discipline known as phylogeny. These early achievements are valuable in improving our knowledge about lilacs and testing previous speculations. They let us know that it's not just the differences and similarities in visual appearances that connect at the macroscopic scale of individuals and species, but that these complicated connections also exist in microscopic organelles in cells, even in DNA.

The current paper expands these limited genetic studies to whole genome assembly and analysis (or more simply sampling and decoding) of the *S. oblata* genome, a first in lilac studies, giving more reliable and extensive answers than even cDNA and nDNA genetic sampling. For instance, it allows for the demonstration of the genes for fragrance which involve the synthesis pathway for the aromatic compound terpene, as well as for molecular regulation mechanisms of flower color and disease resistance.

Ploidy

Lilacs, like most natural plants, are diploids having 23 pairs of chromosomes, or 46 total chromosomes. Gametes (eggs, spermatozoa, pollen) have simply 23 chromosomes; their fusion during fertilization gives the 23 identical pairs of gene sequences; each paired gene sequence of 23 is called a homolog.

While most plants are diploid, they can be any ploidy. Some are triploid with three homologs and usually sterile, some are tetraploid, but both are said to have polyploidy. Polyploid plants (more chromosomes than diploids, or more homologs) are generally larger and healthier but sometimes sterile due to an odd number of homologs that can't pair during reproduction (meiosis). Seedless fruit are from triploids, like bananas and seedless watermelons. Tetraploids, on the other hand, can allow interbreeding between more distant species and develop more robust morphologies. There is (possibly coincidental) evidence that the first *Syringa* to separate from other Oleaceae genera (*Olea* and *Oleanthus*) did so during an event that involved tetraploid Oleaceae becoming diploids.

Fig. 1: *S. oblata* subsp. *dilatata*

Phylogeny from Math Statistics

In addition to deciphering the entire genome of *S. oblata*, this paper's process obtained reconstructed phylogenetic relationships among 26 (80%) of the lilac species based on genome resequencing, which I will shortly describe.

The *S. oblata* genome has been decoded into 23 pseudochromosomes, which are 94-99% identical to the real biological chromosomes. These chromosomes consist of ordered pairs of amino acids. A sequence is a specific group of amino acid pairs (known as nucleotides or nucleic acids) in a certain order.

Research methods: Statistics Reveal Lilac Genetics

Sequencing is the modern process of comparing or looking for sequences in a definite (conserved) order between chromosomes of different species (also called collinearity). It is also known as **synteny analysis,** where synteny is the state where identical sequences are found in different species.

Synteny is useful because chromosomes are cut and pasted, or re-ordered, during evolution due to many intrinsic as well as extrinsic factors. This allows the inference of ancestral genomes, as fragments of chromosomes from extinct species can be detected in many of their living descendants. For instance, we now can detect synteny between Neanderthal and modern human DNA, demonstrating common ancestors.

The inference of phylogenetic relationships (non-morphological taxonomy) of two independently evolved species is a complex mathematical process that involves extensive computer analysis that need not concern us here.

Using **synteny mapping** to trace evolutionary history is a combination of molecular archaeology and an elaborate logic game. It has considerable power (at times statistically controversial) to let us look back into the genetic state of long-extinct organisms that have not left us their actual, intact DNA, but only the scrambled strands of their descendant's chromosomes.

Organisms of relatively recent divergence show similar blocks of genes in the same relative positions in the genome. For example, many human genes are syntenic with those of other mammals—not only apes but also cows, mice, and so on. Study of synteny can show how the genome is cut, replicated and expanded in the course of evolution. This allows for the study of groups of genes, such as the ones that produce fragrance.

Floral Scent Formation

Fragrance is one of the most-loved things about lilacs. This paper analyzed the amounts of aroma-producing compounds and gene expression

in six flower developmental stages from initial flower bud to floret fading. Aromatic terpenes are alcohols or oxides of the 5-carbon isoprene organic base, best known for their presence in grapes. Most have pleasant fragrances, but a few do not.

136 genes were involved in lilac fragrance, most of them **terpene** related. Forty-nine volatile terpene compounds were found in at least one flowering stage of lilacs. In all 6 stages, three terpenes (linalool, ocimene and farnesene) were the most abundant terpenes released in *S. oblata* flowers.

Linalool is often extracted from lavender, roses, cannabis, and basil. **Ocimenes** have a pleasant, sweet herbal scent which is unstable in air, and are found in basil and cannabis. **Farnesene** acts as an alarm or sex pheromone in several insects. It is the dominant fragrance in green apples and present in lemons, limes, and some sweeter cannabis. All three were most abundant in expanding bud, full-bloom flower, and early-fading flower stages, showing that the fluctuation of terpene content was synchronous with flower development.

Biogeographical Dispersal

The deciphering of the lilac genome now allows for much more reliable interpretation of species relations mapped on a timeline, known as a phylogenetic tree chronogram. The phylogeny of lilacs (again, the history of species evolution with lines of descent and relationships among them) was statistically analyzed for variation in gene frequencies across regions, which showed distinctive patterns that have been interpreted as resulting from certain old migration events. Since genetics varies by geographical proximity, this shows spatial distribution and can be used to map the relative geographical location of different population groups, including species that have left their original locations. The paper describes the geographical origins and migration of several lilac species. Of interest is that the original species started in Northeastern and Northwestern China, with dispersal from there to Persia, Eastern Europe, Japan, and southern China and Tibet.

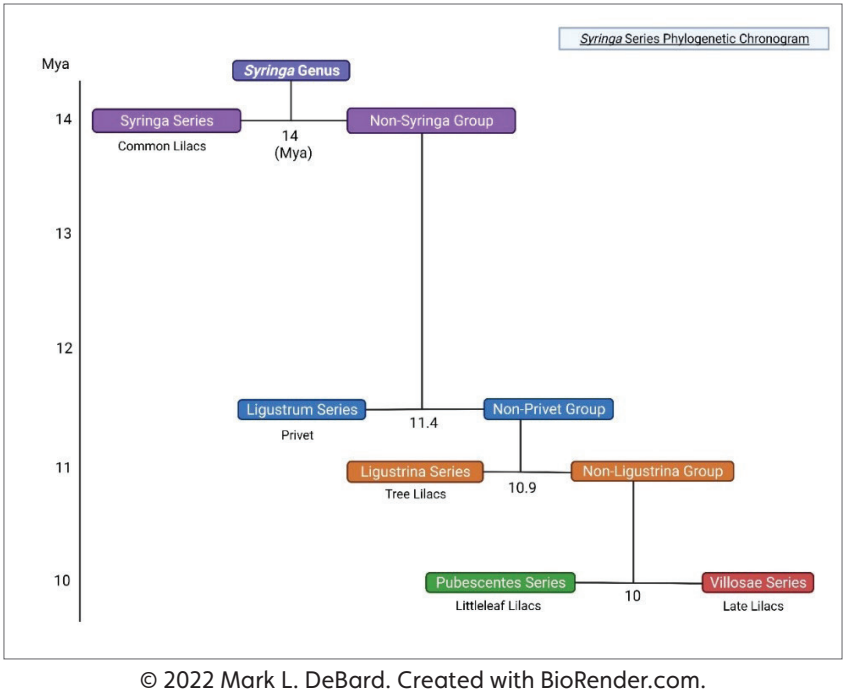
Phylogenetic Evolution

Comparing statistical patterns in different species can allow for the inference (as opposed to deduction) of ancestral relationships which can then be used to refine the phylogenetic tree of related species. In this paper, this technique was used on 26 *Syringa* species (80% of all species in the genus) which showed 5 groups: Syringa, Pinnatifoliae, Pubescentes, Villosae, and Ligustrina. (But note that taxonomically, and not genetically, I interpret the Pinnatifoliae as being mostly part of the early Syringa Series due to their ability to interbreed, and the likelihood that the Ligustrum privets form

their own Subgenus or Series before the other three Series broke off).

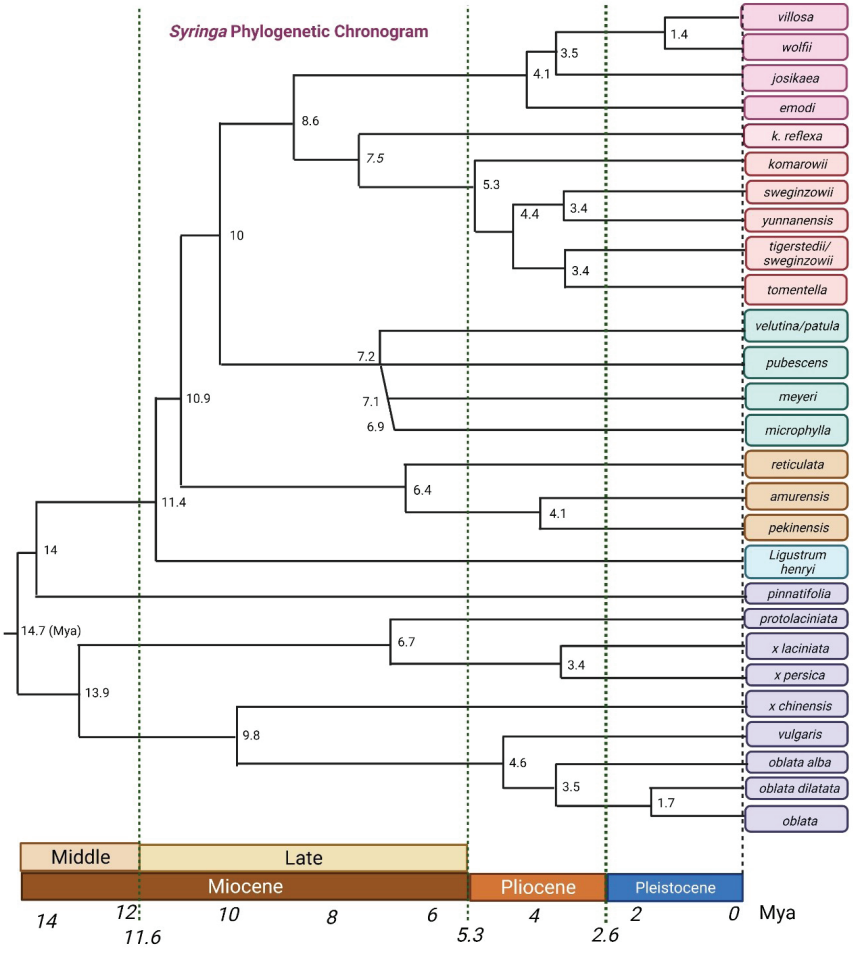
Diversification of Series started in the late Miocene. Divergence age in millions of years ago (Mya) was as follows (see Figure 2):

Genus *Syringa* (lilac) from Oleaceae Family, aka Stem Age): 27.6 Mya
- Series Syringa/Pinnatifoliae (common/pinnate): 14 Mya
  - 1 clade whole leaf species: 9.8-1.7 Mya
  - 1 clade lobed leaf species: 5.8-3.4
  - 1 clade heterozygous leaf species: 6.8-3.4
- Subgenus or Series Ligustrum (privet): 11.4 Mya
- Series Ligustrina (tree): 10.9 Mya
- Series Pubescentes (littleleaf): 10 Mya
  - 1 clade of 3 species: 7.2-6.9 Mya
- Series Villosae (late): 10 Mya
  - 2 clades split at 8.6 Mya
    - 1 clade split into 4 species: 4.7-1.4 Mya
    - 1 clade split into 6 species: 7.1-3 Mya



Phylogeny of Lilacs Over the Ages

The story of lilac species differentiation (its phylogeny) is best told in a Phylogenetic Species Tree Chronogram, shown below as Figure 3, modified from Figure 6d in the article. We will then discuss its evolution in detail.



Based on data and Figure 6d in: The Plant Journal (2022): "A chromosome-level genome of Syringa oblata provides new insights into chromosome formation in Oleaceae and evolutionary history of lilacs". Wang, Li; Lu, Limin; Li Jingrui; Li Huayang et al. DOI: 10.1111/tpj.15858.

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Fig. 3: *Syringa* Species Phylogenetic Tree Chronogram.

Middle Miocene Epoch (16-11.6 Mya)

When lilac differentiation began 14 million years ago (Mya), it was the middle Miocene. Apes had evolved and chimps were beginning to diverge. The climate was 4-10°C (7-18°F) warmer than now, but slowly cooling, becoming drier and less tropical with expanding grasslands and kelp (brown algae) forests in the sea. Then 14 Mya, a sharp drop in temperature happened globally called the Middle Miocene Global Transition (posited to

have several possible causes), which led to fauna and flora extinctions of both terrestrial and aquatic lifeforms.

In any case, the cooling world and rising mountains gave rise in northern East Asia to lilacs, which love cooler temperatures and well-drained mountain elevations.

Fig. 4: *S. pinnatifolia*

Fig. 5: Wild *S. pinnatifolia*

photos by Hongxia Cui

The first lilac differentiation that occurred at 14 Mya was the ancestor of the Pinnate Lilac, *S. pinnatifolia*. Then just one million years later, the Syringa Series of common lilacs broke off, making these the earliest and closest related of lilacs. These 2 groups have retained a slight ability to interbreed, which is why *S. pinnatifolia* is sometimes practically classified by taxonomists (not geneticists) with the Syringa Series.

Late Miocene Epoch (11.6–5.3 Mya)

Ligustrum Privet

The Late Miocene Epoch saw continued cooling and lilac species differentiation. First a privet (*Ligustrum henryi*) broke off from the *S. pinnatifolia* 11.4 Mya. While the privets were given their own genus in the past, due to DNA and genome mapping it is now being recognized that they likely belong in the lilac *Syringa* genus.

Fig. 6: Modern *Ligustrum* Privet 'Golden Ticket'

All Others: the Pubescentes, Villosae, and Ligustrina

Shortly after the Ligustrina tree lilacs broke off 10.9 Mya, leaving a final group that would become the Pubescentes and Villosae lilacs, this final group then separated 10 Mya into the littleleaf Pubescentes and late Villosae groups.

Villosae Late Lilacs

The late lilacs separated into two main groups 8.6 Mya. The late lilacs had *S. komarowii reflexa* separate at 7.5 Mya, the earliest of the late lilac species to do so.

Fig. 7: *S. komarowii reflexa*; photo by Hongxia Cui >

Pubescentes Littleleaf Lilacs

Starting 7.2 Mya, the littleleaf lilacs, having separated from the late Villosae lilacs 10 Mya, quickly differentiated over only 200,000 years into the *S. pubescens* subspecies, just after the earliest late Villosae lilac first species separated.

Fig. 8: *S. pubescens* subsp. *pubescens* >

Syringa Common Lilacs

In the Syringa Series, the first natural hybrid *S.* ×*chinensis* broke off 9.8 Mya from the whole-leaf clade, and at 5.8 Mya the thin and cutleaf lilacs broke off (perhaps induced by drought), including the natural thin-leaf species *S. protolaciniata*, as well as what would become the natural cutleaf hybrids.

Fig. 9: *S.* ×*chinensis*

Fig. 10: *S. protolaciniata*; photo by Lottah Nursery

Pliocene Epoch (5.3–2.6 Mya)

The Pliocene epoch was 2-3°C (3-5°F) warmer than today but still cooling and it ended with the beginning of extensive glaciations and the establishment of the Greenland Ice Sheet. The land bridge from Siberia to Alaska started frequent cutoffs and may have prevented lilacs from migrating to North America, where they were never a native species. Hominids diverged from chimps at the start of the Pliocene, and modern Homo humans evolved by the end. Deciduous forests proliferated along with grasslands. This was conducive to further lilac species differentiation.

Villosae Late Lilacs

The late lilacs that were left after the *S. komarowii reflexa* separation, broke off at 5.3 Mya into the *S. komarowii* and *S. tomentella* species. *S. tomentella* species then differentiated into its subspecies of *S. tomentella*, *S. sweginzowii*, and *S. yunnanensis* from 4.4-3.4 Mya.

Meanwhile, the other late lilacs that had not yet differentiated separated into the species *S. emodi* and the *villosa/wolfii/josikaea* clade 4.1 Mya. This clade had apparently migrated to Europe shortly after this. But it was then cut-off from its Asian roots, perhaps by Siberian glaciers. This allowed *S. josikaea*, the Hungarian late lilac, to evolve as its own species in the high non-glaciated, unfrozen refuge of the Carpathian and Balkan Mountains of Romania and Bulgaria 3.5 Mya.

Fig. 11: *S. tomentella*

Fig. 12: *S. josikaea*

Ligustrina Tree Lilacs

Among the tree lilacs, the Japanese tree lilac *S. reticulata* and Peking tree lilac *S. pekinensis* would separate from the tree lilac clade 6.4 Mya. it now appears that *S. amurensis*, previously thought to be a subspecies of *S. reticulata*, probably separated as its own species or subspecies from *S. pekinensis* 4.1 Mya. This fits better with the overlapping geographical distributions of *S. pekinensis* and *S. amurensis* in northern China.

Fig. 13: *S. reticulata*

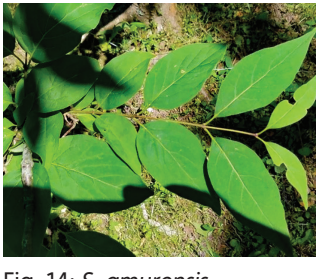

Fig. 14: *S. amurensis*

< Fig. 15: *S. pekinensis*

Syringa Common Lilacs

Whole Leaf Clade

In the whole leaf clade of the common Syringa Series, S. vulgaris separated from the S. oblata clade 4.6 Mya. Then the S. oblata clade spun off a white species S. oblata alba 3.5 Mya.

Fig. 16: *S. vulgaris* var. co*erulea*

Fig. 17: *S. oblata dilatata*
photo by Hongxia Cui

Cutleaf Clade

In the cut-leaf clade of the common Syringa Series, S. protolaciniata separated from the two natural hybrids 6.7Mya. The natural hybrid cutleaf lancinated lilac S. ×laciniata separated from the natural hybrid lobed leaf Persian lilac S. ×persica 3.4 Mya, and their often-changing leaf appearance generated confusion for centuries. The dates suggest only a few possible parents: for S. ×laciniata, a separate unanalyzed species such as S. afghanica, S. ×chinensis, S. protolaciniata, and S. pinnatifolia, and for S. ×persica, also S. ×laciniata itself (S. ×persica is sterile and could not have been a parent of S. ×laciniata). Of course, S. vulgaris and S. oblata could still be one of the parents, having separated from them only one million years before.

Fig. 18: *S. ×laciniata*

Fig. 19: *S. ×persica*

Pleistocene Epoch (2.6 Mya to 11.7 Tya)

The Pleistocene Epoch occurred from 2.5 Mya to 11.7 Tya (thousands of years ago). By this time glaciation had lowered sea levels and the land bridge from Asia to Alaska was restored, but northern North America was covered by the Cordilleran (in the West) and Laurentide (in the East) Ice Sheets with no flora interchange with Asia. Continents were in their basic same positions as today. Siberian glaciers may have cut off late-evolving lilac species between China and Eastern Europe, allowing new species to form in Europe and the Mideast.

Syringa Common Lilacs

In Asia, the common vulgaris/oblata progenitor differentiated into the S. oblata species 3.5 Mya, only 1 Mya after its close cousin S. vulgaris differentiated, making for two very close genomic relatives separated by large geographical distances. S. oblata then differentiated into its two subspecies oblata and dilatata 1.7 Mya.

Villosae Late Lilacs

Finally, S. villosa evolved into its own subspecies of villosa and wolfii about 1.4 Mya. This was the last natural speciation of the lilacs.

Fig. 20: *S. villosa* Fig. 21: *S. villosa* subsp. *wolfii*

What's New?

So what new information does this paper have to give us about lilacs?

1. A complete lilac genome has been discovered which will allow for much more detailed future research in the genus.
2. Fragrance has been determined to be most abundant in the open flower stage, and to be controlled by the terpene synthesis gene pathway, primarily due to 3 terpene compounds out of 46 involved: linalool, ocimene and farnesene.
3. Most phylogeny information from limited genetic analysis in the last 25 years has been confirmed.
4. A *Ligustrum* (a privet) has been confirmed to be within the genus *Syringa*.
5. *S. pinnatifolia* is closely related to the Syringa Series, which is probably why it can interbreed with species in this Series. It is the oldest lilac species. The authors say that while its hybrid compatibility is closer to Series Syringa, it has complex introgression (the transfer

of genetic information from one species to another as a result of hybridization between them and repeated backcrossing) involving the three Series Syringa, Ligustrina, and Pubescentes.

6. All Series are diploids and are too distantly separated to interbreed.
7. *S.* ×*chinensis* is a natural hybrid that broke off from the whole-leaf clade just before the *vulgarisl/oblata* clade, so it is not closely related to the cutleaf clade including its frequent look-alike, *S.* ×*persica*.
8. *S.* ×*chinensis* has a large heterozygosity indicating complex hybridization. Its genome is mixed with *S. pinnatifolia* as well as the whole-leaf and cutleaf clades. Since Emile Lemoine first did it, breeders have morphologically proven that it is a rarely fertile hybrid of *S. protolaciniata* or *S.* ×*laciniata* and *S. vulgaris* or *oblata*. Further samples will be needed to assess its genomic makeup.
9. *S. amurensis* does not appear to be a subspecies of *S. reticulata*. Instead, it is a separate subspecies of *S. pekinensis*, although further data may show it to be its own species. This fits with morphological observations that *S. amurensis* much more closely resembles *S. pekinensis* than it does *S. reticulata*, especially in leaf type, habit, and biogeographical distances.
10. *S. villosa* evolved from the glacially cut-off Chinese remnants of *S. josikaea*.
11. *S. tigerstedii* has been considered to be a synonym for *S. sweginzowii*; the current data need more population samples to place its species or subspecies status.
12. The *S. pubescens* subspecies are confirmed as being closely related, having evolved nearly at the same time.
13. *S. komarowii reflexa* appears to be its own species, with *S. komarowii* as a subspecies.
14. Except for *S. vulgaris*, *S. reticulata*, and probably *S. josikaea*, most lilac species (at least those tested so far) differentiation has occurred in northern East Asia.
15. Possible parents for *S.* ×*laciniata* and *S.* ×*persica* have been narrowed down to *S. protolaciniata*, *S. pinnatifolia*, *S.* ×*chinensis*, an untested species such as *S. afghanica*, and, for *S.* ×*persica*, also *S.* ×*laciniata* itself. It remains less likely from the timeline that the *S. vulgaris/oblata* clade could be a parent of either one though this is much less likely due to its morphology, similar evolutionary timeline, and more distant clade relationship.

DeBard's Updated 2022 Syringa Phylogeny & Taxonomy

Series **Syringa**

S. vulgaris L.
S. oblata Lindl.
subsp. *oblata alba*
subsp. *oblata*
subsp. *dilatata* (Nakai) P.S.Green & M.C.Chang
S. *protolaciniata* P.S.Green & M.C.Chang
S. pinnatifolia Hemsl.
S. *afghanica* C.K.Schneid.[1]
S. ×chinensis Schmidt ex Willd. (pro sp.) ((*S. protolaciniata or S. ×laciniata)* × *S. vulgaris/oblata clade*)
S. ×diversifolia Rehder (*S. oblata* × *S. pinnatifolia*)
S. ×hyacinthiflora Rehder (*S. oblata* × *S. vulgaris*)
S. ×laciniata Miller (pro sp.) (*S. protolaciniata, S. pinnatifolia* or *S. ×chinensis*)
S. ×persica L. (pro sp.) (*S. protolaciniata, S. pinnatifolia, S. ×chinensis, S. ×laciniata*)

Series **Ligustrina** (Rupr.) K.Koch

S. pekinensis Rupr.
subsp. *amurensis* (Rupr.) P.S.Green & M.C.Chang, Wang, Cui, et al
S. reticulata (Blume) H.Hara

Series **Pubescentes** (C.K.Schneid.) Lingelsh.

S. pubescens Turcz.
subsp. *microphylla* (Diels) M.C. Chang & X.L. Chen
subsp. *patula* (Palib.) M.C.Chang & X.L.Chen
subsp. *pubescens* Turcz.
S. pinetorum W.W.Sm.[1]

Series **Villosae** C.K.Schneid. (S. Villosae Group)

S. emodi Wall. ex Royle
S. villosa Vahl
subsp. villosa Vahl
subsp. wolfii C.K.Schneid.
S. josikaea J.Jacq. ex Rchb.
S. *komarowii reflexa* (C.K.Schneid.) P.S.Green & M.C.Chang; Wang, Cui et al
subsp. *komarowii* C.K.Schneid.
S. tomentella Bureau & Franch.
subsp. tomentella
subsp. sweginzowii Koehne & Lingelsh.
subsp. yunnanensis Franch.
S. tibetica P.Y.Bai[1]
S. ×henryi C.K.Schneid. (*S. josikaea* × *S. villosa* subsp. *villosa*)
S. ×josiflexa I.Preston ex J.S.Pringle (*S. josikaea* × *S. komarowii* subsp. *reflexa*)
S. ×nanceiana McKelvey (*S. ×henryi* × *S. tomentella* subsp. *sweginzowii*)
S. ×prestoniae McKelvey (*S. komarowii* subsp. *reflexa* × *S. villosa*)
S. ×swegiflexa Hesse ex J.S.Pringle (*S. komarowii* subsp. *reflexa* × *S. tomentella* subsp. *sweginzowii*)

Subgenus **Ligustrae** L.

L. amurense Carrière
L. delavayanum
L. ibota Siebold
L. japonicum Thunb.
L. lucidum W.T. Aiton
L. obtusifolium Siebold & Zucc.
L. ovalifolium Hassk.
L. quihoui Carrière
L. robustum (Roxb.) Blume (ssp. *L. walkeri*)
L. sempervirens (Franch.) Lingelsh
L. sinense Lour.
L. tschonoskii Decne. (or *L. yezoense* Nakai)
L. vulgare L.

L. × *ibolium* (*L. ovalifolium* × L. *obtusifolium*)
L. × *vicaryi* (*L. ovalifolium* 'Aureum' ×*L. vulgare*)

[1]*Not known to be in cultivation outside China. Plants cultivated under these names or synonyms in Europe and North America have been misidentified (see Pringle, 90; Vrugtman 2009).*

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https://en.wikipedia.org/wiki/Middle_Miocene_disruption

https://en.wikipedia.org/wiki/Pliocene

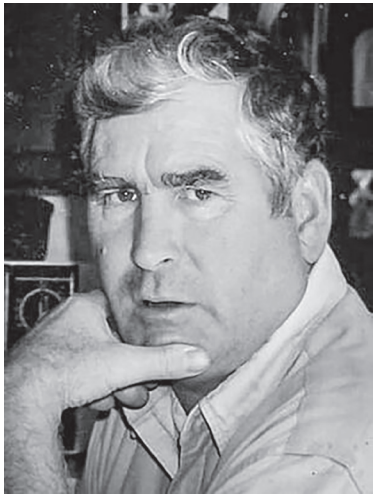
https://en.wikipedia.org/wiki/Pleistocene

***Note**: I am extremely grateful for the professional input of Hongxia Cui in the preparation of this article, which has greatly improved it. Any remaining errors are mine alone….Mark L. DeBard.*

*Dr. DeBard is the Registrar for the International Register & Checklist of Cultivar Names for the Genus *Syringa*. He is also the Membership Secretary and a member of the Board of Directors of The International Lilac Society.

John Thurlow

July 20, 1936 – June 9, 2022



John Thurlow, longtime member of the ILS, passed away on Thursday, June 9, 2022, at his home in West Newbury, from Parkinson's Disease. He was born to Harold and Esther Thurlow on July 20, 1936. John attended school in West Newbury until he went to high school in Newburyport, where he graduated with the class of 1954. He then graduated from Stockbridge at UMass Amherst, studying Forestry. John lived his entire life in West Newbury.

John was a Veteran and served with the U.S. Army as a medic during peacetime, in 1959 and 1960. He was stationed in France and enjoyed traveling to many cities throughout Europe, including Paris.

John married the love of his life, Ellen, at the end of the Blizzard of 1978. John was the 5th generation of Thurlows in West Newbury. He lived in the family home, the Chase–Thurlow Homestead, that was built in 1731. John planted a forest of red and white pine seedlings on a hill behind the house, when he was in his early 20s and they are now well over 60 feet tall!

John was involved in the family business, Cherry Hill Nurseries, from the age of 15 until he retired at 65. He was President, Treasurer for many years. His interests were the CHN Peonies and Lilacs. John and Ellen were long time members of the International Lilac Society. They traveled to many conventions in both the US and Canada. He enjoyed meeting fellow lilac lovers from all over and seeing the hundreds of cultivars of lilacs.

John also belonged to the Collings Foundation and loved having rides in many WWII Airplanes, and he certainly loved talking about them. He and his brother, Rick were the Grand Marshals in the 2019 West Newbury Memorial Day Parade. John raised Highland Cattle and people would enjoy coming by to see these magnificent animals in the pasture.

John was predeceased by his parents and infant daughter, Nancy Ellen; his step-daughter, Roni (Mello) and her husband Bill O'Brien, and nephew, Richard Towne.

He leaves his brothers, George Thurlow of Huntsville AL, and Richard Thurlow of West Newbury; his sister, Susan Towne of Seattle, WA; a niece Suki and nephew Michael. And of course his beloved wife, Ellen.

John was the ultimate STEP—He had a step-family that he loved and they also loved him dearly. His family included daughters, Robin Mello of Troy ME, Renay Krupanski and husband James of Newburyport, and Randi Walker and her significant other Michael Hicks of Amesbury; 12 grandchildren: Kristen and Ben DalPra, Audrey and Chris Stewart, Ben O'Brien, Tamara Mello, Trisha Erskine, Marcy Frontiero, Zach Pollard, Alex, Olive (Meggie) and Michael Krupanski, Grace and Gabe Walker; nine great-grandchildren, Olivia Erskine; Evelyn, Charlotte and Lydia Dal-Pra; Reyna O'Brien; Stiles and Tayvien LaBoy; Hazel and Islay Stewart.

John was an honest, quiet man who was respected by all and will be missed by many, including his friend from childhood, John McGrath, who visited him weekly during his illness. The family was thankful that John was able to remain at home during his illness with the help of many.

S v 'Paul Thirion'
Photo by Kitty Werner UVMHF

Retrospect of a Lilac

Zelda Ludwick

The March wind can be so cruel,
My old limbs crackle against the house.
But the wind goes quickly by, a fly-by-night.
No time for friends, and soon it dies.
My friends are many, my roots are deep, my years are countless.

I also have traveled as the wind.
I was carried in the arms of a bride,
Cradled in the depth of a schooner.
Tenderly she dug my roots from the earth.
Lovingly she wrapped a white cloth about me.
I too felt as a bride beginning a long journey.

In her eyes I saw hope. I saw adoration for the one she loved.
Many days and weeks we traveled, again
Carefully I was placed on the waiting earth,
And with reverence she pressed my roots
Into the warm, soft loam.

All too soon the north winds tore on my twigs,
I bore up bravely, for I too had hope.
Often at my side she would come,
Tucking dried leaves about me.
Always in her eyes the look of faith and love.

Many years have passed and gone.
Many winds have torn at my branches,
Warm rains have washed my leaves,
Sparking dew has clung to my flowers.
Ice and snow have whipped at my cold limbs.

Work-worn hands have cultivated the earth about me.
Eyes have gazed at me with love, and afar with faith and hope.
Children have played in the shade of my spreading foliage,
Warm rays of sun have enfolded me.
My sprouts have grown and matured as the children.

But time has swiftly passed.
Generations have come and gone.
The house has spread in many directions
As the four winds blow,
As my twigs that grow about me.

It is old — it is weatherbeaten, as am I.
My flowers have graced its mantel.
They have been clutched in tiny hands,
They have rested on cold hands of death,
They have permeated rooms with their exquisite perfume.

I am ageless, I am one of many on these great plains.
I came with the first settlers,
I have withstood time and weather, as have they.
I am a part of the American heritage.
I am a symbol of growth.

March wind — blow on your way.
Let my branches caress the old house.
Let me forget that it is abandoned and forsaken.
Let me live with my memories.
Let bygone days be my life and Joy.

Blow on ye winds, and on your journey far
Touch me with tenderness.
Find me by a garden gate, a humble home,
By a crumbled well, or a shady lane.
I am a part of the land, a monument to many.

In me you will find the hope of ages.
I am the faith, the love, the anticipation, the reward.
I am a symbol of things past and things to come.
I am life and growth which the elements cannot erase.
Blow, winds blow. I fear thee not, for I am a Lilac.

Komarov Botanical Institute of the Russian Academy of Sciences

Peter the Great Botanical Garden Cultural and educational center of the BIN RAS

International Lilac Society

Dear colleagues!

We invite you to take part in the VII International scientific-practical online-conference

«***Syringa* L.: collections, cultivation, use», which will be held February 20-23, 2023 in the Peter the Great Botanical Garden of the BIN RAS at the address: Russian Federation, St. Petersburg, ul. Prof. Popova, 2**

e-mail: botanical_garden_spb@mail.ru

Official page of the conference: https://www.binran.ru/science/konferentsii-i-shkoly/vii- mezhdunarodnaya-nauchno-prakticheska-ya-konferentsiya-syringa-l-kollektsii-vyrashchivanie-ispolzo/

Conference format: combined (offline and online).

Conference Organizing Committee:

Chairman:

Yarmishko V. — Prof., Doctor of Biological Sciences, Head of the Peter the Great Botanical Garden

Co-Chairs:

Elke Haase — Vice President of the International Lilac Society for Europe

Polyakova T.V. — Vice President of the International Lilac Society for Russia and Asia

Kalugin Yu.G. — Chairman of the Commission for Cultural and Educational Activities of the Council of Botanical Gardens of Russia.

Mark DeBard — current Registrar of International Register & Checklist of Cultivar Names for the Genus *Syringa* L.

Members of the organizing committee:

Aladina O.N. — Member of the International Society of Lilacs. Baranova O.G. — Peter the Great Botanical Garden BIN RAS. Volchanskaya

A.V. — Peter the Great Botanical Garden BIN RAS. Musinova L.P. — Cultural and educational center of the BIN RAS. Pautova I.A. — Peter the Great Botanical Garden BIN RAS. Polyakova N.V. — South Ural Botanical Garden-Institute UFRC RAS. Rappoport A.V. — Botanical Garden of Moscow State University.

Sapozhkova I.F. — Member of the International Society of Lilac.

Tkachenko K.G. — Peter the Great Botanical Garden BIN RAS. Firsov G.A. — Peter the Great Botanical Garden BIN RAS.

Executive Secretary:

Zimina O.A. — Cultural and educational center of the BIN RAS.

Medvedeva A.A. — Cultural and educational center of the BIN RAS.

Topic for coverage at the 2023 conference:
«Syringa L.: taxonomic diversity, landscape distribution, history of collections»

This year, our already traditional winter meeting of lilac fans will be dedicated to lilac collections, their history, taxonomic diversity and the use of various species and cultivars of lilacs in horticulture, urban and private gardening. We hope to broadly illuminate the issues of creating and maintaining collections in botanical gardens and dendrological parks, as well as in private individuals and organizations. It is also planned to consider the range of arboretums and city parks. Please note that reports and publications should not repeat those presented earlier.

Duration of reports: up to 20 minutes. The meeting is expected to be broadcast on the ZOOM online platform to the widest audience around the world.

To draw up the program, we ask you to send the participant application (form below) with the topic of your report by e-mail botanical_garden_spb@mail.ru by January 24, 2023

In case of a positive decision about your speech, you must send the full text of the report (for the preparation of simultaneous translation Russian-English-Russian) by February 1, 2023.

All interested parties after the conference until March 15, 2023 can send full-text articles for publication in the collection of scientific articles: «Syringa L.: collection, cultivation, use», Vol. 4. All articles will be selected, reviewed and published during 2023.

Forms of participation in the conference:

Participation in an online conference as a speaker (in videoconference mode with a video camera on) without arriving at the conference venue. To

participate, you must have a stable Internet connection and a camera (for video and sound transmission).

Participation in an online conference as a listener (getting access to a video conference). To participate, you must have a stable Internet connection and a camera (for video and sound transmission).

The application for participation in the conference is drawn up in the form of a Word document with the name of the participant in the file name, for example, «Ivanov_Application.doc» and is submitted to the organizing committee (botanical_garden_spb@mail.ru)

The application form:

Surname	
First name	
Scholastic degree	
e-mail	
Contact phone number	
Full name of the organization and structural unit	
Presentation planned topic (from the names of the sections)	
Title of the report and / or publication	
Form of participation (can be indicated by numbers from the section «Form of participation»)	

A separate application is made for each participant.

Registration fee for participation in the conference is not provided
Working languages: Russian and English.

Instructions for formatting articles:

Materials are accepted in .doc, .docx or .rtf format at botanical_garden_spb@mail.ru. Each article should be in a separate file. The file name has to coincide with the name of the first author, for example, if the first author is T. Ivanov, then the file name is TIvanov_01.doc, the second work of this author TIvanov_02.doc, etc.

The volume of materials is up to 5 A4 pages with margins of 2.5 cm on all sides, font Times New Roman, size 11, after 1 interval. The text should be aligned in width, paragraph indent 1 cm, automatic hyphenation.

The text should be stated in the following order: UDC, title (printed in

lower case, centered, in bold), under the name of the authors and their place of work (the full name of the institution / organization / enterprise, as well as E-mail, city, country). This is followed by an abstract (up to 100 words), keywords (4-5). The bibliographic list is placed after the text of the publication and must comply with GOST R 7.0.5-2008 «System of standards for information, library and publishing. Bibliographic reference. General requirements and compilation rules».

Upon receipt of applications and materials, the Organizing Committee within 3 working days sends a letter back to the author's address confirming their receipt. Participants who do not receive confirmation must duplicate the materials or contact the Organizing Committee by phone.

The organizing committee reserves the right to select, scientific editing and proofreading of the text, as well as to make stylistic changes in the text without agreement with the authors, to determine the form of the report (plenary, sectional) and reserves the right to reject articles not on the topic of the conference or of low quality.

CONFERENCE ORGANIZING COMMITTEE
botanical_garden_spb@mail.ru


S v 'Krasavitsa Moskvy'

International Lilac Society

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