

FEATURE STORY

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Conserving Pernambuco, Supporting Music

By Heidi Waleson



A pernambuco tree in flower. Photo by Juliana Neves. Inset: Bow tip using pernambuco wood. Photo courtesy of L'atelier d'Arthur.

In Brief | Pending rules may ban buying and selling many existing bows made of pernambuco, the Brazilian wood that is preferred by many string musicians and grows exclusively in Brazil. International travel with pernambuco bows could become a bureaucratic nightmare. The League and other industry stakeholders are aiming for policies that build sustainability and conservation while supporting the art of music-making.

When the 20th meeting of the Conference of the Parties to the Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES CoP20) convenes in Samarkand, Uzbekistan from November 24 to December 5, 2025, one proposal on the table could have serious repercussions for musicians around the world. Brazil has submitted Proposal 46, asking that pernambuco (*paubrasilia echinata*) be moved from Appendix II to Appendix I, the highest level of protection. Pernambuco, a hardwood with a unique combination of density and flexibility, has been the preferred wood for high-quality instrument bows since the late 18th century, and remains the preferred wood for bows today. Over the last 100 years, the tree, which grows only in Brazil's Atlantic Forest, has been a victim of the region's rampant deforestation— while the export of legally harvested wood is under strict controls.

Protection measures for pernambuco began more than three decades ago. In 1992, it was placed on Brazil's endangered species list and in 2007 was listed on CITES Appendix II, making it subject to international controls. Limitations on that original listing meant that finished bows traveling internationally or being sold across borders were not subject to CITES permitting. Then, in 2022, in reaction to a spate of illegal trafficking of pernambuco out of Brazil, Brazil submitted a proposal to the CoP19 held in Panama to list the wood on Appendix I. That proposal, which had

some technical problems that prevented it from being considered, was referred to a CITES working group, which came up with several ways to strengthen the Appendix II listing.

If adopted, Brazil's new Appendix I proposal would have devastating consequences.

First, it was agreed that all wood and products leaving Brazil for the first time should have a CITES permit attached, demonstrating that the material has been legally harvested from the only country in which it grows. In addition, CITES would pursue the feasibility of setting up a traceability system for bows as finished goods, a process that would document and certify that any new bow is made from legally harvested wood. Then, there would be an exploration of the extent of plantation-grown trees in Brazil, which could satisfy the relatively small worldwide demand for pernambuco. Finally, there would be a concerted global effort to sensitize those using the wood to its conservation challenges. Urbanization and land conversion have led to severe reductions of wild populations of the tree, and initial commercial interest in the tree started with its use for dyes many centuries ago, before the wood's unique properties inspired the invention of the modern arched bow in use today.

If adopted, Brazil's new Appendix I proposal would have enormous consequences. International travel by musicians carrying pernambuco bows would become subject to CITES permitting, inspection, and credentialling requirements at global ports. International sales, resales, and repairs would be severely restricted. These enforcement requirements would be overwhelming for agencies such as the U.S. Fish and Wildlife Service and its global counterparts. And, given that permits are already required for any material leaving the only country where the trees currently grow, many are questioning how the regulation of existing bows already outside of Brazil would have any impact on the conservation of the species in the wild. It is also unclear as to whether the new pernambuco trees that have been planted in Brazil by farmers over the last three decades specifically to satisfy commercial needs could be used for commercial purposes: In the CITES rules, only "artificially propagated"

representatives of an Appendix I species can be traded, which would exclude the plantings in Brazil in which trees are growing in settings with other species, such as providing shade for cacao crops.

International efforts for the conservation of pernambuco have been underway for decades.

Stakeholders Rally

An international consortium of stakeholders has once again rallied to address the issue. This time, it has a powerful new voice: The musicians and music organizations of Brazil. Immediately after Brazil submitted its new proposal, Marcelo Lopes, executive director of the São Paulo Symphony Orchestra (OSEP), convened several large, high-level meetings of Brazilian music institutions and government representatives, including officers from IBAMA (the Brazilian Institute of Environment and Renewable Natural Resources), and the ministers of foreign and cultural affairs. The group sent a formal letter to the Brazilian government outlining their concerns and asking that it not proceed with the proposal.

“We are working to make them understand that going to Appendix I will not work, and that it will damage not only Brazilian musicians but the image of Brazil abroad,” Lopes says. “Everything that can be done for the preservation of pernambuco can be done in Appendix II.” A Change.org petition sponsored by the Brazilian Forum for Opera, Dance, and Concert Music advocating common sense policies for the protection of existing bows has collected several thousand signatures.



Marcelo Lopes, executive director of the São Paulo Symphony Orchestra, convened meetings of Brazilian music institutions and government representatives, and outlined concerns about Appendix I to the government. “Everything that can be done for the preservation of pernambuco can be done in Appendix II,” Lopes says. Photo by Mario Daloia.

Lopes is hopeful that the campaign is having an effect; he says that recent meetings have indicated that government officials may be rethinking their position. Pernambuco, he points out, is a Brazilian sound. “Orchestras all over the world would not be the same if this Brazilian wood were not there. It’s a real opportunity for soft power for Brazil.”

Michelle Zwi, the director of operations and touring for the Philadelphia Orchestra, concurs about the sound. One of her responsibilities is assembling instrument documentation for the orchestra’s tours, a process that takes six to eight months. Each instrument must be analyzed and its materials meticulously documented. In order to keep the already complex process of cargo transport and inspection from becoming completely overwhelming, the orchestra has determined that if an instrument contains any Appendix I species, such as tortoiseshell, whalebone, or ivory, the player must find a substitute or swap out the material.

What would happen if pernambuco were listed on Appendix I? “Eighty-five percent of our bows are made of pernambuco,” Zwi says. “We would have to make some big decisions. We might have to invest in new bows for all musicians to go on tour. We have a few carbon fiber bows for people who don’t have alternatives. They sound significantly different. Having the full orchestra do this would impact our artistic quality, and what we are putting on stages abroad.”



Michelle Zwi, director of operations and touring for the Philadelphia Orchestra. “Eighty-five percent of our bows are made of pernambuco,” Zwi says. Photo by Carissa Livingston.

International efforts for the conservation of pernambuco have been underway for decades. The IPCI (International Pernambuco Conservation Initiative) has been working on planting seedlings, both for conservation and for eventual use for bowmaking; the organization lists multiple projects that total over 340,800 seedlings since 1999. Collaborations with academic institutions have resulted in new information about genotypes and optimal growing conditions; a conference in Bahia in December 2024 assembled a wealth of knowledge about the tree. Daniel Piotto, a professor of forest science at the Federal University of Southern Bahia, has been active in the study and replanting of Brazil’s endangered trees. “Big companies are doing this as carbon transfer projects now,” Piotto says, citing Symbiosis, a

forest management and investment company, in which Apple recently made a significant investment. “They are expanding their operations, and in the near future, there will be timber available from these plantations.”

The global bowmaking industry has determined that the material required for future use beyond existing stocks of wood already legally exported from Brazil can be supported by plantings in Brazil. “The best way to grow pernambuco is in mixed plantations,” Piotto says. “They are slow-growing trees; when we put them next to faster-growing ones, the trees grow straight, which is better for bows.” The faster-growing trees are harvested first; it takes about 30-35 years for pernambuco heartwood to mature enough for use in bow making. Piotto’s newest project with IPCI involves traveling all over the Atlantic forest to find the last natural populations and trace the best genetic examples. Other research projects involve developing a traceability system that can differentiate between planted and natural trees to help combat illegal logging. Piotto says there are experiments using infrared, isotope, and mass spectrometry.

Visit the League of American Orchestras’ Pernambuco Policies and Conservation site to stay up to date with the latest developments, resources, links, and regulations. The League of American Orchestras provides detailed, regularly updated information about pernambuco, the wood that is used in most advanced student and professional instrument bows.

In the wake of the CoP19, and the recommendations for strengthening the Appendix II listing, international instrument makers ramped up their own efforts in traceability and communication. Lynn Hannings, vice president of the International Alliance of Violin and Bowmakers for Endangered Species, says, “The music sector strongly condemns any illegal activity. It’s devastating to Brazil and destroys our hopes for future sustainable use. Traceability helps stop that illegal activity.” The Alliance came up with strategies to help bowmakers register their current wood

stocks and update the registrations they made in 2007, to identify their wood as being compliant with CITES as well as a creating system for stamping bows to show when they were made. “We created a uniform document for bowmakers to use, as well as documents to identify bows that we make and sell and can be passed on to buyers,” Hannings says. The U.K. has also recently created a new stockpile registration system.



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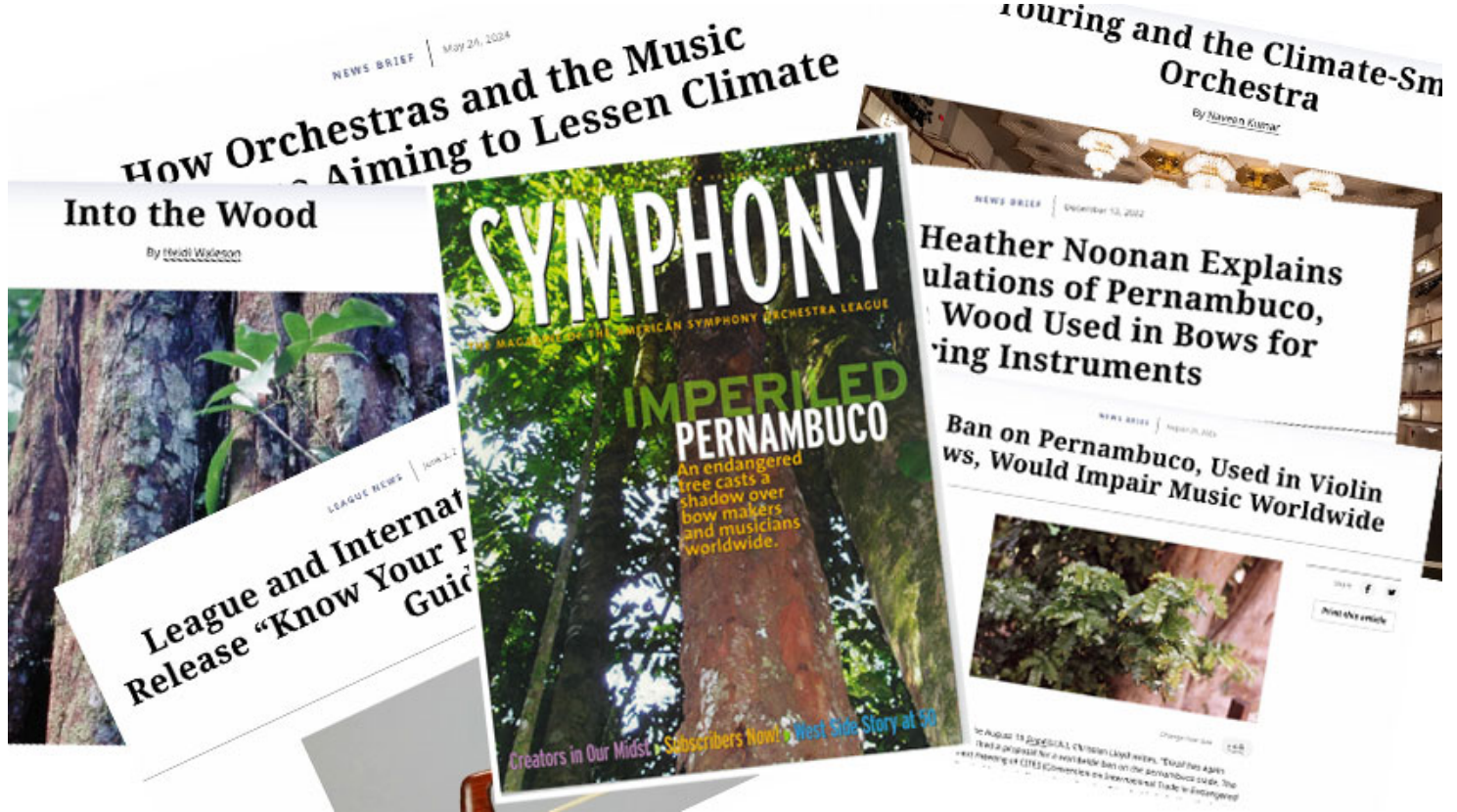
Musicians have also been encouraged to document the materials in their bows; the League of American Orchestra’s “Know Your Bow” campaign has been an important part of the effort. This documentation has become more urgent in recent years: Zwi has heard numerous anecdotal reports of musicians being stopped at borders and by TSA officials and asked for all the documentation about their instruments, including proof of purchase, materials, insurance, and CITES certificates; the potential for confiscation is real.



Heather Noonan, the League's Vice President for Advocacy, says, "We have a big network of stakeholders working on this, along with global orchestra representatives that are actively talking to their governments." In photo, Noonan speaks at a February 2025 CITES Standing Committee meeting in Geneva, Switzerland. Photo by IISD/ENB/Mika Schroder.

Heather Noonan, the League's Vice President for Advocacy, will be part of the delegation of music industry stakeholders this November in Uzbekistan, her fourth time representing music interests at the triannual Conference of the Parties. "We have a big network of stakeholders working on this, including our leading partners at the American Federation of Musicians and the International Federation of Musicians, along with global orchestra representatives that are actively talking to their governments. And, our partners at NAMM have supported the music sector presence at CITES meetings and been critical partners on the training and compliance front," she says. "We have constructive conversations with the parties to CITES and conservation leaders. One reason we achieved a positive outcome in 2022 is that there are solutions under CITES that can protect wild populations of trees without requiring officials to issue thousands of permits and directing the attention of enforcement resources on stamping documents for bows every time they cross a border. CITES has the opportunity now to fully implement the decisions taken in 2022, before limiting the solutions in front of us with an Appendix I listing."

Noonan adds, however, that practical considerations can be set aside when diplomatic heads of delegations start negotiating with each other and have other national priorities. “We hope that the power of music to bring attention to real action in support of conservation will result in the best possible outcome.”



Symphony has reported on pernambuco and sustainability for many years, with news, resources and guidance, original feature articles, and, back in 2007, a cover article.

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Heidi Waleson is the opera critic of the *Wall Street Journal* and author of *Mad Scenes and Exit Arias: The Death of New York City Opera and the Future of Opera in America*.

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