An Interview with Inga La Puma

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Biography

As science communications director for the North Atlantic Fire Science Exchange (NAFSE), Inga creates research briefs, maintains the NAFSE website, and creates communications materials to help facilitate relevant wildfire research and promote access to meaningful fire science. She uses her experience and connections in the North Atlantic region to promote a network of fire scientists and managers to promote the use of the best science available. Inga is a consultant for the New Jersey Forest Fire Service to help write their strategic plan. She is also a member of her local New Jersey forest fire crew where she helps conduct prescribed burns and fight wildfires.

(Left to right) Kristen Meistrell, Brittany Dobrzynski from New Jersey Audubon, and Inga La Puma work on a prescribed burn for New Jersey Audubon's Center for Research and Education. (Courtesy photo by New Jersey Forest Fire Service Section Warden Ed Lord)

Her research background is as a spatial ecologist focused on the fire history of New Jersey and modeling how disturbances shape the trajectories of forest succession. Inga's research in the past has spanned from leaf level to landscape level, and from invasive exotic species to remote sensing and ecosystem modeling. Inga has a B.A. in geography from George Mason University and a Master's degree in biology from Florida International University where she focused on relating carbon flux to reflectance measurements of greenness on Alaska's North Slope. She has a Ph.D. in ecology from Rutgers where she focused on wildfire, climate, and land use in the Pinelands of New Jersey.

Inga is married to David, and they have two daughters ages 9 and 7. David is the director of the Cape May Bird Observatory. Both girls are very involved in dance, gymnastics, and playing at the beach. The family lives in West Cape May, NJ, and regularly enjoys their abundant natural surroundings to hike, camp, watch birds, ride bikes, and most recently, surf. They look forward to the excitement of songbird, hawk, and monarch migration on the peninsula every year. Inga maintains the greenhouse and gardens at the local elementary school and volunteers in the classroom to help the students learn to plant and sell their vegetables. She has been taking ballet her entire life and has started teaching ballet again after a 20-year hiatus.

What are some of the challenges for the wildland fire program in your state/agency?

The North Atlantic Fire Science Exchange (NAFSE) has a very specific purpose, which is to promote connections and communication among wildland fire scientists and managers. Our biggest challenge has been to establish trust among these two groups. These folks rarely interacted in our region before we thrust them into situations that required serious communication skills. So that was a challenge, but with

experience, we have developed events that put people at ease and give them the time and space to speak out. Feeling comfortable and being honest and forthright is key to great communication and progress in the field.

In your agency/state, what are the key issues related to improving wildfire outcomes?
For NAFSE to improve wildfire outcomes, for example, preventing a catastrophic fire event in high population areas of the Northeast, we need to help practitioners and decisionmakers understand the current state of fuels and wildfire risk. We need to share information on smoke management for prescribed fire, how prescribed fire affects human health (e.g. tick populations), and how managing a forest for fire hazard can also have ecological benefits, and vice versa. We need to continue to help interpret and share the best available science on the issue and make information connections that are necessary for everyone to get on the same page and support the science and management that needs to happen to make progress on the ground.

What advice do you have for our readers who are working to increase public acceptance of prescribed burning?
From my conversations with those not in the fire world, it seems that a lot of the fear of prescribed burning stems from the concern that managers are "killing the trees and animals," or that an escaped fire will burn their house down, which to me are valid and logical concerns. The key to getting the public not to fear prescribed fire is to give them chances to learn through experience. This doesn't mean you have to bring people out on your prescribed fire (although this has been done successfully in Colorado), but it can mean doing a "before and after" field trip where participants can see how the forest returns to life and how the habitat has been improved in fire-adapted ecosystems. They can see how fuels have been reduced and how it may be easier to fight a wildfire in an area that has been treated with prescribed fire. Using science to bolster your claims is always helpful, and maps and visuals are mandatory if you can't get out to the field. As someone who has worked extensively in fire history in New Jersey, I find that when I show a homeowner how many times that the forest surrounding their house has burned in a large wildfire in the past 90 years, the importance of reducing fuels and protecting their home in the wildland-urban interface starts to sink in!

Can you describe one of the most interesting fire adaptation or restoration projects you've encountered in your career?
One of the most interesting restoration projects I've experienced is the Forest Management Plan at Stockton University in Galloway, NJ. The brainchild of Professor George Zimmerman and consulting forester Bob Williams, this project has incorporated many of the questions that managers have had in terms of "what works" in the forests of New Jersey. This project was initiated to protect Stockton University from wildfire and southern pine beetle infestation, and has areas that incorporate mechanical thinning, fuel breaks, and prescribed fire. At the same time, it has incorporated student research at the undergraduate level in all aspects of forest and ecosystem resilience by studying microclimate, forest succession and survival, and small mammals. There are few better ways to get information out there than to highlight a research-related project that gets students involved.

What are you most excited about working on in 2018/2019?
The recent push to assess regional wildfire risk using the latest science is very exciting to me. I attended a session on this topic at the 2017 Cohesive Strategy conference in Reno, NV, and came back to New Jersey raving about it and knowing that we needed this type of assessment to accurately reflect areas

that are most in need of wildfire risk mitigation. There are efforts locally in Ocean Township, statewide with the New Jersey Forest Fire Service, and regionally with the Northeast Regional Strategy Committee and the Forest Service Eastern Region to address this knowledge gap. I think it will be something that is well worth the effort. It will help all of us in the Northeast to better communicate why and where we need to do prescribed fire and other mitigation efforts. In terms of capacity, it will help us explain and justify why we may need the resources we say we need and why some areas may need priority over others!

Can you tell us about someone who has influenced your thinking regarding wildfire management?
I have known Dr. Nick Skowronski since 2006, back when he and I were the only ones studying wildland fire science at Rutgers University and he would drop in on the Center for Remote Sensing and Spatial Analysis from his workplace in the pines about once a month or so to chat. He has been my fire science buddy since graduate school, and we are constantly bouncing ideas off of each other.

I clearly remember the conversation we had at the Silas Little Research Station in the New Jersey Pinelands where we were completely nonplussed by the fact that the Northeast was the only region without a Fire Science Exchange in the entire country! How could it be? We probably needed it the MOST, and I was so happy to find someone that recognized that fact with me! In any case, I was relieved when the Request for Proposals came out for a fire science exchange in our region after we had both graduated, and Nick was on the conference call to help write the proposal and shape the exchange as the Principal Investigator. Nick and I have had some interesting conversations regarding how to get the science out there and which science is relevant and which is not (about which we don't always agree), but I'm truly awed at how he has taken his ideas and put them into practice with highly needed research to improve fire behavior modeling and all aspects of prescribed fire research. He has shown that it is possible to fill knowledge gaps and reignite fire science research in the Northeast, and he has been relentless in doing so.