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The Power of Our Collective Voices
Lobbying in the Age of COVID-19

PREVENTING PANDEMICS
One Health and the AZA Community

THE ZOO AND AQUARIUM ALL HAZARDS PARTNERSHIP

BY THE NUMBERS
Conservation and Policy Save Wildlife

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The Power of Our **Collective Voices**

On 11 March 2021, President Biden signed into law the American Rescue Plan Act. The law includes \$30 million for the care of species in managed care listed under the Endangered Species Act, rescued and confiscated wildlife, and federal trust species in facilities experiencing lost revenues due to COVID-19. This funding was a priority for the Association of Zoos and Aquariums and is the culmination of months of advocacy with Congress by AZA and its members.

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Preventing Pandemics: One Health and the **AZA Community**

Although reports point to bats in a wet market as a possible cause of COVID-19, the problem of zoonotic disease transfer can't be blamed on a single species or place. It is a broad and complex issue with a list of contributing factors that includes climate change, habitat loss, food insecurity, cultural food preferences, wildlife trade, and globalization.

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The Zoo and Aquarium **All Hazards Partnership**

In 2013, the Zoo and Aquarium All Hazards Preparedness, Response, and Recovery Fusion Center moved to the Association of Zoos and Aquariums and has now rebranded to become the Zoo and Aquarium all Hazards Partnership, representing both the accredited and non-accredited zoo and aquarium community.

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PREVENTING PANDEMICS ONE HEALTH AND THE AZA COMMUNITY

BY MARY ELLEN COLLINS

tudying and worrying about zoonotic diseases—those that spread between wildlife and humans—is nothing new for zoo and aquarium veterinarians: more than two-thirds of all emerging infectious diseases in humans are zoonotic. But in the wake of zoonoses like SARS, MERS, and Ebola, the global COVID-19 crisis is a wake-up call that has prompted an even more intense focus on this issue. Compounding the reality of the dangerous pathogen spillover that has led to our current condition is the widely held agreement that this isn't the last pandemic we will experience in our lifetime.

"There are an estimated 850,000 zoonotic pathogens out there," said Sharon L. Deem, DVM, PhD, Dipl ACZM, director of the Saint Louis Zoo Institute for Conservation Medicine in Saint Louis, Mo. "We need to be looking at their ability to cause spillover events and minimize the chance of that happening."

Although there is strong evidence that bats—possibly through an intermediate host species spread through a wet market—were the source of COVID-19, the problem of zoonotic

disease transfer can't be blamed on a single species or place. It is a broad and complex issue with a list of contributing factors that includes climate change, habitat loss, food insecurity, cultural food preferences, wildlife trade, and globalization. Trying to create positive change in all of those areas is a daunting prospect, but Association of Zoos and Aquariums members are trying to make a difference with a new initiative, Reduce the Risk: A Crisis in Human and Animal Health.

"No one organization, no one country, no one continent alone can make change happen for a global problem," said Pam Dennis, DVM, veterinary epidemiologist at Cleveland Metroparks Zoo in Cleveland, Ohio. "We have an enormous problem with no quick or easy fix, and AZA is trying to be proactive by focusing on one aspect of it—wildlife trade."

Building on existing Government Affairs and Wildlife Trafficking Alliance programs, Reduce the Risk addresses the need to combat both legal and illegal wildlife trade. Goals include strengthening local, state, national, and global wildlife trade policies; expanding individual and collective efforts



to combat legal and illegal trade that poses risks to human and animal health; and educating and mobilizing the public. The challenge is enormous, the risks are real, and the AZA community is committed to leveraging its members' expertise in an effort to be part of the solution.

One Health Promotes Collaboration

Reduce the Risk will employ a One Health approach, which is a collaborative, multisectoral, and transdisciplinary approach—working at the local, regional, national, and global levels—with the goal of achieving optimal health outcomes by recognizing the interconnection between people, animals, plants, and their shared environments. Simply put, nothing and no one in the natural world exists in a vacuum, and this interconnectedness requires a holistic way of thinking with regard to health. As the professionals who are experts in preventive veterinary care, zoo and aquarium professionals are qualified and positioned to become leaders in expanding this approach.

"We are the animal health, welfare, and conservation people, the very people that need to be advocating and moving this forward," said Deem. "Many zoo veterinarians have been practicing One Health for years without necessarily calling it that. What has changed in the last decade is that the human health medical professionals have increasingly accepted this link and the number of partnerships between zoos and medical centers has grown."

Collaboration in this arena can take many forms, requiring only an openness to sharing information and expertise in pursuit of protecting the planet's people, animals, and ecosystems.

Zoo New England (Franklin Park Zoo in Boston, Mass., and Stone Zoo in Stoneham, Mass.) has created a formal One Health elective with Harvard Medical School for senior medical students to do a rotation with their Department of Animal Health and Conservation Medicine.

"Our medical students are learning how biodiversity is beneficial for human health and how human, animal, and ecosystem health are inextricably linked," said Eric Baitchman, vice president of animal health and conservation at Zoo New England. "As future physicians, our students can be a powerful new body of advocates for protecting biodiversity, and they can share this ideal with their patients, colleagues, friends, and families in a way that can relate to their own personal health."

In addition to developing relationships with NGOs, universities, and government agencies that share our commitment, working more closely with other AZA members will also reap rewards.

"We have an amazing surveillance [disease] program nationally, and individually by institution," said Darin Collins, director of animal health programs, Woodland Park Zoo in Seattle, Wash. "We follow trends, we have years of records, and this database is an excellent resource. If we're going to have a plan, this makes sense—to tap into each zoo and the work they're doing. The things you do today will impact your work tomorrow."



Education and Advocacy at All Levels

In a non-COVID-19 year, AZA-accredited facilities welcome more than two hundred million visitors, a built-in audience for messaging about legal and illegal wildlife trade; how it contributes to the spread of disease and the creation of pandemics; and how anyone can step up to make a difference. But given the pandemic restrictions, many zoos and aquariums rely on virtual learning opportunities, like How Protecting Wildlife Can Help to Prevent Pandemics, a webinar created for students, scientists, and the public by the Saint Louis Zoo, Washington University in St. Louis, and the Missouri Botanical Gardens.

Zoo New England also has strong a strong legislative advocacy function.

"We have reached out and encouraged others to reach out to our congressional delegation to pass the Preventing Future Pandemics Act. It is also our goal though advocacy, to educate our elected officials as to the public policy changes that will help reduce the risk," said Baitchman.

Collins feels fairly confident that the current environment may make it easier to effect legislative change.

"COVID brought the world to a screeching halt, and if we can't get ourselves out of this, it's the beginning of the end. But AZA is paying attention, individual institutions are paying attention, and we need to seize the moment. AZA has a way of getting the attention of the public and the government, and if we talk about this, people will listen. We have the ability to influence legislators and influence governments elsewhere in the world. It's about awareness building and telling people a different story. We need to get people's attention and keep it."

However, changing minds and behavior in other cultures is a challenge that will require patience, diplomacy, and awareness, said Dennis, particularly within communities that depend on wildlife consumption.

"You can't go into solving global problems with only being sensitive to your own culture. It's not simple and straightforward. In the United States, we think wet markets are bad, but we have to recognize that these are markets where people actually buy groceries, where people shop. It's hard to change our behavior, to change from how we usually do things. It's hard to change the way people think. I'm optimistic in that if we bring attention to some of the issues with thought and consideration, without saying, 'You must do this'—if we work together globally, we can make change for good."

Zoological veterinarians don't shy away from the current frightening reality or what's in store down the line.

"The pandemic throws everything into stark relief, and we're not even in the worst case scenario now," said Baitchman. However, he also projects a note of optimism. "I do hope we take this as a time to realize how interconnected we are to every other thing on the planet. This can be a teaching moment. There are steps we can take to prevent the next pandemic, but the hope is that there's enough motivation to do it. How do we get people to change their minds? Advocate and educate. That's what AZA is all about."

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