

ALEX A. DALLMAN

State Representative \cdot 41st Assembly District

September 6, 2023

Testimony in favor of Assembly Bill 124

Assembly Committee on Tourism

Thank you Chair Magnafici and members of the committee for hearing Assembly Bill 124 this morning. Senator Wanggaard and I introduced SB 126 and AB 124 to create uniformity in state law relating to the definition of a public zoo or aquarium.

Public zoos have been around in Wisconsin since 1892 and have grown to over 11 public zoos across the state, according to the Legislative Reference Bureau. Not only are these zoos a vital part of Wisconsin's tourism industry, they also provide school children the ability to learn about animals and their habitats. According to the Legislative Reference Bureau, there were over 2.5 million visitors to public zoos across the State of Wisconsin in 2021 and this only represents a fraction of the public zoos in Wisconsin.

I am fortunate to have the Timbavati Wildlife Park located in my district and have seen firsthand how private zoos like this provide valuable learning opportunities for adults and children across the state and nation. I have also witnessed the extensive and dedicated care the owners Matt and Alice Schoebel take in the welfare and protection of their animals and their habitats. The state trusts private zoos like Timbavati Wildlife Park to take care of wild animals in the same manner as public zoos, but require more bureaucratic red-tape and licensing than public zoos.

When the legislature created Chapter 169 by 2001 Act 56 relating to captive wildlife, they excluded reliable accrediting bodies from the definition of public zoos. It is unknown exactly why the legislature only chose one zoological and aquarium accrediting body. Chapter 169 also allows for local municipalities to operate a public zoo without any accreditation whatsoever. This essentially creates winners and losers which the government should not be in the business of deciding. We introduced this bill to resolve this by allowing competition and fairness.

Under current law, certain entities are exempt from the possession, exhibition, propagation, sale and purchase of wild animals, which includes public zoos. Chapter 169 defines a public zoo as one being operated by the State of Wisconsin, a city, village or county or one that is an accredited member of the <u>American Zoo and Aquarium Association (AZA)</u>. This bill adds that a public zoo can also be an accredited member of the Zoological Association of America (ZAA).

The ZAA was created in 2005 and has over 60 accredited facilities across the United States. It also has some of the highest accrediting standards in the nation and are comparable to the AZA. Accreditation from the ZAA and AZA does not and should not be exclusive in Wisconsin.

Expanding the definition of public zoos in Wisconsin is the right thing to do and will allow more access for families and children to learn about conservation and wildlife protection. SB 126 and AB 124 will level the playing field and simplify the licensing process for zoos across Wisconsin.

Thank you again for allowing me to testify before you today and I look forward to answering any questions you may have.

Alex Dallman State Representative 41st Assembly District

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Assembly Committee on Tourism

AB 124

The Definition of Public Zoos and Aquariums for Purposes of Captive Wildlife Regulations September 6, 2023

The Wisconsin Department of Natural Resources welcomes the opportunity to provide written testimony on Assembly Bill 124, related to amending the definition of public zoos and aquariums for purposes of captive wildlife regulations.

Current statute exempts "zoos" or "aquariums" that are operated by the state; or by a city, village, or county; or that are accredited with the American Zoo and Aquarium Association (AZAA); from needing a license issued by the Department of Natural Resources (DNR). Assembly Bill 124 would add institutions accredited with the Zoological Association of America (ZAA) as another associated organization to that list of public zoos and aquariums that are exempt from department license requirements.

The DNR recognizes that by exempting this organization, members of the ZAA will no longer be under the regulatory consideration of DNR. In reviewing the AZAA and ZAA requirements for accreditation and affiliations, DNR finds that there will be limited oversight effects from this change.

Thank you for the opportunity to provide this written testimony. If you have questions or if there is any further information the department can provide, please contact Calvin Boldebuck, DNR Legislative Director, at <u>Calvin.Boldebuck@Wisconsin.gov</u>.





Written Testimony of Dr. Kelly George Executive Director Regarding AB 124 Committee on Tourism September 6, 2023

Hello and thank you for the opportunity to testify on behalf of the Zoological Association of America in support of Assembly Bill 124. I am sorry that I am unable to attend the hearing in person but please accept this written testimony.

My name is Dr. Kelly George, and I am the Executive Director of ZAA. I am formally trained in Anthrozoology with a focus on One Welfare, which includes non-human animal, human, and environmental wellbeing. I am a former Associate Professor Professional Practice at The Ohio State University Department of Animal Sciences, have multiple peer-reviewed publications and presentations focused on zoo animal welfare, and continue to serve as a professional consultant in the area of animal welfare.

The Zoological Association of America (ZAA) is a membership and accrediting organization that represents professionally managed zoos, aquariums, conservation breeding facilities, wildlife conservation ranches, and conservation education-based animal ambassador programs. With hundreds of professional members and more than sixty-five accredited members, ZAA has been in existence for nearly 20 years and is one of the largest accrediting organizations in the zoological sector. ZAA currently has one accredited facility in Wisconsin, namely Wildwood Wildlife Park in Minocqua. An exemplary list of other ZAA accredited facilities is attached.

ZAA's membership is diverse and includes large nationally known facilities, privately-owned family run small businesses, and others that are owned/operated by municipal entities or non-profit foundations. While some of its members are larger zoos, many ZAA facilities are smaller in size, contributing greatly to smaller and often less affluent communities, who aspire to the highest standards of animal care regardless.

ZAA's accreditation process establishes a high bar with respect to professional animal standards, best management practices and exemplary animal care and welfare and focuses on staff, animal, and guests' safety; animal care, welfare, and husbandry; state and federal compliance; veterinary care; nutrition; enrichment; security; facility maintenance; recordkeeping; and a review of policies, procedures, and protocols. The accreditation program maintains a benchmark for standards of operation and surpasses the standards of state minimum requirements and the federal Animal Welfare Act.

ZAA advocates for responsible animal ownership, conservation education and exemplary animal care. ZAA's accreditation standards are comparable to those of the AZA and are rooted in the widely accepted scientific based Five Domains of Animal Welfare framework. ZAA's standards focus on the safety and well-being of the animals in our care, as well as our professionals and visitors.

ZAA zoos and aquariums annually provide millions of visitors with educational opportunities, and

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support conservation of both native and exotic species. ZAA also believes safe, direct interaction with animals is a profoundly impactful educational tool that inspires conservation action while enhancing the guest experience. At the same time ZAA has policies prohibiting direct contact between the public and certain species (big cats and primates).

All zoos and any sanctuary that is open to the public, regardless of accreditation, must be licensed and inspected by the US Department of Agriculture (USDA) under the Animal Welfare Act. Any zoo that holds endangered or threatened species or certain other federally regulated animals is also subject to oversight by the US Fish and Wildlife Service (USFWS). ZAA, like AZA. works cooperatively with the federal agencies responsible for regulatory oversight of exotic animals, primarily USDA's Animal & Plant Health Inspection Service (APHIS) and USFWS. For example, just last month the President of ZAA was among the speakers to address an APHIS sponsored symposium on the welfare aspects of animal transportation.

ZAA and AZA are both professional associations that accredit zoological facilities. These are private associations and while membership in such organizations is beneficial it is not mandatory. Yet current law in Wisconsin provides special status to only one of them, the AZA. This denies some zoos the same benefits and protections based upon the trade organization they chose to have their zoo accredited by.

ZAA believes such inequitable treatment is unreasonable and unfair to the individual facilities that seek ZAA accreditation rather than AZA. The accreditation standards and requirements of ZAA are comparable to those of AZA. A comparison of ZAA and AZA accreditation standards required of facilities is available for your review.

Furthermore, multiple other state laws and regulations already provide equal recognition to ZAA as to AZA. These include the following:

Arkansas - ACA 20-19-603	Illinois - 510 ILCS 68/110-5
Arizona - AAC 12-4-420	Oregon - OAR 635-044-0400
Connecticut - C.G.S. 26-40a	Ohio - 9 ORC 935.03
Florida - FAC 68-5.007	Nebraska - NRS 37-47
Kansas - KRS 32-1308	Nevada - NAC 503.110
Montana - MCA 87-4-801	Texas - 8 OC 801.00

ZAA is proud of its membership and their standards of care and commitment to safe and educational exhibition of animals. We believe this is a simple matter of fairness. It is arbitrary and unfair to provide a benefit to some professionally accredited zoos but deny it to others who compete with them in the same industry based on which trade association they chose to join.

Please support AB 124. Thank you for the opportunity to testify.



ZAA ACCREDITED FACILITIES INCLUDE THE FOLLOWING:





September 5, 2023

The Columbus Zoo and Aquarium is committed to upholding the highest standards of care for the animals in our care and fulfilling our mission: Empowering People. Saving Wildlife. We take pride in being recognized by the professional community, and the public, as one of the best facilities for wildlife conservation, education, and animal care. We are equally proud of the accrediting authorities we are active in, and have chosen to be part of, and have earned accreditation from, including the Zoological Association of America (ZAA), Association of Zoos and Aquariums (AZA), and Alliance of Marine Mammal Parks & Aquariums (AMMPA).

We welcome the rigorous evaluation process of these accrediting bodies and strive to not only meet but exceed these standards. It is important for the broader zoological community to work together in all aspects to and ensure institutions meet all best practices and rigid standards designed to protect wildlife.

We remain steadfast in our commitment to the well-being of the animals in our care, and we will continue to collaborate with accrediting bodies and institutions to ensure that the highest standards of excellence are maintained within and by our accredited zoo and aquarium community.

Written in support of Assembly Bill 124

Good Afternoon,

My name is Judy Domaszek and I am the Director and owner of Wildwood Wildlife Park Zoo and Safari in Minocqua. Thank you, Cosponsors; Senator Wanggaard, Senator Felzkowski, Senator Ballweg and all Representatives (Dallman, Swearingen, Brooks, Moses, Murphy Novak and Tusler) for allowing me to testify in support of Assembly Bill 124. Wildwood Wildlife Park is very reputable and highly attended zoological park. It is the largest private zoo in Wisconsin and the second largest zoo in the State. Wildwood Wildlife Park Zoo and Safari is operated by three generations and has been in existence for over 65 years. Our facility provides guests with a one-of-a-kind interactive experience.

Wildwood Wildlife Park employs over 50 knowledgeable staff members including 15 career based full time zookeepers all with a minimum of a BS degree in an animal related science. In addition to the 2 fully licensed veterinarians that visit our facility on a scheduled basis and are on call 24/7 should an immediate need arise; we also have a full-time vet tech. We have a Director of Animal Management, a Director of Operations and a Director of Education who holds a teaching certificate from the State of Wisconsin. In addition to these professional positions, we also employ a full staff of maintenance and grounds crew, construction personal, food workers, and various forms of park attendants. And we have a full complement of volunteers who willingly help us maintain the high standards that we have established for our facility.

Now during today's testimony, you may hear the term "Roadside Zoo" used in an effort to degrade our facility or that of other zoos within the State. A paper written last year by Virginia Thomas, director of the Archur Neef Law Library at Wayne State University addressed the phrase "Roadside Zoo" and just what this means. In her paper, Ms. Thomas notes that the phrase "Roadside Zoo" is derogatory in nature and is intended to provide a negative connotation of the facility being discussed. Ms. Thomas includes a definition of a "Roadside Zoo" within her paper with that being in part "... (an) often small, for-profit zoos, often intended to attract visitors to some other facility, such as a gas station."

Within her paper she also includes the definition of a "zoo" as found in the Michigan Compiled Laws. This definition is –

""Zoo" means any park, building, cage, enclosure, or other structure or premises in which a live animal is kept for public exhibition or viewing, regardless of whether compensation is received."

Clearly, my facility and those that I am representing today are not roadside zoos. In fact, none of the facilities accredited by the AZA and/or ZAA meet the definition of a roadside zoo. And none of the facilities that will be impacted by this bill are roadside zoos. All of the facilities that will be impacted by the passage of this bill are by legal definition "zoos".

That being the case, the use of this derogatory phrase during today's testimony to refer to the facilities being discussed is insulting and very inappropriate. In fact, any testimony given using this phrasing should be stricken from the record as the purposeful use of derogatory comments or inflammatory phrases has no place in these discussions.

Before you today is a bill that seeks nothing more than parity for zoological facilities within the State of Wisconsin. Those opposing this bill will argue that its passage will reduce animal oversight and protection within the State. They will argue that the Wisconsin Department of Natural Resources is providing some form of valuable oversight in the protection of animals within zoos. Now while the DNR does a wonderful job in their management of animals in the wild, their efforts provide little if any benefit to the wellbeing of animals within zoos.

In fact, the passage of this bill will have minimal if any impact on the wellbeing of animals at zoological facilities within the State. What the passage will do, is reduce the burden of the costly redundant licensing and record keeping requirements currently mandated by the DNR. It is important to note that these redundant activities are currently only required by the State for privately owned zoological facilities. This is what we are attempting to change.

To better understand this, if the town of Boulder Junction decided to open its own zoological facility without any prior experience or the trained staff that we have employed at our zoo they would be able to do so without any DNR oversight. By State statute they would be automatically exempt from the redundant DNR requirements simply because they are a publically owned entity. Not because they have employed experts or have undergone a formal accreditation process. They would be exempt simply because the facility.

I would like to look more closely at this DNR oversight which we will be hearing so much about today. While the DNR requires us to pay licensing fees and maintain substantial redundant records, these efforts are all for naught. The DNR does not inspect our facility. When it comes to our animal welfare efforts, the DNR does not visit our facility on a quarterly basis, annually, they never visit. Rather, they collect a \$125 Captive Wildlife License and invoke significantly costly redundant record keeping requirements with none of these efforts being reviewed or evaluated. Why is this?

The primary reason is that the State DNR does not have regulatory authority over the vast majority of the activities within a zoological facility. In the testimony presented today you may hear talk about tigers, lion, elephants, or maybe even small cat handling. None of this is relevant to the matter before you. None of these animals are under the regulatory overview of the State's DNR. The DNR does not look at, review or have anything to do with animals that are not native to the State of Wisconsin. None of these exotic species are subject to their oversight or regulation.

And to carry this a step further, not even all of the animals native to the State of Wisconsin are governed by DNR oversight. Wisconsin DATCP regulates all captive raised deer, including the import/

export, facilities requirements and licensing. DATCP has been doing so effectively for years, without the DNR.

So very few animals within a zoological facility fall under the purview of the State DNR.

So, who is responsible for the wellbeing of these animals? The governing agency that truly oversees zoological activities is the USDA not the DNR. And the USDA is very vigilant in their oversight of our activities. The USDA makes unannounced visits to our facility at least once a year. During these visits the USDA conducts a full review of our animal welfare and they do a thorough review of all our records. And unlike the DNR whose governing scope is very limited, the USDA has oversight and is interested in ALL of the animals contained within our facility.

You may also hear today that our intent in supporting the passage of this bill is to eliminate licensing requirements. Nothing could be further from the truth. Wildwood currently holds over 25 animal related licenses. And the most noteworthy or significant of these licenses are not those required by the DNR. The DNR licensing is redundant and clearly a subset to those required by the Federal agencies.

You may also hear that our intent is to eliminate the paper trail or records associated with our animals. Again, this is far from the truth. Passage of this bill will not eliminate any of the records we retain in support of our animals. What it will do is eliminate the need to retain two sets of records on two different forms and make two sets of submissions all of which cover the same thing. Yes, we do want to eliminate the requirement to maintain records for the DNR. But our desire to eliminate these records is based on the fact that they are redundant and of little or no value. All of the information they contain is readily available within our USDA record keeping system. There simply is no logical reason for us to be maintaining two sets of records on two different forms.

Now here's a point that I want to stress. If it weren't for the fact that our facility is privately owned, the State would not be requiring us to maintain this licensing or any of these duplicate sets of records. These records and the DNR license are not being required for Class C – Exhibitors (which is what facilities such as ours are) in the city of Stanley, Manitowoc, Arcadia, Wisconsin Rapids, Marshfield, Baraboo, Manitowoc, and Oshkosh just to name a few. And the reason these records and licenses are not required is simply because and only because these facilities are owned by these respective cities. These exemptions have nothing at all to do with animal safety or wellbeing.

And to carry this point a step further, none of the facilities I just mentioned are accredited by either the AZA or ZAA. This means that the only oversight of the wellbeing of the animals at these facilities is that received through the efforts of the USDA.

The bill before you isn't asking for an across-the-board exemption for all animal facilities within the State from the existing State regulations. Rather it seeks to recognize that a privately owned animal management facility subjected to BOTH regular USDA inspection AND the review of an accrediting

organization such as the AZA or ZAA results in a 2-tier inspection with total focus on animal welfare. It recognizes that with BOTH of these reviews in place there simply is no need for the costly redundant DNR oversight that doesn't even address the majority of the animals within the facility.

Surely a facility undergoing both regulatory and accreditation reviews has got to be a safer environment for animals than those facilities already exempt from the DNR requirements only for ownership reasons. Just because an establishment is owned by a municipality doesn't mean that the animals are well cared for. This is evident in the results of USDA inspections this year at both the Stanley and the Arcadia facilities where non-compliant items were encountered by the USDA inspectors.

We are not seeking less. Rather, we are seeking to eliminate what is clearly useless licensing and redundant record keeping. We want equality.

I am sure that during today's testimony a number of those speaking will focus on comparisons between the ZAA and the AZA and the significance of each organization's accreditation process. For the most part, those addressing this subject will be looking into both organizations from the outside. They personally are not members of either group. They have not participated in accreditation inspections for either group. And their knowledge base comes only from what they have been able to pull from internet searches and is not based on any field-tested firsthand experience.

That's not me. I am very familiar with both organizations having been a member of both. I am also very familiar with the accreditation processes as I have conducted numerous accreditation inspections. And while others will speculate, I have actually been there and done that. I speak to you with hard earned firsthand experience and knowledge.

Now the expectation would be that at this point I would provide testimony that compares these two organizations siting the strengths of one and the weaknesses of the other. And while I could do this, my efforts would be another distraction with respect to the bill before you. The differences between these two organizations are irrelevant and asking you to listen to these pros and cons would be a waste of your time.

While I am a firm believer in the workings of the ZAA, to attempt to compare the two organizations side by side is not necessary for the consideration of the bill. Keep in mind, that the exemptions being sought are already being provided to facilities that are neither ZAA or AZA. So, which group your facility is associated with or which of the two groups you favor really has no significance with respect to this bill.

What is significant is not the differences between the two groups, but rather the main objective of both. Both groups have been established for the same goal ... that being assuring the wellbeing of animals held in zoological facilities. So rather than knit picking the differences, we should be focused today on the similarity or end goal of both organizations.

Including the ZAA in the State statutes as an exempt accrediting organization does no harm. But what it may actually do is good – good that is for the animals. Unlike the DNR which regulates only a very small subset of the animals, the ZAA and AZA overviews include the full spectrum of all aspects of the facilities operations.

Isn't that why we are all here today. Isn't our goal to assure the best for the animals, both native and exotic?⁻Clearly adding to the statute an organization that will provide a review beyond that of the USDA has to be a good thing. It has to be realized that successfully arguing against the ZAA or AZA does not mean that a facility will join the other. Neither the ZAA or the AZA are supposed to be the winner here ... the winner of all of this should be the animals.

So why is this initiative being opposed? I can't answer that as I don't understand the reasoning behind the opposition. I am beginning to feel like a broken record, but again, remember you don't have to be a member of either the AZA or ZAA to receive exemption from the DNR rulings. And that is what is being sought. So, membership in either organization isn't relevant to being granted this exemption.

What is significant in all of this is the wellbeing of the animals and the bill before you simply offers another avenue for operational oversight. And that's a good thing!

Submitted by

Judy and Duane Domaszek

Directors/Owners

Wildwood Wildlife Park Zoo & Safari

WI Department of Natural Resources Housing/Space requirements

- Black Bear-400 Square Feet
- Cougar 200 Square Feet
- Bobcat/Lynx 144 Square Feet
- Wolf 300 Square Feet
- Fox 120 Square Feet
- Raccoon 80 Square Feet
- Badger 100 Square Feet
- Beaver 100 Square Feet
- Otter 100 Square Feet
- Striped Skunk No enclosure size
- Woodchuck No enclosure size
- North American Porcupine No enclosure size
- North American Red/Gray
 Squirrel No enclosure size

ZAA-Zoological Association of America Housing/Space requirements

- Black Bear-800 Square Feet
- Cougar 1500 Square Feet
- Bobcat/Lynx 300 Square Feet
- Wolf 600 Square Feet

VS

- Fox 225 Square Feet
- Raccoon 100 Square Feet
- Badger 100 Square Feet
- Beaver 500 Square Feet
- Otter 100 Square Feet
- Striped Skunk 64 Square Feet
- Woodchuck 10 Square Feet
- North American Porcupine 400
 Square Feet
- North American Red/Gray Squirrel 300 Square Feet

September 6, 2023

Prepared in support of 2023 Assembly Bill 124

Good Afternoon. I appreciate being given the opportunity to speak with you today in support of Assembly Bill 124.

My name is John Kunkel. I am a resident of Lac du Flambeau, Wisconsin. For the sake of full disclosure following my retirement I became a volunteer at Wildwood Wildlife Park in Minocqua. While I would love to spend my allotted time telling you about the Park and what a privilege it is to be associated with this facility, that's not why I am here.

Prior to my retirement I spent more than 30 years as an investigator for the United Stated Food & Drug Administration. I know and understand inspectional techniques and methods. I did inspections, taught inspectional methods and wrote inspectional procedures for the Federal Government. I also had the opportunity many times throughout my career to work alongside investigators for the US Department of Agriculture or the USDA. And since my retirement I have become familiar with the accreditation procedures employed by zoological facilities. It is from this background that I approach you today.

The bill before you is very clear. It is simply asking the State to grant parity to two fraternal organizations engaging in the review and accreditation of animal facilities in Wisconsin. As noted in the bill, these two groups are the Association of Zoos and Aquariums (AZA) and the Zoological Association of America (ZAA).

The best way for me to explain these two groups is to use an analogy that we all can relate too. Consider the ZAA to be the Green Bay Packers and the AZA to be the Chicago Bears. And as we know, both teams are under the oversight of the National Football League or NFL.

Now both the Packers and the Bears have their own playbook. And both organizations have established their own club rules. But when it comes to playing the game of football, both teams have to adhere to the rules, procedures and regulations established by the overseeing NFL.

The same is true for the ZAA and AZA. Both of these fraternal organizations have their own charters and rules. **BUT THE IMPORTANT PART IS – NEITHER IS A REGULATORY AGENCY.** Just like the football teams in my analogy, the foundation of both groups is the rules and regulations developed by a higher authority. In this case an actual regulatory authority with that being the United Stated Department of Agriculture.

The take away here is that the ZAA and AZA are two independent organizations conducting peer inspectional reviews of their affiliated member facilities. BUT neither wrote the rulebook by which they evaluate the facilities being inspected. The bases of the inspections conducted by BOTH

organizations are the regulations developed by the USDA. And should significant issues be encountered during an inspection, NEITHER group has the authority required to take legal action against the violator. BOTH organizations need to report their findings to the USDA to facilitate a regulatory action.

I need to repeat this - neither the AZA nor the ZAA has the authority to take any form of regulatory action against a facility found in violation of the USDA's Animal Welfare Act. Now this is the part that I believe is being grossly misunderstood by many. Just as the AZA and the ZAA have no regulatory authority when it comes to the Animal Welfare Act – neither does the Wisconsin Department of Natural Resources.

The misconception that I am repeatedly hearing is that the DNR is providing oversight for animal safety in zoological facilities within the State of Wisconsin. At the very best, this is only partially true. For the most part, the DNR has no more authority within the facility than the AZA or ZAA, in fact, the argument could be made that they have less. If the AZA or ZAA encounters a significant problem within a facility both have the ability to revoke the facilities accreditation. The DNR on the other hand can do no such thing.

Another misconception that is being voiced during these hearings is that DNR oversight is somehow superior to that provided by the ZAA. Again this isn't true.

I have provided you with a partial comparison of the existing DNR requirements and those required by the ZAA for facility accreditation. In review of this comparison chart you will see that where the DNR requires an enclosure space of 400 square feet for a black bear, the ZAA will not accept a black bear enclosure that is less than 800 square feet. Double the size. Likewise a wolf enclosure per the DNR regulations must be at least 300 square feet, the ZAA requires no less than 600 square feet ... again double the size. And this list goes on. After reviewing this document you will see that the ZAA accreditation requirements are far more stringent than those imposed by the current DNR regulations.

Let's take another look at animal oversight by the DNR. I previously stated that the DNR has very limited authority within the State's zoological facilities. I need to further explain this statement for it to be clear.

Using Wildwood Wildlife Park as an example, Wildwood current has more than 2000 animals within its facility. Of these 2000 plus animals only 53 fall within the jurisdiction and oversight of the DNR.

If while visiting a site within the State the DNR should encounter, for example, a kangaroo that is being mistreated the only course of action for the DNR is to call the USDA to initiate corrective action. And should the kangaroo escape from its enclosure, if you call the DNR to report it they will tell you to call the local police or the USDA.

The DNR only has oversight over animal species that are native to the State of Wisconsin. All other 1,950 plus animals at Wildwood fall under the jurisdiction of the USDA.

Now removing DNR oversight from this mix does not mean that the 53 animals at the Wildwood facility would no longer be protected. On the contrary, while the DNR only has authority over 53 animals, the USDA has authority over all of the animals. All 2000 plus. This being the case, current DNR licensing and review is redundant and actually serves no real purpose. Furthermore, the need to maintain redundant paperwork and filings by the zoological facility results in a significant amount of additional paperwork burden. And, ironically, not all zoological facility within the state have to deal with this additional workload.

This redundant paperwork and filings have already been deemed by the State not to be required by some. You may be surprised to learn that those exempt from this additional burden include facilities that have no accreditation at all. That's correct, they are not accredited by the AZA or ZAA. They are simply owned by a public entity verses private ownership. It simply makes no sense that those with no AZA or ZAA oversight are exempt from filing duplicate paperwork with the State. In contrast, other facilities where animal care is subjected to greater scrutiny, a more significant review and far higher welfare standards through the accreditation process – albeit the ZAA - are required to follow these redundant DNR procedures.

Now let's take a look at the USDA. As I have already pointed out, the AZA, ZAA and DNR do not have any regulatory authority over the exotic animals within a zoological facility. Only the USDA has the weight of the law and Federal Regulations behind its inspectional authority. Those facilities found by the USDA to be placing animals at risk are provided with a deadline for correcting the problem and if the problem isn't resolved the facility may be subjected to loss of license and federal penalty and/or prosecution. And while the corrective action is being undertaken, the facility may be inspected by USDA investigators as often as every 45 days. Inspectors are required to re-inspect within 45 days any facilities where areas of noncompliance were found that have, or are likely to have, a serious impact on the well-being of the animals.

Between 2010 & 2015 the USDA either confiscated or facilitated the voluntary surrender of over 11,000 animals from noncompliant facilities. This is significant.

Now some may testify today that the USDA isn't doing its job. That they aren't conducting the needed inspections and are slow to act. This simply isn't true.

I have provided you today a list of all of the Animal Welfare Act inspections conducted by the USDA within the State of Wisconsin this calendar year. The first inspection was conducted on January 4,

2023 and the most recent that I was able to obtain was performed on August 3rd. In review of this list you will see that within this time period the USDA conducted 182 site inspections. This is significant as there are less than 155 work days during this period.

You may also hear in testimony today that the USDA is weak in its enforcement of the Animal Welfare Act. This also isn't true.

In review of the USDA report that I have provided you will see that during the performance of these 182 inspections within the State the USDA cited 152 violations of the Animal Welfare Act. And you will see in review of these records, when problems were encountered the USDA followed their procedures and conducted follow-up inspections in a timely manner to assure that corrective actions had been taken.

Going back to the AZA and ZAA, these are two parallel and equal organizations with respect to their abilities and limitations. But for whatever reason the Wisconsin Statutes don't recognize this equality. And that's the purpose of the Bill before you – to correct this disparity.

Now you may also hear testimony today reflecting that these two organizations are not equal and that AZA is somewhat superior to the ZAA in their accreditation procedures. You may even hear that the AZA is the "Gold Standard" when it comes to facility accreditation. In review, this is also a somewhat deceptive statement.

The idea that the AZA is the "Gold Standard" is a marketing ploy promoted by the AZA. It's much like Chevy or Ford advertising that they have the best truck in America. A review paper written for the Journal of Applied Animal Welfare Science in 2022 – I have provided a copy of this for you – clearly states that "The Association of Zoos and Aquariums (AZA) <u>promotes itself</u> as the "gold standard" for animal welfare". Now while this paper is specifically comparing AZA accredited facilities to nonaccredited facilities, the conclusion reached is that animal welfare at accredited facilities is superior to that found at non-accredited facilities. That being the case, I would think everyone here would be in favor of having the zoological facilities within our State accredited regardless of whether this accreditation is through the AZA or ZAA. After all, we are all here today trying to assure that the facilities within the State are providing the best care and welfare of the animals.

Now the ZAA is the younger of the two groups having been established in 2005 with the AZA established back in 1924. Perhaps this is why the Wisconsin Statutes don't recognize the ZAA – it wasn't in place when the current regulations were written. But the ZAA is here now and well founded. And in all aspects, just like the Packers and the Bears, both organizations are equal in the regulatory

statutes to which they hold their member facilities. The inspectional approach used by both organizations is based on the regulations established by the USDA and these are equal within both groups. And the passage of this bill will have little if any impact on DNR oversight within the State as for the majority of the animals involved, the DNR has no oversight regardless of the outcome of the bill.

Bill 124 finally recognizes the equality between these two organizations and when passed will simply provide parity to the accredited members of both organizations. And through this parity provide better care for the animals at the zoological facilities within our State.

It is my hope that you will vote in favor of passing Senate Bill 124.

Thank you.

John Kunkel 2285 Circle Drive Lac du Flambeau, WI 54538 September 1, 2023

Dear Representatives Dallman, Swearingen, Brooks, Moses, Murphy, Novak, and Tusler and Cosponsors by Senators Wanggaard, Ballweg and Felzkowski.

I am writing in support of the bill 124 which pertains to the Wildwood Wildlife Park in Minocqua, WI.

I have the honor to work as an artist contractor at the zoo, providing signage, graphics and murals to enhance the experience at the facility. Wildwood Wildlife Park is a very special place that is visited by a vast number of Families and school groups throughout the warm season. The staff at the zoo provide a vital service to the public and groups that will see the very rare and unique animals from throughout the globe. This vital service is in the form of education and awareness to the animals that exist on the Earth.

On the people side, it is difficult to find anyone in this area who has not experienced the Park. It is an icon of the Northwoods.

The facility also is a great hands-on experience for a number of interns who have studied zoology and biology at UWSP and other colleges.

The zoo houses the interns each Summer providing them with the essential experience in the field. I can attest that the students work extremely diligently giving the animals have top notch care. There are also a number of full-time zookeepers that are professional and hard working to maintain the zoo and the animals. Their pride in the animals that they care for is very inspiring!

As for the animals, there are all types; birds, mammals, reptiles, amphibians, insects, fish, arachnids, and I will bet I am missing something! Care for the resident animals is of utmost importance! The staff does an amazing job of keeping the animals happy and healthy! There is a global importance to the zoo, because they maintain a diverse sample of endangered species that may need the zoos to repopulate habitats in the case of a population crash.

To me, that alone is a mission of the facility, not to mention the educational factor! Anyone who is not considering this bill should visit the Wildwood Wildlife Park. It will be evident that the staff at the park is extremely dedicated to the care of the wildlife and the conservation of the diverse species.

The service that Wildwood Wildlife Park provides is vital, and that is all Wildwood Wildlife Park is seek is parity in this assembly bill 124 and equality with city, county, municipal zoos.

Sincere Thanks, Andy Goretski N6334 State Road 107 Tomahawk, WI 54487 Custom Murals



Testimony in Opposition of Assembly Bill 124 Presented to the Assembly Committee on Tourism Megan Nicholson, Wisconsin State Director, The Humane Society of the United States September 6, 2023

Chair Magnafici and members of the Assembly Committee on Tourism:

On behalf of the Humane Society of the United States (HSUS), the nation's largest animal protection organization, and our Wisconsin supporters, thank you for the opportunity to provide our comments in opposition to AB 124 that would exempt facilities accredited by the Zoological Association of America, or ZAA, from the state's permitting requirements for certain native species.

ZAA goes from state to state in an attempt to exempt the organization from state regulations and oversight and often represents itself as being on par with, or even superior to, the Association of Zoos and Aquariums, or AZA, which has accredited zoos such as the Northeastern Wisconsin Zoo in Green Bay and the Racine Zoo. In 2019, the Wisconsin Department of Agriculture, Trade, and Consumer Protection made a clear determination that ZAA accreditation standards were inferior to AZA accreditation when the agency approved an AZA exemption and at the same time declined a ZAA exemption to rules relating to animal importation. The department conducted a side-by-side comparison of AZA and ZAA accreditation standards relating to disease management and concluded that "current documented ZAA accreditation standards do not include sufficient requirements for veterinary oversight and disease prevention to warrant exempting ZAA accredited facilities."

Similar legislative attempts by ZAA to exempt its facilities from state oversight failed in Michigan, Louisiana, and just last year in Minnesota when legislators recognized that ZAA is significantly inferior to the well-respected AZA. ZAA attempts to argue that there is parity between its standards and those maintained by AZA. However, if that were the case, there would be no need for two separate zoo trade organizations.

There are two separate trade organizations precisely because ZAA standards and their implementation of those standards rise nowhere near those of the Association of Zoos and Aquariums. AZA has a proven track record of prioritizing safety and welfare whereas ZAA does not. In fact, the ZAA has repeatedly accredited facilities that failed AZA accreditation for serious problems such as financial instability, failing infrastructure, zoo executives misusing zoo resources for personal profit, plummeting attendance, federal Animal Welfare Act violations, insufficient staffing, and inadequate animal care.

Between 2010 and 2022, combined USDA enforcement actions against 26 facilities accredited by ZAA include more than \$135,000 in fines, 15 official warnings, and 28 direct and critical citations issued when inspectors find serious conditions that adversely affect the health and well-being of an animal. Since 2011, at least nine facilities that were once accredited by ZAA have closed. On top of this, the ZAA has an abysmal safety record. People have been injured by animals including an elephant, orangutan, pygmy hippopotamus, lemur, tiger, lion cubs, bear, jaguar, and camels at ZAA-accredited facilities.

ZAA opposes laws to protect public safety and animal welfare. This includes the federal Big Cat Public Safety Act that was supported by the National Sheriff's Association and prohibits keeping big cats as pets and bans direct physical contact between big cats and the public. The AZA supported this commonsense legislation, which was signed into law last year.

The facilities supporting this bill have been vocal about wanting a level playing field regarding state permit requirements. Rather than exempt a subpar zoo trade organization, we suggest making all things equal by removing exemptions for both AZA and ZAA. Additional oversight from the state will not be a burden to facilities that already comply with AZA's strict standards and would be consistent with other states. For example, the Florida Fish and Wildlife Conservation Commission provides oversight to zoos, regardless of their accreditation status. If creating a level playing field is truly the intent of this legislation, holding all facilities accountable to state oversight, regardless of accreditation status, would resolve the issue.

Megan Nicholson Wisconsin State Director The Humane Society of the United States mnicholson@humanesociety.org

Ten Problems with the Zoological Association of America

Formed in 2005, the deceptively-named Zoological Association of America (ZAA) is a Florida-based zoo trade organization with approximately 650 members and 66 accredited facilities, including poorly run roadside zoos and private menageries. ZAA promotes the private ownership of exotic pets and the commercialization of wildlife. In contrast, the Association of Zoos and Aquariums (AZA) is a highly-regarded and established zoo trade organization with 6,000 zoo and aquarium professionals, organizations, and suppliers worldwide and nearly 240 accredited facilities. Accreditation by the AZA ensures that knowledgeable and experienced professionals provide care for animals in a safe environment at modern facilities. In response to criticisms about its woefully inadequate standards, ZAA has started duplicating portions of standards developed by the AZA, but implementation appears to be severely lacking.

- ZAA accredits facilities that failed AZA accreditation for serious problems such as financial instability, failing infrastructure, misuse of zoo resources for personal profit by zoo executives, plummeting attendance, federal Animal Welfare Act violations, insufficient staffing, and inadequate animal care.
- 2. ZAA accredits roadside zoos, private menageries, and exotic pet breeders with troubling records. Between 2010 and 2022, combined USDA enforcement actions against 26 facilities accredited by ZAA include more than \$135,000 in fines, 15 official warnings, and 28 direct and critical citations issued when inspectors find serious conditions that adversely affect the health and well-being of an animal. Since 2011, at least nine facilities that were once accredited by ZAA have closed.
- **3.** ZAA has an abysmal safety record. People have been injured by animals including an elephant, orangutan, pygmy hippopotamus, lemur, tiger, lion cubs, bear, jaguar, and camels at ZAA-accredited facilities. ZAA facilities also offer unsafe close encounters with elephants who are forced to perform circus tricks.
- 4. ZAA opposes laws to protect public safety and animal welfare, such as the federal Big Cat Public Safety Act that prohibits keeping big cats as pets and bans direct physical contact between big cats and the public. The AZA supported the Big Cat Public Safety Act, which was signed into law in 2022.
- 5. ZAA does not oppose keeping wild animals as pets, including animals such as sloths, kangaroos, kinkajous, coatimundis, raccoons, porcupines, fox, otters, skunks, opossums, capybaras, bats, and dangerous reptiles. AZA opposes keeping wild animals as pets because most people cannot meet their complex

behavioral, social, nutritional, and psychological needs.

- 6. ZAA members and facilities have sent animals to auctions and dealers who sell animals at auction or to hunting ranches. AZA facilities do not sell wild animals at auction because the animals can end up being used in unscrupulous ways, such as in canned hunts, circuses, poorly-run roadside zoos, and sold to unqualified people as pets.
- 7. ZAA has apparently developed no animal care manuals detailing professional animal care standards. The AZA's biologists, veterinarians, nutritionists, reproduction physiologists, behaviorists and researchers have developed nearly three dozen species-specific animal care manuals that are often more than 100 pages. ZAA has also failed to issue its quarterly journal since summer 2022.
- Most, if not all, ZAA-accredited facilities with elephants utilize outdated circus-style training that includes the use of abusive devices such as bullhooks, which is not allowed at AZA facilities.
- 9. ZAA lacks transparency. Unlike AZA, ZAA fails to publish publicly on its website its committees, the purpose of each committee, and the committee members and their affiliations. In addition to publishing committee lists, AZA also publishes a list of accreditation applicants and invites "anyone wishing to offer comments, positive or negative" to email the organization.
- Standards are meaningless if they are not enforced.
 ZAA has no information about filing or investigating a complaint concerning an accredited facility.



ZAA's Troubling History of Accreditation

The Zoological Association of America (ZAA) accredits poorly run roadside zoos and private menageries with disturbing records of dangerous incidents, Animal Welfare Act (AWA) violations, outdated practices, financial instability, and zoos that failed to gain re-accreditation from the Association of Zoos and Aquariums (AZA), a zoo trade organization with a proven track record of accrediting facilities that meet high standards. The following table lists information concerning some current and former facilities accredited by ZAA.

Facility	State	Accreditation Status	Issues
Alabama Gulf Coast Zoo	AL	Accredited intermittently since 2005	The USDA issued a critical citation and an official warning in 2021 after a visitor was allegedly bitten during an encounter with a kangaroo and subsequently went to an urgent care facility to receive a tetanus toxoid vaccine. In 2010, 2014, and 2020, OSHA issued a total of \$8,468 in fines for ten violations, including six that were categorized as serious.
Animal Adventure Park	NY	Accredited since 2022	Allows the public to play with, hold, and/or feed various animals, including sloths, penguins, kangaroos, African lions, otters, alligators, and capybaras. According to Certificates of Veterinary Inspection, between 2018 and 2021, zoo owner Jordan Patch sent numerous baby animals, including a 5-day-old monkey, a 2-week-old hyena, an 8-month-old camel, a 3-week-old hyena, a 4-week-old binturong, and two 5-week-old lion cubs to animal dealers and roadside zoos. Three wallabies were sent to a roadside zoo in Ohio that previously sold meat from black bears and lions. A 9-month-old giraffe Patch sent to a Texas roadside zoo died 11 months later.
Animal Edutainment	тх	Accredited 2014-2019 USDA license canceled 2021	Small traveling zoo that exhibited animals such as birds, reptiles, and lemurs at schools.
Animal Junction (a.k.a. Jungle Joe's Wildlife Adventure and Bucks County Zoo)	ΡΑ	Accredited 2009 Closed 2011	The Bucks County Zoo (a.k.a. Animal Junction) was a privately- owned menagerie that consisted of a collection of caged animals— including primates and a tiger cub—displayed inside a warehouse at an industrial park. Just 2½ years after opening, the zoo went out of business in October 2011. It advertised its displaced and deadly reticulated pythons and a gaboon viper in <i>Animal Finders' Guide</i> , a publication that catered to the pet trade. After the zoo moved out, the property owner claimed the zoo had caused more than \$100,000 in damage.

Facility	State	Accreditation Status	Issues
Animal World & Snake Farm	тх	Accredited since 2011	Between 2010 and 2019, the USDA cited Animal World & Snake Farm 23 times, including for veterinary care violations, a prairie dog who died from internal trauma after being attacked by an armadillo, a man required medical care after being lacerated by a pig in the petting zoo, inadequate public safety barriers for the capuchin, cavy, and capybara cages, ten citations for enclosures in disrepair, including standing water in the hyena, warthog, and cougar cub enclosures, four citations for poor sanitation, including areas littered with trash and an ant-infested margay exhibit.
Austin Zoo	TX	Accredited since 2018	A 2019 report in the Austin American Statesman—based on the accounts of 24 current and former zoo staffers and various records—detailed allegations that the zoo mistreated animals and disregarded zookeepers' concerns. Accusations included allowing suffering animals to languish rather than euthanize them, disregard of veterinary recommendations, animals attacking each other, and high staff turnover. Cited by the USDA eight times between 2013 and 2017 for issues including tiger, bear, and primate cages in disrepair, inadequate public safety barrier, and poor sanitation.
Bearizona	AZ	Accredited since 2011	Bearizona pulls bear cubs from their mothers—a practice condemned by experts—and sends bears to a facility that has used physical abuse on bear cubs while subjecting the cubs to public handling as well as to an outfitter that allowed a customer to illegally kill a captive-reared black bear named Cubby who was shot with a bow-and-arrow while confined in a 3-acre pen. Bearizona was cited by the USDA 16 times between 2010 and 2017, including five repeat and one critical citation. In 2016, the USDA issued an official warning for causing an animal trauma and harm and failure to provide adequate veterinary care.
California Living Museum	CA	Accredited since 2009	According to a USDA inspection report, "The records review revealed an uncharacteristically high mortality rate at this facility since 1 January 2018. Included among the deaths are one skunk that died with no food or feces in the intestinal tract and a fisher with a severe flea infestation that was noticed but not treated, and that ultimately led to the death of the animal. A second fisher living in the same enclosure died shortly before its cage mate (no necropsy was performed) and that death was likely due to the same cause." In 2017, the USDA issued an official warning for inadequate veterinary care, failure to maintain enclosures after the decomposed bodies of two San Joaquin kit foxes were found entangled in pipes in a burrow, and failure to separate an aggressive animal who was injuring other animals.

Facility	State	Accreditation Status	Issues
Capital of Texas Zoo	тх	Accredited 2011-2013	AWA violations throughout 2013 led the USDA to issue an official warning for failure to provide veterinary care to underweight animals, repeated failure to maintain facilities in good repair, repeated failure to feed animals an appropriate diet, repeated failure to keep premises clean and in good repair, and inadequate pest control. Less than two months after the warning was issued, a series of three inspections days apart found several more violations for inadequate veterinary care for underweight animals, enclosures in disrepair, and inadequate shelter resulting in a \$2,929 penalty. A cougar twice bit volunteers in 2007 and again in 2008.
Catoctin Wildlife Preserve	MD	Accredited since 2005	In 2012, the USDA fined Catoctin \$12,000 after an inexperienced keeper was mauled by two jaguars and for inadequate veterinary care, enclosures in disrepair, insufficient space, inadequate shelter, a camel escape, filthy cages, and other issues.
Cougar Mountain Zoo	WA	Accredited since 2007	An 11-acre private menagerie that houses dangerous wild animals and is in a residential area next to a school. In 2015, the USDA cited the zoo for failure to have a complete perimeter fence to prevent unauthorized access to animals, an inadequate tiger enclosure that may not safely contain the animals, and an outdated program of veterinary care and primate enrichment plan. The agency issued an official warning for failure to provide adequate veterinary care to a severely underweight reindeer.
Exotic Feline Breeding Compound	СА	Accredited 2005-2021	Citing financial difficulties, the privately-owned breeding compound closed in 2023 and its roughly 50 wild cats were transferred to other facilities.
Gulf Breeze Zoo	FL	Accredited since 2011	Between 2011 and 2015, was cited 23 times by the USDA for repeatedly failing to provide sufficient public safety barriers around primate cages, causing trauma and stress after an untrained and unsupervised intern allowed the escape, and subsequent death, of a short-tailed opossum, unmonitored public contact that resulted in a child being bitten by a camel, enclosures in disrepair including an instance where a giraffe was euthanized after getting his head caught in a gate, inadequate veterinary care, inadequate shelter, and an unsanitary food preparation area. See also Virginia Safari Park.

Facility	State	Accreditation Status	Issues
Hernando Primate	FL	Accredited 2010-2013 USDA license canceled 2014	Between 2011 and 2013, Hernando Primate was cited for filthy cages, enclosures in disrepair, unsanitary food storage, housing together incompatible species, an unsafe lion enclosure, failure to have an environmental enrichment plan for a newly acquired chimpanzee, and for having only one inexperienced employee to care for all the animals at the facility.
Jackson Zoo	MS	Accredited 2016-2022	Struggled for years with financial woes, failing infrastructure, plummeting attendance, an audit that revealed misuse of state bond funds, and ongoing USDA citations for violations of the federal Animal Welfare Act. Four months after losing its AZA accreditation in 2016, the Jackson Zoo was accredited by ZAA.
Jungle Island	FL	Accredited since 2008	In 2010, a 500-pound tiger escaped by jumping over a 14-foot-high fence in pursuit of a primate who had also escaped and was running amok. The tiger came within 10 feet of a 2-year-old toddler and four people were hurt during the chaos. In 2012, the USDA issued an official warning in connection with the two animal escapes and for failure to have a responsible adult available to accompany USDA officials on an inspection.
Lion Habitat Ranch	NV	Accredited since 2013	A private menagerie that has kept as many as 46 lions, 1 giraffe, 2 emus, and 3 ostriches on just 6-acres. The county acted to permanently prohibit owner Keith Evans from allowing public contact with lions and established a breeding moratorium until the animal population falls under 40 at his crowded backyard facility. In 2014, the USDA cited the facility for allowing the public to have unsafe contact with adult lions. In 2010, the USDA issued an official warning for declawing two lion cubs. The many problems at Lion Habitat Ranch, as well as Roos-N-More, led Clark County commissioners to reject an effort to exempt ZAA when the county updated its exotic animal possession ordinance in 2015.
Mill Mountain Zoo	VA	Accredited since 2019	Lost its AZA accreditation in 2016 due to the zoo's precarious financial situation. In 2019, the zoo gained accreditation from ZAA. According to the zoo director, "They [ZAA] do not dive into the financials or relationships with municipalities [like AZA]."

Facility	State	Accreditation Status	Issues
Monterey Zoo	CA	Accredited since 2020	As of 2022, Monterey Zoo owner Charlie Sammut is a ZAA accreditation inspector. In an internal memo documenting a phone call with Sammut, USDA Veterinary Medical Officers discuss problems they found, but did not issue citations for, during a 2017 inspection of Sammut's facility. Sammut was described as "very argumentative." Concerns included a kangaroo with tremors and vision loss, long hooves and impaired gait on muntjac, inadequate veterinary care records, almost all medications were expired, unsecured controlled substances, a chain left dangling around the waist of a squirrel monkey that posed risk of entanglement, dirty water receptacles, broken plastic chairs with rough edges in the baboon cage, an alligator tank with mosquito larva, inadequate shade, a fennec fox exhibiting fear behavior, thickened skin on elephants, and lack of enrichment. In 2019, the zoo was fined \$2,250 by OSHA after an elephant became agitated and attacked a keeper who was handling her aggressively.
Montgomery Zoo	AL	Accredited since 2013	Switched its accreditation from AZA to ZAA in 2013 after AZA raised concerns about elephant deaths at the zoo. The USDA had also issued numerous citations, including for animal escapes, veterinary care issues, inadequate space, and enclosures in disrepair. In 2013, a zoo visitor was scratched by a jaguar who was able to reach his paw through the wires of the enclosure, and a tiger escaped from an enclosure through a break in the fencing. In 2022, the USDA issued a critical citation when a cheetah died after eating parts of a lunchbox dropped into the enclosure from an overhead ski lift by a member of the public.
Myrtle Beach Safari	SC	Accredited 2014-2019	Owned by Bhagavan Antle (a.k.a. Kevin Antle or "Doc" Antle), who was the cult-like character featured in the Netflix show <i>Tiger King</i> . Antle has bred hundreds of big cats, used the cubs for public handling, was ZAA-accredited until shortly before <i>Tiger King</i> aired, and has since been charged by the Virginia Attorney General and indicted for wildlife trafficking and cruelty to animals. In 2022, the Department of Justice charged Antle with alleged wildlife trafficking and laundering more than \$500,000 in a staged immigrant smuggling scheme.
NGALA	FL	Accredited since 2010	A party venue that offers close encounters with wild animals, such as a rhinoceros, panther, and a chimpanzee who "regularly visits" NGALA. In 2010, the U.S. Fish & Wildlife Service denied owner Donovan Smith a captive-bred wildlife permit for clouded leopards and cheetahs after determining that Smith and his staff lacked experience with handling or maintaining these species. In 2020, the USDA issued a teachable moment for a lack of enrichment for lemurs and a porcupine cage in disrepair.

Facility	State	Accreditation Status	Issues
Niabi Zoo	IL	Accredited since 2020	Lost its AZA accreditation in 2012 after the AZA found major concerns that included insufficient staffing and inadequate animal care. In 2020, a few months after trying, but failing, to regain its AZA accreditation, the Niabi Zoo obtained accreditation from ZAA.
Oswald's Bear Ranch	MI	Accredited 2013-2020	Fined \$2,400 by the USDA in 2021 after two black bears climbed over two fences and wandered onto neighboring properties in 2019. One bear was captured, and the other was shot and killed by a sheriff's deputy. Oswald's allows members of the public to handle bear cubs weighing up to 90 pounds. Between 2010 and 2021, cited by the USDA for using physical abuse to discipline bear cubs, allowing children to have unsafe contact with bear cubs, unsafe handling after a visitor was scratched by a bear cub, and for feeding bears an improper diet.
Panther Ridge Conservation Center	FL	Accredited since 2016	In 2010, a jaguar at the facility tore off a woman's thumb resulting in a \$2,786 fine by the USDA and in 2008, the owner was attacked by two cheetahs during a fundraising event and airlifted to a hospital. In 2005, a 500-pound Bengal tiger escaped from a cage by pushing past a woman who was feeding him. More than 20 sheriff's deputies and state wildlife officers responded as the tiger wandered the grounds for more than two hours. Cited by the USDA in 2009 for declawing two clouded leopards.
Pittsburgh Zoo	ΡΑ	Accredited since 2015	Despite an elephant attack that left a keeper dead, the Pittsburgh Zoo refused to comply with AZA's upgraded and safer elephant standards and switched its accreditation from AZA to ZAA in 2015 since ZAA standards permit unsafe contact with elephants. In 2016, the USDA issued an official warning for excessive chlorine levels in the sea lion pool that was causing eye disorders. In 2017, the USDA issued a critical citation after 36 Jamaican fruit bats died due to hypothermia. The recently retired president of the Pittsburgh Zoo serves as chair of ZAA's board of directors. A 2022 article in the <i>Pittsburgh Post-Gazette</i> stated that the zoo "has lost grant money, newly acquired animals and the chance to take part in global conservation efforts because of dropping [AZA] accreditation that's considered the 'gold standard for zoos."

Facility	State	Accreditation Status	Issues
Roer's Zoofari	VA	Accredited since 2020	In 2017, Roer's Zoofari, co-owned by one-time ZAA board member Vanessa Stoffel, was cited by the USDA for not providing shade to a giraffe, lemurs and guinea pigs on a hot, sunny, 90-degree day, for not shearing sheep who showed signs of heat stress, and, in two separate incidents, the zoo's safari bus ran over three aoudads. Their injuries were so severe they were euthanized. In 2021, two giraffes were killed in a barn fire. Roer's Zoofari has sent animals to a Tennessee auction plagued with problems and a Texas dealer that sells exotic animals to hunting ranches. Two years after being accredited, Roer's Zoofari was sold to a new owner, renamed, and remains ZAA accredited.
Roo Ranch	SD	Accredited 2008 Closed 2009	A private menagerie that opened on a whim in 2006 following the owner's trip to Australia and closed after the owner's death in 2009.
Roos-N-More	NV	Accredited 2008-2013 Closed 2016	After a 2014 inspection, county officials closed Roos-n-More, a 3- acre zoo with 385 animals, until it could remedy a long list of code violations relating to operating a business on residential property. After a few limited re-openings allowed by the county, the owners decided to close the zoo in 2016. Former zoo employees and volunteers, including a zoo board member, expressed concern to the county board that the menagerie was collecting too many animals, many animals were kept in deplorable conditions and subjected to stressful handling, dozens of deaths were being concealed from officials, and money raised was not going to animal care. One of the zoo owners served on ZAA's board of directors. The many problems at Roos-N-More, as well as Lion Habitat Ranch, led Clark County commissioners to reject an effort to exempt ZAA when the county updated its exotic animal possession ordinance in 2015.
Safari Adventures	ОН	Accredited 2011-2016	Owner used tiger, lion, and bear cubs for public handling and had African lions and black bears slaughtered to sell their meat.

Facility	State	Accreditation Status	Issues
Safari Wilderness Ranch	FL	Accredited 2011-2017	Co-founded by Lex Salisbury, who was forced to resign as president of Tampa's Lowry Park Zoo in 2008 when an audit concluded: that Salisbury owed more than \$200,000 to the city for transferring some of the zoo's animals and equipment to his private properties that were under development to become his personal ZAA business venture, and that he made zoo employees work for his personal business venture, gave himself an unauthorized bonus, and took his wife on expensive zoo-funded trips. In 2008, fifteen patas monkeys escaped Salisbury's property by swimming across a 60-foot-wide moat and then climbing a 28-foot fence. One monkey was shot to death, and it took nearly eight months to recapture the rest. Salisbury served on ZAA's board of directors during the controversy.
Six Flags Discovery Kingdom	CA	Accredited since 2012	Cited by the USDA in 2021 and 2022 for repeatedly having high coliform bacteria levels in the walrus and pinniped pools, housing a marmoset and a pig in an office where the animals had access to potentially dangerous items, a crumbling dolphin pool, and storing fish for marine mammals at too high a temperature in a malfunctioning freezer.
Six Flags Great Adventure	NJ	Accredited since 2009	Cited by the USDA in 2014 after several university students were bitten during a public handling session with two 3-month-old, 30- pound lion cubs. The USDA issued an official warning in 2011 after a baboon escaped from the facility's drive-through park and was recaptured two days later at a farm 20 miles away.
Tanganyika Wildlife Park	KS	Accredited since 2005	The USDA issued two official warnings after a pygmy hippo bit a child in in 2016 and for subjecting three 20-day-old lynx kittens to stressful transport conditions in 2021. The facility was also cited for allowing a lemur to perch on the head of a human infant. For years, Tanganyika lobbied unsuccessfully to reverse a state ban on public contact with big cats, a law that was enacted after a teenager was killed by a tiger.
The Preserve (formerly Have Trunk Will Travel)	тх	Accredited since 2010	Cited by the USDA in 2012 for unsafe handling of elephants while giving rides to the public. In 2011, facility trainers, including one of the owners, were videotaped viciously jabbing, hooking, and striking elephants with bullhooks to make them perform circus tricks. Relocated from California to Texas after California passed a ban on the use of cruel training tools on elephants that was supported by the AZA zoos in the state.

Facility	State	Accreditation Status	Issues
Triple D Game Farm	MT	Accredited since 2013	In 2021, the USDA issued multiple citations for enclosures and a perimeter fence in disrepair, filthy drinking water, filthy cages, an insufficient number of employees, and a critical citation after a snow leopard apparently bit or tore off two-thirds of the tail of another snow leopard in an adjacent cage. In 2013, the USDA issued an official warning for declawing a tiger cub which can cause "ongoing pain, discomfort, or other pathological conditions in the animals."
Two Tails Ranch	FL	Accredited since 2015	The USDA issued an \$857 fine after an unsupervised encounter with a bull elephant resulted in a woman being attacked and hospitalized for months with life-threatening injuries.
Understanding Wildlife	ОН	Accredited 2013-2018 USDA license canceled 2018	Small traveling zoo that exhibited animals such as birds, snakes, primates, and alligators at schools.
Virginia Safari Park	VA	Accredited since 2005	Eric Mogensen owns Virginia Safari Park and the Gulf Breeze Zoo in Florida, both ZAA-accredited, and he formerly owned the unaccredited Reston Zoo in Virginia. In 2015, the USDA filed a complaint against Eric Mogensen, his daughter Meghan Mogensen, and Virginia Safari Park for numerous AWA violations at his three facilities. In a 2018 consent decision, respondents were assessed a \$99,999 civil penalty. One charge related to Meghan Mogensen drowning a wallaby with an eye injury in a bucket of water. Other charges included unmonitored public contact that resulted in a child being bitten by a camel (the girl was hospitalized for three days to treat a serious bite on her arm that nearly reached the bone and required at least 17 stitches), and repeated failure to prevent and treat illnesses and diseases such as diarrhea, dystocia, mastitis, stillbirths, lameness, eye and skin conditions, and coccidia. In 2023, Virginia Safari Park was cited after a newborn llama was run over and killed by a vehicle in its drive-thru park, and a giraffe with a heavy parasite load and poor body condition who was nursing a calf died after being kept outdoors in the cold.

Facility	State	Accreditation Status	lssues
Vogel's Exotics		Accredited 2009-2014	In 2014, a Syrian brown bear cub escaped as Vogel was transporting the animal between his two facilities. The bear got out of an improperly latched sky kennel inside the transport trailer and then broke through the trailer's sliding window when Vogel stopped at a restaurant. Vogel was unaware that the bear had escaped until he reached the final destination. In the meantime, the bear encountered people in the restaurant's parking lot and was ultimately recovered by local authorities. The incident resulted in a \$1,357 USDA fine.
Washington Park Zoo	IN	Accredited since 2014	In 2014, an alligator escaped and in 2008 a spider monkey escaped from the zoo. Both were found at a nearby boat dealership. In 2011, the zoo director, who also served on the ZAA board of directors, was suspended by city officials after he used the zoo for a personal after-hours party, During the party, the primate house doors were left open, allowing temperatures to fall into the low 60s, and partygoers consumed concessions without paying for them and left the grounds littered with trash. City officials fired the zoo director in 2014.
Wildlife World Zoo and Aquarium	AZ	Accredited since 2006	Cited 38 times by the USDA between 2010 and 2019, including a 2019 critical citation after a visitor was able to cross an inadequate safety barrier and was clawed by a caged jaguar. Other citations include unmonitored public contact, filthy cages, enclosures in disrepair, unsanitary feeding practices, filthy water receptacle, and housing animals near a foul-smelling garbage dump. Fined \$2,350 by the USDA in 2016 for concealing areas that contained regulated species from the inspector and poor sanitation. In 2013, the USDA issued an official warning for failure to safely handle a 3-month-old tiger cub brought to a television studio.
Wright Park Zoo	KS	Accredited 2010-2021	The USDA issued an official warning in 2015 for failure to provide clean, dry bedding to wolfdogs during bitterly cold temperatures and repeated failure to maintain enclosures in good repair. The USDA cited the zoo 60 times between 2010 and 2019, including 27 citations for enclosures in disrepair and 14 citations related to filthy conditions, filthy drinking water, and unsanitary feeding practices. A ZAA co-founder and Wright Park Zoo's veterinarian spent just 2-1/2 hours conducting the zoo's ZAA accreditation inspection in 2010.

Facility	State	Accreditation Status	Issues
Zoo at Forest Park	M	Accredited since 2010	The USDA cited the zoo 43 times between 2010 and 2018 for problems including inadequate public safety barriers, inadequate veterinary care, and many enclosures in disrepair. In 2016, a guenon at the zoo escaped by opening the unlocked door of his enclosure. The primate was recaptured three days later. In early 2015, the public learned of two primate deaths at the zoo. A marmoset died from injuries sustained in a fight with other monkeys, and a tamarin died from exposure to cold temperatures after the zoo failed to have a back-up generator when an electrical malfunction shut off power to a heating system.
Zoological Wildlife Foundation	L	Accredited 2014-2017	Fined \$1,313 by the USDA in 2015 after a tiger bit off the thumb of a construction worker and cited for failure to provide veterinary care to primates who were fighting and causing injuries to each other and failure to provide adequate enrichment to three solitary primates.
Zoosiana	5	Accredited since 2009	Citing the Zoo of Acadiana's (a.k.a. Zoosiana) inadequate space and lack of cage enrichment, in 2009 the U.S. Fish & Wildlife Service denied a Captive-Bred Wildlife Registration application for numerous species of primates, big cats, and other animals. Between 2011 and 2016, cited by the USDA for failure to dispose of expired medication, enclosures in disrepair, unsanitary conditions in the food preparation building, roach and rodent infestation, and inadequate lighting in a capuchin enclosure.
Zoological Zoological	고	Accredited since 2005	Crowded 5-acre park with 250 animals co-owned by ZAA board member Kayte Hogan since 2015. ZooWorld has been cited by the USDA for 71 AWA violations between 2010 and 2022, including for: unsafe animal handling after two children were attacked by lemurs in separate incidents; for failure to provide relief from a 115-degree heat index to primates showing signs of heat exhaustion; failure to provide veterinary care to wolves with irritated ears from fly bites and a lion with sores on her face; unmonitored public contact with animals; insufficient public safety barriers; enclosures for primates, bears, giraffes, jaguars, and other animals in disrepair; and filthy cages. In 2013, USDA fined ZooWorld was \$1,571 for repeated violations and issued official warnings in 2016 for repeated violations and in 2022 for unsafe handling.





September 5, 2023

Honorable Members of the Legislative Assembly State of Wisconsin-

Dear Honorable Members:

My name is Terry Lincoln and I am the Zoo Director at the Dakota Zoo in Bismarck, ND. I would have liked to be with you in person but I am orchestrating a tiger move from our zoo to another this week.

I am a professional member of both AZA (Association of Zoos and Aquariums) and ZAA (Zoological Association of America) and our zoo in one of a dozen facilities that are accredited by both entities. I am currently the chair of the Accreditation Committee for ZAA, but have served on committees for AZA as well. I am committee to both entities.

The Dakota Zoo has been accredited by AZA since 1991 and the standards for accreditation are high. "Raising the bar" is the common message heard by many and there is no doubt that our facility has steadily improved through the years of accreditation by meeting these ever-changing standards.

The Dakota Zoo applied for and received accreditation with ZAA in 2019 and found the standards for accreditation to be very similar to those required by AZA. I was asked to join the ZAA Accreditation Committee shortly after our facility became accredited. Since joining, and now leading, the committee, I have worked diligently to ensure that the standards for accreditation are meaningful and promote the highest level of care for animals.

I believe that the accreditation process is extremely important for any credible zoo. Accreditation by either AZA or ZAA is the stamp of approval showing that a facility has undergone an extensive inspection showing that all aspects of animal welfare, safety and many other areas is top-notch.

I appreciate the opportunity to provide input in this manner and appreciate your Members taking the time to hear this matter.

Sincerely,

Terry Lincoln Zoo Director ZAA Accreditation Committee Chair

602 Riverside Park Road, Bisimarck, ND 58504 • 701-223-7543 • www.dakotazoo.org Established in 1961, the Dakota Zoo is a non-profit institution which operates on donations, admissions, memberships and grants and receives no direct local, state or federal tax support. Printed on recycled paper.



September 3, 2023

Dear Representatives Dallman, Swearingen, Brooks, Moses, Murphy, Novak, and Tusler and Cosponsors by Senators Wanggaard, Ballweg and Felzkowski.

My name is Ryan Schowalter and I'm writing on behalf of Judith, Duane, Shawn, Kim and the rest of the Domaszek's and Wildwood Zoo family, employees, and the thousands and thousands of visitors that are lucky enough to visit this privately owned zoo in beautiful Minocqua, WI each and every year.

My family has been going to this zoo our entire lives going back to when it was called "Jim Pecks" under previous ownership. Today, my wife and three-year-old daughter frequent the zoo on a regular basis.

Most businesses these days, owners sit back and the employees do all the work. Walk into this zoo and you will see the owners and family working hand in hand to keep things running in tip top shape. Whether they are greeting customers and checking them in, helping in the snack stand, mowing grass, or building new animal enclosures you'd be hard pressed not to see a member of the zoo ownership on the grounds at all times. It seems every time I come in, they are building a new space, adding on, or finding a way to improve the overall guest experience.

My daughter Olivia is now 3 years old and her face lights up anytime I mention us going to the zoo to see all the animals they have to offer. Olivia loves learning the names of all the animals and the staff is always more than willing to answer any questions we may have regarding the animals. Olivia has many favorites, but she loves the face-to-face encounters petting the rabbits, feeding the giraffes, and feeding the ducks in the ponds. After this she always enjoys a snack in the several different food areas available throughout the zoo. The zoo holds an annual fundraiser to help feed the animals during the winter months called Zoo Boo. This event draws kids and their families throughout the Northwoods to come and trick or treat in a safe and fun environment, all while helping feed the animals in the process. This is something children in this area look forward to each year. I would ask, where else can you get an experience like this in northern Wisconsin?

I'm writing in support of assembly bill 124, not only for the sake of the Wildwood Zoo owners, but their family, employees, tens of thousands of tourists that visit each year and the 2000 plus animals the zoo staff and family take care of 365 days a year. I can't imagine the economic impact the Lakeland community would feel without The Wildwood Wildlife Park as a part of it. Many would say they are a major backbone of this community. It's so true! It is time government steps back and exempt Wildwood Wildlife Park with their ZAA accredited. It is simple it does not matter what organization you belong to it is about the care of the animals and it is top notch at Wildwood Wildlife Park. Make life easier for hard working businesses instead of constraining them and discriminating against Wildwood Wildlife Park for being privately owned.

Sincerely,

The Schowalter family, Ryan, Kaitlyn & Olivia Woodruff, WI 54568





NEW ZOO & ADVENTURE PARK 4418 REFORESTATION ROAD GREEN BAY, WISCONSIN 54313

PHONE (920) 662-2403 FAX (920) 434-4162 E-MAIL carmen.murach@browncountywi.gov

In Opposition to Assembly Bill 124

Chair Magnafici and members of the Assembly Committee on Tourism,

I would like to voice my opposition to Assembly Bill 124 which would exempt facilities accredited by the Zoological Association of America, or ZAA, from Wisconsin permitting requirements for certain native species. I have concerns that ZAA animal welfare and safety standards are not sufficient to warrant the exemption. I believe that both public safety and the welfare of animals living at, or traded through, ZAA facilities in our state would be compromised if oversight by the WI. DNR was removed.

The NEW Zoo & Adventure Park, like all Association of Zoos & Aquariums (AZA) accredited Zoos, comply with standards above and beyond those required by ZAA. Although AZA facilities are currently exempt from Wisconsin permitting requirements, the NEW Zoo & Adventure Park has no reason to fear oversight of the state. I would support an amendment to remove all exemptions (including AZA) to ensure that ZAA facilities continue to adhere to WI. DNR requirements. Our commitment to good animal welfare for ALL captive wildlife is strong. I have seen evidence that this is not always the case for some ZAA entities. The inconvenience of seeking further permitting would not be a significant burden to an AZA Zoo and would be well worth the knowledge that ZAA zoos continue to be held to state standards.

Thank You,

Carmen Murach Zw Dretor 920-662-2403 NEW 200 4418 Reforestation Rd Green Bay, WI 54313 PARK www.newzoo.org

CARMEN MURACH Director

9/5/2023



Celebrating and Saving Wildlife and Wild Places

Title: In Opposition to Assembly Bill 124

Address to: Chair Magnafici and members of the Assembly Committee on Tourism

Date: 9/6/2023

The Racine Zoo offers its full support to the concept of an "equal playing field" as it relates to the licensure of institutions within the state of Wisconsin and possible Department of Natural Resources inspection.

However, because we also strongly feel that there is no parity between the two existing accreditation standards (ZAA and AZA), we feel the only acceptable "level field" would be that Wisconsin's AZA accredited zoos be subject to the same licensing requirements that non-AZA institutions currently are held.

We believe Racine Zoo's husbandry, veterinary, animal welfare, observation, transaction tracking and handling standards exceed any state requirements, and therefore any permitting or inspection requirements will not negatively impact current operations.

Board of Directors

Neil Staeck, Board Chair

Samantha Anderegg-Boticki

Jane Batten

Patrick Cafferty

John Crimmings

Dee Djurovic

Beth Heidorn

Robert Henken

Alyson A. Horton

Ralph Malicki

Tom Molbeck

Dimple Navratil

Amanda Paffrath

Dr. Steve Ryder

Cory Sebastian

Steve Smetana



RACINE ZOOLOGICAL SOCIETY • 200 GOOLD STREET • RACINE, WI 53402 PHONE: 262-636-9189 • FAX: 262-636-9307 • www.racinezoo.org • info@ racinezoo.org

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OPPOSE AB 124 / SB 126

Don't Change the Definition of Public Zoos

There are thousands of roadside zoos in the U.S. that are unable to provide the level of animal care needed to become accredited by the Association of Zoos and Aquariums (AZA). The deceptively named Zoological Association of America (ZAA) "accredits" those roadside zoos that don't meet the AZA's strict standards. The ZAA stamp of approval leads roadside zoo visitors to falsely believe these menageries are legitimate, while the zoos buy, sell and trade wild animals behind the scenes.

- Wisconsin is one of only four states in the U.S. with no laws regulating or prohibiting dangerous wild animals as pets.
 - ZAA promotes and supports private ownership of exotic animals, allows hands-on public interactions with wild animals and opposes legislation to regulate exotic animals.
 - Judy Domaszek is the owner of Wildwood Wildlife Park in Minocqua which is the only ZAA accredited facility in Wisconsin and she's also on the ZAA board of directors.
 - <u>This bill would exempt Wildwood Wildlife Park from state wildlife regulations. ZAA could then</u> <u>rubber stamp accreditation so any roadside zoos that apply would no longer be subject to state</u> <u>regulations.</u>
- ZAA standards are lax and pale in comparison to AZA standards. ZAA often doesn't enforce its standards at violative roadside zoos.
 - The ZAA's administrative director, Meghan Lampert née Mogensen, has a past conviction for intentionally drowning a wallaby in 2012 and served jail time; which is in violation of ZAA standards that members "have not been convicted of charges laid by a regulatory of enforcement body that is linked to the zoo and aquarium community."
 - When the Columbus Zoo in Ohio lost its AZA accreditation due to a 2021 documentary showing its participation in the underground big cat trade and later evidence that zoo officials misused \$630,000, ZAA accredited the zoo.
 - Doc Antle, who was featured on Tiger King, was accredited by ZAA and has won awards from the organization. He's been indicted on federal wildlife trafficking, cruelty to animals and money laundering charges.
- Changing the definition of zoo to include ZAA accredited facilities is a veiled attempt to remove state oversight at roadside zoos, putting the public at risk of disease and injury and exposing thousands of animals to poor care and conditions.

Wild animals are NOT pets. Please don't exempt ZAA accredited roadside zoos from state regulations.

Respectfully submitted.

Bethanie Gengle 210 Water Street Menasha, WI 54952 920-475-9846 roadsidezoonews@gmail.com



CONCRETE CORN CRIBS

A bobcat is one of several animals living in small, corn crib enclosures with concrete floors that do not allow adequate space for movement and may cause joint and mobility issues. The DNR requires bobcat pens to be a minimum of 144 square feet for no more than two animals and prohibits public contact with bobcats greater than three months of age.

UNNATURAL ENVIRONMENTS

Beavers are powerful swimmers that can stay under water for up to 15 minutes at a time and often build dams and lodges. A beaver is shown in an enclosure that doesn't allow the animal to perform natural behaviors or completely submerge in water.

The DNR requires beaver pens to have a tank or pool with a minimum of 250 gallons of clean open water for up to two beavers.

DANGEROUS ANIMALS

In the wild, cougars travel up to five miles a day. Although a nocturnal species, this cougar is relegated to a small outdoor enclosure with no ability to avoid humans, which may cause aggression.

The DNR requires cougar enclosures to be no smaller than 200 square feet for one animal and prohibits cougars greater than three months old from being used in public interactive sessions or exhibited outside the enclosure.

NO MENTAL STIMULATION

A badger is a nocturnal animal that uses its forelimbs to dig and build underground burrows. This enclosure doesn't allow the badgers to perform natural digging and burrowing behaviors and doesn't provide protection from the sun.

The DNR requires shade large enough to contain all the captive animals at one time.









Minocqua, WI Photos from 9/2/2023

USDA INSPECTIONAL DATA - WISCONSIN JANUARY 1, 2023 - August 3, 2023

(Approximately 155 Work Days)

Inspections Conducted: 182

*

Total Non-compliant Items: 2 6 144

Inspection		Liçense/				Direct	Critical	Non-Critica	l Teachable
Date	Site Name	Registration Type	City	State	Zip	NCIs ^{*1}	NCIs ^{*2}	NCIs ^{*3}	Moments
8/3/2023 ANIM	IART PET INC	Class B - Dealer	MADISON	WI with a	53704			u Line and the second	
8/2/2023 WILD	WOOD WILDLIFE PARK	Class C - Exhibitor	MINOCQUA	WI	54548				
8/2/2023 Anim	art Pet Inc	Class B - Dealer	WAUNAKEE	WI	53597				11 1 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2
8/2/2023 Steph	ien B Swarey	Class A - Breeder	Fennimore	WI	53809				
8/1/2023 JOHN	H BEILER	Class A - Breeder	PLATTEVILLE	WI	53818				3
8/1/2023 ANIM	IART PET INC	Class B - Dealer	BEAVER DAM	WI	53916				
7/27/2023 ANIM	IAL ENTERTAINMENTS INC	Class C - Exhibitor	WISCONSIN DELLS	WI	53965				
7/27/2023 Allen	F Bontrager	Class A - Breeder	HILLSBORO	WI	54634				2
7/26/2023 BRIAN	N BAZILLE	Class B - Dealer	BOYCEVILLE	WI	54725				
7/26/2023 Josep	h Schrock Martha Schrock	Class A - Breeder	Fairchild	WI	54741		1		4
7/25/2023 RALP	HMARTIN	Class A - Breeder	THORP	WI	54771				4 1 4
7/24/2023 Dawr	1 Hofferber	Class B - Dealer	Weyauwega	WI	54983				4
7/19/2023 HARV	YEY SHROCK	Class A - Breeder	AUGUSTA	WI	54722				
7/19/2023 REUB	EN GRABER 001	Class A - Breeder	HILLSBORO	WI	54634				1
7/18/2023 CITY	OF STANLEY CHAPMAN PARK	Class C - Exhibitor	STANLEY	WI	54768				2 1 1
7/18/2023 CARL	A BROVONT	Class A - Breeder	ELROY	WI	53929				5
7/18/2023 STAN	LEY SPORTSMANS CLUB	Class C - Exhibitor	STANLEY	WI	54768				1
7/18/2023 Perry	JBontrager	Class A - Breeder	Dalton	WI	53926				
7/17/2023 DOOI	DLE DOG HILL LLC	Class A - Breeder	LA POINTE	WI	54850				
7/17/2023 SIM L	APP	Class A - Breeder	DARLINGTON	WI	53530				
7/13/2023 SHAL	OM WILDLIFE SANCTUARY LLC	Class C - Exhibitor	WEST BEND	WI	53090				
7/12/2023 CITY	OF MANITOWOC	Class C - Exhibitor	MANITOWOC	WI	54220				
7/12/2023 COUM	NTRY BUMPKIN LLC	Class C - Exhibitor	WISCONSIN DELLS	WI	53965			er en en en en en en en Seu de caracterie	
7/12/2023 BRID	GEVIEW CORP	Class C - Exhibitor	WISCONSIN DELLS	WI	53965				1

7/11/2023 WISCONSIN DNR	Class C -	Exhibitor	POYNETTE	· ·	WI	53955	
7/10/2023 Ben and Malinda Beiler	Class B -	Dealer	Rewey		WI	53580	Ý. 1
7/7/2023 MICHAEL BONTRAGER	Class A -	Breeder	HILLSBORO) 	WI	54634	3
7/7/2023 ELMER JR MILLER	Class A -	Breeder	HILLSBORO		WI	54634	· · · 1
7/6/2023 AARON GLICK	Class A -	Breeder	CUBA CITY		WI	53807	4
7/6/2023 David Lapp	Class B -	Dealer	Argyle		WI	53504	. 1
6/29/2023 Animal Entertainments Inc	Class C -	Exhibitor	NESHKORO		WI	54960	
6/29/2023 Elmer A Miller	Class A -	Breeder	Westby		WI	54667	
6/28/2023 DENNIS BONTRAGER	Class A -	Breeder	HILLSBORO		WI	54634	
6/27/2023 APPLE FARM MANAGEMENT INC	Class C -	Exhibitor	STURTEVANT		WI	53177	where the first of the first state of the 2 such that the first state of the first state of the 2 such that 2 such that the first state of
6/26/2023 JACOB LAPP	Class A -	Breeder	BELMONT		WI	53510	
6/23/2023 ANIMAL ENTERTAINMENTS INC	Class C -	Exhibitor	WISCONSIN DELLS	10444	WI	53965	
6/22/2023 RIDGLAN FARMS INC	Class R -	Research Faci	BLUE MOUNDS		WI	53517	
6/22/2023 RIDGLAN FARMS INC	Class A -	Breeder	BLUE MOUNDS		WI	53517	
6/21/2023 Arrowhead Pharmaceuticals	Class R -	Research Faci	Madison		WI	53719	
6/21/2023 Northwoods Wildlife Inc	Class C -	Exhibitor	Hayward		WI	54843	
6/20/2023 DOODLE DOG HILL LLC	Class A -	Breeder	LA POINTE		WI	54850	
6/20/2023 JOSEPH BORKHOLDER	Class A -	Breeder	HILLSBORO		WÍ	54634	
6/16/2023 002 - Jacob Bontrager	Class A -	Breeder	HILLSBORO		WI	54634	
6/15/2023 UW-RIVER FALLS	Class R -	Research Faci	RIVER FALLS		ŴI	54022) determined in the transferring tender 1 is to
6/14/2023 JUNIOR YUTZY	Class A -	Breeder	HILLSBORO		WI	54634	1. (1. 3 . 4)
6/13/2023 Stephen B Swarey	Class A -	Breeder	Fennimore		WI	53809	t i dangalikiki sakli j egi
6/12/2023 FAWN DOE ROSA INC	Class C -	Exhibitor	SAINT CROIX FALLS	1446-04	WI	54024	
6/12/2023 Atlee Miller	Class A -	Breeder	Hillsboro		WI	54634	nan zysky de sky dy sig 3 e s
6/9/2023 Nathan Otto	Class A -	Breeder	HILLSBORO		WI	54634	Determined to the period of the 2 of 2
6/8/2023 KEVIN A HALL	Class A -	Breeder	LIVINGSTON		WI	53554	
6/6/2023 SHELLY RUTHERFORD	Class B -	Dealer	MENOMONIE		WI	54751	
6/6/2023 Ervin Miller Marcus Miller Anna I	Mary M Class A -	Breeder	Hillsboro		WI	54634	s saide faith an the start of the
6/5/2023 SAMUEL L BEILER	Class A -	Breeder	PLATTEVILLE		WI	53818	
6/1/2023 COUNTY OF MILWAUKEE	Class C -	Exhibitor	MILWAUKEE		WI	53226	
5/31/2023 DUANE PRETSCH	Class B -	Dealer	ARENA		WI	53503	λ rates and highly a decay $\mathbf{f}_{\mathbf{f}}$ of
5/31/2023 ELROY R BORNTRAGER- 001	Class A -	- Breeder	CORNELL		WI	54732	
5/31/2023 Raymond Stutzman	Class A -	- Breeder	Cadott		WI	54727	an amanan matana sa $\mathbf{J}_{\mathbf{r}}$ d
5/30/2023 AMMON ZIMMERMAN	Class A -	- Breeder	STITZER		WI	53825	

5/30/2023	AMOS ALLGYER	Class B - Dealer	PLATTEVILLE	WI	53818		
5/30/2023	STEVEN SENSENIG	Class A - Breeder	LANCASTER	WI	53813		
5/25/2023	DAVID NISLEY	Class A - Breeder	WESTBY	WI	54667	and a second second Second second	
5/25/2023	SUNSET KENNELS LLC	Class B - Dealer	HILLPOINT	WI	53937	가지 않는 것이 있는 것이 있는 것이 있다. 이 가지 않는 것이 있는 것 이 가지 않는 것이 있는 것	
5/25/2023	Melvin Schmucker	Class A - Breeder	LaValle	WI	53941		
5/23/2023	Amos A Borntreger Jr	Class A - Breeder	Augusta	WI	54722		
5/22/2023	DANIEL MILLER	Class A - Breeder	HILLSBORO	WI	54634	5	
5/18/2023	LISA ERDENBERGER	Class A - Breeder	PRAIRIE DU CHIEN	WI	53821		
5/17/2023	BELL LABORATORIES INC	Class R - Research Facil	WINDSOR	WI	53598		
5/16/2023	AMOS ALLGYER	Class B - Dealer	PLATTEVILLE	WI	53818	1	
5/15/2023	Fannie Troyer	Class A - Breeder	HILLSBORO	WI	54634	1	
5/11/2023	Dawn Hofferber	Class B - Dealer	Weyauwega	WI	54983	2	
5/11/2023	Apex Angels & Warriors	Class C - Exhibitor	Gleason	WI	54435	· · · · · · · · · · · · · · · · · · ·	
5/10/2023	DENISE HACKEL	Class C - Exhibitor	ELMWOOD	WI	54740	에 가지 않는 것이다. 이 가지 않는 것이 같이 같이 같이 같이 있다. 이 제품은 아이는 것은 것은 것은 것은 것은 것이 있는 것은 것이 있는 것은 것이 있는 것은 것이 있는 것이 같이 있는 것이 같이 있는 것이 같이 있는 것이 없다. 것이 같이 있는 것이 없는 것이 있	
5/10/2023	MARY A BONTRAGER	Class A - Breeder	HILLSBORO	WI	54634	- 알 있는 것 같은 것을 가지는 것을 것 같았다. 선생님 - 그는 것 같은 것 같은 것 같은 것 같은 것을 수 없다.	
5/10/2023	David A Miller	Class A - Breeder	Hillsboro	WI	54634		
5/9/2023	BENUEL ALLGYER	Class B - Dealer	PLATTEVILLE	WI	53818	2019년 - 1919년 - 2019년 - 1919년 1월 1918년 - 1918년 1918년 - 1918년 -	
5/9/2023	Moses S Glick	Class A - Breeder	Stitzer	WI	53825		
5/8/2023	JOHN H BEILER	Class A - Breeder	PLATTEVILLE	WI	53818		
5/8/2023	KATRINA AND WES SMITH	Class A - Breeder	BOYCEVILLE	WI	54725	1	
5/3/2023	JOHN BONTRAGER JR	Class A - Breeder	DALTON	WI	53926		
5/3/2023	Harley E. Bontrager	Class A - Breeder	Cambria	WI	53923		
5/2/2023	DAVID MILLER	Class A - Breeder	HILLSBORO	WI	54634	지 않는 것이 있는 것이 있는 것이 있다. 지 않는 것이 있는 것이 있다. 같은 지 않는 것이 같은 것이 같은 것이 같은 것이 있는 것이 같은 것이 없다. 것이 같은 것이 같은 것이 같은 것이 같은 것이 같은 것이 같은 것이 없다. 것이 같은 것이 없는 것이 없는 것이 있는	
5/1/2023	EL RANCHITO PETS INC	Class B - Dealer	CAZENOVIA	WI	53924		
5/1/2023	Nathan Miller	Class A - Breeder	Hillsboro	WI	54634	1	
4/27/2023	SIM LAPP	Class A - Breeder	DARLINGTON	WI	53530		
4/27/2023	Levi Hertzler	Class A - Breeder	Mineral Point	WI	53565		
4/26/2023	LAWRENCE UNIVERSITY	Class R - Research Faci	APPLETON	WI	54911	- 2017년 1월 2017년 1월 2017년 1월 2017년 1 월 2017년 1월 2017년 1월 2	
4/25/2023	REUBEN GRABER 001	Class A - Breeder	HILLSBORO	WI	54634	(19월 - 1911년 - 1999년) 일시에 2017년 (19월 - 1951년 - 23일, 일문 동안 - 21일)	
4/25/2023	Melvin Mishler	Class A - Breeder	Hillsboro	WI	54634	1	
4/24/2023	AARON GLICK	Class A - Breeder	CUBA CITY	WI	53807	2	
4/24/2023	DENISE HACKEL	Class C - Exhibitor	ELMWOOD	WI	54740	1	
4/24/2023	Sarah Blume Mike Blume	Class A - Breeder	Platteville	WI	53818		
4/20/2023	JAN AND ROGER CAVANAUGH	Class C - Exhibitor	NEENAH	WI	54956	er porte de la companya de la compan La companya de la com	n geskinder Alfrederik

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4/20/2023 LIVING WATERS BIBLE CAMP	Class C - Exhibitor	WESTBY	waa go WI shaaag	54667	
4/20/2023 SIM LAPP	Class A - Breeder	DARLINGTON	erend 💓 Prest	53530	1
4/20/2023 Reindeer Acres Tree Farm	Class C - Exhibitor	Boyceville	Ŵ	54725	
4/19/2023 MIRIAM HOOVER	Class A - Breeder	THORP	wi 🖓	54771	
4/19/2023 Rustic Retreat Deer Park LLC	Class C - Exhibitor	Elkhart Lake	WI	53020	dahalaradah hasid i bas padat ingkar
4/18/2023 Pecks Farm Market II East LLC	Class C - Exhibitor	Arena	Ŵ	53503	
4/17/2023 JAMES RIENOW	Class B - Dealer	SUAMICO	WI	54173	
4/17/2023 JACOB LAPP	Class A - Breeder	BELMONT	WI	53510	
4/14/2023 David Lapp	Class B - Dealer	Argyle	WI	53504	
4/14/2023 Daniel K Lapp	Class B - Dealer	Darlington	WI	53530	
4/13/2023 SCOTT SCHOONOVER	Class C - Exhibitor	JANESVILLE	WI	53545	ter i de la company de la c
4/13/2023 MToxins Venom Lab LLC	Class C - Exhibitor	Oshkosh	W	54902	
4/11/2023 TITUS YODER	Class A - Breeder	HILLSBORO	WI WI	54634	
4/10/2023 WOODSIDE RANCH RESORT LLC	Class C - Exhibitor	MAUSTON	ŴI	53948	sakiper exci ji s standomu
4/10/2023 OH PUPPY LOVE	Class B - Dealer	LENA	WI	54139	
4/6/2023 MARK D SCHULTZ	Class C - Exhibitor	VANDYNE	wi	54979	相位在1年9月 年 代月月的日月月月
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3/29/2023 GENESIS MIDWEST, LLC	Class R - Research Fac	I NEILLSVILLE	WI	54456	
3/29/2023 Neil Miller	Class A - Breeder	Viroqua	WI	54665	$m(k)$ in $p(k)$ is the 2^{*} . An equivalent
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3/27/2023 OH PUPPY LOVE	Class B - Dealer	LENA	Wi	54139	adagan aray 3 7 dan tahun a
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3/21/2023 JOSEPH HOCHSTETLER	Class A - Breeder	SOLDIERS GROVE	WI	54655		
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3/14/2023 COUNTY OF MILWAUKEE	Class C - Exhibitor	MILWAUKEE	WI	53226		
3/13/2023 Joseph Stutzman	Class A - Breeder	Readstown	WI	54652		
3/9/2023 Serenity Ridge Farm	Class A - Breeder	Kewaunee	WI	54216		
3/8/2023 ABNER ALLGYER	Class A - Breeder	DARLINGTON	WI	53530		3
3/8/2023 DANIEL D MILLER	Class A - Breeder	SHAWANO	WI	54166		
3/7/2023 HUCKLEBERRY FARMS LLC	Class R - Research	Facil MOUNT HOREB	WI	53572		1
3/6/2023 Samuel J Yoder	Class A - Breeder	Augsta	WI	54722		
3/2/2023 DANE COUNTY	Class C - Exhibitor	MADISON	WI	53715		1
3/2/2023 CITY OF MANITOWOC	Class C - Exhibitor	MANITOWOC	WI	54220		
3/2/2023 Jonas J Yoder	Class A - Breeder	Fairchild	WI	54741		
3/1/2023 JUNIOR YUTZY	Class A - Breeder	HILLSBORO	WI	54634		1
2/28/2023 JAN AND ROGER CAVANAUGH	Class C - Exhibitor	NEENAH	WI	54956		
2/24/2023 STEVEN SENSENIG	Class A - Breeder	LANCASTER	WI	53813		1
2/21/2023 COUNTY OF KEWAUNEE	Class C - Exhibitor	KEWAUNEE	WI	54216		
2/21/2023 DeLavan Lake Animal Park	Class C - Exhibitor	DELAVAN	WI	53115		
2/21/2023 CITY OF BLAIR	Class C - Exhibitor	BLAIR	WI	54616		
2/17/2023 Allen F Bontrager	Class A - Breeder	HILLSBORO	WI	54634		
2/15/2023 JAN AND ROGER CAVANAUGH	Class C - Exhibitor	NEENAH	WI	54956	1	1
2/14/2023 AARON GLICK	Class A - Breeder	CUBA CITY	WI	53807		5
2/14/2023 ABNER ALLGYER	Class A - Breeder	DARLINGTON	WI	53530		1
2/13/2023 REUBEN GRABER 001	Class A - Breeder	HILLSBORO	WI	54634	1	1
2/13/2023 Northwoods Wildlife Inc	Class C - Exhibitor	Hayward	WI	54843		
2/7/2023 Labcorp Laboratories Inc	Class R - Research	Facil MADISON	WI	53704		
2/6/2023 JES EXOTICS SANCTUARY	Class C - Exhibitor	SHARON	WI	53585		1
2/6/2023 Roman Schrock	Class A - Breeder	BOYD	WI	54726		
2/2/2023 JEFF KOZLOWSKI	Class C - Exhibitor	ROCK SPRINGS	WI	53961		
2/1/2023 City of Arcadia	Class C - Exhibitor	ARCADIA	WI	54612		2
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1/31/2023 JAN AND ROGER CAVANAUGH		Class C - Exhibitor	NEENAH		WI	54956
1/31/2023 Floyd Schmucker		Class A - Breeder	Bonduel		WI	54107
1/30/2023 Harley E. Bontrager		Class A - Breeder	Cambria		WI	53923
1/26/2023 EDGERTON CONSERVATION CLUB		Class C - Exhibitor	EDGERTON		WI	53534
1/26/2023 RUEBEN SCHROCK		Class A - Breeder	WESTBY		WI	54667
1/25/2023 CHRISTY & ELI BORNTREGER		Class A - Breeder	ТОМАН		WI	54660
1/23/2023 AARON GLICK		Class A - Breeder	CUBA CITY		WI	53807
1/23/2023 JACOB LAPP		Class A - Breeder	BELMONT		WI	53510
1/19/2023 CHRISTY V GRABER		Class A - Breeder	HILLSBORO		WI	54634
1/18/2023 Dawn Hofferber		Class B - Dealer	Weyauwega		WI	54983
1/13/2023 Jay L Oberholtzer		Class A - Breeder	Stratford		WI	54484
1/11/2023 UNIVERSITY OF WISCONSIN-OSHKC	SH	Class R - Research Fac	il OSHKOSH		WI	54901
1/11/2023 MENOMINEE PARK ZOO		Class C - Exhibitor	OSHKOSH		WI	54901
1/10/2023 MELVIN YODER		Class A - Breeder	CHILI		WI	54420
1/10/2023 Jonas Hershberger		Class A - Breeder	Gays Mills		WI	54631
1/10/2023 David Gingerich		Class A - Breeder	Readstown		WI	54652
1/9/2023 PHILIP BONTRAGER		Class A - Breeder	HILLSBORO		WI	54634
1/5/2023 EDGERTON CONSERVATION CLUB		Class C - Exhibitor	EDGERTON		WI	53534
1/5/2023 DAVID KURTZ		Class A - Breeder	AUGUSTA		WI	54722
1/4/2023 OUTLAW FARMS LLC		Class C - Exhibitor	FALL CREEK		WI	54742
1/4/2023 FREEMAN KURTZ		Class A - Breeder	AUGUSTA		WI	54722
1/4/2023 MORGAN R MACHNIK		Class B - Dealer	Milwaukee	12	WI	53186

*NCI is a USDA acronym for "Non-Compliant Item"

¹A direct NCI is a noncompliance that is currently (at the time of the inspection) having a serious or severe adverse effect on the welfare of an animal or has the high potential to have that effect in the immediate future – such as an animal with a broken leg that is not being treated by a veterinarian.

²Critical NCIs include all "directed NCIS"; a facility that refuses to allow an inspection; falsified records; engaging in a regulated activity with a suspended or revoked license.

³Non-critical NCI is something that is not having a serious or severe impact on the welfare of an animal at the time of inspection – such as a clogged drain outside an animal enclosure.





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Does Accreditation by the Association of Zoos and Aquariums Correlate with Animal Welfare Act Compliance?

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ABSTRACT

The Association of Zoos and Aquariums (AZA) promotes itself as the "gold standard" for animal welfare in zoos and aquariums; however, no objective evaluation of this claim has been performed. As the only statute providing protection to individual animals in the United States, the Animal Welfare Act (AWA) also seeks to assure animal welfare at facilities exhibiting animals to the public. In this study, the incidences of AWA noncompliant items (NCIs) at AZA-accredited facilities were evaluated and compared to nonaccredited facilities licensed as exhibitors by the United States Department of Agriculture (USDA). Based on our analysis, non-accredited exhibitors had significantly more total NCIs than AZA-accredited facilities, and nonaccredited facilities also had more NCIs related to improper veterinary care, animal husbandry, and record-keeping, but not with respect to personnel qualifications. Additionally, accreditation status and number of requlated species were significant predictors of the number of NCIs. This study revealed that AZA accreditation is correlated with improved compliance with the AWA and perhaps enhanced animal welfare.

KEYWORDS Accreditation; animal welfare; oversight; zoo; AZA

Introduction

Originally limited to the acquisition and management of animals in biomedical research, the regulated activities under the Animal Welfare Act (AWA) have since expanded to include the care of warm-blooded animals that are on display, perform for the public, or are used in educational presentations (Animal Welfare Act as amended, 2020). In the United States, the AWA is the only statute providing for the care of individual zoo animals, although current regulations exclude birds, reptiles, amphibians, fish, and invertebrates, leaving many species of animals with no legal protection. The law establishes minimum levels of housing and care for regulated species and requires facilities to obtain an exhibitor's license from the United States Department of Agriculture (USDA) prior to displaying animals to the public. In addition to the legal requirements in the Act itself, the USDA promulgates regulations to promote animal welfare and public safety at licensed facilities (Animal and Plant Health Inspection-Service [APHIS], United States Department of Agriculture [USDA], 2021). Officers of USDA Animal Care ensure compliance with the AWA and its associated Regulations (Animal Welfare Regulations, 2020) through unannounced inspections (APHIS, USDA, 2021). When deficiencies are identified, facilities are cited for non-compliant items (NCIs). These NCIs are categorized as being direct, critical, or non-critical. The USDA defines a direct NCI as "a noncompliance that is currently (at the time of inspection) having a serious or severe adverse effect on the welfare of an animal or has the high potential to have that effect in the immediate future," while critical

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NCIs include all direct NCIs as well as refusing to allow an inspection, falsifying records, and engaging in a regulated activity without an active license (APHIS, USDA, 2016). A risk-based inspection system is used to determine the frequency of routine inspections of licensed exhibitors, which may range from every 3 months up to 2–3 years (APHIS, USDA 2020). Direct, repeat, and critical NCIs reportedly result in more frequent inspections, but the USDA has not disclosed the specific algorithm used to determine inspection intervals. In addition to routine inspections, the USDA may conduct focused inspections that do not cover the entire facility and are focused on a complaint, previous NCIs, or related items (APHIS, USDA, 2016). These focused and complaint-based inspections are also unannounced. The resulting inspection reports are publicly available through the USDA website (APHIS, USDA, n.d.).

The AWA is often criticized for providing only minimal protections for select species defined as "animals" under the Act (Stanley, 1998), and a number of private organizations have created voluntary accreditation and certification programs to promote a higher level of animal welfare at zoos and aquariums. Founded in 1924, the Association of Zoos and Aquariums (AZA) has been the primary private accrediting body of zoos and aquariums, many of whom are also regulated under the AWA, for over 40 years. The AZA identifies the provision of the best possible welfare for all nonhuman animals within its accredited facilities as one of its highest priorities and promotes itself as the "gold standard" of animal welfare (Association of Zoos and Aquariums [AZA], 2021b; Luke, Wielebnowski, & Carter, 2013). To this end, the AZA promulgates standards in animal management, veterinary care, and safety (AZA, 2021d). These standards apply to every animal in the facility, from invertebrates to large mammals, and facilities voluntarily submit to prescheduled inspections by zoo professionals selected by the AZA every 5 years (AZA, 2021c). The AZA frequently reports the statistic that of approximately 2,800 animal exhibitors licensed through the USDA, fewer than 10% are accredited by the AZA (241 accredited, as of April 2021) (AZA, 2021a). Presumably, the animals in these accredited facilities experience a higher degree of welfare compared to their counterparts in non-accredited facilities. This presumption is shared by zoo visitors, who have a more positive perception of animal welfare at accredited facilities (Warsaw & Sayers, 2020). However, facilities must pay AZA for the inspection and accreditation, and the inspections are preplanned, potentially allowing the facility to conceal aspects of its normal operations. Although AZA Accreditation Standards are publicly available, the findings of both the inspection team and the Accreditation Commission, the arm of AZA that ultimately decides a facility's status, are not made public (AZA, 2021b). These components of the process make it difficult to assess what AZA accreditation actually means in practice.

AZA and AWA inspection standards share the overarching goal of promoting the welfare of animals exhibited at zoos and aquariums. It is difficult to compare specific standards between the two processes because the AWA mostly utilizes engineering and input-based standards, such as minimum floor space requirements, while AZA standards are more performance and animalbased, such as "all animals must be well cared for" (AZA, 2021d, p. 16). In the media, AZA's standards are considered to be higher than those of the USDA (Torres, 2020), and the effectiveness of AZA accreditation in assuring animal welfare has largely been taken for granted. However, to date, there has been no objective evaluation of whether or not animals in AZAaccredited facilities actually experience better welfare than those in non-AZA facilities. Although there is no validated method to compare welfare across a wide range of species and facilities, and assessment of zoo animal welfare remains complex (Binding, Farmer, Krusin, & Cronin, 2020), compliance with the AWA may be a surrogate indicator of the effectiveness of AZA accreditation since most accredited facilities are also inspected by the USDA. In this study, we compared compliance with the AWA between AZA-accredited facilities and non-accredited facilities to evaluate whether or not AZA-accredited facilities have fewer violations of the AWA than nonaccredited facilities.

Materials and methods

Data collection

Using the USDA Inspection Reports Search Tool (APHIS, USDA, n.d.), we compiled NCIs cited by federal inspectors for all exhibitors with active licenses in the calendar year 2019. Because there is wide variety in animal collections among these facilities, we established the following inclusion criteria: 1) the facility must have had a minimum of 5 species and 15 individual animals on-site at the time of inspection; and, 2) at least one species housed at the facility must have been nondomesticated and exotic to the United States (in other words, facilities housing only domesticated farm-type animals, such as, but not limited to, cows, sheep, goats, pigs, horses, or donkeys and wildlife rehabilitation centers were excluded). If a facility did not have a routine inspection in 2019, the 2018 inspection reports were used since there were no changes in USDA guidance for inspectors between 2018 and 2019. For each facility, we calculated the total number of NCIs identified in routine and focused inspection reports in the same year as the routine inspection. NCIs regarding attempted inspections were excluded. We then categorized NCIs as being related to (a) veterinary care, (b) personnel qualifications, (c) animal husbandry, or (d) record-keeping, based on headings in the AWA and Regulations (Table 1). Since there were inconsistencies in categorizing NCIs as direct, critical or non-critical, we elected to use these four described categories to better describe the impact on animal welfare. Each facility's accreditation status at the time of inspection was verified by the AZA.

Based on information provided by the AZA, there were 216 AZA-accredited facilities in the United States (and thus also licensed by the USDA) in 2019. We initially evaluated the 2,074 exhibitors with active licenses in 2019 identified using the search tool for inclusion in the study. A total of 1,209 (58.3%) facilities were excluded: 1,057 facilities (51%s) were excluded because they did not meet the minimum species and/or total animals (non-accredited = 1,021; accredited = 36); 68 facilities (3.2%) housed only domesticated animals, companion animals, and/or native wildlife species being rehabilitated (non-accredited = 67; accredited = 1); and, routine inspections were not conducted at 84 (4%s) facilities (non-accredited = 67; accredited = 17) in 2018 or 2019. After these exclusions, 161 AZA and 702 non-AZA facilities remained and were included in the analysis.

Variable	AZA (SD); Range (N = 161)	Non-AZA (SD); Range ($N = 702$)
Regulated Species ⁺	, 40.89 (25.39); 6–142	17.51 (13.24); 5–132
Regulated Animals ⁺	221.39 (279.55); 17-2172	100.46 (129.62); 15-1160
Veterinary NCIs ^{a,†}	0 (0)	0.03 (0.18); 0-2
Personnel NCIs ^{b,†}	0 (0)	0.004 (0.07); 0-1
Husbandry NCIs ^{c,†}	0.11 (0.40); 0-2	0.29 (1.08); 0-12
Recordkeeping NCIs ^d	0 (0)	0.05 (0.30); 0–5
Total Number of NCIs ⁺	0.11 (0.40); 0-2	0.37 (1.38); 0-15

*2018 report used if not routinely inspected in 2019.

[†]Statistically significant difference between accredited and non-accredited facilities (p < 0.05).

AWA = Animal Welfare Act; NCI = noncompliance items; AZA = Association of Zoos and Aquariums. Includes AWA Sections: 2.40.

^bIncludes AWA Sections: 3.85; 3.131.

⁹Includes AWA Sections: 2.121; 2.131; 3.4; 3.6; 3.9; 3.10; 3.11; 3.25; 3.27; 3.29; 3.31; 3.50–3.53; 3.55–3.58; 3.75–3.76; 3.78; 3.80–3.81; 3.84; 3.101; 3.106; 3.121; 3.125–3.127; 3.129–3.131; 3.133; 3.137.
^dIncludes AWA Sections: 2.1; 2.27; 2.50; 2.75; 2.126; 2.132.

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Statistical analysis

First, we examined differences between animals housed at accredited and non-accredited facilities. Specifically, we used a two-tailed t-test to compare the mean number of species and the mean total number of regulated animals between the two types of facilities. To determine whether there was an association between AZA accreditation and AWA compliance, we used a Chi-square test to test the null hypothesis that the number of NCIs at accredited facilities was equal to the number of NCIs at non-accredited facilities per NCI category. Because the data were heavily skewed toward 0 NCIs, we re-coded the number of NCIs for each category so that a facility either had 0 or ≥ 1 NCIs. To confirm our model, we re-coded the number of NCIs in other ways, including 0, 1–2, and ≥ 3 NCIs and 0, 1–3, and ≥ 4 NCIs. We continued to find the same significant differences between the accredited and non-accredited facilities (data not shown).

To assess the effect of accreditation status, the number of animals, and the number of species on the number of NCIs, we used an ordered logistic regression to predict the probability of a facility being cited for an NCI given the values of the independent variables (being accredited or not, the number of animals, and the number of species). Similar to the Chi-squared test, where the presence of zeroes in the data created skew, we re-coded the data in this analysis to reflect no NCIs, 1 NCI, or ≥ 2 NCIs. The choice of an ordered logistic regression was supported by a Brant test ($\chi^2 = 0.21$, d. f. = 1, p = 0.64) which looked at the variables individually, and an omnibus Chi-squared test ($\chi^2 = 0.73$, d.f. = 3, p = 0.87). These tests validated the underlying assumption that the effect of the descriptive variable was comparable across the categories of the dependent variables.

Results

Based on the inclusion criteria, 863 facilities, or 42% of the exhibitors with active licenses in 2019, were included in the analysis, approximately 20% of which were AZA-accredited. Table 1 summarizes descriptive statistics for all variables examined. AZA-accredited facilities exhibited significantly more animals (two-tailed t-test; t = 8.24, d.f. = 861, p < 0.001) and more species (t = 16.51, d. f. = 861, p < 0.001) than non-accredited facilities. Our analysis revealed that 87% of the facilities inspected had no NCIs, including approximately 96% of accredited facilities and 85% of non-accredited facilities. Figure 1 describes relative prevalence of the different types of NCIs identified at all USDA licensed exhibitors included in the study, AZA-accredited facilities, and non-accredited facilities. We found that the number of NCIs was significantly higher for non-accredited facilities compared to accredited facilities for veterinary care (Chi-squared test, $\chi^2 = 4.93$, d.f. = 1, p = 0.026), husbandry ($\chi^2 = 8.84$, d.f. = 1, p = 0.0029), record-keeping ($\chi^2 = 6.33$, d.f. = 1, p = 0.012), and total NCIs ($\chi^2 = 12.51$, d.f. = 1, p = 0.0004). Only the number of personnel-related NCIs was not statistically different between accredited and non-accredited facilities ($\chi^2 = 0.12$, d.f. = 1, p = 0.73).

Using an Ordered Logistic Regression, we found coefficients for accreditation status, number of species and number of animals. These coefficients, and other variables, are summarized in Table 2. The odds ratio was found by exponentiating the coefficients. An odds ratio greater than 1 suggests that the likelihood of having a noncompliant item is greater as the number of animals or species increases, or when switching from a non-accredited to an accredited institution, when all else is held constant.

Table 2. Predictor statistics of number of NCIs based on AZA-accreditation and/or number of species housed and/or number of animals housed.

	Accreditation Number of Species Number of Animals
Coefficient	-1.162 -0.001
Standard Error	0.371 0.009 0.001
t-statistic	3.128 –1.391
<i>p</i> -value	0.002 0.007 0.165
Odds Ratio	0.313 1.024 0.999

NCI = noncompliance items; AZA = Association of Zoos and Aquariums.

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Figure 1. Percentage of NCIs by category identified at USDA-licensed exhibitors (a), AZA-accredited exhibitors (b), and non-accredited exhibitors (c).

Likewise, an odds ratio less than 1 represents that the odds of these conditions decrease, when all else is held constant. Table 2 shows that we found that accreditation was a statistically significant and appropriate predictor of observing a noncompliant item (p = 0.02). Based on the odds ratio, non-accredited institutions are 3 times more likely to have a NCI than accredited institutions. Similarly, we also found that the number of species significantly predicted the odds of observing NCIs (p = 0.007), but it increased the odds far less than non-accreditation does. Finally, the number of animals was not a significant predictor of number of NCIs (p = 0.165). We also ran the regression with record-keeping NCIs excluded, and the coefficients remained essentially unchanged (results not shown).

Discussion

Although the literature involving the assessment of zoo animal welfare is evolving rapidly (Ward, Sherwen, & Clark, 2018), systematic evaluations of efforts to improve the welfare of zoo animals through legislation and voluntary accreditation and certification programs are lacking. The efficacy of voluntary programs is especially important because accreditation or certification status may be used as a part of risk-based inspection paradigms by federal regulators, but up to this point, the assumption that accredited facilities are more likely to comply with the AWA had not been tested. We found that, despite having more animals and more species in their care, AZA-accredited facilities had significantly fewer NCIs, and that accreditation status was a significant predictor of the number of NCIs at a facility.

Because the goal of the AWA and its Regulations is to protect animal welfare, we believe that compliance with the AWA is a reasonable surrogate indicator of individual animal welfare at these facilities. However, it is difficult to translate differing numbers of NCIs directly into actual effects on welfare. The total number of NCIs may be misleading due to the breadth of possible violations under the AWA a single NCI may cover. For example, a NCI for failure to treat an animal with an open compound fracture and a NCI for inadequate records of acquisition or disposition may not have the same impact on animal welfare. We chose not to use the USDA categories of NCIs (direct, noncritical, and critical) in our analysis as these categories did not appear to be applied consistently across facilities or inspectors. For example, a NCI regarding a visitor and employee being bitten by

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a South American coati (*Nasua nasua*) was cited as "critical," whereas a serval (*Leptailurus serval*) scratching a child at another facility was cited "non-critical" by a different inspector. Because of these variations and in order to further characterize the types of NCIs as they may impact animal welfare, we used the Animal Welfare Regulations outlined in the AWA as a guide (USDA, 2020) to differentiate NCIs into veterinary care, husbandry, personnel, and recordkeeping categories, and evaluated these categories individually in addition to the total number of NCIs. Although record-keeping NCIs may indicate less transparency regarding acquisition and disposition of animals, veterinary care, husbandry, and personnel-related NCIs presumably have a greater direct impact on animal welfare.

Because AZA accredited facilities tend to be larger, as measured by number of both regulated animals and regulated species, an intuitive assumption may be that these facilities would have relatively have more NCIs. However, we found these larger facilities are actually more compliant with the AWA. It is possible that larger facilities have more resources to invest in animal care and personnel. Furthermore, AZA accreditation itself supports superior animal care through access to professional networking and continuing education opportunities that are not available to nonaccredited facilities. Our findings that the number of animals was not a predictor, and the number of species was only weak predictor, of NCIs in these facilities, but that personnel-related NCIs were not significantly different between accredited and non-accredited facilities reveal a complex relationship among these factors. The lack of a difference in personnel-related NCIs may have important implications for the animals since caregivers have a direct impact on animal welfare outcomes in similar environments (Cole & Fraser, 2018). However, veterinary care and husbandry-related NCIs are expected to have direct, measurable effects on animal welfare. The fact that no AZA-accredited facilities were cited for NCIs related to veterinary care suggests animals in these facilities have access to and receive superior veterinary care. Similarly, the significantly fewer NCIs related to husbandry at AZA-accredited facilities suggests animals in these facilities may be housed and managed in ways that better support their welfare.

Our study is similar to that of Goodman, Chandna, and Borch (2015) in which the efficacy of accreditation by the Association for Assessment and Accreditation of Laboratory Animal Care International (AAALAC) in assuring AWA compliance by research facilities was assessed. Similar to AZA for zoos and aquariums, AAALAC is the primary accrediting organization for research facilities in which the institution undergoes a voluntary, pre-scheduled site visit, and federal regulators grant AAALAC-accredited facilities "preferred" status (Office of Laboratory Animal Welfare, National Institutes of Health, 2021). Interestingly, Goodman et al. found that AWA violations actually occurred more frequently at AAALAC-accredited facilities than non-AAALAC accredited facilities. Although our conclusion regarding AZA accreditation differed from Goodman et ak's (2015) conclusion regarding AAALAC, our finding is not surprising. Although compliance with any legislation or voluntary standards does not automatically result in better welfare, it seems reasonable to assume that facilities striving to meet multiple different standards would have a stronger commitment to animal welfare. For example, in farm animals, accreditation or certification by a non-governmental third party may lead to increased compliance with animal welfare legislation (Lundmark, Berg, & Röcklinsberg, 2018), and third party inspections increase positive indicators of animal welfare (Grandin, 2016). These various findings suggest there that may be intrinsic differences in research facilities compared to other animal use categories or in the certification processes used by the various accrediting organizations.

Our data have important limitations, especially since only one year of inspection reports was examined. It is possible that this year was an outlier, and examinations of additional years of data would yield different results. Additionally, overall rates of NCIs are low in both accredited and nonaccredited exhibitors with the vast majority of both groups having no NCIs during the period evaluated. This high degree of compliance with AWA standards regardless of AZA accreditation status may indicate that AWA standards are relatively easy to achieve and perhaps minimal. Still, the decreased odds of finding an NCI at an AZA-accredited facility mean that, given inadequate funding to effectively regulate all licensed exhibitors, it could be argued that AZA accreditation should contribute to a less frequent inspection interval in a risk-based inspection. However, the USDA did identify important animal welfare issues at AZA-accredited facilities. For example, a juvenile North American porcupine (*Erethizon dorsatum*) was killed by a red-tailed hawk (*Buteo jamaicensis*) when the porcupine escaped from its enclosure and entered the hawk's enclosure through gaps between gates and door jambs. For this reason, we believe our findings also support routine inspections by the USDA of AZA-accredited facilities. In recent years, other private organizations, including the Zoological Association of America and American Humane, have developed zoo accreditation- or certification standards. The relatively recent establishment of these standards and significantly fewer accredited facilities prevent accurate assessment of those processes at this time. Additional research, as well as greater transparency into the assessment procedures used by private organizations, is required to truly determine whether individual animals experience better welfare in accredited or certified facilities.

Conclusion

In conclusion, AZA-accredited exhibitors are more compliant with the AWA than their nonaccredited counterparts, and AZA accreditation is a significant predictor of the number of NCIs likely to be identified during a routine USDA inspection. Furthermore, NCIs identified at AZAaccredited facilities are less likely to be associated with veterinary care, husbandry, or recordkeeping. Although compliance with the AWA does not directly translate to enhanced animal welfare, these findings provide some support to AZA's claim that its members provide superior animal care.

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References

- Animal and Plant Health Inspection Service, U.S. Department of Agriculture. (2016, September 22). New terms will appear on USDA inspection reports. Retrieved from https://content.govdelivery.com/accounts/USDAAPHIS/bulle tins/16620a4-
- Animal and Plant Health Inspection Service, U.S. Department of Agriculture. (2020). Risk based inspection system. Retrieved from-https://www.aphis.usda.gov/aphis/ourfocus/animalwelfare/SA_AWA/CT_AWA_Risk_Based_ Inspection_System
- Animal and Plant Health Inspection Service, U.S Department of Agriculture. (2021, June 23). Regulated businesses (Licensing and registration). Retrieved from https://www.aphis.usda.gov/aphis/ourfocus/animalwelfare/SA_Regulated_Businesses
- Animal and Plant Health Inspection Service, U.S. Department of Agriculture. (n.d.). APHIS public search tool. Retrieved from https://aphis-efile.force.com/PublicSearchTool/s/
- Animal Welfare Act, as amended, 7 USC \$2131-2160. (2020). Retrieved from https://uscode.house.gov/browse/ prelim@title7/chapter54&edition=prelim

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- Association of Zoos and Aquariums. (2021a). About AZA accreditation. Retrieved from https://www.aza.org/what-is-accreditation.
- Association of Zoos and Aquariums. (2021b). Accreditation basics. Retrieved from https://www.aza.org/becomingaccredited

Association of Zoos and Aquariums. (2021c). Accreditation. Retrieved from https://www.aza.org/accreditation.

Association of Zoos and Aquariums. (2021d). The guide to accreditation of zoological parks and aquariums. Retrieved from https://assets.speakcdn.com/assets/2332/guide_to_accreditation.pdf.

Binding, S., Farmer, H., Krusin, L., & Cronin, K. (2020). Status of animal welfare research in zoos and aquariums: Where are we, where to next? Journal of Zoo and Aquarium Research, 8(3), 166-174.

- Cole, J., & Fraser, D. (2018). Zoo animal welfare: The human dimension. Journal of Applied Animal Welfare Science, 21 (Suppl. 1), S49–S58.
- Goodman, J. R., Chandna, A., & Borch, C. (2015). Does accreditation by the Association for Assessment and Accreditation of Laboratory Animal Care International (AAALAC) ensure greater compliance with animal welfare laws? Journal of Applied Animal Welfare Science, 18(1), 82-91.
- Grandin, T. (2016). Special reports: Effect of animal welfare audits of slaughter plants by a major fast food company on cattle handling and stunning practices. *Journal of the American Veterinary Medical Association*, 216(6), 848-851.
- Luke, D., Wielebnowski, N., & Carter, S. (2013). Animal welfare: A central tenet of the Association of Zoos and Aquariums. Journal of Applied Animal Welfare Science, 16(4), 388.
- Lundmark, F., Berg, C., & Röcklinsberg, H. (2018). Private animal welfare standards-opportunities and risks. Animals, 8(4), 4.
- -Office of Laboratory Animal Welfare, National Institutes of Health. (2021, August 6). Public health service policy on humane care and use of laboratory animals: Animal welfare assurance. Retrieved from https://olaw.nih.gov/policies-laws/phs-policy.htm#AnimalWelfareAssurance.
- Stanley, V. (1998). The Animal Welfare Act and USDA: Time for an overhaul. Pace Environmental Law Review, 16, 103-113.
- Torres, S. (2020). ZooTampa receives the gold standard of accreditation by the Association of Zoos and Aquariums. Lowry Park: ZooTampa. https://zootampa.org/press-releases/zootampa-aza-accreditation-2020/
- U.S. Department of Agriculture. (2020): Animal Welfare Regulations, 9 CFR §1.1-4.11. Retrieved from https://www. ecfr.gov/cgi-bin/text-idx?SID=b6a9ca165a296821f67ad28e06c7e977&mc=true&tpl=/ecfrbrowse/Title09/ 9CIsubchapA.tpl
- Ward, S., Sherwen, S., & Clark, F. (2018). Advances in applied zoo animal welfare science. Journal of Applied Animal Welfare Science, 21(sup1), 23-33.
- Warsaw, D., & Sayers, J. (2020). The influence of animal welfare accreditation programmes on zoo visitor perceptions of the welfare of zoo animals. *Journal of Zoo and Aquarium Research*, 8(3), 188-193.