Communication from Public

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Comments for Public Posting: I am writing to you as a stakes holder that has presented animals in classrooms in your state as a traveling animal act with parrots. The proposal and current requirements on licensure fees, of \$425 per performance, is unrealistic. Schools and other low-budget enrichment opportunities could not afford fees that need to be enough to pay for the care, insurance and business that goes into quality performance and education. The interpretation that when we bring a single snake, parrot or guinea pig to a school for a fee being non-beneficial to the animal presented and also solely exploitive in nature is unwarranted. It is quite apparent to me that little to no study-based information is being presented on the affect animal presentations have on lifelong commitments for people to care more about them and the environment that surrounds them when presented with intimate settings that smaller animal encounter exposures can bring. It is also quite apparent that it is thought a performing animal is somehow abused to perform. Nothing could be further from the truth. A performing animal receives far more enrichment, stimulation, care and more than one sitting in a sanctuary with little attention, interaction and more. Animals who are brought to or used in a performance are animals that are carefully selected and trained for years to become the ambassadors they are. Not all animals want to perform and forcing animals to perform has shown, scientifically proven, that they stop performing, perform poorly and refuse future performance criteria. If abuse is happening, it will show in the animals' direct behavior without doubt or question. When I personally perform my outreach programs with my parrots, people walk away having no idea parrots were capable of doing what they do. No idea they needed the help they need. Often are totally fearful of any animal at all since most city people lack animal interaction and learn not to be fearful at the end of my session. The need to directly connect people to nature vs. words or documentaries being the only source of information, has proven over and over again to create the next scientist willing to forgo a decent salary. Create the person in a small boat to stop whaling vessels. Create the legislator who wants the best thing for the animal since they experienced it themselves. What your LA Legislation 16-1357 is going to do is increase fear of animals, increase misunderstanding of what animals need in the wild and

in our urban areas, increase apathy toward animals which increases apathy towards fellow people. It has been shown over and over again that people only become an advocate when they experience the animal first hand. There is a vast difference between dedicating one's life and mission to making money vs. working with animals. The animal demonstrations I personally perform do not make enough to pay for my house. They make enough to barely pay for their vet fees and care. If you are an animal performer or work with animals, the end goal is not to be a fortune 500 company as no animal entertainment company is, not even SeaWorld. No matter what, the care of animals is costly. Requiring fees like you have will deter our performances which will deter people seeing animals they normally can't see anywhere, will increase fear, will decrease donations to real causes, and decrease the next person who will be the advocate for their future. This legislation will destroy the very fabric of learning about animals that is diverse, that is already regulated by any and all animal welfare acts, that is unique and that fosters real enrichment for all involved. Everyone I see told me they did not care about parrots before my visit thinking they were just going to see a rollerskating parrot. When they learn why that parrot does it and how they do it and the complexity it takes to learn it, they learn that parrots are diverse, adaptable and then dying in the wild because we are destroying their natural habitats. They tell me, "I did not care before, but I care now." They remember me from when they were 3 and see me when they are 20. I have been performing with my parrots for over 20 years. If my animals had harm, abuse and more, I would have been shut down by now. My shows are the kind of impact our future needs for animals. Leave it to me to decide, not your laws, if this is important to both my parrots to be able to play and be enriched, and for your constituents to care more about the animals you seek to ban.

"The Importance of Parrots"

American Federation of Aviculture Convention 2016—Connecticut
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Why are parrots important? According to Merriam-Webster, "important" means "serious meaning or worth or deserving of serious attention". Parrots, as an entire Order, deserve this attention for many reasons: their order is the hardest hit order of birds in the world; their decline is primarily due to human activities; they have survived for millions of years despite vast climate change; they are the third most owned pet in the United States; they are extremely intelligent and we are facing losing them as the ambassadors they should be. Parrots consorting with humans in any fashion is under serious attack from Animal Rights groups who are backed with lawyers and legislators without viewing a parrots' entire story. This has caused vast disparity in our community. Given what is going on in the environment, we can no longer engage in disparity and instead need to use the parrots we have to address sustainability at all levels. Parrots can save us all, if we choose to make them important.

Historically, all birds have been saving us all for quite some time. It has been proven birds are far superior at detecting environmental issues before we are aware of them ourselves (Mitchell 2014). Take DDT, PCB's, Teflon, and hormone disruption as examples. Birds gives humans the unsurpassed ability to identify and quantify chemical threats across time and space around the globe (Mitchell 2014). Despite this amazing synergy we have discovered for our own health and protection, we continue to ignore the blaring message of birds to humans: human activity is destroying them, not a natural cycle of the planet. Since the year 1500, we have lost over 150 bird species according to BirdLife International. Nearly all the cases are catastrophic devastation of lands birds need to survive. Nobel Peace Prize Earner for his work in Physiology, Immunology and Microbiology, Peter Doherty, best described the exact connection we must identify with in the title of his book, "Their Fate is Our Fate: How Birds Foretell Threats to our Health and our World." (Doherty 2013)

"Parrots as a whole face a higher rate of extinction than any other comparable bird group. Indeed, 56% of all parrot species are in decline," said Dr. Stuart Buchart, Head of Science at BirdLife International (Parnell 2016). According to many statistical, scientific programs studying the decline of Psittaciformes, or the Order Parrot, the number one reason the order continues to decline is humans living near them. In order of significance, their demise is due to agriculture, habitat destruction (exotic woods, mining and the like), hunting (food, feathers, etc), invasive species introduced by us, and finally the pet trade (Olah et al. 2016). Humans' inexhaustible needs for resources will continue their demise well beyond pet ownership which is why parrots require far more importance and priority in our everyday lives.

After all, parrots, as well as all modern birds, have been around far longer than humans. According to David Watterhouse (2006), modern parrots evolved in the Australasia area around 26 million years ago with the Cockatoo family being the oldest (see also Encyclopedia Britannica, "Psittaciformes"). The physiological success of the parrot form —zygodactyl feet, articulating jaw, curved beak, prehensile tongue, remaining relatively unchanged (Foreshaw 2010). Ice core data reveals that ancient global temperatures shifted 10 degrees or more (GERG 2015). This is of notable importance because it clearly shows a parrots' ability to adapt to massive climate changes far larger than the imminent one facing modern history. A threat humanity holds high importance to. The true threat to humanity, however, is our extreme overuse of resources and pollutants. Parrot declination is inextricably connected to this overuse. If they cannot adapt to it and they have adapted to far worse threats, what does it say about our future survival?

Often, the natural cycle of global climate temperatures is cited to void people of the responsibility to become sustainable or that we have negative impact on the environment. Parrots tell another story that we do. Written History of Man has yet to experience a serious global temperature shift that parrots have experienced over millions of years. Our current shifts of 1-2 degrees in the past 20,000 years have been unusually moderate vs. the entire global history (GERG 2015). Humans have little evolutionary experience to a planet with previously vast temperature changes evolving only some 200,000 years ago (Trinkaus 2005).

That is why parrots must be at the forefront to our first world leaders in addressing the changes humans need to make to survive in the long run. Deeply rooted economic systems, belief systems and dependence on convenience drive people not to change. This lack of desire of first world countries to address and practice sustainability is destroying all environments intra-personally and internationally. Parrots are the ultimate ambassador to bring to light what we are doing and present them in a way that can be palatable due to their beauty, charm and mannerisms.

"Nevertheless, they remain amongst the most popular and best-loved of all bird families, and it is hard to reconcile the enormous economic and social contributions they make to human society with the fact that we continue to know so little about them.".—Nigel Collar, Birdlife International.

In addition to charm and mannerisms, parrot distribution is worldwide, so nearly every human civilisation have the ability to establish direct connection. Essentially, where parrots are, people end up unlike other charismatic conservation animals such as tigers, elephants or polar bears. Parrot and people cohabitation heavily exists, yet we know little about parrots' needs. Currently, 393 species with 92 genera of parrots live on our planet ("Parrot" wikipedia). Parrots occupy 5 of the 7 continents of the world as a singular order. Fossil parrots were even found in England, the order has been so widespread (Dyke 2000). Despite the possibility of cohesion of two orders worldwide, we are seeing parrots declining and people increasing. Two whole continents that had parrots have now lost them. The European parrots disappeared before human encroachment whereas North America lost our last endemic species only 20 years ago.

Our first endemic parrot species loss was the Carolina Conure 100 years ago. Solely due to human-related activity and not a natural cycle. They were shot and destroyed for feathers throughout the Eastern Seaboard of the United States. James Audubon himself stated in his book, "Birds of America", "Parakeets are destroyed in great numbers, for whilst busily engaged in plucking off the fruits or tearing the grain from the stacks, the husbandman approaches them with perfect ease, and commits great slaughter among them."—Plate 26. From millions of birds to extinction in 200 years post colonisation. They were not taken into captivity for pets until it was far too late to save them from their fate.

The Thick Bill Parrot was a second endemic species of the United States. Unlike the Carolina Conure, this species continues breeding successfully in captivity. Wild populations continue south of our jurisdiction in Northern Mexico's Sierra Madre Occidental. The primary threat for the Thick Bill parrots remains destruction of their resources despite calls for their conservation. The primary issue—cattle grazing and shooting. The last known flocks of American Thickbills left the United States in the 1990s (BirdLife International, Thick Billed Parrot).

The last endemic, American Parrot is the Puerto Rican Parrot. This bird, out of the three, was the only one truly threatened by poaching for pets which fragmented their population (BirdLife International, Puerto Rican Parrot). When poaching became under control, we continued to wipe them out with settlements that pushed the population into areas exposed to hurricanes that nearly caused their extinction. It has been the ability of people that have saved this bird from total destruction. The recovering population of Puerto Rican Parrots began with only 13 individuals. Now nearly 400 animals are reported between wild and captive animals. This is important because people can save parrots, if they only try.

There are numerous cases of parrot species recovering or have recovered from our mistakes of the past—The Golden Conure, the Yellow Eared Parrot, the Cape Parrot, to name a few. Nearly all the currently successful parrot conservation programs involve the local community investment and protection. Parrots are an amazing animal who's intelligence, sentience, charm and more enjoins the typical differences we find in human culture, religion or ethnicity. Nearly all who experience a parrot, care about a parrot.

Where we divide is how. The idea of parrots as pets only became popular during the time of Alexander the Great who introduced them to Europe in 327 BC (Page 1868). Often, owning parrots as pets has been cited as their only form of significant demise (See Parrots Confidential, HSUS website, PETA website and more). It is the ownership of parrots that creates the strongest, most dedicated advocates for their care to the point of the advocation taking over their lives.

A great example of this dedicated advocation is the work Dr. Patricia K. Anderson who has devoted years of study on the Human-Avian bond alone. Studies in Anthrozoology, Ethology, Behaviorology, Psychology, Psychiatry have all clearly shown that humans need connection to nature for psychological well being. The primary conduit to develop

that connection has been the presence and understanding of animals (see Human-Animal Bond Research in Google Scholar). Yet, animal rights leaders such as HSUS' Director of Marine Mammals Dr. Naomi Rose, state that videos and museums alone are enough for people to bond to or advocate for animals in the future. This clearly defies thousands of proven, peer reviewed journals stating the importance of animal bonds and building empathy (studies in empathy/animals in Google Scholar). Much less the very definition of Reciprocal Altruism— for a being to expend the highest energetic cost towards acts of helping others, the being must first experience them (Trivers 1985).

The majority of the relationships we build with animals come from animals we experience in captivity. We often embrace common needs for ourselves and the animals in our care. We find out what kind of people we are through the mannerisms of animals who do not have perceptions blocked by labels, biases, and intellect. Therefore, it is not at all surprising to read the recent New York Times Article, "What Does a Parrot Know about PTSD" by Charles Siebert January 2016. Varying parrot personalities picked similar personalities in humans to interact with. Matt Simmons, a veteran benefitting from parrot therapy at Serenity Park said:

"So in order to have a relationship with a parrot, that parrot has to select me. In order for that to happen, that parrot has to be comfortable. I have to come in open and quiet and calm."

Parrots are able to detect emotional episodes mounting and abate them; able to detect oncoming epileptic episodes and alert their owners; able to subdue emotional outbursts; able to fetch things and return things; able to manipulate or open things for us. Yet, they are not considered service animals nor are recognised by the American Disabilities Association. Imagine being able to have the same service animal for a person's entire life. Despite recent articles of parrots becoming Emotional Support Animals, credibility for this movement cannot move forward without organisation or possible licensing. A parrots' ability to do things things for humanity like this needs recognition. This helps us advocate why parrots are important for people.

Parrots are important as pets because they can prevent people from falsely believing they can do nothing in regards to changing their behavior toward environmental concerns. A common acronym, NIMBY—not in my back yard—describes people who don't care about these concerns. Parrots' charisma, intelligence, exotic nature, similar social structures, beauty, ability to talk, or ability to fly have changed many "NIMBY" minds. To many, they are the embodiment of freedom and beauty in one animal. They well liked by the general public, making them great ambassadors for people to learn from.

People feel deeper connection with something that is firstly so alien and unlike us yet so much like us (Siebert 2016). Parrots have feathers, we do not; they have beaks, we do not; they have flight, we do not; they appear not to age, we do not. The qualities of parrots are qualities we often find lacking in ourselves and desire to have. Parrots

seem to provide a way to see beyond ourselves or further into ourselves to find beauty or freedoms we did not imagine previously without them.

"The answer seemed to lie precisely in the fact that parrots are alien intelligences: parallel, analogously wounded minds that know and feel pain deeply and yet at a level liberatingly beyond the prescriptive confines of human language and prejudices."—Matt Simmons, NY Times Magazine.

It's no wonder parrots have this amazing capacity to connect to our own complicated thought processes, for they, too, possess a brain capable of doing so. For 100 years, bird brains were thought to be primitive and unable to possess intelligence. That changed in 2004 when the work of Dr. Erich Jarvis, Professor of Neurobiology at Duke Institute for Brain Science and Howard Hughes Medical Institute investigator, argued that the avian brain has cortical-like areas and other forebrain regions similar to mammals but organised differently called the pallium (Neuroscience News 2013). This discovery critically changes all notions of the origins of intelligence as a whole. Studies in brain sciences appear to find any way to show human brains are superior to all other brains. Yet, animals continue to prove human theories wrong. First, it was the size of the brain—whales have bigger ones. Then it was the brain to body size ratio Gorillas are superior. Then, it was encephalisation quotient. Now, in light of the recent studies in avian intelligence, it's neuron density (Oklowicz et al. 2016).

"...brains of songbirds and parrots contain very large numbers of neurons, at neuronal densities considerably exceeding those found in mammals... Avian brains thus have the potential to provide much higher "cognitive power" per unit mass than do mammalian brains."—Oklowicz et al, 2016.

What is even more astounding is the work of Chakraborty et al, 2015's discovery that parrots, of all birds, have a brain structure that is unique. Not only do they have the high density sets of neurons in their pallium that rivals mammals like other birds, but they equally demonstrate a "song within a song system" of neural densities that is unique to the order. This suggests even further differences in cognitive abilities found in parrots that occur nowhere else.

"However, it will be argued that certain aspects of corvid and parrot socioecology, neurobiology and life history, such as sociality, large relative forebrain size, and long developmental period, are pre-requisites for intelligence in birds, as they appear to be in primates." (Emery 2006)

Cognitive tasks were never previously accepted as possible in birds: seeing optical illusions, forming concepts, understanding the mental state of another individual, using and manufacturing tools, and communicating specific meanings to achieve specific goals (Kaplan and Rogers 2005). Abilities such as: episodic memory and theory of mind, the ability to attribute mental states, like intention, desire and awareness, to yourself and to others where thought to be exclusively human (Siebert 2016). The

significance of intelligence of these studies fundamentally cause people to care that much more about them.

The issue about the intelligence and comparisons to human similarities often runs into the problem of being anthropomorphic or attributing human traits to animals. Anthropomorphism derives negative review in scientific circles despite the need for humans to convey messages to other humans using labelling systems. Using anthropomorphic terminology is often hotly debated as to its effectiveness in communicating thought processes and behavior observed in animals to other humans. Developing unnatural labelling systems that are not accurate toward an animal's intentions or behavior is equally problematic. That is why the work of Dr. Susan Friedman, PhD and others about the science of behavior, Applied Behavior Analysis, is so critical. The science helps us break down behavior into fundamental units which equally prevents assigning feeling towards each other that may not be there. (www.behaviorworks.org).

The functions of behavior we observe in parrots, despite their alienness of scales and feathers, mirror so many of our own From using their feet to eat with to their tongue acting as a finger for prehensile manipulation (Forshaw 2010). Vast-bipedalism, social complexity, verbal complexity, potty training, first words and similar developmental pathways compete for accurate behavior responses from us as caretakers (Anderson 2014). The issue is that a parrot is not a human, it is a parrot. The way the parrot perceives the world is often not the way we may imagine it. After all, they are prey, we are predators, they can see in the UV spectrum, we cannot, they can fly, we cannot, they have independently moving mandibles, we do not and more.

This lack of appropriate behavior response to parrots created unhealthy relationships with parrots during the heyday of importation (1970-1990). We created co-dependent vs. independent animals that are unable to cope with change. Sally Blanchard became famous for her term,"Bappy" or baby bird which is seldom used today (Blanchard, 1999). We were told to hand raise babies away from their parents. Told to hand-feed the baby to bond only to us. Told bonding to one person was expected. Told never get another parrot or lose the bond. Told we had to spend hours with them and not leave them. We created the co-dependency nightmare we experience today: a world of plucking, screaming, biting parrots in our homes.

It's time we address these issues we created. Firstly, to stop feeling guilty for having a parrot in our lives. We are not bad people unless we do bad things. Abuse is rampant in human society regardless of parrot ownership or not. If anything, we've already seen, parrots help us be more empathetic, not less. In fact, owning a pet has shown to reduce blood pressure, release anxiety, and foster empathy. Being prey species, neophobia, or fear of new things, is high. Given this natural tendency and compound it with our developmental history with parrots, we need to address a parrot's ability to accept changes. For any relationship, the number one "enemy" is time.

More than half of the parrots given up today are due to this idea that "we are not giving

the right amount of time" for our parrots every day. Let's face it, we don't even give our children the right amount of time each day. Are we going to give up on them, too? We read very public articles that parrots lead miserable lives when they live with us (Charles Bergman 2013). Movies like Parrots Confidential drive further guilt into the consciousness of the public. The voice of reason is often silenced as the ability of decent parrot programs are not "viral" or have high "viewership" which is our modern standard of importance. Either that or are blocked entirely through legislation (Selenky and Bergeson 2003). These wrongful groups continuously symbolise that life in the wild is perfect and life with humans is slavery or cruelty.

Cruelty is evident in the wild. Chicks are found abandoned and dead despite high amounts of resources (Drake 2014). Chicks are thrown out of the nests by other macaws to their death (Bird Talk July 2003). Some starve to death. Some die of dehydration. Some die a slow death from disease and are slowly abandoned by the rest of the flock in the need to reduce attention toward predators (see Wild Parrots of Telegraph Hill the movie). The Wild is cruel, hard and testy. The world of captivity can be convenient, easy and wonderful if we work together as the human race to make it so.

When researching numbers of captive parrots online, the search results lead me to anecdotal blogs, animal rights groups like the HSUS, PETA, Born Free, In Defense of Animals, For the Love of Parrots Refuge Society, etc. The only notable source of actual data-driven or empirical evidence I found came from the AVMA (American Veterinary Medicine Association). According to them, we owned pet at 3.6 million parrots (out of 14.3 million birds according to APPA). They used the 2012 US Pet Ownership and Demographics Sourcebook.

Parrots have been traded in greater numbers and for far longer than any other group of wild animals according to the IUCN Status Survey and Conservation Action Plan. Animal Rights groups, who are greatly harming our ability to have parrots as pets, ambassadors, educators, and research corroborators, routinely cite international demand being parrots' greatest demise. Parrots being bred in the United States and Europe has supplied enough animals that local poachers are selling to local markets instead (Pires 2011).

Rampant poaching of parrots in third world countries continues unabated despite two historic, international bans from the US (1992) and Europe (2010) (Herrara and Henessy 2007). It is true that the poaching of rarer species significantly dropped since the bans became law. Accessible and abundant parrots vs. rarer or charismatic animals are more susceptible to poaching (Tella et al, 2014). In fact, the current trend in poaching parrots is not international pressures for parrots as pets so much as internal interests (Pires 2012). Cantú et al. (2007) estimated that 65,000–78,500 parrots are poached annually in Mexico, 86–96% of them being sold domestically.

Poaching and local owning of parrot species is thousands of years old dating back to the ancient Aztecs, Romans, Egyptians, and Indians. Many of which poach them for only parts such as feathers, feet or meat, as is the case commonly for Great Green Macaws to this day. That is why the success of conservation programs must meet the needs of the local community. When conservation groups help local villagers learn and develop strategies that are sustainable, parrots and people both win out. Businesses such as Zeke's Tree (www.zekestree.com) and other Fair Trade organisations and businesses abound tying connections to the needs of nature and people to survive together. After all, it's not organised crime that are poaching the largest percentage of parrots, it's the local villager (Pires 2011).

Most people lack any knowledge of this this local poaching scheme and the subsequent international decline of rare species trade from the WBCA (Wild Bird Conservation Act). Instead, large populations of people are falsely motivated to protect charismatic species using tools that have no jurisdiction and no ability to protect said species. The United States Endangered Species Act (or ESA) does not have the authority or the jurisdiction to designate critical habitat in foreign countries nor the ability to prevent the jeopardy of the continued existence of endangered and threatened species in foreign lands (FAQ, Parrots USFWS 5-9-14). These are the primary means of conservation protection for any species.

The only current parrot species under the jurisdiction of the ESA is the aforementioned Puerto Rican Parrot. Despite this flawed understanding, charismatic species such as the Scarlet Macaw (*Ara macao*) have recently been discussed for listing in the Federal Register (Federal Register/Vol. 81, No. 67). According to Piers (2011), the Scarlet Macaw is traded less internally than are species like Orange Wing Parakeets. In over 20 states, species listed on the ESA only serves to make that species illegal to own, to trade, to sell or to breed within our jurisdiction. This is despite the observation of scientists that breeding in captivity of charismatic species is continuing to reduce their numbers being poached (Pires 2011). In addition to this atrocity, Scarlet Macaws are not even on the IUCN Redlist of Endangered Species that is often required for being listed on the ESA. This is due to their widespread range and ability to be reintroduced (IUCN Redlist Scarlet Macaw).

The Endangered Species Act (ESA) is an important piece of legislation passed in 1963 by the Nixon administration to help animals facing extinction in the United States. It has helped several critically endangered species rise from the brink of extinction. The success of the program has lead many species to be delisted such as the Bald Eagle, the Grey Wolf, the American Peregrine Falcon, amongst others (see US Fish and Wildlife Delisting report).

Using the USFW and the ESA to resolve poaching related to parrots only removes needed funding from species we do have jurisdiction on. The Center for Biological Diversity (CBD) recently released a lawsuit for the failure of the USFW to provide the programs necessary to protect the remaining 54 Red Wolves in South Carolina. According to CBD, USFW has blatantly violated their own charter. With USFW funds and resources being as limited as they are, the unwarranted parrot listings in the ESA due to their protection by the WBCA, hinders the USFW from doing the right job.

It remains unclear as to the scientific reasoning for the need any exotic bird species being listed on the ESA—the governing body that can only deal with internal trade. The costs for confiscations, legal actions, enforcement and more for the thousands of cases that exist currently due to previous legal ownership is overwhelming. Therefore, it leaves it open to subjective vs objective scrutiny that should not exist if truly our goal is to save Endangered Species.

The true, number one threat to Psittaciformes as an order is agriculture followed closely by deforestation for many reasons (exotic lumber, mining, agriculture), then hunting, introduced species and finally poaching (Olah et al. 2016). It has been shown in study after study that if we have active in-situ conservation, poaching of said species is significantly reduced. According to USFW, their international partner, Wildlife Without Borders (WWB) assists exotic species. This governing body submitted only \$24,000 once to save the extremely charismatic Blue Throated Macaw. The primary US based ongoing support comes from the work of the pet parrot industry. Laney Rickman of The Bird Endowment, a private parrot breeder, World Parrot Trust, chiefly funded by pet parrot owners, and Parrots International, a conservation group created from pet ownership in the US.

Upon investigation of all grants awarded by WWB, only 9 grants in total have been awarded to listed parrot species in all searches. The WWB utilises a Fund called The Critically Endangered Animals Conservation Fund or CEACF. Species, such as the Scarlet Macaw, were funded despite the fact the IUCN classifying the Scarlet Macaw as Least Concern (see IUCN Redlist, Scarlet Macaw). This belies the tenant of the ESA—which is designed to protect Endangered Species. Species such as the orange bellied grass parakeet (*Neophema chrysogaster*) whose imminent extinction is within 5 years.

Within CEACF's grants, only 7 species of parrots have actually been funded between 2001 to the present. In 2001 and 2002 the Great Green Macaw was the first parrot species to receive any compensation from the ESA-listed status and programming. In total, only \$21,000 in conservation money has been given to this species to date. The other species were the Phillipine Cockatoo, Scarlet Macaws (sharing funding with Sea Turtles), the Ground Parrot, The St. Vincent Amazon, the Puerto Rican Amazon and the Blue Throated Macaw. The ground parrot received funding last in 2014.

Total funding for all parrot species listed under the Endangered Species Act from the US Fish And Wildlife Services official associates was: \$149,089. Divided by the number of parrots listed on the service, the average amount of money given to a listed parrot species is a mere \$6,777 dollars. Then divide that again for 15 years (2001-2016) and we have \$451 for 7 species of endangered parrot for in-situ conservation per year from USFW partners. Yet, their claim is that listing parrots on ESA helps parrots in the wild.

Contrast this to just one US-based NGO, Parrots International. They devote thousands of dollars every year to many in-situ conservation programs. They physically visit the insitu programs to ensure they are working and helping local communities. They visit in

person with peoples of State and Governace to help them better understand the importance of parrots. All of that work coming from one family's passion for parrots that have them as pets, Mark and Marie Stafford. Yet, on the Federal Register it was found that pet parrots contribute nothing toward saving parrots in the wild. (Federal Register/Vol. 81, No. 67) This is important to note because pet parrots have done more to save wild parrots than the ESA and its officiant, the USFWS.

Pets are important to people. According to the <u>2015-2016 APPA National Pet Owners Survey</u>, 65% of U.S. households own a pet, which equates to 79.7 millions homes. There is a need and niche for people to feel empathy, love and companionship with beings that desire our care. Parrots, unlike our most common pets, are not bred to accept anyone. Instead, we have to earn their trust to interact with them. They are not fully wild animals as is claimed on many websites just as equally as they are not fully domesticated or "tame" as is claimed yet on other websites. Parrots seem to fall in the crack of not really having a true place to be when it comes to regulation or legislation. Most likely due to the idea that parrots are "HUMANIZED" which means they cannot go back to the wild as they accept humans as a part of their routine and life.

Parrots' importance are not just in the numbers owned by people, but are equally embedded in cultures and religions around the world with nearly all older depictions of parrots being highly elevated above the common man or considered extremely valuable. Parrots have been depicted as messengers of gods, deliverers of good fortune, heroes, protectors of fertility, prophets and even associated with the Virgin Mary and Christ Himself (Hanley 2009). Parrots have been owned by Roman Emporers, Chinese Emporers, Kings, Celebrities and even a President of the United States.

The first mention of parrots in human history hails from India in 1400BC (Juniper pg 36). In fact, India presents many intriguing possibilities about the relationship and subsequent impact between humans and parrots. After all, India retains the highest overall human population in the world with approximately 1.3 billion people. Yet, their native species of parrots, totalling 12 species, are not listed as endangered on the IUCN Redlist. This is despite ongoing trade in the animals, internal ownership and destruction of native areas. Then again, parrots show a resiliency of becoming adept at living in urban areas (www.cityparrots.com) amongst people. If the largest population in the world, how come they cannot in the rest of the world?

Does religion have something to do with it? In India, the primary religion is Hinduism. Hinduism believes in the spiritual connection between people and animals on this world. That both share a common connection and deserve respect. After all, parrots are adored by the goddess Meenakshi, the goddess of life and beauty, and Andal, the God of love. In Hindu culture, parrots are the deliverers of love, passion and fertility. Parrots are used as vehicles or vahanas to reach mankind on earth with messages of love. Worshippers offer gifts to Meenaski at Madurai in Tamil Nadu where parakeets still fly from open lofts (Krishna 2010).

Ancient China also worshipped parrots and heralded them as tidings of good luck, of fertility, of love and even lust. The Emperor Xuanzong in the Tan Dynasty kept a parrot and it became The Divine Bird. Parrots represented freedom and long life with parallels in life experience that comes with old age. Parrots are seen as wards of fidelity and deep, enduring love. (Hurley, Ancient Chinese Pottery) During the Qing Dynasty, parrots were so revered, the account of "The Precious Scroll of the Parrot" was created (Idema 2002). In Chinese Feng Shui, the decoration of a parrot symbolises a warning to stay faithful in a relationship.

Native Americans worship parrots in the same ways ancient China and India have perceived them—as positive elements for humanity from fertility (Pueblo Tribes) to directional guardian (The Hopi). The Hopi created a parrot Kachina called the Kyash, a divine spirit. Parrots are clan animals for the Hopi, Zuni and Pueblo tribes. Parrots were so important to these ancient tribes, the German explorer Alexander Von Humboldt was able to discover the lost language of the Atures tribe (Boehrer pg.178).

The role of parrots transcended humanity in these cultures yet here we push our own agenda on parrots instead of the reverence of our human ancestry. Many of us in the Modern, Western Era have lost site of the importance of parrots to people. We honestly cannot know what is best for them because we are not them. According to Nigel Collar, the natural history of parrots is poorly known (Collar 1998). How do we know what is best for them if we don't even know what they do in the wild most of the time?

Many reach out in query to do the right thing are met with ferocity of opinion that divides us as a group. Yet, it's parrots who transcended us, who have brought us together here today. Who crossed physical, mental, cultural, spiritual boundaries. We created entire economies and cultures of people who defend parrots, raise parrots, sell parrots, create parrot products, create parrot art, are parrot vets, are parrot sanctuaries, are parrot conservationists.

We have learned through this process that parrots are important. They are older than us, they have survived cataclysmic climate changes, they have been revered, they are important to us as pets, they are important for us to save. It is time for this importance to be known. To meet common ground. To end that which destroys them the most, our differences and inability to decide what to do next to change us all. We love parrots because we experienced them. According to Trivers, to fully invest altruistically toward another being, we must first experience what it's like to be that being. We cannot learn that from a video tape. We can only learn it from the parrots we see, hear, feel and touch both with our minds and our hearts. The importance of parrots is that if we save them, we truly will save ourselves.

References:

Anderson, Patricia K. 2014. Anthropomorphism and the Human-Avian Bond. American Federation of Aviculture Convention Lecture. Portland, OR.

APPA. American Pet Products Association Website. "Pet Industry Market Size and Ownership Statistics. http://www.americanpetproducts.org/press_industrytrends.asp Retrieved June 26, 2016.

APPA. American Pet Products Association Publications. "2015-2016 APPA National Pet Owners Survey". Retrieved from: http://www.americanpetproducts.org/ pubs survey.asp. June 24, 2016.

Audubon, James. 1827. The Birds of America. New York: Roe, Lockwood and Son Publishers. Plate 26. Quote recovered at: http://www.audubon.org/birds-of-america/carolina-parrot. Retrieved June 27, 2016.

Bates, Karl Leif. Nueroscience News September 17, 2013. TEN-YEAR PROJECT REDRAWS THE MAP OF BIRD BRAINS. Duke University Press Release. http://neurosciencenews.com/neurobiology-bird-brain-mapping-409/. Retrieved June 26, 2016.

Bergman, Charles. 2013. "No-Fly Zone: Denied Their Natural Habits, Millions of Pet Parrots Lead Bleak, Lonely Lives." All Animals Magazine. http://www.humanesociety.org/news/magazines/2013/03-04/no-fly-zone-millions-of-pet-parrots-lead-bleak-lonely-lives.html. Retrieved June 27, 2016.

Berrin, Katherine & Larco Museum (1997). The Spirit of Ancient Peru: Treasures from the Museo Arqueológico Rafael Larco Herrera. New York: Thames and Hudson, ISBN 0-500-01802-2.

Blanchard, Sally. 1999. The Companion Parrot Handbook. Pet Bird Report publisher. 241 pp. ISBN 096712980X

Boehrer, Bruce. 2010. Parrot Culture: Our 2500 Year Long Fascination with the Worlds Most Talkative Bird. University of Pennsylvania Press. pg. 178

Cantú JC, Sánchez ME, Grosselet M, Silva J (2007) The Illegal Parrot Trade in Mexico: A Comprehensive Assessment. Washington, DC: Defenders of Wildlife.

Chakraborty M, Walløe S, Nedergaard S, Fridel EE, Dabelsteen T, Pakkenberg B, et al. (2015) Core and Shell Song Systems Unique to the Parrot Brain. PLoS ONE 10(6).

Collar, N. J. (1998) Information and ignorance concerning the world's parrots: an index for twenty-first century research and conservation. Pp.51-78 in Proc. IV

International Parrot Convention ("Parrot conservation into the 21st century: uniting excellence in captivity and field"). Puerto de la Cruz, Tenerife: Loro Parque, S.A. [Reproduced in *Papageienkunde* 2: 201-235.]

Doherty, Peter. 2013. "Their Fate is our Fate: How Birds Foretell Threats to Our Health and Our World. Pub: The Experiment: Reprint Edition. 240pp. ISBN 9781615190911. Drake, Nadia. 2014. What's Behind the Mysterious Behavior of Amazonian Macaws? From website: www.wired.com/2014/01/tambopata-macaw-project/

Emery NJ. 2006. Cognitive ornithology: the evolution of avian intelligence. *Philosophical Transactions of the Royal Society B: Biological Sciences*. 361(1465):23-43.

Federal Register/Vol. 81, No. 67/Thursday, April 7, 2016/Proposed Rules. US Fish and Wildlife Service. Department of the Interior. 50 CFR Part 17. [Docket No. FWS–R9–ES–2012–0039; 4500030115] RIN 1018–AY39. "Endangered and Threatened Wildlife and Plants; Listing the Scarlet Macaw"

Forshaw, Joseph M. (2010. Parrots of the World. Page 15. Princeton University Press. 336 pages.

GERG'S NET. June 2, 2015. : Australian snow, snow weather and hydrology. Retrieved From: http://gergs.net/2015/06/updating-the-geological-temperature-plot/all_palaeotemps/ June 25, 2016.

Google Scholar. June 26, 2016. Search under Human/Animal Bond. Website: scholar.google.com/scholar?q=human+animal+bond +research&hl=en&as_sdt=0&as_vis=1&oi=scholart&sa=X&ved=0ahUKEwjno9yyncfNAhUY_mMKHbjEAj0QgQMIHDAA.

Google Scholar. June 26, 2016. Search under Studies/Empathy. Website: https://scholar.google.com/scholar?q=studies+in+empathy %2Fanimal&btnG=&hl=en&as-sdt=0%2C48&as-vis=1.

Hanley, Steven. 2009. "Optical Symbolism as Optical Description: A Case Study of Canon van der Paele's Spectacles," JHNA 1:1 Available at http://www.jhna.org/index.php/optical-symbolism-as-optical-description-a-case-study-of-canon-van-der-paeles-spectacles

Harti, Brett. March 24, 2016 Press Release. The Center for Biological Diversity. "Lawsuit Launched to Challenge Feds' Dismantling of Red Wolf Recovery Program." Retrieved June 26, 2016 at: http://biologicaldiversity.org/news/press-releases/2016/red-wolf-03-24-2016.html

Herrara, M. And Hennessy, B. (2007). Quantifying the illegal parrot trade in Santa Cruz de la Sierra, Bolivia, with emphasis on threatened species. Bird Conservation International, 17, pp 295-300.

Hurley, Terry. Website: www.lovetoknow.com. Antique Chinese Parrots. http://antiques.lovetoknow.com/Antique_Chinese_Parrots. Retrieved June 24, 2016

Idema, Wilt L. 2002. Journal of Chinese Religions. Vol 30, Issue 1 Pg. 77-96. The Filial Parrot in Qing Dynasty Dress: A Short Discussion of the "Precious Scroll of the Parrot".

IUCN, Status Survey and Conservation Action Plan, 2000–2004, Parrots, Foreword Jarvis ED, Gunturkun O, Bruce L, Csillag A, Karten H, Kuenzel W, Medina L, Paxinos G, Perkel DJ, Shimizu T, Striedter G, Wild JM, Ball GF, Dugas-Ford J, Durand SE, Hough GE, Husband S, Kubikova L, Lee DW, Mello CV, Powers A, Siang C, Smulders TV, Wada K, White SA, Yamamoto K, Yu J, Reiner A, Butler AB. 2005. Avian brains and a new understanding of vertebrate brain evolution. Nat Rev Neurosci 6:151–159.

Juniper, Tony. Spix's Macaw: The Race to Save the Worlds Rarest Bird. 2002. Atria Books, NY. pg 36.

Kaplan, Gisela, PhD. and Rogers, Lesley J., D.Phil.,D.Sc. April 1, 2005. "Bird Brain? It May Be A Compliment!" Published in Cerebrum, online. http://www.dana.org/
Cerebrum/2005/Bird Brain It May Be A Compliment! Retrieved June 27, 2016.

Krishna, Nanditha. 2010. Sacred Animals of India. Publisher: Penguin Books, India, pp 191-192.

Mitchell, Alanna. August 26, 2014. "The 1,300 Bird Species Facing Extinction Signal Threats to Human Health: Climate change and chemicals like pesticides are driving the crisis." National Geographic Website. Environmental Health News. http://news.nationalgeographic.com/news/2014/08/140825-bird-environment-chemical-contaminant-climate-change-science-winged-warning/ Retrieved on June 27, 2016.

Native American Parrot Mythology. Native Languages of the Americas website. copyright 1998-2015. http://www.native-languages.org/legends-parrot.htm

Nations Online. Website: www.nationsonline.org. Animal Symbolism in Decoration, Decorative Arts, Chinese Beliefs and Feng Shui. http://www.nationsonline.org/ oneworld/Chinese Customs/animals symbolism.htm. Retrieved June 23, 2016.

Olah, George, Butchart, H.M., Symes, Andy, Guzma'n Iliana M., Cunningham, Ross, Brightsmith, Donald J. Heinsohn, Robert. Ecological and Socio-Economic Factors Affecting Extinction Risk in Parrots. Biodivers Conserv (2016) 25:205–223

Page, Charles N. Feathered Pets. 1898. Published by Author. Des Moines, IA. Office of the Librarian of Congress at Washington

Parnell, Ed. 2016. "Study identifies parrots as most-threatened bird group". Birdlife International. Retrieved from http://www.birdlife.org/worldwide/news/study-identifies-parrots-most-threatened-bird-group on June 27, 2016.

Pires, S. F. and Clarke, R. V. (2012). Are Parrots CRAVED? An Analysis of Parrot Poaching in Mexico. *Journal of Research in Crime and Delinquency.*

Pires, Stephen Ferreira. 2011 dissertation. Rutgers, the State University of New Jersey. The illegal parrot trade in the neo-tropics. Retrieved from http://dx.doi.org/doi:10.7282/T3222SS0

Rose, Naomi. Email conversation. March 12, 2010 at 2:22pm. Subject: Re: Response Marine Mammals Contact Form. From: Debbie Goodrichtheparrotlady@earthlink.net To: Naomi Rose nrose@hsi.org. "I honestly do not think close acquaintance with animals' physical proximity is necessary for people to feel empathy towards them or want to protect them. Effective education without using them as live props is perfectly possible...good nature shows, interactive displays at museums..."

Rockefeller, Laurel, A. Blog. Posted June 2012. Parrots and Popinjays: A Brief Look on the Role of Companion Birds in Medieval Europe. https://peersofbeinan.wordpress.com/2014/07/24/parrots-and-popinjays-a-brief-look-at-the-role-of-companion-birds-in-medieval-europe/. Retrieved June 24, 2016.

- Selenky, Mary (WA Secretary of Health) and Bergeson, Terry., PhD (State Superintendent of Public instruction. 2003. Health and Safety Guide for K-12 Schools in Washington. Published by DOH and OPSI. pg. 43.
- Seweryn Olkowicz, Martin Kocourek, Radek K. Lučan, Michal Porteš, W.Tecumseh Fitch, Suzana Herculano-Houzel, and Pavel Němec. *Birds have primate-like numbers of neurons in the forebrain.* PNAS 2016 113 (26) 7255-7260; published ahead of print June 13, 2016

Tella JL, Hiraldo F. 2014. Illegal and Legal Parrot Trade Shows a Long-Term, Cross-Cultural Preference for the Most Attractive Species Increasing Their Risk of Extinction. Roberts DL, ed. PLoS ONE.;9(9)

Trinkaus Erik (2005). "Early Modern Humans". *Annual Review of Anthropology* **34**: 207–30.

US Fish and Wildlife Service. 2014. "Frequently Asked Questions: Parrot Species Listed Under the Endangered Species Act." p. 4(5-9-14). USFWS Agency document (.pdf) https://www.fws.gov/endangered/what-we-do/pdf/ FAQs_Listed_Parrots_06242014_FINAL.pdf. Retrieved on June 27, 2016.

Waterhouse, David M. (2006). "Parrots in a nutshell: The fossil record of Psittaciformes (Aves)". *Historical Biology* **18** (2): 223–234.

Wilson, J. and Brightsmith, D. July 2003. The Battle For Amor—Nest Site Battles in the Peruvian Amazon. BirdTalk Magazine.

Worral, Simon. May 5, 2016. National Geographic Website. Book Talk. "Here's Why 'BirdBrain' Should be a Compliment". http://news.nationalgeographic.com/2016/05/160515-genius-birds-animal-intelligence-ackerman-ngbooktalk/. Retrieved on June 26, 2016.

Wright, T.F.; Schirtzinger E. E.; Matsumoto T.; Eberhard J. R.; Graves G. R.; Sanchez J. J.; Capelli S.; Muller H.; Scharpegge J.; Chambers G. K.; Fleischer R. C. (2008). "A Multilocus Molecular Phylogeny of the Parrots (Psittaciformes): Support for a Gondwanan Origin during the Cretaceous". Mol Biol Evol 25 (10): 2141–2156.

Young, A. M., Hobson, E. A., Lackey, L. B. and Wright, T. F. (2012), Survival on the ark: life-history trends in captive parrots. Animal Conservation, 15: 28–43. Ed. lain Gordon