

AAV

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BIRDS

THE NEED FOR AVIAN ADVOCACY

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IN RESEARCH
AND TESTING**

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Founded in 1883, the American Anti-Vivisection Society's (AAVS) mission is to unequivocally oppose and work to end experimentation on animals and to oppose all other forms of cruelty to animals. AAVS is a nonprofit education organization using legal, effective advocacy to achieve meaningful, lasting change.

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First Word

FOR SEVEN WEEKS IN 1974, I lived in a treehouse on one of Georgia's coastal islands. Climbing down every morning with binoculars and a writing pad, I set out to do a field study of the wild turkeys who lived there.

I learned a few things: First, they are smart! They almost *always* saw or heard me before I could spot them. And then they simply avoided me by wandering slowly into the swampland that covered half the island. That worked; had I followed them I would have been up to my waist in mud in minutes. Second, they are beautiful! Their feathers are a warm brown, with black bands, white bars, and a gold, bronze and green sheen overall. Third, they are big! While I was sitting under a tree one day, four adult males walked by and looked *down* at me—their knobby pink heads almost four feet from the ground.

One evening I managed to remain hidden near a clearing where they occasionally spent the night, judging from the feathers I found there. As twilight arrived, various day-groups wandered in from different directions. At first they calmly intermingled, but soon began to vocalize and half-heartedly chase after one another. The excitement in the flock grew. Finally there was a burst of flight and a hen landed on a branch of a live oak tree about 15 feet up. Then another and another, whirling into a flurry of squawking and motion until, remarkably, all those plump birds for whom flight was an effort were lined up along branches surrounding the clearing. It all happened in less than 10 minutes. As the turkeys settled into their roosts and darkness fell, I made my way back to the treehouse where I, too, slept among the branches. We were connected.

Today, new information on the extraordinary intelligence of birds—comparable to that of chimpanzees and dolphins—has captured public attention. It adds to our fascination with their unique abilities such as flight and migration. However, humans have brought much suffering to birds, and we need to right that wrong. I commend and thank the friends of AAVS who have contributed articles to this issue of *AV Magazine*, so we can all learn and do more to help birds.

Thank you for caring.



Sue A. Leary, President,
American Anti-Vivisection Society



Support **Birds' Rights** Under the **Animal Welfare Act**

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Briefly Speaking

NEWS YOU NEED TO KNOW

THE LATEST ON RANDOM SOURCE DEALERS

Random source Class B dealers acquire dogs and cats from pounds, auctions, or individuals such as private breeders and hunters and then sell them to laboratories. They have a long history of sordid practices and animal suffering. However, from now through September 30, random source dealers cannot sell dogs and cats to lab facilities.

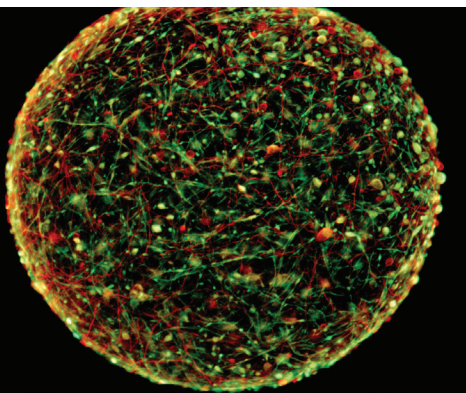
On March 29, the U.S. Department of Agriculture (USDA) released a statement to clarify language in a federal annual spending bill that prohibits the agency from using funds to issue new or renewed licenses specifically for random source Class B dealers. The USDA states that although Class B licenses can be issued and renewed, “Due to a recent change in the law, please be aware that you may not use this Class B dealer’s license to sell dogs or cats for use in research, experiments, teaching, or testing.”

AAVS supports legislation that would permanently shut down the random source Class B dealer business, and has urged the USDA to prosecute violators. The opposition to this dirty business is having an effect: In the 1990s there were about 100 random source dealers operating; today there are only three.



IN THE 1990s THERE WERE ABOUT 100 RANDOM SOURCE DEALERS OPERATING; TODAY THERE ARE ONLY THREE.

Alternatives on the Mini-Brain



One type of alternative to animal testing that has been generating a lot of excitement recently is a model of human organs grown using human cells. Consisting of multicellular layers and structures similar to that of human organs, these “living” models have been developed for the heart, lung, skin, and brain and show promise to replace many uses of

animals in research and testing. Earlier this year, a lab at the Johns Hopkins Bloomberg School of Public Health unveiled a mini-brain model, which they hope will be available for commercial use by the end of the year.

“A lot of drug development has failed because the animal models don’t represent humans,” said lead researcher Dr. Thomas Hartung, Director of the Johns Hopkins Center for Alternatives to

Animal Testing. “There is a very big desire to get models that are more human.”

The Johns Hopkins model has many advantages over other designs that make it more appealing to use in laboratories. Unlike similar models before it, most of which are made from embryonic stem cells, this model is made using adult cells that develop into three-dimensional structures that have the ability to send chemical messages, similar to mechanisms in the human brain. Identical mini-brains can be produced in large volumes in just eight weeks, making them ideal for chemical testing.

In addition, Hartung says that there are a number of other ways these mini-brains can be used in the lab, including to study autism, multiple sclerosis, addiction, and the Zika virus. Because these mini-brains are made using human cells instead of animals, data can be more readily applied to human conditions.

“We are not 150-pound rats,” said Hartung. “And even though we are not balls of cells, either, you can often get much better information from these balls of cells than from rodents.”

This research was supported in part by AAVS’s affiliate, the Alternatives Research & Development Foundation.

ANIMAL WELFARE AND ALTERNATIVES IN CHINA

Over the past few years, China has been making changes to its policies and laws regarding animal welfare and ethics, particularly concerning animals used in testing. In March, China released its first national standards for the care and treatment of animals in laboratories, which covered such topics as euthanasia, pain management, transport, housing, and breeding facilities, as well as staff training. Based on international practices, the new guidelines could be approved by the end of the year, with many hoping that such action will eventually lead to the enactment of a Chinese national animal welfare act.

China Daily, a state-run newspaper, described this policy shift “as a major legislative breakthrough for the protection of animals used in research and testing by the pharmaceutical and other industries.”

While welcoming the news, AAVS and other animal advocacy groups have been following this issue with guarded optimism, considering that an estimated 20 million animals—including mice, dogs, rabbits, and primates—are used in research and testing every year in China.

In June 2014, China ended mandatory animal testing for cosmetics manufactured by domestic (Chinese) companies before they entered the Chinese market. Those companies can now submit an array of testing data to show their products are safe. Additionally, China is considering the adoption of animal testing and alternatives use guidelines that are similar to those in the European Union.



NIH to Review Primate Use

As reported on the *Science* magazine website, the National Institutes of Health (NIH) is planning its first-ever workshop specifically to conduct an ethical review of policies concerning its use of primates in research. The move is in response to a Congressional directive in the 2016 federal spending bill that voiced concern about an NIH lab conducting experiments in which baby macaques were separated from their mothers soon after birth to study mental illness and addiction.

Authored by Rep. Lucille Roybal-Allard (D-CA), the directive states that “prominent experts and animal advocacy organizations have raised concerns about the scientific and ethical justifications for maternal deprivation studies involving baby monkeys being conducted in both intramural and extramural NIH-funded laboratories.”

Following review of the controversial study, NIH made several changes in the protocol, stopping some stressful procedures such as spinal taps and neonatal brain recordings.



The study is currently being phased out; monkeys are no longer being bred to obtain new infant research subjects, and to date, no funding has been awarded in 2016. The findings also raised concern about other NIH studies using primates, prompting the directive.

“I’ve been very concerned about the ethics and oversight of primate research, and so have many of my colleagues in the House,” said Roybal-Allard. “Members of both parties have been supporting this review, because there’s nothing partisan about improving animal welfare.”

BUILD IT! FOR CHIMPS

Responding to the pressing needs of sanctuaries, AAVS made several generous grants in 2015, in addition to launching our new Build It! Fund. A substantial number of the grants awarded went to primate sanctuaries, particularly those that care for chimpanzees.

The tremendous need stems from the National Institutes of Health’s announcement last year that it would retire all of its remaining chimps. Another key factor was that the U.S. Fish and Wildlife Service reclassified captive chimpanzees as Endangered, like their wild cousins have been for decades, effectively prohibiting their use in research. It is hoped that 2015 marked a permanent end of chimpanzee research in the U.S.

But with this success comes an enormous responsibility to help relocate retired chimps to sanctuaries as quickly as possible. Because most chimp sanctuaries are already at or near capacity, AAVS has been working to raise additional funds to help them expand. Through the Build It! campaign, our generous members contributed more than \$20,000 in 2015 and construction funds were forwarded immediately. To help us make additional grants in 2016, please visit www.aavs.org/BuildIt.

BIRDS IN RESEARCH AND TESTING

BY PENNY HAWKINS

RODENTS, DOGS, AND PRIMATES are often thought of as typical laboratory animals, but birds of many species are also used in relatively large numbers. The use of any species in research and testing presents ethical and welfare concerns, but birds are a particularly diverse group with many special needs that are not always met in the laboratory.

There are no statistics on bird use in the United States, since birds bred for research are excluded from the Animal Welfare Act. Information from the United Kingdom and elsewhere in the European Union (EU) is somewhat better kept. Within the EU in 2011, 675,000 birds were used in research and testing,¹ representing 5.9 percent of all animal use for EU science. Assuming that relative species use is broadly similar among different countries, it is likely that more than 600,000 birds are used in the U.S. each year.

The U.K. statistics for 2014 show that birds were the fourth most commonly used animals after rats, mice, and zebrafish.² More than 90 percent of the

IT IS LIKELY THAT MORE THAN **600,000** BIRDS ARE USED IN THE U.S. EACH YEAR.

birds used in U.K. research and testing are domestic fowl; the others include turkeys, quail, pigeons, starlings, zebra finches, and waterfowl.

STUDIES AND STRESS

Within the EU in 2011, most birds were used in “biological studies of a fundamental

nature,” such as physiology studies that aim to discover how animals function. This kind of research often involves surgery (e.g., to implant telemetry transmitters, to trace nerves, or manipulate areas of the brain). If wild birds are used, trapping, handling, and restraint are extremely stressful. The tracking devices used in field research can also cause significant physiological stress. Fundamental research in the laboratory can involve surgically implanting devices to find out how air flows through the respiratory system during flight, or damaging areas of the brain to see how this affects song development.³

The second most common purpose within the EU is “research, development and quality control of products and devices for human medicine and dentistry and for veterinary medicine.” Within this, 89 percent of birds were used in studies relating to animal diseases, and the remainder for human disease research. Much veterinary research and pharmacology using birds relates to diseases of farmed fowl, especially *coccidiosis* and respiratory diseases such as avian influenza. These cause significant distress and suffering for farmed and laboratory birds alike. Early indicators of suffering can be difficult to detect in fowl, so it can be problematic to ensure that the birds used in these tests are humanely killed before they begin to suffer severely.

Use in toxicology and safety testing accounted for more than 17,000 birds in the EU in 2011, to evaluate human medical and veterinary products, agricul-

tural substances, and additives for animal feeds. Of these tests, 7.5 percent were Lethal Dose 50 tests (whose endpoint occurs when half the test subjects die) or other lethal tests, and 26 percent were acute or subacute tests, which involve giving high doses of the test substance. These are highly likely to cause significant suffering and distress.

As an example of a study using birds, a researcher at the Université Paris-Sud in 2010 captured more than 500 barn swallows from the wild in Denmark and South Africa to study variations in their body temperature, as it related to parasites. The birds were restrained so that their temperature could be taken (repeatedly) with a rectal probe, and to collect blood and feather samples. The swallows were injected with lipopolysaccharide, a substance that causes inflammation, and were released after the final procedures.

However, most birds are killed following experiments; there is little potential to rehome or release them apart from some minimally invasive, short-term fundamental experiments using wild birds.

PROCEDURES AND HOUSING

European law now requires statistics on the highest level of suffering experienced by each animal during a research procedure.⁴ Levels of severity are classified as subthreshold (below the threshold for regulation), non-recovery (when the entire procedure is conducted under general anaesthesia from which the animal does not recover), mild, moderate, or severe.

According to the 2014 U.K. records, 5,302 procedures on birds were subthreshold or non-recovery; 128,437 were mild; 3,386 were moderate; and 1,559 were severe. Of the severe procedures, 1,113 were for translational or applied research, 340 were for regulatory purposes, and 26 were basic research. If these data are accurate, then most birds used in the U.K. did not experience severe suffering. However, all levels of suffering are a concern, and the experience of those individuals who did experience moderate or severe suffering should not be glossed over or forgotten.



Numbers of birds used for different purposes in the European Union, 2011

Housing and husbandry that do not permit natural, desirable behaviors can also cause significant distress. Much laboratory bird housing is woefully inadequate. In the case of pigeons, the Institute for Laboratory Animal Research (ILAR) Guide sets a minimum cage size for a pair of birds at just 12 by 19 inches, with cage height “sufficient for the animals to comfortably stand erect with their feet on the floor.”⁵ This is not even enough room for these highly active and intelligent birds to stretch their wings, let alone perform a range of natural behaviors. Domestic fowl fare no better; the Guide allows a pair of fowl up to 3.3 pounds to be housed in a cage of only two square feet.

These very small spaces clearly do not allow for environmental enrichment such as dustbaths and perches, nor do they enable birds to exercise, forage, or interact socially. Besides the obvious animal welfare issues involved, the stress of being held in such inadequate housing has serious implications for scientific validity, since the stress response affects many different organ systems and physiological parameters.

However, the EU Directive that regulates animal care and use sets a minimum pen size designed to enable enrichment and allow more natural social and exercise behavior, with a range of space allowances that vary with the size of the animal.⁶ But these larger enclosure sizes and space allowances still represent a compromise position between the needs of the birds and human requirements for economic efficiency and ease of use.

WHAT DOES THE FUTURE HOLD?

The potential to replace birds varies with the different purposes for which they are used. In the case of vaccines, there is unfortunately still limited scope for replacement at the development stage, since so many different organ systems are involved. There

are more opportunities to replace animals in vaccine potency testing, and efforts are being made in this area. Poultry vaccines have also been identified as a priority with respect to developing alternative (*in vitro*) potency tests, due to the very large numbers of animals involved in these tests and the potential for suffering due to infection.⁷

The use of birds in toxicity testing for agricultural substances has been criticized because of species differences, since so many different wild birds are affected. There have been moves toward other tests such as limit tests, which unfortunately do not replace birds but do reduce the numbers and suffering involved.

In the case of fundamental research such as that aiming to discover the physiology of flight and song, the most obvious replacement is not to conduct the research at all; however, this approach is likely to be resisted by the scientists concerned. It is thus very important to ensure that ethics committees and Institutional Animal Care and Use Committees include members with a broad range of interests, including those who can act as advocates for the animals and question the justification for and necessity of each project.

Much more needs to be done to fund, develop, evaluate, and push for the acceptance of alternatives in vaccine research and testing and in both veterinary and human pharmacology research. **AV**

Penny Hawkins, Ph.D., is head of the Research Animals Department of the Royal Society for the Prevention of Cruelty to Animals. Her key areas of work include promoting robust ethical review of animal use, bird and rodent welfare, and working to end severe suffering for all species.

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Getting to Know Wild Turkeys

By Joe Hutto

Artist and naturalist Joe Hutto introduced millions of people to the unseen world of wild turkeys in his book *Illumination in the Flatwoods*, which was later adapted for the public television series *Nature*. He raised two clutches of wild turkeys from birth and observed their behavior. The young turkeys clearly treated him as “mother hen,” and his book became equal parts field notes and parent’s diary. In this excerpt, he explains how he identified—and identified with—the turkeys as the individuals they are.

Wild turkeys do have widely differing and distinct personalities. Appearances among individual turkeys are also diverse, although it is difficult to maintain distinctions due to the fact that young wild turkeys grow and mature so rapidly. An attribute that is conspicuous today may be gone in a short period of time. Certain physical anomalies, of course, like crooked toes and bills that do not perfectly occlude, make

identification easy. Often, for immediate recognition, I rely on a particular broken feather or a sore on the head, attributes that may quickly change.

Personality, however, tends to remain very identifiable in each individual. I generally do not like to name wild animals, as it seems somehow demeaning, but I find that it is useful to call these young turkeys by different names since they are so many and I want to be able to have continuity in my observa-

tions of individuals. I find myself naming the turkeys by some particular attribute they possess, either a physical or personality trait.

Even in maturity I can still readily differentiate the two clutches by the variation in the color and most proximal secondary and tertiary flight feathers. I can also distinguish them by the relative darkness of the tarsus, or lower leg, and by the amount of feathering and coloration on the head—the heads are particularly distinctive.

There was Bright Eyes, who had very peculiar, unusually large eyes. She was also one of the three turkeys who developed crooked toes shortly after being born. It would be interesting to know if this is a genetic phenomenon.

Putt Putt made herself conspicuous by being especially vocal and by demanding a lot of attention. She was very affectionate, and her mandibles did not occlude perfectly.

Little Friend also made himself known by his predisposition for closeness. No matter where we were, he would be either directly next to me or in my lap, if I were sitting; I always worried that I might step on him.

Starker is a male from the dark clutch with a crooked outside toe on his left foot. The males now generally display more need for affection and direct interaction than the hens, who are somewhat more independent. He is very much my companion, and although he does not particularly like to be handled, he needs a lot of closeness. He is constantly with me, will sleep in my lap frequently, and can actually be a bother, especially when I am trying to use a camera or write my field notes. He was for a time the largest of all the young turkeys and was always a week or more advanced in plumage development. He is the most handsome of the jakes, although he is no longer the largest, nor is he dominant.

The dominant jake appears to be Rosey, who is the only surviving male from the light clutch. He is slightly larger than the other three males, and his status is no longer in dispute. Most of the aggressive behavior I observe now is among the other

three males, who seem to have difficulty establishing the ranks of second, third, and fourth. Rosey derives his name from the particularly bright pink caruncles on his head and neck, a trait that he shares somewhat with all of his sisters from the light clutch. The feet and tarsi of this clutch are also very pink as compared to the others. I likewise identify one of his sisters as Rosita; she has particularly bright pink markings on her head and is also very friendly.

If there is real affection in wild turkeys, it is demonstrated most profoundly by Sweet Pea. She is a small hen from the dark clutch who is almost catlike in her need to be held and stroked. If I am sitting, she is in my lap, and she will stay as long as I will let her. She had a hard time

PERSONALITY TENDS TO REMAIN VERY IDENTIFIABLE IN EACH INDIVIDUAL.

with fowl pox, which made her feel bad and also made her feet sore, although she is healthy now. She walks up and presses against me until I make a suitable lap into which she can climb. Even on the hottest days she will insist on being in my lap. Also, her mandibles do not perfectly occlude, giving her an endearing appearance. Sweet Pea is a distraction and consumes a disproportionate amount of my time. I find that her apparent fondness for me instills me with a similar sentiment, and I have to admit that I am particularly attached to her. Her nervous presumption of my complete devotion makes her irresistible.

Samara is a somewhat independent hen from the light clutch. She is elegant and graceful, always managing to keep her plumage in pristine condition.

Spooky, a peculiar hen from the light clutch, is small and has had various physical problems. The middle toe on her left foot was crooked until she was about 12 weeks old, at which time it straightened

itself out. The slowest turkey to develop, she still has a rather downy head but has also become very healthy. Because of handling when she was injured or sick, she does not like to be touched, although if I ignore her, she will now come and sit close to me. I can stroke her only if my hand approaches very slowly.

In addition to Starker and Rosey there are only two other males, one of whom is very personable, Stretch; the other, a little shy, Turkey Boy. Normal sex ratios in wild turkeys are about 50 percent males and 50 percent females, according to Lovett Williams. The disparity in these turkeys' numbers is due simply to bad luck with disease and predators, which randomly involved more males than females.

Of the 10 surviving females, I can easily distinguish almost all of them, but I do confuse two or three from the light clutch, as they are very similar in appearance. As the turkeys mature, distinctions become easier to make; appearance and personality become more developed and individual.

Since the time we began spending all of our days wandering and exploring away from the pen and the area of the cabin, I have recognized that something remarkable was occurring in our communication. At first it was difficult to interpret what was happening between us, but as time progressed I began to understand a little of what I now believe to be nothing less than extraordinary.

... I am experiencing a type of intimate communication unlike any that I have ever had.... I feel a little like an anthropologist who, after attempting to be an impartial observer of an exotic culture, finds himself instead becoming acculturated and confused about his own social identity. I haven't started eating grasshoppers yet, but the smooth green ones, I notice, are beginning to look very attractive. **AV**

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Captive Birds: No Way Home

BY DENISE KELLY

PARROTS AND OTHER EXOTIC BIRDS inhabit the rainforests of South America, the islands of the South Pacific, and the grasslands and deserts of Australia and Africa. There are 330 species of parrots alone, from parakeets and cockatiels weighing mere ounces to cockatoos and macaws with wingspans of up to four feet.

In the wild, they live in flocks and may fly many miles each day. They spend hours foraging for a variety of natural foods, socializing, establishing nesting territories, mating, and raising their young. But in our world these colorful, free-spirited animals face a life of confinement—a life nature never intended.

CAPTIVE BIRDS IN THE U.S.

The question of how many birds live in captivity remains a subject of debate and mystery. According to a 2015-16 survey by the American Pet Products Association, the U.S. has approximately 14.3 million birds in 6.1 million households. The most common are canaries, finches, pigeons, doves, and parrots.

The captive bird population is not limited to pets in private homes. We must also count those living in zoos, research labs, shelters, sanctuaries, and breeding facilities. Because breeders face few licensing requirements, and commercial facilities are largely unregulated, and because birds are rarely taken to a veterinarian, any attempt at estimating the numbers by species or the scope of the market is at best problematic. What we can say with confidence is that birds are the world's largest population of captive wildlife.

But the focus on numbers alone misses the bigger picture. What's most important are the ethical issues and impracticalities of keeping birds captive in the first place, and the compromised state of well-being that all birds experience as a result of their confinement.

WILD AT HEART

Even when bred in captivity, exotic birds are fundamentally undomesticated animals. Their instinctive behavioral and physical needs—to flock and fly, for example—remain intact. Yet the fact that they present many of the same challenges in captivity as other wild animals has not diminished their commercial appeal.

Red-lore Amazon parrots are among the many Central and South American species imperiled by the pet trade.



Each year thousands of birds are sold through the pet trade to individuals who are under the mistaken impression that exotic birds make “cool” pets and are easy to care for. Nothing could be further from the truth.

Like other exotic animals, captive birds display natural instincts, needs, and behaviors that are not considered desirable “pet” qualities. Parrots, including small lovebirds and conures, are noisy, messy, and can be destructive. Vocalizing, squawking, and chirping are important parts of their social communication. They eat throughout the day, dropping and discarding bits of food everywhere. They instinctively chew and shred wood, whether it is a perch, toy, picture frame, or furniture, and they will also chew electrical cords, paper, and curtains. They also require a specialized diet—not just seeds or pellets, but grains, legumes, fruits, and vegetables.

Parrots are extremely intelligent, temperamental, and social. They were meant to fly and to be with other birds. Isolation and confinement can lead to neurotic behavior, excessive screaming, aggression, feather plucking, self-mutilation, and other destructive habits. They're also prey animals, and may have adverse reactions to objects, noises, or sudden movements that would hardly raise a hair on a dog.

As a result, very few people are capable of caring for the special needs of exotic birds, nor do they comprehend the seriousness of the commitment for the birds' life span of 20 to 70 years or more. Eventually, many people attempt to rid themselves of the responsibility of caring for them. Many birds become victims of neglect and abuse—isolated to basements and garages, passed from home to home, relinquished to shelters, or simply set free to fend for themselves.

LEGAL PROTECTION

Although the U.S. has enacted laws to protect such native birds as blue jays, cardinals, and crows from commercial exploitation, we fail to offer the same protection to birds of other countries.

Parrots and other exotic birds commonly sold as pets or used for entertainment do not have specific regulations under the federal Animal Welfare Act.

They are frequently excluded from animal welfare legislation, pet shop regulations, and existing animal cruelty statutes.

Bird breeding facilities resemble bleak warehouses where birds are placed in small cages with one or two perches, food and water receptacles, and a nesting box. Many operate undetected in basements and garages.

Some breeders and stores sell unweaned birds, claiming that weaning by the purchaser will “guarantee” a hand-tame bird. This is a myth. A nurturing relationship between a parrot and a person begins when the bird learns to trust, and that can happen at any time, regardless of a bird’s age.

Birds who have not successfully completed weaning may not learn to eat on their own and can actually starve to death. Many baby birds suffer or die from physical injuries such as burned or punctured crops (stomachs) and infections from inexperienced hand-feeders. Breeders sell unweaned chicks to cut labor costs and move the birds quickly, despite the risks to the young.

Birds fare no better at the state and retail levels. Only 12 states have regulations that require a license to breed, import, export, sell, or trade birds in the parrot family. These regulations are predominately motivated by human health and safety concerns; they don’t define or mandate humane care standards. Only five states require pet shops selling birds to meet specific housing standards.

Finally, there is essentially no seller accountability for birds sold on the Internet or at flea markets, swap meets, and auctions. These birds frequently endure crowded, unsanitary conditions and often go without food and water, in extreme temperatures, for extended periods of time.

FINDING SHELTER

Captive birds are now among the fastest-growing population of unwanted pets in the U.S. But finding qualified refuges for them is extremely difficult. Most animal shelters and humane societies are not equipped to provide a suitable environment for an animal that flies, has complex care needs, and requires constant companionship. Most birds can live two to five times longer than the average dog or cat and may require multiple homes during their lifetime.

The few hundred self-described avian rescue groups that do exist range from small, home-based sites that provide temporary care and placement to large sanctuaries that provide lifetime care for hundreds of birds. Care standards, management, and ethical practices are inconsistent. And while most groups have the best intentions, the sheer number of birds needing refuge can quickly overwhelm them. Most legitimate avian rescue organizations are filled to capacity.

The field also attracts its share of the less-than-honorable. Some individuals who claim to run a bird rescue or sanctuary facility are merely collectors or hobby breeders who formed a nonprofit organization. Others even breed the birds they take in to fund their rescue operations. Unwanted birds may also fall victim to hoarders; other people acquire them to resell or to use as entertainment in roadside zoos. Establishing a reliable sheltering system to provide safety for birds in need and redirect support to legitimate rescue groups is paramount.

Helping Birds in Shelters

The **Avian Shelter Outreach Program** is dedicated to the needs of birds in rescue and shelter facilities. The Avian Welfare Coalition (AWC) offers a variety of resources to help tend to the special care, housing, and placement needs of exotic birds within a short-term shelter setting, available at www.avianwelfare.org/shelters.

AWC has teamed up with the Global Federation of Animal Sanctuaries to develop a series of webinars to provide training to animal care professionals on the specialized care of birds. These webinars describe the best practices in temporary housing, intake, handling, medicine, and nutrition. They also feature Q&A forums, which enable shelter personnel to directly engage with avian care experts. Learn more at www.avianwelfare.org/outreach.

A FINAL WORD

Outside of special directed release programs, captive birds cannot be returned to the wild or be set free to fend for themselves—they do not possess the learned skills necessary to survive.

We have an ethical responsibility to provide the best care possible for those in captivity. Parrots and other exotic birds deserve the same protections afforded to domestic pets and other wild animals. Conservation programs are needed to protect and preserve exotic birds in their natural habitats.

Just as we appreciate our own native wild birds flying freely outside our window, let us remember that the native birds of other countries also belong in the wild, not in our homes. **AV**

Denise Kelly is President and Co-founder of The Avian Welfare Coalition (www.avianwelfare.org), which was formed in 2000 to raise awareness of the plight of captive birds and to serve as an educational resource for the animal protection community, lawmakers, and the general public.



National Bird Day was hatched in 2002 as a day of action dedicated to raising awareness of the plight of captive exotic birds. Coordinated by Born Free USA and the Avian Welfare Coalition, it takes place every January 5 to promote appreciation of wild birds around the world.

This year’s National Bird Day encouraged bird lovers

to pledge not to post or share online videos depicting captive birds, because “these videos are misleading about how birds fare in captivity, and have the high potential of increasing demand of both wild-caught and captive-bred birds as pets domestically and abroad.”

For educational resources and information about how to participate, visit www.nationalbirdday.org.

AAVS Affiliate Stands Up for Birds

ON SEPTEMBER 25, 2000, the Alternatives Research & Development Foundation (ARDF) settled a lawsuit with the U.S. Department of Agriculture (USDA), with the agency agreeing to draft regulations “within a reasonable time” to protect birds covered under the Animal Welfare Act (AWA).

At first, the situation was promising. Now, 15 years and a stream of broken promises later, the USDA has failed to provide any protection to birds, effectively permitting the needless suffering and abuse of an untold number of birds, such as parrots and songbirds. Exasperated by the government’s excuses, ARDF filed another lawsuit on December 3, 2015, in a concerted effort to compel the agency to uphold its congressional mandate to protect birds under the AWA.

The Act’s contorted definition of “animal” excludes birds “bred for use in research.” However, the AWA indisputably covers many other birds used for commercial purposes.

The USDA seemingly made a start on the process of protecting birds in 2004 by soliciting public comments on potential regulations. At that time, the agency itself made a strong argument as to why birds very much need this legal coverage. Its official notice described birds as being “highly diverse morphologically and behaviorally” and varying widely in size, mobility, and diet. “As a result of this diversity, birds maintained in captivity often require unique husbandry and care,” the agency stated, and

it agreed that bird-specific standards are required to “provide for the humane handling, care, treatment, and transportation of birds.”

**BIRDS ACROSS AMERICA
ARE SUFFERING THE
CONSEQUENCES OF THE
USDA'S FAILURE TO ACT.**

In November 2004 ARDF coordinated submission of joint comments with 28 other animal welfare organizations in support of proposed species-specific regulations for birds. Basic recommendations included prohibiting the sale of unweaned baby birds, requiring that birds be free of infectious disease before transport, feeding birds a species-appropriate diet, providing living environments suited for flight animals, and treating the sale of large exotic birds like the sale of other exotic animals.

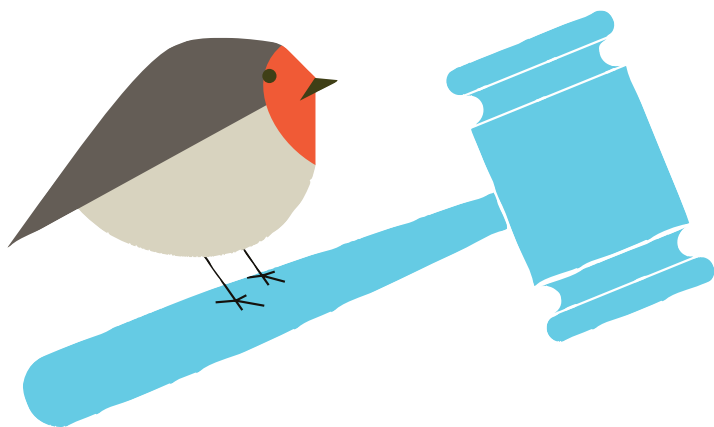
Almost 12 years later, the USDA has yet to provide any response to these recommendations, and its subsequent assurances on the matter have been hollow and unfulfilled. ARDF’s 2015 lawsuit emphasized that the USDA has repeatedly set, missed, and reset deadlines and has failed to even propose, let alone enact,

bird-specific regulations.

Meanwhile, birds across America are suffering the consequences of the USDA’s failure to act. Despite the settlement agreement with ARDF and the intent of Congress to protect these animals, birds can be denied food, water, adequate space, veterinary care, and sanitation, without penalty. Without government regulatory oversight, facilities such as breeders for the pet trade and entities using birds in exhibition do not need a USDA license to operate and are not subject to inspection, so there are no assurances that these animals receive appropriate standards of care and treatment.

As we go to press, the USDA has not responded to ARDF’s latest lawsuit. The potential impact this legal action could have on the care and treatment of birds and the protection of their welfare is enormous. We will be sure to keep our members up-to-date on this very important issue. **AV**

ARDF is an affiliate of AAVS. ARDF’s settlement stems from legal actions in coordination with AAVS’s Project Animal Welfare Act: An Act for All campaign, which was launched in April 1998 to gain protection for birds, rats, and mice. For more information, visit www.aavs.org/birds.



INTERVIEW

Heidi Prescott

Senior Vice President for Campaigns, The Humane Society of the United States

LIVE PIGEON SHOTS have been going on in Pennsylvania for about 60 years, and it remains the only state where they regularly occur. The most notorious was held annually in Hegins, northeast of Harrisburg. Although that event ended in 1999, the use of captive birds in shooting contests continues, as do legislative efforts to end them once and for all. **Heidi Prescott** has long been at the forefront of the fight to save these birds.

AAVS: What's the difference between a pigeon shoot and other types of bird hunting?

HEIDI: Live pigeon shoots are held very much like clay shoots, except live animals are used. The animal is tossed out of a trap, and the shooters—who are about 30 yards away—shoot at the pigeons as they're being released. Animals who are wounded fly into the surrounding area, and die over a period of hours or days.

How did you react when you went to Hegins for the first time?

It's a deeper emotional toll [when] you witness it and actually hold [the pigeons] as they're dying. Hegins was the last pigeon shoot where the general public could come in. Media came, and spectators came, and protesters attended. It was a very macabre, carnival-like atmosphere. There were bands playing, and food stands, and crowds cheering. It was one of the most bizarre forms of entertainment I've ever seen.

Legislation to ban pigeon shoots has been introduced in Pennsylvania for 28 years without passage. What's been the major obstacle?

The major obstacle has always been the NRA [National Rifle Association], and they're very powerful. I think there's a lack of awareness [among



Heidi Prescott has spent many years working to end live pigeon shoots, including the infamous contest that took place annually in Hegins, Pennsylvania.

some voters] that it's still going on. But [based on a 2013 poll] a majority of Pennsylvanians think that live pigeon shoots should be replaced with clay pigeon shoots.

Tell us about the current bill and who's working to get it passed.

The bill being considered this year is S.B. 715, and was introduced by Sen. Pat Browne. Every shelter in Pennsylvania is behind this bill and has worked on it, [including] the Pennsylvania Federation of Humane Societies. The legislature is pretty animal-friendly now; there's still the fear factor of the NRA, but most of them get that this is animal cruelty and it's not a sport.

So what's the tipping point?

The [political] support is there; the view that this is ridiculous and unsporting and cruel is there. The animal advocates have gotten far more politically engaged. There's now Humane PA [<http://humane-pa.org>], a very strong PAC that has unified the advocates and given them the tools they need. There are far more animal advocates who care about this issue than there are NRA members. And the legislators see that; it's politically expedient now to support anti-cruelty bills. **AV**

THE WILD BIRD TRADE



BY MONICA ENGBRETSON

In 1992 the U.S. Congress learned that the international pet trade in wild-caught birds contributes greatly to the decline of species in the wild, and that the trade produces an unacceptably high rate of mortality among imported animals. After intense lobbying by environmental and animal protection organizations, Congress passed the Wild Bird Conservation Act (WBCA), which transformed the United States from the largest importer of wild-caught birds to one of the smallest.

The WBCA requires documentation by the importer on the source of the bird, a complete description, and the reason for import. Also, the importer is permitted to bring in only two exotic birds as companion animals per year. The law makes exceptions for birds imported as part of approved breeding consortiums. The Department of the Interior administers the Act through the U.S. Fish and Wildlife Service.

Passage of the WBCA was without a doubt a great victory, but the war wasn't over. The U.S. animal protection community largely moved on, or adopted the mantra that purchasing captive-bred birds for use as pets was a valid solution and substitution for trade in wild-caught birds.

Case closed. Mission accomplished.

But it wasn't. Not only were the welfare problems associated with captive breeding brewing, but the trade in captive-bred birds—who are physically indistinguishable from wild-caught birds—provided a perfect smokescreen for smugglers. Moreover, the trade in wild-caught birds within their countries of origin and in other international markets continued.

It is difficult to accurately estimate the number of birds impacted annually because most estimates only count birds who are legally traded or those confiscated during illegal trade—they don't typically track the number of birds traded within a country, nor the number of birds who die before making it to market. It is estimated that up to 75 percent of trapped birds die before reaching their commercial destination.

THE PRICE OF POPULARITY

Parrots are still one of the most popular types of birds for the pet trade, and the results of that popularity are sobering. Parrots constitute the greatest proportion of threatened and endangered species over any other large family of birds.

According to the Convention on the International Trade in Endangered Species of Wild Fauna and Flora (CITES), the international body that regulates global wildlife trade, the African grey parrot is the single most heavily traded wild bird due to high pet demand around the world. Traders have taken full advantage of the instability in West African countries such as Uganda, Rwanda, and the Democratic Republic of Congo to exploit African grey parrots. A 2016 study published in the journal *Ibis* reveals that the once-abundant African greys have almost disappeared from Ghana.

South Africa has become an important trade hub where African grey parrots are exported to markets around the world. This includes captive-bred birds produced from wild-caught parents, as well as wild-

THE AFRICAN GREY PARROT IS THE SINGLE MOST HEAVILY TRADED WILD BIRD.



caught birds laundered through South African breeders and exported as “captive-bred.” The captive breeding industry in South Africa and the Middle East relies heavily on wild birds for breeding stock, again laying waste to the claim that captive breeding for the pet trade aids conservation.

The current situation in the Americas and across Indonesia is also troubling. Conservationist Rev. Dr. LoraKim Joyner reports that in Central America, the poaching rate of scarlet macaw nests (i.e., the number of young birds taken directly from the nest in a given area) is at or near 100 percent. And in Indonesia, now one of the most significant global hubs in the wild bird trade, many birds endemic to the islands, such as the yellow-crested cockatoo, are critically endangered and

in high demand as pets. Last summer, images of 23 yellow-crested cockatoos crammed into plastic water bottles confiscated aboard a ship at an Indonesian port provided a gruesome glimpse into the suffering caused by the modern trade.

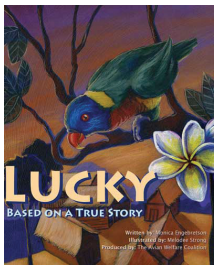
Clearly, the wild bird trade war is far from over. We must continue to fight, learn, and adapt our strategies to meet the challenge. Today, 24 years after the passage of the Wild Bird Conservation Act, any reputable animal protection organization understands that captive breeding for the pet trade isn't an answer to protecting wild birds. Instead, the most successful conservation tools include international trade restrictions, direct work with local communities and local law enforcement in the birds' country of origin, habitat protection, and rehabilitation and release

of confiscated parrots, as well as public education targeting the demand for birds as pets around the world. **AV**

Monica Engebretson has worked professionally in the animal protection movement since 1999 covering issues including wildlife conflicts, trapping, exotic birds, pet shops, and animals used in agriculture and research. She is a volunteer board member of the Avian Welfare Coalition.

Lucky the Lorikeet

Lucky is an educational children's book that gently awakens young readers to the plight of captive birds and birds captured in the wild.



Based on a true story, it tells about Lucky, a parrot who was captured in the wild and eventually regained his freedom with the help of a young Indonesian boy.

Lucky not only teaches children to be kind to animals; it is also a natural fit for a wider educational curriculum including lessons about Indonesia, the natural history of parrots and tropical forest ecosystems, and real-life conservation efforts.

These topics, with sample lesson plans and class activities, are at www.LuckyTheLorikeet.com. In addition, children can meet the real Lucky in a narrated documentary video clip available on the website—truly a rare and inspiring opportunity!

Lucky was written by Monica Engebretson and illustrated by Melodee Strong.

Lucky was written by Monica Engebretson and illustrated by Melodee Strong.

On the Front Lines in Central America

Rev. Dr. LoraKim Joyner is the director of One Earth Conservation, which is on the front lines of the battle to save wild parrots in Central America from the pet trade. I had the opportunity to speak with her about her work and current challenges.

How is the pet trade impacting the species you are working to protect?

We don't have exact poaching rates for most of our sites. It's been too difficult to fund projects and to get into some of the places due to their remoteness and risk. In the 1990s, the poaching rate of yellow-naped amazon parrots in Guatemala approached 100 percent in our study area. We hear of similar poaching rates now when we work in Guatemala. In Honduras in 2014 we were able to document 100 percent failure/poaching of all scarlet macaw nests in our study area. In Paraguay, the poachers themselves say they are taking nearly every macaw possible.

Where do the birds taken for the pet trade end up?

We don't know, though Central American birds do end up in Asian markets as well as in the Mideast. In Paraguay the poachers said they sold to the Japanese. There is a tremendous domestic trade as well—we see poached birds everywhere in homes—and we suspect that they get carried over national borders to neighboring countries.

What solutions seem to be working?

For the scarlets in Belize, protecting the nests 24/7 with volunteers and paid people seemed to really help. In 2015 we hired parrot patrols in the last half of the breeding season and only one nest of 11 scarlet macaw nests was poached. In Guatemala, the presence of CONAP [a government agency], the military, and conservationists cut down the scarlet macaw poaching a great deal but the protection is not 24/7.

How can U.S. citizens help?

Visit the areas for ecotourism. Get informed and share the stories. Donate to fund parrot patrols, education, and conservation.

—Monica Engebretson

INTERVIEW

Foster Parrots

Marc Johnson and Karen Windsor



Marc Johnson founded the nonprofit group Foster Parrots in Massachusetts in 1999, and now cares for several hundred birds on a former Rhode Island chicken farm that was converted into The New England Exotic Wildlife Sanctuary in 2007. He and Karen Windsor lead a staff and volunteers committed to the daunting task of providing years—even decades—of care to parrots and other exotic birds who have been physically and emotionally traumatized by the pet trade and improper treatment.

AAVS: Tell us how you first became acquainted with parrots.

MARC: I'd always had a fascination with the rainforest, and in doing my research of the local pet shops, I found that 90 percent of the parrots at the time [the late 1980s] were wild-caught birds. I couldn't afford one, so I actually wound up buying a macaw through the want ads. And because I was in a public place in a pottery studio, I had a lot of people come in and tell me that they had friends or relatives who didn't want their parrots anymore, and would I take them.

HUMANS JUST DO NOT HAVE THE ABILITY TO MEET THE SOCIAL NEEDS OF PARROTS IN THE HOME.

What traits do parrots have that make them vulnerable to exploitation?

KAREN: People are attracted to parrots for obvious reasons—they're beautiful and they talk, and that's very intriguing—but the failure happens [because] humans just do not have the ability to meet the social needs of parrots in the home. People bring them home, put them in a cage, and then they try to live their lives around them, but that doesn't work for the parrot.

MARC: When you consider what their life is in the wild, it's still pretty horrible conditions. Their physiology depends on that flying ability—their mental health, their physical health, everything revolves around this enormous amount of exercise they get flying, which they're not getting in captivity. This enormous amount of air has to go through to feed all those muscles with oxygen, and compare that with one sitting on a perch, obviously they're going to be using a very small portion of that respiratory system, and that's leading to problems. The number one cause of death at the sanctuary and in captive birds at the moment is probably heart disease—hardening of the arteries and enlargement of the heart, [which are] not present in the wild.

How many birds are you able to accept into the sanctuary each year, and how many do you have to turn away?

KAREN: We have about 380 parrots in residence. For birds who are very highly human bonded and dependent on a human environment and reliant on human interaction, sanctuary can be a very lonely place for them. I am receiving an average of one to three surrender calls every day from the New England area, and we are probably able to accept about 20 birds a year.

MARC: We have to examine what happened in 1992 when the Wild Bird Conservation Act was



MAGOO

Magoo is a Moluccan cockatoo who was one of nine birds rescued from a Texas breeding ranch auction in 2010. Blind from cataracts in both eyes, Magoo clung to the safety of his cardboard box and lunged defensively at real or imagined threats. Thanks to volunteers who raised funds for his surgery in 2012, Magoo can now see in his right eye and has found the courage to leave his box and forage for treats in the company of his cockatoo friend, Bebe.

MEET THE PARROTS



LOLA

Lola was a wild-caught Green-winged macaw who arrived at Foster Parrots in 2002. The sanctuary discovered that in addition to being male, Lola was missing his tail and one eye, and had broken bones in his feet and wings. The bald spot on his head was the result of a skull fracture that caused terrible seizures. He spent the last years of his long but mostly battered life in the company of his mate, Amadeus, and finally in hospice care with Marc and Karen before he passed away peacefully in 2015.



PEEPERS

Peepers is a Citron-crested cockatoo who was relinquished by her owners, who banished her to an unheated porch during frigid New England winters because she gnawed on furniture and would sometimes scream and bite. Peepers developed a habit of using her feet to pluck the feathers from her head and neck. She was later adopted by a Foster Parrot volunteer and flourishes in her new home.

passed and the breeding started in earnest. There were something like 5 million or more parrots being put into the pet trade every year for the past 20 years. And those birds were denied the social benefits of having been brought up with their parents, and so they were bonded with humans to the point where they don't know they're birds. So when we say that they're better off placed in a home, that's only because they're mentally so screwed up by the breeding process, the best thing for them is to find a really caring home.

Tell us how you house the birds.

MARC: We try whenever we can to put them in groups. Some species don't do well in large groups, and some species seem to do really well. It's not an amazingly homogeneous, accepting lovefest; they're very competitive. We take birds in and out of aviaries all the time as to whether they're compatible with that group or not. It's a much more complex issue than just putting a whole bunch of similar species together. Even if they'll just sit on the same branch together and not be aggressive and just have

the company of another bird, that may be the best we can do for some of them. For some of the birds we get in who are very human-bonded, we put them in places in the sanctuary where people are all the time, like the kitchen [and] office areas, so they have almost a duplication of what they experienced in their former home with people around all the time.

What do you want people to know about parrots and other birds in order to help them?

MARC: There's a great poster we have at the sanctuary that says, "If they stop breeding parrots in 2016, we would still be rescuing parrots in 2076," because of the longevity issues. Cockatiels can live over 30 years; larger parrots, 50, 60, 70, 80. We're going to have to deal with this issue for many, many decades, and the best we can do is to educate people so they don't make the mistake in the first place. And if they are willing to step up and do something, then there are plenty of birds who need homes and good care. **AV**

The Global Tragedy of Bird Flu

By Karen Davis



Karen Davis and Gwendolyn, one of the many rescued birds at United Poultry Concerns.

The poultry industry would like people to think that avian influenza, or bird flu—viruses currently infecting chickens, turkeys, ducks, and other domestic fowl around the world—are the fault of waterfowl running wild in the fresh air and open skies. The way to control these viruses, say industry officials, is to lock up every domestic fowl, and when the birds become infected in spite of all the biosecurity measures supposedly in place, exterminate the flocks and repopulate the prisons with new inmates.

Bird flu viruses have lived harmlessly in the intestines of waterfowl for millennia. Shed in sparsely populated outdoor settings in the droppings of birds whose immune systems have evolved to accommodate them, these viruses are kept in check. The viruses are rapidly killed by sunlight and tend to dehydrate to death in the breeze. But industrialized poultry production practices have vastly increased the potential of these viruses to mutate into highly pathogenic strains.

The concentrated confinement of millions of chickens, turkeys, and other birds crammed into squalid buildings creates the cesspool conditions bird flu viruses need to thrive, spread, and mutate into endlessly evolving strains of virulence. Environmental filth and the profoundly overwhelmed immune systems of birds genetically weakened by meat and egg production have spawned a paradise for pathogens of all kinds—bacterial, fungal, parasitic, and viral.

In *Bird Flu: A Virus of Our Own Hatching*, Michael Greger, M.D., describes how stuffing thousands of birds together in a building laden with feces, fecal dust, and excretory ammonia fumes irritates the birds' respiratory passages, furthering their susceptibility to disease. The virus, he explains, "need not even develop true airborne transmission via nasal or respiratory secretions. Rather, the virus has an opportunity to be excreted in the feces and then inhaled or swallowed by the thousands of other birds confined in the shed, allowing the virus to rapidly and repeatedly circulate."

A CYCLE OF CONTAGION

Bird flu viruses did not originate in the Western-style factory farms developed in 20th-century America and exported globally. Flu-favoring conditions for raising and slaughtering poultry go way back. As investigative journalist Sonia Shah, author of "What You Get When You Mix Chickens, China and Climate Change" (published February 5 in *The New York Times*), explained, "Highly virulent and easily transmissible, these viruses emerge from open-air poultry farms and markets of the kind that stretch across Asia."

For example, every day more than 100,000 chickens are brought into Hong Kong from the Guangdong province in southern China, which lies within one of the world's most traveled waterfowl flyways. The

chickens are sold with ducks, geese, and quail in more than a thousand live animal markets where they are crammed into stacks of small plastic cages. The birds defecate on one another amid feathers, feces, blood, intestines, and live slaughter. Unsold birds may be sent back to Guangdong and then returned to the markets, causing a continuous cycling of viruses from farm to market and back again.

For centuries, Guangdong province has had the largest concentration of poultry, pigs, and people in the world. Historically, the region has spawned such global epidemics in human populations as the “Asian flu” of 1957 and the “Hong Kong flu” of 1968. What is new is the explosion of the poultry industry elsewhere in Asia and across the globe, as is the capability of bird flu viruses to combine to generate novel subtypes with varying degrees of invasivity and virulence. As Shah notes, “global poultry production has more than quadrupled since 1970,” and three currently circulating strains of bird flu—H5N1, H7N9, and H10N8—“kill roughly 30 percent to 60 percent of their reported human victims.”

To illustrate this progression, the January 2016 issue of *WorldPoultry* announced, “New HPAI [Highly Pathogenic Avian Influenza] strain strikes US turkey farm.” According to the article, the U.S. Department of Agriculture (USDA) confirmed the outbreak of the H7N8 virus in a commercial turkey flock in Indiana, which was different from the H5N2 virus that caused more than 200 bird flu outbreaks in American poultry flocks in 2015.

EXTERMINATION METHODS

The USDA-approved method used to destroy more than 400,000 turkeys and chickens in the Indiana outbreak was “ventilation shutdown” in the poultry houses, causing the birds to slowly suffocate over a period of up to three hours.

Ventilation shutdown was government-approved in 2015 when a highly pathogenic avian flu virus entered America from Asia. First identified in British Columbia, Washington, and Oregon in December 2014, the virus penetrated poultry flocks in 21 states, resulting in a mass extermination of nearly 50 million chickens, turkeys, and ducks.

Other approved methods of avian extermination include slow, painful asphyxiation by carbon dioxide (CO₂) poisoning, and smothering the birds to death under a blanket of firefighting foam. Shooting hoses filled with CO₂ into the confinement houses, metal boxes, and “kill carts” causes the birds to burn, freeze, and suffocate to death simultaneously.

ANY NOTION THAT THERE CAN BE HUMANE OR DISEASE-FREE POULTRY PRODUCTION FOR MASS CONSUMPTION IS NAÏVE.

Contrary to some industry claims, the use of firefighting foam does not kill birds quickly. University of Georgia researcher Bruce Webster told a USDA meeting in 2006 (the year the agency approved the method), “You saw a lot of escape behavior for 4-6 minutes. You saw the birds’ heads sticking out of the foam.” Eventually their movements ceased, as the birds were “worn out” with their “volitional struggle.”

In a trial done with turkeys in 2007 in West Virginia, foam-soaked birds reportedly flapped under the foam for up to six minutes. Sinking under, the smothered birds cannot vocalize their suffering. Necropsies showed hemorrhages in the tracheas of birds who died under the foam; a year earlier, “occlusion of the trachea” had been cited by Ruth Newberry of Washington State University at a USDA meeting as “a serious welfare concern.” But animal welfare concerns fall on deaf ears where expediency, cost-savings, and profitmaking prevail in animal agriculture.

An article in *International Poultry Production* in 2015 titled “Avian influenza—the value of vaccination in changing times” observed that conventional control measures, including quarantines and mass extermination, cannot cope with the transnational epidemics of avian influenza, given the size and scope of the poultry industry and the genetic evolution of bird flu viruses in China and elsewhere. It is argued that vaccinating birds on the farm with conventional inactivated vaccines, which induce temporary immunity, should be replaced by the use of vector vaccines, in which an attenuated virus is given to the birds at the hatchery to induce permanent immunity.

However, any notion that there can be humane or disease-free poultry production for mass consumption is naïve. Human eating habits have got to change, not only because of the misery of animals but because animal agriculture is a primary cause of global warming.

In her *Times* article, Shaw suggests that global warming may also help spread viruses across continents, via Arctic islands in the Bering Strait. “[W]ith temperatures in the Arctic rising twice as fast as anywhere else, conditions are changing rapidly.... As birds are forced to migrate earlier and farther, feeding at new times and in new places, they overlap with other bird species in unprecedented ways that pathogens can exploit,” enabling avian influenza to pass from birds in Asian poultry farms to birds who fly from the Arctic into North America.

Ultimately, the root cause of the avian influenza epidemics is billions of human consumers. It was Gandhi who said that violence begins with the fork. If we don’t want bird flu viruses to continue to evolve, we have to evolve ourselves. **AV**

Karen Davis, Ph.D., is the President and Founder of United Poultry Concerns, a nonprofit organization that promotes the compassionate and respectful treatment of domestic fowl (www.upc-online.org).

Giving

SUPPORT THE AAVS MISSION



TRIBUTES

HONORING LOVED ONES

In memory of James A. Clark.
Andrew Clark
Downingtown, PA

In honor of Big Boy Pete, one of the
sweetest cats on the planet.
Mark and Edna Shuttleworth
Pigeon, MI

In memory of Andy. We miss you,
orange bundle of love and purrs.
Nina and Stephen Waite
Island Park, ID

Why Your Legacy Matters

AS AN AAVS ADVOCATE AND DONOR, you support our important mission to end the use of animals in research, testing, and education. Our Caroline Earle White Society was created in 2001 to recognize members who have declared their ultimate commitment to our cause through a provision in their estate plans. Such gifts are vital to AAVS's mission and longevity, and we are extremely grateful for them.

But in addition to supporting programs that will help animals for years to come, your planned giving arrangements can also benefit you and your family now, through reduced taxes or additional income from a gift annuity. Be it a bequest, trust, life insurance, retirement fund, or real estate, your designation will make a tremendous difference in our shared quest to end animal exploitation.

A SECURE FUTURE FOR THE ANIMALS AND YOU

If you even partially rely on investments to provide retirement income, recent volatility in the financial markets has probably been a source of worry. But the traditional options are limited; savings, money market, and short-term CD interest rates are still barely yielding 1 percent annually.

You might want to consider a charitable gift annuity (CGA). AAVS began offering CGAs at the request of a longtime member who wanted regular, reliable income and the certainty that the remaining funds from the annuity would go to AAVS programs. She was also savvy about the significant tax benefits, starting in the very year that she established the CGA.

When establishing a CGA, you enter into a contract with AAVS in which your gift of \$10,000 entitles you to fixed-rate, annual payments (which can be split into quarterly direct deposits) from AAVS. The rate of payment is determined by the American Council on Gift Annuities, and your contract is monitored and maintained by a professional, third-party administrator.

CGAs are most advantageous for retirees and older members. Establishing a CGA with AAVS provides crucial funding for our campaigns to help animals, and also guarantees you or a loved one fixed payments for your lifetime. The tax benefits are even greater when your gift is of stock that has built capital gains.

To learn more, contact Chris Derer in Member Services at cderer@avvs.org or 800-729-2287. AAVS will happily provide a customized summary of benefits showing your projected payments based on age and gift amount.

For information on planned giving, leadership gifts, recurring gifts, or other support, contact Chris Derer, Director of Development & Member Services, at 800-SAY-AAVS or cderer@avvs.org. When including AAVS in your estate plans or sending a donation, please use our legal title and office address: American Anti-Vivisection Society, 801 Old York Road, Suite 204, Jenkintown, PA 19046-1611. EIN: 23-0341990. AAVS is a not-for-profit 501(c)(3) organization to which contributions are 100 percent tax-deductible under federal and state law.

In honor of everyone who tries to protect animals from the savagery of man.
Sandra Pendleton
Fairhope, AL

In memory of my husband, William W. Cerny, Jr.
Katherine Cerny
Deer Park, NY

In memory of Chief (2001-2008), my loving mastiff.
Dr. Marie E. Powell
Union, NJ

In memory of Bodie, my beloved dog and the love of my life.
Kara Brieant
Paul Smiths, NY

In memory of Jimmy the Bulldog, the greatest soul I have ever known.
Lawrence Hansen
San Diego, CA

In honor of Jake, a wonderful rescued dog!
Constance Walker
Rockville, MD

In memory of Pepper. Gone from my sight but not my heart; rest in peace my love.
Julia Lawrence
Bourbonnais, IL

In memory of Mercedes M. Chop.
Carole Chop
Palmdale, CA

In honor of Java, my best friend.
Matt Moulton
Haymarket, VA

In memory of Richard, my sickly, blind, wire fox terrier, who had two homes before coming to me. Thank you for saving our friend, Nada, from a devastating house fire. You are now at home with the angels. Miss you.
Tom Overton
Baltimore, MD

In memory of Miss Kitty.
Grace Hampton
Farmington, MI

In honor of Giselle Binette, my beautiful and loving daughter who loves and rescues animals.
Janet Binette
Buffalo, NY

In honor of Smokie, Trippy, and the little black dog.
Larry Schnieders
St. Louis, MO

In memory of Leo the rabbit. He learned the limits of our yard, scratched on the door when he "wanted in," played with our orange cat, Tiger, and died six months after.
Robert Dunn
Riverdale, MD

In memory of all our rabbits we had.
Susan Lukasiewicz
Brewerton, NY

In memory of Ruth Hodgkinson, my mother, the best mother anyone could have. She loved all animals.
Dorothy Holtzman
Exton, PA

In honor of Lorraine Vinson.
Doris Vinson
Marlboro, NJ

In memory of Lewis Scheffey.
Joyce Scheffey
Great Barrington, MA

In memory of Abigail.
Paula and Preston Smith
Chalfont, PA

In memory of Razzy. Our sweet boy was greatly loved and is deeply missed by Gwen, John, Sam, and Duet.
Gwen and John Newman
De Pere, WI

In memory of Feisty Rat.
Michael Scalzo
Philadelphia, PA

In honor of Wyatt Maw.
Dallas Traeger
Kalispell, MT

In memory of Susan D. Thrope, a lady who adored all animals.
Jane, Andrew, and Katie Mullen
Arlington, VA

In memory of our parents and the pets they loved, and our own beloved pets: cats, dogs, and our Birdie-Girl.
Tom and Sylvia Howard
Fayetteville, AR

In memory of our beloved doggy, Dutch, who passed away at age three—brave soul. Until we are a family again...
Laura Lucier
Reno, NV

In memory of my sweet Winkie, who was rescued from a puppy mill at age four. I lost her at 13 from cancer. Nine wonderful years together. I miss her so.
Marilyn Meyers
Washington, DC

In memory of all the animals who have suffered in silence because of the horrors in laboratories.
Christina Gillespie
Southfield, MA

In honor of Sue Leary. Great work to you and all your team.
Jamie Kovacs
Osceola, IN

You can honor or memorialize a companion animal or animal lover by making a donation in his or her name. Gifts of any amount are greatly appreciated. A tribute accompanied by a gift of \$50 or more will be published in *AV Magazine*. At your request, we will also notify the family of the individual you have remembered. All donations are used to continue AAVS's mission of ending the use of animals in biomedical research, product testing, and education.

Members' Corner

AS A YOUNG BOY OF AROUND EIGHT OR NINE, I one day found a sparrow “sleeping” on the front lawn of my house. Feeling very sad for this little buddy, I ripped up an old t-shirt and made a bed for him. I carefully tucked the bird into the cotton nest that I had fashioned, and then placed it under a bush out of harm’s way.

I cried, knowing the bird wasn’t going to wake up; however, I still wanted him to be comfortable and safe. While I had always liked animals up until then, I think that day was a turning point when my admiration for all living creatures was brought into focus.

For the past 15 years, I have been fortunate to learn more about our feathered friends by volunteering at various wildlife rehabilitation clinics in my area. One develops a different appreciation and respect for wild animals after working closely with them—a red-tailed hawk in flight is a beautiful sight, but holding one is a humbling experience.

As a capture and transport volunteer, I am dispatched to rescue birds of all kinds: passerines, gulls, ducks, geese, owls, hawks, vultures, herons, swans, and even the occasional loon and osprey. Birds are incredibly fascinating creatures, most notably for their enviable ability to fly, but also for their often colorful appearances and behaviors. Each species is unique and remarkable in its own right, and we have much to learn from observing them.

One of my favorites is the common pigeon—a truly incredible bird. As early as the sixth century B.C., pigeons were trained to carry messages across great distances. Heroic homing pigeons delivered vital intelligence for allies during the First and Second World Wars, saving many lives, while also outracing enemy raptors. Unfortunately, the fate of one particular species in my native Pennsylvania—the passenger pigeon—represents the darkest side of humankind. It was once among the most numerous birds in nature, but was hunted to extinction by 1900.

Another favorite is the vulture. I tend to think of them as nature’s greatest recyclers, given their consumption of carrion. Unlike other raptors, they are generally harmless and not aggressive. In fact, vultures are a very social species: I’ll never forget witnessing a black vulture, recuperating in an outdoor enclosure at a clinic, pass food through the bars to another vulture outside the cage. What a thoughtful and considerate bird!

Now when I encounter animals “sleeping” on roads, I still move them to a safer place out of respect, but also to protect other wildlife, like my vulture friends, who may eat the remains. It’s still sad, but at least there’s something I can do to help.



For the animals,

Chris Derer
Director of Development & Member Services

A young robin and bluebird huddle in the hands of wildlife rehabilitator Miriam Moyer at the White Flicker clinic in Pennsylvania. Many new birds become orphaned in the spring and end up being raised by dedicated volunteers at rescue facilities.



BIRDING IS FOR THE HUMANS

The sights and sounds of colorful birds are far more entertaining than anything on TV. Providing a backyard feeder will attract a multitude of feathered friends, and extra nutrition during harsh weather. Try to offer:

- **A variety of food**—Black-oil and striped sunflower seeds, safflower, millet, nyjer, cracked corn, peanuts, and fruit. If possible, put several feeder types at different heights, and don’t forget nectar for hummingbirds.
- **Fresh water**—A birdbath (especially a heated one in winter) will be greatly appreciated.
- **Plants, shrubs, and trees**—Native vegetation is a source of both food and shelter. And birdhouses can be both a functional and decorative addition to your avian sanctuary.
- **Safety**—Feeders should be cleaned regularly and kept dry and away from windows (to avoid bird collisions). Use screens, stickers, and other safety devices to reduce bird collisions. And please keep your cats indoors.



PROVIDING SECURITY FOR THE ANIMALS AND YOU

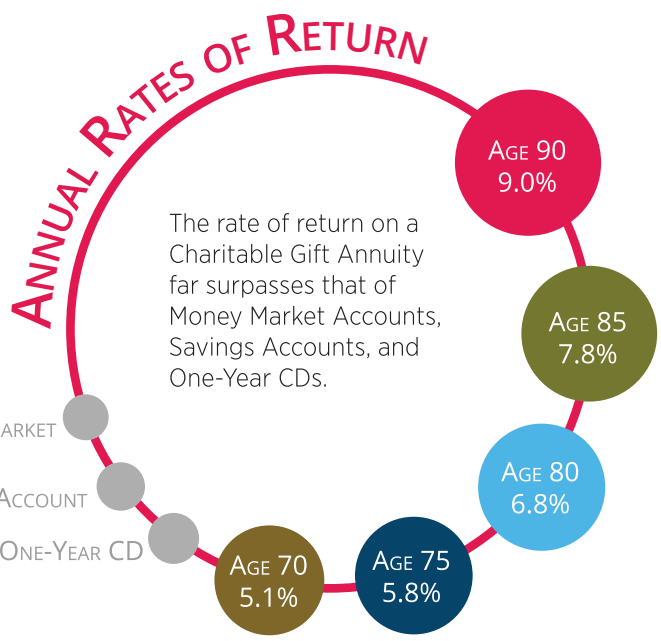
We are happy to offer an option to our supporters who need regular income in their retirement: **Charitable Gift Annuities.**

A Charitable Gift Annuity agreement with AAVS ensures regular income for the rest of your life, *and* greatly supports the important work we do for animals.

With your gift of \$10,000 or more, AAVS agrees to make fixed-rate payments to you, according to annual rates set by the American Council on Gift Annuities. These payments continue for your lifetime, and you'll also benefit from tax savings.

Establishing a CGA with AAVS provides crucial funding for our campaigns, ensuring that AAVS, founded in 1883, will always be there for the animals.

To receive a customized CGA summary of benefits, based on your age and gift amount, please contact Chris Derer, Director of Development & Membership Services at cderer@aavs.org or 800-729-2287.





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A free bird leaps
on the back of the wind
and floats downstream
till the current ends
and dips his wing
in the orange sun rays
and dares to claim the sky.

Maya Angelou

