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Border Health: Who's Guarding the Gate?

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KEYWORDS

• Importation • Trade • Animals • Zoonoses • Disease risk

IMPORTATION OF DOMESTIC AND EXOTIC PETS: CHANGES IN MARKET FORCES

The global trade market, the ease of transporting animals across continents and around the world, lower production costs in foreign countries, and market demand have resulted in a thriving pet trade of exotic animals, birds, and puppies, both purebred and small mixed breeds. The flood of animals crossing the United States' borders satisfies the public demand for these pets but is not without risk.

Trade barriers have been disappearing, creating a global marketplace. Improved transportation networks allow travelers, trade goods, and animals to move across continents or the globe in a single day. Improved communication and expanded use of the Internet for commerce simplify the connection between consumers and suppliers worldwide. These changes have created an environment in which a new global pet trade thrives.¹

Between 1986 and 1993, the Uruguay Round of the General Agreement on Tariffs and Trade was held. The trade negotiations led to the creation of the World Trade Organization (WTO) in 1994 and the reduction of tariffs, import limits, and quotas over the next 20 years.² Agricultural product trade was liberalized, and guidelines on the trade of animals and animal products were created by the Office International des Epizooties.³ The WTO operates under the principle that imported products be treated as favorably as domestic goods, but countries are permitted to take measures to protect humans and animals. These changes in trade regulations seem to have expanded the global market. The volume of world trade increased threefold from 1985 through 2000, and the export value of goods from Asia increased fivefold.⁴

Exotic pet ownership is on the rise in the United States, resulting in an increased trade in live animals. The number of United States households owning reptiles

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increased from 850,000 in 1991 to 2.7 million in 1998, and from 2001 to 2006 the numbers of pet birds, rodents, fish, turtles, and lizards have risen.⁵ Importers, both legal and illegal, have stepped forward to meet this demand. In the early 1990s, United States imports and exports accounted for 80% of the total world trade of approximately 70 reptile species listed under the Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES).⁶ In the United States, the annual volume of live animal imports has roughly doubled since 1991.¹ There were 183,000 wildlife shipments in 2006, with a declared value of more than \$2.1 billion.⁷ From 2003 through 2006, annual increases in wildlife trade ranged from 6% to 11%. From 2000 through 2004, approximately 588,000 animals were imported into the United States each day.¹

The number of animals being imported illegally is difficult to estimate. Wildlife smuggling is very profitable and is estimated to bring in more than \$6 billion each year.⁸ Interpol estimates that wildlife smuggling ranks third on the contraband list of items of value, behind drugs and firearms.⁸ Customs officers have found animals stuffed in clothing, bags, containers, compartments in cars, and even inside artificial limbs. Animal smuggling is likely to continue until the penalties outweigh the profits.

Starting in 2001, the Los Angeles County Veterinary Public Health and Rabies Control program (VPH-RCP) noticed a sharp increase in puppies being imported from overseas, with an accompanying increase in public interest regarding how to import puppies for resale. Individuals have reported that imported puppies could be sold for much more than their purchase price and shipment costs (VPH-RCP, unpublished data). A kennel in Los Angeles County is selling Yorkshire terrier puppies imported from South Korea for \$1500 to \$4000 each. Puppies smuggled from Mexico often are sold for \$300 to \$1000 cash. Small purebred or crossbred puppies are very popular,⁹ and there is a lack of local breeders to meet the demand. The public's demand for small, cute puppies continues to stimulate the business and increase profits to puppy importers.

CHALLENGES WITH OVERSIGHT AND REGULATION OF TRADE: WHO'S IN CHARGE?

Requirements for importing animals into the United States can be found in the regulations of several federal agencies and reflect the mission of each agency.

In 1900, the Lacey Act became the first federal law protecting wildlife, by prohibiting the interstate movement and importation of wildlife species.¹⁰ Additionally, the Lacey Act prohibits the importation of wildlife that has been determined to be injurious to people, agriculture, horticulture, forestry, or wildlife in the United States.¹ In 1940, the Bureau of Fisheries and the Bureau of Biological Survey was consolidated to create the United States Fish and Wildlife Service (USFWS) in the Department of the Interior,¹¹ with the mission of conserving and protecting wildlife and plants. In 1973, the Endangered Species Act was passed to protect endangered or threatened species.¹⁰ The USFWS also enforces requirements for CITES, an international agreement between governments to ensure that international trade in wild animals and plants does not threaten the existence of those species.¹² Lists of endangered or threatened species covered under CITES can be found in Appendices I, II, and III of the agreement.¹³

USFWS regulations require that all wildlife species imported for commercial, non-commercial, scientific, or personal use be declared at the time of import, be cleared by the USFWS, and enter the United States through a designated port. In most cases, the importer must have a USFWS permit.^{14,15} If the species is covered under CITES, the shipment also must be accompanied by a current CITES certificate.¹²

The US Department of Agriculture (USDA) Animal and Plant Health Inspection Service (APHIS)¹⁶ was established in 1972 to protect United States agriculture, consolidating the functions of previous animal and plant bureaus within the USDA. The basis for APHIS came from the USDA's first regulatory program, the Veterinary Division, established in 1883. In 1884, the Veterinary Division became the Bureau of Animal Industry, which was created by Congress to promote research in livestock diseases, enforce animal import regulations, and regulate the interstate movement of animals. In 1953, the USDA's Agriculture Research Service replaced the Bureau of Animal Industry. In 1971, the Agriculture Research Service became the Animal and Plant Health Service (APHIS), and in 1972 the meat and poultry inspection divisions of the Consumer and Marketing Service were added, changing APHIS to APHIS. Since 1972, several changes have occurred, including the establishment of the Food Safety and Quality Service, known today as USDA's Food Safety and Inspection Service, the transfer of the animal quarantine inspection activities at ports of entry from the Veterinary Services division to the Plant Protection division in 1974, and the movement of the port inspection activities to the Department of Homeland Security in 2002.¹⁶⁻¹⁸

USDA, APHIS Veterinary Services limits the importations of animals, animal products, and plants based on the risk to agriculture. Examples of these activities are controlling the importation of hoofed stock from countries in which foot and mouth disease is endemic or birds from countries that are experiencing outbreaks of highly pathogenic avian influenza (H5N1) in poultry. Importation of livestock or other hoofed stock, birds, dogs, or other animals may require a permit and possibly quarantine in a USDA facility before the shipment is allowed to enter the United States.¹⁹

The Animal Welfare Act was passed in 1966 to require minimum standards of animal care for animals that are used in research, bred for sale or exhibition, or transported commercially. APHIS' Animal Care program enforces the provisions of the Animal Welfare Act and the Horse Protection Act, which was passed by Congress in 1970.²⁰ The Animal Care program ensures that all animals are transported at the proper ages, in proper crates, and in appropriate conditions in accordance with the Animal Welfare Act. The Animal Care program does not have regulations specific to importation of animals.

The Centers for Disease Control and Prevention (CDC) of the Department of Health and Human Services has regulations prohibiting or controlling the importation of a variety of species of animals and animal products based on a specific threat to human health. For example, dogs entering the United States from countries reporting cases of rabies need proof of a current rabies vaccination, or the importer must sign an agreement to confine the animal until appropriate vaccinations can be obtained and then for an additional 30 days after vaccination. The importation of nonhuman primates has been regulated since 1975, limiting their importation specifically to purposes of science, education, or exhibition and requiring that importers be registered by the CDC. In 2003, importation of civets was banned because these animals were considered to be an amplifying host or vector for severe acute respiratory syndrome (SARS). In 2003, the importation of African rodents was banned in response to an outbreak of monkeypox in the United States associated with imported Gambian pouched rats.²¹

Customs and Border Protection (CBP), located in the Department of Homeland Security, is the first line of defense at the border to ensure that animals and animal products are being imported in accordance with all federal agency regulations. Additionally, CBP has the authority to levy a fee on imported animals or products for commercial use, in accordance with the tariff codes.²²

Animal importation regulations change often, reflecting any new disease threats that arise, and imported animals may require permits or approvals from a variety of agencies. Individuals planning to import animals should check with the USDA, CDC, USFWS, and CPB to make certain that all required documents are obtained before an animal is brought to the United States.

BORDER PUPPIES: A GROWING PROBLEM

In California, the number of legally documented dog imports began increasing in 2001 (Fig. 1). In 2000, most imported dogs were single imports. Some were personal pets; others were purebred dogs that had been purchased from an overseas breeder. Few dogs were imported for resale. In 2003, the number of imports of multiple puppies per shipment began to increase. The number of puppies imported into California through airports has increased from 110 multidog imports documented in 2003 to 365 in 2004 and 341 in 2005. Each shipment contained as many as 40 puppies. Such large numbers of puppies are being imported for resale and not as personal pets. A similar increase was seen nationally.²³ An estimated 287,000 dogs were imported into the United States in 2006, with 70,600 lacking proof of valid rabies vaccinations, mostly because they were too young to be vaccinated.²³ In California, most of the imported puppies were destined for Los Angeles County (Fig. 2), and the most common countries of origin were Mexico and Canada (Fig. 3). Many dogs also were imported from Asia, Europe, South America, and Russia. In Los Angeles County, many puppies were imported from South Korea by pet stores or kennels. The most common breed imported was Yorkshire terrier, followed by Maltese, bulldogs, and poodles (Fig. 4).

As the number of shipments containing more than one dog increased, tracking puppies became increasingly more difficult in Los Angeles County. Initially, several shipments went to local pet stores, but as Los Angeles County VPH-RCP staff began enforcing postimportation quarantines until 30 days after the puppies received their rabies immunization, shipments became harder to locate. Puppies were sold before

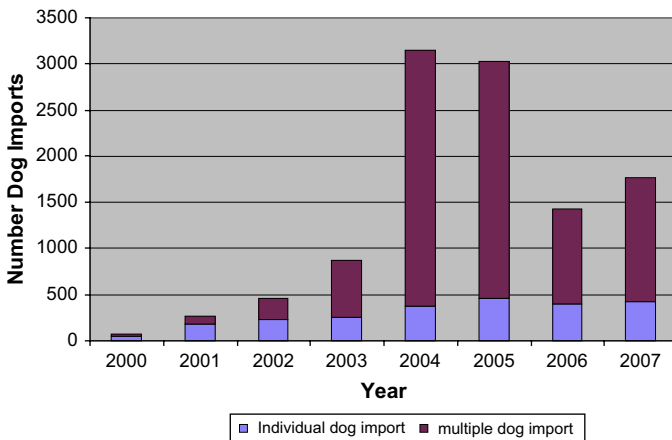


Fig. 1. Number of dogs imported individually or in a group into California, 2000 through 2007, for which CDC confinement was completed and submitted to the California Department of Public Health. The data do not include legally and illegally imported puppies that were not identified by CDC officers. (Data from California Department of Public Health, Veterinary Public Health Section, Sacramento, CA.)

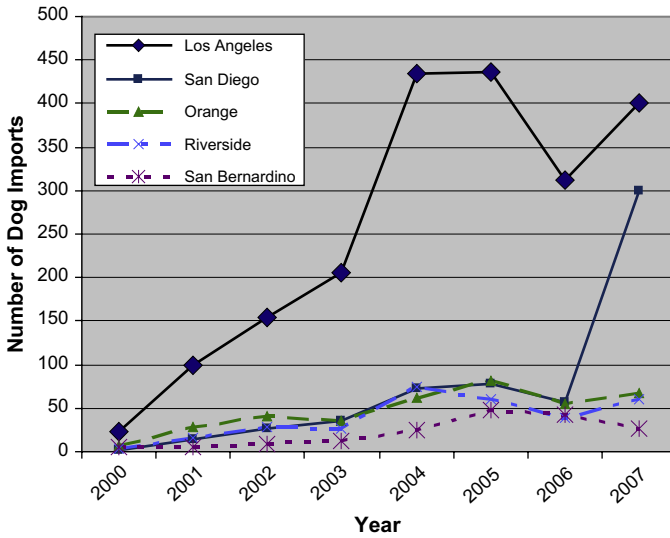


Fig. 2. Number of dogs imported into California, by top five counties and year (2000–2007) for which CDC confinement was completed and submitted to the California Department of Public Health. The data do not include legally and illegally imported puppies that were not identified by CDC officers. (Data from California Department of Public Health, Veterinary Public Health Section, Sacramento, CA.)

VPH-RCP visits, incorrect addresses were indicated on the CDC confinement agreement form, and individuals refused entrance onto their properties. In addition, some importers provided falsified rabies certificates, and puppies were not available for inspection. This problem was not limited to Los Angeles County. New York City

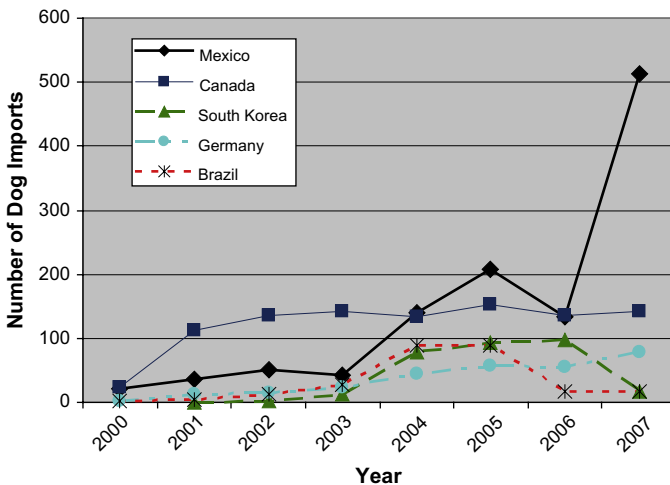


Fig. 3. Number of dogs imported into California by top five countries of origin and year (2000–2007) for which CDC confinement was completed and submitted to the California Department of Public Health. The data do not include legally and illegally imported puppies that were not identified by CDC officers. (Data from California Department of Public Health, Veterinary Public Health Section, Sacramento, CA.)

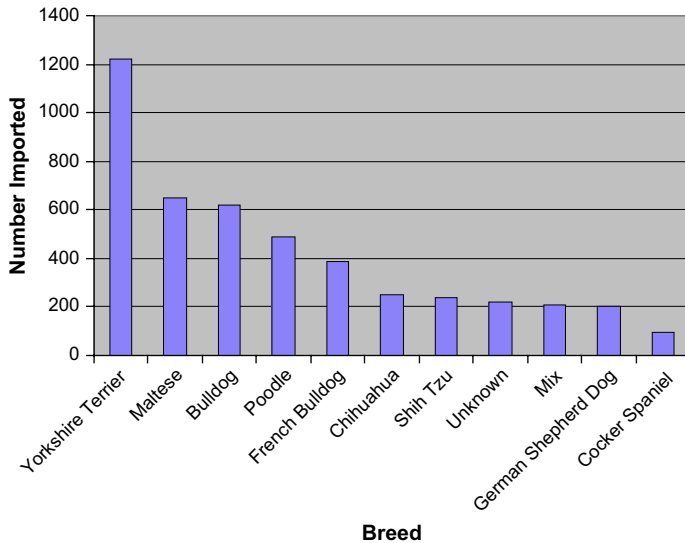


Fig. 4. Number of dogs imported into California by top 10 reported dog breeds, 2000 through 2007, for which CDC confinement was completed and submitted to the California Department of Public Health. The data do not include legally and illegally imported puppies that were not identified by CDC officers. (Data from California Department of Public Health, Veterinary Public Health Section, Sacramento, CA.)

sent out a veterinary alert in 2005 to notify veterinarians that puppies were being imported from rabies-endemic countries and that some were being sold without completing the mandated confinement.²⁴ The CDC noted more than 4000 confinement agreement violations among imported dogs in 2006.²³

During the past few years, illegal shipments of puppies also have become a problem. The Los Angeles County VPH-RCP and animal law enforcement agencies throughout California began receiving reports in 2004 that individuals were purchasing puppies in Mexico and selling them in California. These puppies were advertised in free classified ads and were delivered to the purchaser at a public location, or they were sold directly from vehicles in shopping center parking lots. Generally, the purchaser was required to pay cash and had no way of contacting the seller after purchase. Many of the puppies were ill and died a short time after being sold to unsuspecting buyers (personal communication, Captain Aaron Reyes, Southeast Area Animal Control Authority, December 4, 2007).

In early 2005, 14 animal law enforcement agencies and three health agencies, including the Los Angeles County VPH-RCP, formed the Border Puppy Task Force (BPTF) to assess this growing and disturbing trend.²⁵ In December 2005, animal law enforcement officers worked alongside CBP agents for a 2-week period, examining and documenting animals entering from Mexico through two California border crossings. More than 500 puppies were examined during this operation; many were found huddled together in cardboard boxes in car trunks or wrapped in towels and stuffed under seats (**Fig. 5**).²⁵ Only a few puppies were confiscated because of illness. Most were allowed to enter California after a CDC confinement order was issued. These numbers indicate that 10,000 or more puppies may be imported each year through the two California–Mexico border crossings investigated, and few are confined as required by federal law to protect against introduction of rabies.



Fig. 5. Puppies discovered in a vehicle at one of two California–Mexico border crossings during a Border Puppy Task Force operation. (Photograph courtesy of Captain Aaron Reyes, Southeast Area Animal Control Authority, Downey, CA.)

Following the joint investigation, the BPTF held a news conference and conducted media interviews to educate the public about the risks associated with illegally imported puppies. Buyers were encouraged not to purchase puppies if the seller required cash and required that the puppy be delivered to its new owner in a public place, such as a restaurant or shopping center parking lot. Individuals whose puppy became ill or died shortly after purchase were encouraged to report the matter to the BPTF for follow-up investigation of illegal importers. In 2006 and 2007, the BPTF identified continued transport of puppies across the same border crossings. (personal communication, Captain Aaron Reyes, Southeast Area Animal Control Authority, December 4, 2007).

The CDC has responded to complaints about large-volume shipments of puppies intended for immediate resale and the need for additional regulations to prevent the introduction of zoonotic diseases into the United States by publishing an Advance Notice of Proposed Rulemaking on July 31, 2007.²⁶ Public comments were solicited until December 2007 and are being evaluated. Stakeholders were asked questions such as

- Should the CDC establish a minimum age for importation of dogs, cats and ferrets?
- Should imported animals have a unique identifier (microchip, tattoo)?
- Should a valid international health certificate be required?
- Should the importation of dogs, cats and ferrets be restricted to ports staffed by CDC quarantine personnel?

These changes could have a major impact on the legal and illegal international puppy trade. Until the regulations are revised, however, the flow of puppies into the United States is likely to continue.

ANIMAL SPECIES AND POTENTIAL DISEASE RISKS

The worldwide movement of animals increases the potential for the spread of diseases that pose a risk to human and animal health.^{27,28} Animals are imported into the United States for use as pets, food and other animal products, scientific research, and exhibition in zoos. Dogs and cats are allowed to enter the country without health certificates and, if the owners sign a confinement agreement as described previously, without proof of rabies immunization. Even if a pet is ill on arrival, it may be allowed

in, with a recommendation that the owner take the pet to a veterinarian for examination.²² Many of the exotic animals are wild caught, and often there is no requirement that they be screened for zoonotic disease before or after arrival in the United States. Global trade of animals creates circumstances in which diseases that generally are not found in the United States may be introduced.

On the first World Rabies Day, September 8, 2007, the CDC reported that the canine strain of rabies had been eliminated from the United States. The importation of dogs from rabies-enzootic countries represents a risk for reintroducing canine rabies.^{27,29} Imported dogs have been found to be infected with rabies^{24,27,30,31} on several occasions. In 1988, a 5-month-old puppy imported from Mexico into New Hampshire became ill 3 weeks after its arrival.³⁰ The dog began whimpering and had tremors in one leg for 3 days. It then developed urinary and fecal incontinence and finally excessive salivation. The owners took the puppy to a veterinarian, who suspected rabies based on the puppy's history and clinical signs. The puppy was euthanized, tested, and found to be rabid. Seventeen people had been exposed, including the owner's classmates, partygoers, and a babysitter. In 2004, a 3-month-old ill puppy was imported from Thailand through the Los Angeles International Airport and was allowed to enter the country.³¹ It had been evaluated by several veterinarians in Thailand for a respiratory illness and had begun vomiting while in flight. The owner took the puppy to three veterinary clinics as she traveled to her home in Northern California. The puppy was aggressive and seemed to have pain along its back. Obvious neurologic signs did not develop until it was seen at the third veterinary clinic. At that point, the puppy was euthanized and tested positive for rabies (Thai canine variant). Numerous people had been exposed, and 12 individuals required postexposure prophylaxis.²⁷ More recently, in 2007, a puppy imported from India by a Washington State veterinarian developed rabies after being adopted by another veterinarian and taken to Alaska.²⁷ The puppy became ill 2 days after arrival from India, with at least one episode of regurgitation. It then bit one of the veterinarians and another dog. Clinic staff noticed it gnawing on its kennel, resulting in bleeding gums. Even so, another veterinarian completed a health certificate for the puppy, and a third veterinarian transported it to Alaska. The day after arriving in Alaska, the puppy developed neurologic signs and died. The puppy was tested and found to be rabid (Indian canine rabies variant); eight individuals received rabies postexposure prophylaxis.

Previous documented vaccination does not always negate the risk of imported rabies. In 1986, a dog developed rabies 10 months after being imported from Cameroon.³² The dog had been vaccinated against rabies twice in West Africa and once after arriving in the United States. The owners took the dog to an animal hospital after it developed paralysis of the lower jaw. The dog was docile and ambulatory. It was discharged with a diagnosis of "viral infection," and the owner was directed to force feed it. The dog was seen at two different clinics over 4 days and finally was euthanized and tested for rabies. It was found to have a West African dog strain of rabies. Thirty-seven individuals received postexposure prophylaxis after potential exposures to the dog during its illness and the 2 weeks before the onset of clinical signs.

In 1987, an ill cat from Mexico also was allowed to enter the country through Los Angeles International Airport.³⁰ The cat was seen by three veterinarians before being euthanized and testing positive for rabies.

Other countries have reported imported rabies cases. France has identified several cases of rabies in dogs imported illegally from Morocco through Portugal or Spain by car.³³⁻³⁵ In 2004 and again in 2007, three cases of canine rabies were reported in imported dogs. In 2007, Belgium and Germany also reported rabies in dogs imported illegally from Morocco.^{36,37}

Imported dogs may carry other diseases, such as screwworm,^{38,39} that pose risk to both animals and humans. Screwworm infestation begins when a female fly lays eggs on a superficial wound. Unlike typical maggots that feed on dead tissue, the screwworm feeds on living tissue. One female fly may lay up to 400 eggs at a time and as many as 2800 eggs during a 31-day lifespan. The eggs hatch into larvae that burrow into the wound and begin feeding on living flesh. After feeding for 5 to 7 days, the larvae drop off and burrow into the soil, where they pupate. The adult screwworm fly emerges and then mates after 3 to 5 days.⁴⁰

In the first day or two of screwworm infection, the clinical signs include a slight motion inside the wound and possibly a serosanguineous discharge and a distinctive odor. By the third day, the larvae may be seen easily. In dogs, the larvae often tunnel under the skin, and there may be a large pocket of larvae with only a small opening in the skin. The deep burrowing is distinctive of screwworms, because other types of maggots are surface feeders and feed on dead tissue. If screwworms are left untreated, animals may die of secondary infection or toxicity within 7 to 14 days of infection. Daily wound treatment and larvicidal insecticides are necessary to control the screwworm larvae.⁴⁰

In 2007, astute veterinarians in Mississippi and Massachusetts identified screwworm larvae in imported dogs.^{38,39} Both New World (*Cochliomyia hominivorax*) and Old World (*Chrysoma bezziana*) screwworm myiasis are considered foreign animal diseases in the United States and are reportable within 24 hours of diagnosis. New World screwworms were eradicated from the United States in 1966. The Old World screwworm had never been seen in this country until it was found in a 1-year-old dog imported from Singapore to Massachusetts in October 2007. In September 2007, a 16-year-old dog was imported from Trinidad and entered the country through the Miami airport.⁴¹ It was seen by a Mississippi veterinarian 3 days after arrival for ocular damage caused by larval infection. In both cases, the practitioners recognized that the larvae seemed unusual and submitted specimens for identification. Their quick action prevented these insects from becoming established, which could have resulted in the United States livestock industry suffering \$750 million in production losses.³⁸

Imported dogs may introduce other non-native pathogens to the United States. In 1991, a dog imported from England to Canada was found to be infected with *Angiostrongylus vasorum*, a nematode parasite of the pulmonary arteries and right heart of dogs and wild carnivores.⁴² This parasite is enzootic among dogs in areas of Europe and Uganda but is not considered established in North America. In 2005, an investigation in French Guiana, South America, determined that a dog imported from France in 2002 had *Leishmania infantum* and subsequently spread the infection to a second dog.⁴³

Imported wild or exotic animals also pose a risk to human and animal health. Bats have been associated with rabies virus and related lyssaviruses, Nipah and Hendra viruses, and a SARS-like virus of bats.⁴⁴ A highly pathogenic strain of the influenza virus, H5N1 (HPAI), first appeared in Asia in 1997 and subsequently spread to Russia, Europe, and parts of Africa.⁴⁵ Live bird markets, trade, wild birds, and illegal bird importation probably all contributed to the spread of the disease.^{46,47} In 2004, two crested hawk-eagles that had been smuggled into Europe from Thailand were seized at the Brussels International Airport. Although neither appeared ill, they were euthanized and were found to be infected with HPAI.

Bird smuggling continues to be a problem in the United States. From 1999 through 2004, federal authorities intercepted 30 individuals attempting to smuggle commercial quantities of live birds into the United States from Mexico.⁴⁸ Before being arrested,

one individual had illegally transported between 6000 and 10,000 exotic birds, valued at more than \$1.5 million, across the border. Smuggled birds are not quarantined, screened, or treated as required by federal law. In addition to avian influenza, smuggled birds may carry exotic Newcastle disease, a foreign animal disease that is lethal to poultry,^{49,50} or avian chlamydiosis, a zoonosis that people can contract through contact with pet birds.⁵¹

Rodents, rabbits, and pocket pets also may pose a risk to human and animal health. In May and June 2003, the first cluster of human monkeypox cases in the United States was reported.⁵² Many of the patients developed a febrile vesicular rash after having contact with prairie dogs that had acquired the infection through contact with a shipment of African rodents at a wholesale pet store.⁵³ The prairie dogs exhibited anorexia, wasting, sneezing, coughing, swollen eyelids, and ocular discharge.⁵² Ultimately, there were 47 confirmed and probable human cases of monkeypox during this outbreak.⁵⁴ The traceback investigation showed that rodents imported from Africa were held in the same area as prairie dogs before being shipped to other distributors and, ultimately, to many pet stores. The frequent mixing of species in the wildlife trade arena creates an opportunity for cross-species transmission and the introduction of new diseases to domesticated animals, wildlife, and humans.¹

In addition to zoonotic threats, imported animals may pose a risk to agriculture. Rabbit hemorrhagic disease (RHD) first was identified in China in 1984. RHD is a highly contagious calicivirus that kills up to 90% of infected animals.⁵⁵ Infected rabbits often develop a blood-tinged foamy nasal discharge, severe respiratory distress, and/or convulsions before death. In 5% to 10% of the rabbits, clinical signs do not progress as rapidly but may include jaundice, malaise, weight loss, and eventually death in 1 to 2 weeks. This disease has spread to Europe, Asia, Australia, New Zealand, and Cuba but still is considered a foreign animal disease in the United States. Outbreaks of RHD occurred in the United States in 2000, 2001, and 2005.⁵⁶ The 2005 outbreak of RHD occurred at a rabbitry in Indiana after the owner purchased 11 rabbits from a flea market in Kentucky. Following the introduction of the new rabbits, nearly half of his herd died, and the remaining animals were euthanized to contain the outbreak. The source of the infection never was determined.

Imported exotic pets also may carry parasites that could pose a public health or agricultural health threat. In 1999, Florida animal health officials detected exotic ticks on a leopard tortoise that contained *Cowdria ruminantium*, the cause of heartwater disease in ruminants.⁵⁷

SUMMARY

Imported dogs bring the risk of the reintroduction of canine rabies, screwworm, and other diseases. Exotic birds pose a risk for avian influenza, exotic Newcastle disease, and psittacosis. Rodents have been a source of imported monkeypox, and turtles can carry ticks that spread heartwater disease. Regulations are in place to reduce the risk of diseases that pose a threat to public health and agriculture from imported animals. Changes to the regulations are being proposed to define better the United States entry and follow-up requirements. Veterinarians play an essential role in preventing the transmission of zoonotic disease between animals and the public and are on the front line dealing with imported animals. They should be aware of and compliant with state and local regulations and play an active role in educating and advising clients regarding the risk of importing an animal. Veterinarians should be vigilant when examining new puppies. Many imported dogs never are confined properly or inspected for infectious diseases, and many diseases may not be detected readily in imported dogs. With

the current rabies vaccination requirements in the United States, most veterinarians have never seen a pet with rabies and do not consider rabies in the differential diagnosis. Additionally, early signs of rabies may be very subtle and may not be recognized readily. It is important to keep rabies on the differential list, especially if the pet is known to have been or is suspected of having been imported. Additional training in recognizing emerging infectious diseases may be helpful. Veterinarians should contact their local health department immediately about any potential rabies cases or suspicious illness, especially in imported animals. A veterinarian could be the one who prevents the next outbreak.

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